SECOND
FIVE-YEAR REVIEW REPORT FOR
TROY MILLS LANDFILL SUPERFUND SITE
TROY, CHESHIRE COUNTY, NEW HAMPSHIRE

Prepared by

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Region 1
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09/18/15

Date

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LIST OF ACRONYMS

1,2,4-TMB	1,2,4-Trimethylbenzene
1,3,5-TMB	1,3,5-Trimethylbenzene
AGQS	Ambient Groundwater Quality Standards
ARARs	Applicable or Relevant and Appropriate Requirements
ATSDR	Agency for Toxic Substances and Disease Registry
ATV	All-Terrain Vehicle
AURs	Activity And Use Restrictions
bgs	Below ground surface
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes
CalEPA	California Environmental Protection Agency
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code Of Federal Regulations
CIC	Community Involvement Coordinator
cis-DCE	Cis-1,2-Dicholoroethene
COC	Contaminant of Concern
COPC	Contaminant of Potential Concern
CSF	Cancer Slope Factor
cVOC	Chlorinated VOC
DEHP	bis[di](2-ethylhexyl) phthalate
DO	Dissolved Oxygen
EAs	Electron Acceptors
ED	Electron Donor
EPA	U.S. Environmental Protection Agency
EPCs	Exposure Point Concentrations
ESD	Explanation of Significant Differences
ESI	Expanded Site Inspection
Fe^{2+}	ferrous iron ion
FS	Feasibility Study
FYR	Five-Year Review
GEI	GEI Consultants, Inc.
GMZ	Groundwater Management Zone
GZA	GZA GeoEnvironmental, Inc.
HQ	Hazard quotient
ICLs	Interim Cleanup Levels
ICs	Institutional Controls
IRA	Interim Remedial Action
IRIS	Integrated Risk Information System
LIF	Laser Induced Fluorescence
LNAPL	Light Non-Aqueous Phase Liquid
LTRA	Long-Term Response Action
MAROS	Monitoring and Remediation Optimization System
MCLs	Maximum Contaminant Levels
MCLGs	Maximum Contaminant Level Goals
mg/day	Milligrams per day

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LIST OF ACRONYMS

mg/kg	Milligrams per kilogram
mg/kg-day	Milligrams per kilogram day
mg/L	Milligrams Per Liter
Mn^{2+}	Manganese ion
MNA	Monitored Natural Attenuation
MOM	Management of Migration
N/A	Not Applicable
NAI	Normandeau Associates, Inc.
NAS	Natural Attenuation Software
NAVFAC	Naval Facilities Engineering Command
NCP	National Contingency Plan
NHDES	New Hampshire Department of Environmental Services
NHDOH	New Hampshire Department of Health and Welfare
NHSWM	New Hampshire Bureau of Solid Waste Management
NO_3^-	Nitrate ion
NOAA	National Oceanic And Atmospheric Administration
NPL	National Priority Listing
O&M	Operation And Maintenance
ORP	Oxidation-Reduction Potential
OSWER	Office of Solid Waste and Emergency Response
OU	Operable Unit
PA/SI	Preliminary Assessment/Site Investigation
ppb	Parts per billion
PPRTV	Provisional peer reviewed toxicity values
PRGs	Preliminary Remediation Goals
RAGS F	Part F of Volume I of Risk Assessment Guidance for Superfund
RAOs	Remedial Action Objectives
RBA	Relative bioavailability
Redox	Reduction/oxidation
RfC	Reference concentration
RfD	Reference dose
RGs	Remediation Goals
RI	Remedial Investigation
ROD	Record of Decision
RPM	Remedial Project Manager
RSL	Regional Screening Level
Shaw	Shaw Environmental, Inc.
Site	Troy Mills Landfill Superfund Site
SO_4^{2-}	Sulfate ion
SQuiRT	Screening Quick Reference Table for Inorganics in Sediment
SRS	Soil Remediation Standards
START	Superfund Technical Assessment and Response Team
SVOCs	Semi-Volatile Organic Compounds
TCE	Trichloroethene

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LIST OF ACRONYMS

TEAPs	Terminal electron acceptor processes
TEC	Threshold Effect Concentration
the Town	Town of Troy, New Hampshire
TMI	Troy Mills, Inc.
TML	Troy Mills Landfill
TOC	Total organic carbon
USGS	United States Geological Survey
VC	Vinyl Chloride
VOCs	Volatile Organic Compounds
WQCTS	Water Quality Criteria for Toxic Substances
µg/L	Micrograms Per Liter

EXECUTIVE SUMMARY

This document details the second Five-Year Review (FYR) for the Troy Mills Landfill (TML) Superfund Site (Site) located in Troy, Cheshire County, New Hampshire. The purpose of this FYR is to review information to determine if the selected remedy is and will continue to be protective of human health and the environment. The triggering action for this statutory FYR was the signing of the previous FYR on 9/29/2010.

The Site consists of an undeveloped 2-acre former drum disposal area within a 17.8-acre Groundwater Management Zone (GMZ) located in Troy, New Hampshire (Cheshire County) about 1.5 miles south of the Center of Troy. Access to the Site is off of Rockwood Pond Road via a private gravel pit access road in Fitzwilliam, New Hampshire. The Site is bordered by the following:

- To the north by an 8-acre solid waste landfill that is separately regulated by the New Hampshire Department of Environmental Services (NHDES);
- To the east by a former railroad bed currently used as a State-owned walking, all-terrain vehicle, and snowmobile trail, and beyond by undeveloped land;
- To the west by the main Site access road, a wetland area, and Rockwood Brook; and
- To the south by the eastern branch of Rockwood Brook and beyond by undeveloped land.

Rockwood Brook flows south to north and continues downstream to Sand Dam Pond, a recreational area located approximately 1 mile north of the Site. The former drum disposal area is located in an area outside of the 500-year floodplain of Rockwood Brook.

Troy Mills, Inc. (TMI) disposed of hazardous substances that were generated at its acrylic fabric manufacturing facility in Troy between 1967 and 1978. An estimated 6,000 to 10,000 55-gallon drums of waste liquid and sludge containing mostly plasticizers such as bis[di](2-ethylhexyl) phthalate (DEHP) and a petroleum-based solvent known as Varsol™ were disposed of on Site. Other drummed waste included pigments, surplus mixes, and tank residuals of vinyl resins, paint resins, and top coating products.

From 1979 to the present, multiple investigations have been conducted in and around the former drum disposal area and have documented the presence of volatile organic compounds (VOCs), semi-VOCs, and inorganic compounds in groundwater, leachate, surficial soil, surface water, and sediment. In September 2003, the Site was listed on the National Priorities List (NPL) and a time-critical removal action was initiated. Between 2004 and 2005, the Environmental Protection Agency (EPA) completed the removal of drums, flammable liquids, and contaminated soil/sludge; construction of three light non-aqueous phase liquid (LNAPL) interceptor trenches; and construction of a 2-foot-thick permeable soil cap over the excavation areas. A subsequent Remedial Investigation (RI) of the Site by EPA identified plumes of groundwater contamination consisting of organic contaminants (alkylbenzenes, chlorinated solvents, phthalates, and toluene). It was concluded that the contaminants of concern (COCs) were naturally biodegrading and that removal of the buried drums eliminated the primary source of ongoing contamination to groundwater. However, the baseline human health risk assessment completed as part of the RI indicated that potential exposure to residual COCs in groundwater, LNAPL-contaminated leachate, and wetland soil via ingestion or direct contact by future recreational users and nearby residents may present an unacceptable risk to human health.

A Record of Decision (ROD) for the Site was signed on September 30, 2005 and amended by a 2014 Explanation of Significant Differences (ESD). The selected remedy included source control, management of contaminant migration, and institutional controls (ICs). The 2005 ROD also incorporated components of the time-critical removal action completed by EPA during the summer of 2005 and additional long term remedial actions to address potentially unacceptable risks posed by Site contaminants. The long-term remedial actions, as specified in the ROD, began in 2006 and were implemented to address remaining Site risks through monitored natural attenuation (MNA) of groundwater contaminants; collection and off-site disposal of LNAPL; monitoring of groundwater, surface water, sediment, leachate, and wetland soil quality; maintaining the permeable soil cap over the former drum disposal area; and implementing appropriate ICs. As part of a bankruptcy settlement with the United States, approved by the court on June 27, 2008 (*In re: Troy Mills, Incorporated*, BK. No.:01-13341), the Trustee for the Bankruptcy Estate of Troy Mills, Inc. signed an Easement Deed and Restrictive Covenants to the State of New Hampshire to establish ICs over the Site in November 2009, which was recorded in January 2010.

Five-Year Review Summary Form

SITE IDENTIFICATION		
Site Name: Troy Mills Landfill Superfund Site		
EPA ID: NHD980520217		
Region: 1	**State:** NH	**City/County:** Troy, Cheshire County
SITE STATUS		
NPL Status: Final		
Multiple OUs? No	**Has the site achieved construction completion?** Yes	
REVIEW STATUS		
Lead agency: EPA		
Author name (Federal or State Project Manager): Richard Hull		
Author affiliation: EPA, Region 1		
Review period: 3/9/2015 - 9/29/2015		
Date of site inspection: 5/18/2015		
Type of review: Statutory		
Review number: 2		
Triggering action date: 9/29/2010		
Due date *(five years after triggering action date)*: 9/29/2015		

Five-Year Review Summary Form (continued)

Issues/Recommendations

Issues and Recommendations Identified in the Five-Year Review:				
OU(s): *Entire Site*	**Issue Category: Site Access/Security**			
	Issue: Evidence of trespassing and recreational use of Site areas. Access is obtained by cutting locks and opening gates installed to prohibit trespassing.			
	Recommendation: EPA will review options with State and Town officials including but not limited to: erect additional fences and signage; relocate the gate; determine in consultation with State and Town officials whether there are other effective means to limit trespassing and access. If trespassing persists, EPA will consider whether a revised risk determination is needed.			
Affect Current Protectiveness	**Affect Future Protectiveness**	**Party Responsible**	**Oversight Party**	**Milestone Date**
No	Yes	EPA/State	EPA/State	6/30/2016

OU(s): *Entire Site*	**Issue Category: Institutional Controls**			
	Issue: Current ICs to limit access to contaminated Site soils are not fully effective.			
	Recommendation: EPA, in consultation with State and Town officials, will consider modification of existing ICs, more effective enforcement of existing ICs, or implementation of additional ICs to limit exposure to contaminated soils.			
Affect Current Protectiveness	**Affect Future Protectiveness**	**Party Responsible**	**Oversight Party**	**Milestone Date**
No	Yes	EPA/State	EPA/State	06/30/2016

OU(s): *Entire Site*	**Issue Category: Changed Site Conditions**
	Issue: Flooding of the wetland areas due to beaver damning activity may have dispersed contaminated leachate within the wetland areas. The extent of sediment and wetland soil currently impacted by the discharge of contaminated leachate and groundwater is unknown, potentially resulting in changes to ecological receptors.
	Recommendation: Determine the nature and extent of sediment and wetland soil contaminated by flooding of the wetland areas. Review the ecological risk assessment, especially for benthic invertebrates, through chemical analysis and toxicity testing. Determine if a revised decision document is needed to address any change to conditions at the Site.

Affect Current Protectiveness	Affect Future Protectiveness	Party Responsible	Oversight Party	Milestone Date
No	Yes	EPA/State	EPA/State	9/30/2016

Protectiveness Statement(s)

Site wide Protectiveness Statement	
Protectiveness Determination: Short-term Protective	*Addendum Due Date (if applicable):*

Protectiveness Statement:

The remedy implemented at the TML Superfund Site is currently protective of human health and the environment, because the remedy included source control (removal of LNAPL and maintenance of the permeable soil cap overlying residual contaminated soil), MNA of contaminated groundwater underlying TML, and ICs. With the source control remedy completed, groundwater quality is anticipated to be restored to acceptable levels through dilution and natural attenuation. A review of documents; applicable or relevant and appropriate requirements (ARARs); and the results of the Site inspection indicate that the remedy is currently protective for exposures envisioned by the ROD.

In order for the remedy to be protective in the long term, however, the following actions should be considered:

<u>Site security options to limit trespassing and Site access</u>

- EPA will review options with State and Town officials including but not limited to: erect additional fences and signage; relocate the gate; determine in consultation with State and Town officials whether there are other effective means to limit trespassing and access. If trespassing persists, EPA will consider whether a revised human health risk assessment is needed.

<u>IC options to prevent potential exposure to contaminated soils</u>

- EPA, in consultation with State and Town officials, will consider modification of existing ICs, more effective enforcement of existing ICs, or implementation of additional ICs to limit exposure to contaminated soils.

<u>Evaluate extent of contaminated sediment and conduct toxicity evaluation and ecological risk assessment</u>

- Evaluate wetland to determine current extent of contaminated sediment and if some areas need a re-assessment of ecological risk to benthic invertebrates through chemical analysis and toxicity testing.

I. INTRODUCTION

The purpose of a Five-Year Review (FYR) is to evaluate the implementation and performance of a remedy in order to determine if the remedy will continue to be protective of human health and the environment. The methods, findings, and conclusions of reviews are documented in FYR reports. In addition, FYR reports identify issues found during the review, if any, and document recommendations to address them.

The U.S. Environmental Protection Agency (EPA) prepares FYRs pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 121 and the National Contingency Plan (NCP). CERCLA 121 states:

> "*If the President selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the site, the President shall review such remedial action no less often than each five years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented. In addition, if upon such review it is the judgment of the President that action is appropriate at such site in accordance with section [104] or [106], the President shall take or require such action. The President shall report to the Congress a list of facilities for which such review is required, the results of all such reviews, and any actions taken as a result of such reviews.*"

EPA interpreted this requirement further in the NCP; 40 Code of Federal Regulations (CFR) Section 300.430(f)(4)(ii), which states:

> "*If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such actions no less often than every five years after the initiation of the selected remedial action*."

EPA Region 1 conducted a FYR on the remedy implemented at the Troy Mills Landfill (TML) Superfund Site (Site) in Troy, Cheshire County, New Hampshire. EPA is the lead agency for developing and implementing the remedy for the Site. The New Hampshire Department of Environmental Services (NHDES), as the support agency representing the State of New Hampshire, has reviewed all supporting documentation and provided input to EPA during this FYR process.

This is the second FYR for the TML Superfund Site. The triggering action for this statutory review is the completion date of the previous FYR on September 29, 2010. The FYR is required due to the fact that hazardous substances, pollutants, or contaminants remain at the site above levels that allow for unlimited use and unrestricted exposure. The Site consists of one site-wide Operable Unit (OU), which is addressed in this FYR.

II. PROGRESS SINCE THE LAST REVIEW

Table 1: Protectiveness Determinations/Statements from the 2010 FYR

OU #	Protectiveness Determination	Protectiveness Statement
Site-wide	Short-term Protective	The remedy implemented at the TML Site is currently protective of human health and the environment as envisioned by the 2005 Record of Decision (ROD). However, in order for the remedy to be protective in the long-term, the following actions need to be taken: (1) With regard to the effectiveness of Institutional Controls at the Site, report violations and vandalism to the State and the Town of Troy, New Hampshire (the Town) for response with appropriate follow-up enforcement actions. Repair damaged wells with new locking caps, include posting warning signs for inner gate and former drum disposal area, and consider fencing the former drum disposal area to restrict access by all-terrain vehicles; (2) Conduct a supplemental investigation of the residual light non-aqueous phase liquid (LNAPL) source area proximate to well TRY_MW-201S and further evaluate effectiveness of the LNAPL trenches in capturing remaining LNAPL; (3) Perform supplemental hydrogeologic studies to confirm hydrostratigraphy and the contaminant of concern (COC) fate and transport of groundwater to confirm the effectiveness of the monitored natural attenuation (MNA) management of migration (MOM) remedy at the Site and to better forecast time to cleanup; and (4) Perform an evaluation of the hydrologic regime within the transition zone between groundwater and surface water in the Rockwood Brook Wetland Study area and Rockwood Brook, review of existing data from nearby groundwater monitoring wells relative to appropriate benchmark ecological risk screening values applied to receptor exposures within the ground water – surface water transition zone.

Table 2: Status of Recommendations from the 2010 FYR

OU #	Issue	Recommendations/ Follow-up Actions	Party Responsible	Oversight Party	Original Milestone Date	Current Status	Completion Date
Site-wide	Effectiveness of Institutional Controls, including violations of the State's existing restrictive covenants on the Site (All-Terrain Vehicle [ATV]/Dirt bike/snowmobile trespasser use over landfill cap), and evidence of vandalism (damage to select monitoring wells/and pumps).	Report violations and vandalism to the State and the Town for response with appropriate follow-up enforcement actions. Repair damaged wells with new locking caps, post warning signs at inner gate and former drum disposal area, and consider fencing the former drum disposal area to restrict access to all terrain vehicles.	NHDES	EPA	5/31/2011	Completed-Repairs made to impacted wells; vandalism reported to State and Town officials; and gates locked.	5/31/11
Site-wide	Further evaluation is needed regarding the persistence of LNAPL east of the interceptor trenches.	Conduct a supplemental investigation of the residual LNAPL source area and further evaluate effectiveness of the LNAPL trenches in capturing remaining LNAPL.	NHDES	EPA	9/30/2012	Completed	12/31/2013

OU #	Issue	Recommendations/ Follow-up Actions	Party Responsible	Oversight Party	Original Milestone Date	Current Status	Completion Date
Site-wide	Further hydrogeologic investigation is needed to evaluate the potential for two overburden groundwater flow systems (upper ablation and lower lodgment) as unique sub units within the till. In addition, further characterization of groundwater flow direction and contaminant migration in bedrock is needed to further evaluate the MNA remedy relative to the bedrock unit.	Perform supplemental hydrogeologic studies to confirm hydrostratigraphy and the COC fate and transport of groundwater to confirm the effectiveness of the MNA MOM remedy at the Site and to better forecast time to cleanup.	NHDES	EPA	9/30/2012	Completed	6/30/2015
Site-wide	Determine the approximate dimensions and area of sediment in the brook or wetland soil where ground water discharges to surface water.	Perform a hydrologic evaluation within the transition zone between groundwater and surface water in the Rockwood Brook Wetland Study area and Rockwood Brook. Review existing data from nearby groundwater monitoring wells relative to appropriate benchmark ecological risk screening values applied to receptor exposures within the ground water – surface water transition zone.	NHDES	EPA	9/30/2012	Ongoing	N/A

SUMMARY OF THE 2010 FYR RECOMMENDATION STATUS

Recommendation 1

Recommended follow-up actions relating to the effectiveness of the institutional controls (ICs) were implemented following the 2010 FYR and completed on May 31, 2011. Damaged well covers have been replaced as part of routine annual monitoring activities. It was decided not to put a fence around the soil cover area, since monitoring did not indicate any damage to the cover due to trespasser activity at the Site. Vandalism and destruction of property has been limited to the northern gate; however, continued trespassing and recreational use is evident. The northern gate has been found to be open with the lock and chains cut several times. Evidence of a bypass around the southern gate through the brook has been observed. No other evidence of vandalism or property damage has been observed.

Recommendation 2

Between 2011 and 2013, phased supplemental LNAPL investigations were performed to further delineate the LNAPL source area and aid the evaluation of potential focused remedial alternatives in the vicinity of the LNAPL interceptor trenches and former drum disposal area. It was concluded that the interceptor trenches were no longer recovering free product and that LNAPL present in the vicinity of the interceptor trench area appeared to be both laterally and vertically discontinuous. Based on these findings, the interceptor trenches were decommissioned in January 2014 in accordance with the ROD. Refer to Remedy Implementation in **Section C**. **Remedial Actions** of **Appendix A** for a description of the activities, findings, and conclusions.

Recommendation 3

A three-dimensional geospatial data model of local hydrostratigraphy was developed during 2015 for the TML Site using two software packages (i.e., Groundwater Modeling System [GMS] and Golden Software Voxler). In reviewing inputs to the model, which included borehole logs generated by multiple parties, distinct transitions from ablation till to lodgment till were not consistently identifiable based on reported material characteristics. As such, geospatial data modeling supports a conceptual model where distinct differences in flow attributable to character differences within the glacial till are unlikely to exist. Furthermore, the model suggests that two separate contaminant plumes were located within the Site: a shallow plume consisting primarily of petroleum distillate-related volatile organic compounds (VOCs) and bis[di](2-ethylhexyl) phthalate (DEHP), and a deeper plume consisting primarily of cVOCs.

Using information derived from the geospatial data model, five new wells were installed at TML during May 2015, including deep overburden wells complimentary to the shallow overburden wells TRY_MW-C6S and TRY_MW-501X, a replacement well for shallow overburden well TRY_MW-201S, and a shallow and deep well couplet intended to replace well TRY_MW-101, which contained a 50-foot screen. The new wells were installed within the contaminant plumes identified by the geospatial data modeling, and sampled in order to confirm hydrostratigraphy and COC fate and transport within the shallow and deep plumes. Information from these new wells will be utilized to continuously evaluate COC fate and transport in groundwater and the ongoing effectiveness of the MNA remedy.

The characterization of bedrock groundwater is an ongoing component of the MNA remedy and is enhanced by geospatial modeling and the installation of new monitoring wells.

Recommendation 4

Refer to the **Technical Assessment Summary** at the end of Section IV for a description of the activities involved in the completion of the recommendation involving a hydrologic evaluation within the transition zone between groundwater and surface water in the Rockwood Brook Wetland Study area and Rockwood Brook. Work associated with this recommendation is ongoing due to increased concentrations of manganese in wetland soil. EPA will consider expansion of leachate, sediment and wetland soil monitoring network in order to characterize the full extent of manganese contamination in sediment and wetland soil. EPA will also consider assessing toxicity and current ecological risk from manganese in groundwater, surface water, leachate, sediment, and wetland soil.

REMEDY IMPLEMENTATION ACTIVITIES

Since the last FYR, remedy implementation activities at the TML Site have included routine monitoring associated with the MOM remedy (i.e., evaluation of MNA) and the excavation, removal, and off-site disposal of materials associated with the former LNAPL interceptor trenches. An Explanation of Significant Differences (ESD) was issued during 2014 to document changes in the New Hampshire Ambient Groundwater Quality Standards and to update other state and federal ARARs. Refer to **Section III, Data Review** below for further discussion regarding groundwater quality. Refer to **Appendix A** for a historical summary of remedial implementation activities that have occurred at the Site.

SYSTEM OPERATION/OPERATION AND MAINTENANCE ACTIVITIES

Operation and monitoring (O&M) activities that have occurred since the previous FYR include:

- Biannual or annual groundwater monitoring;
- Installation of replacement monitoring wells TRY_MW-301X, TRY_MW-501X, TRY_MW-508X, and TRY_MW-702SX during fall 2010 and spring 2011 to replace wells with groundwater recharge problems during sampling;
- Installation of additional monitoring wells (TRY_MW-801 through TRY_MW-805) during spring 2011 to further evaluate groundwater quality north of the former drum disposal area;
- Decommissioning of obsolete monitoring wells during December 2013 and November 2014 including the LNAPL monitoring wells (TRY_MW-C1S through TRY_MW-C5S, TRY_MW-C7S, and TRY_MW-C8S), groundwater monitoring wells within the LNAPL trench area (TRY_MW-201S/M/D/P), and clean wells in non-plume areas of the Site. Refer to **Table 2** for the list of wells that were decommissioned during November 2014;
- Installation of replacement monitoring wells (TRY_MW-101S, TRY_MW-101D, and TRY_MW-201SX) and supplemental deep overburden monitoring wells (TRY_MW-C6D and TRY_MW-501D) during May 2015;
- Inspection of the protective soil cover;
- Installation of a beaver control pipe beneath the access road connecting the Site to the nearby gravel pit to protect the road from damaging beaver activity upstream of the road;
- Decommissioning of the LNAPL interceptor trenches, with off-site disposal of non-hazardous remediation waste to a licensed disposal facility (Turnkey Landfill in Rochester, New Hampshire); and

- Monitoring well maintenance including replacement of locking caps and/or locks and maintenance of permanently installed bladder pumps as appropriate.

Refer to **Appendix A** for annual O&M costs at the TML Site since the last FYR.

III. FIVE-YEAR REVIEW PROCESS

ADMINISTRATIVE COMPONENTS

The TML Superfund Site FYR was led by Richard Hull of the EPA, Remedial Project Manager (RPM) for the Site, and Rodney Elliott, the Community Involvement Coordinator (CIC). Michael Summerlin and Robin Mongeon, of the NHDES, assisted in the review as the representatives for the support agency.

The review, which began on 3/9/2015, consisted of the following components:

- Community Notification and Involvement;
- Document Review;
- Data Review;
- Site Inspection; and
- FYR Report Development and Review.

COMMUNITY NOTIFICATION AND INVOLVEMENT

Activities to involve the community in the FYR process were initiated between the RPM and CIC for the Site. A notice was published on 1/5/2015 on the EPA website, http://www.epa.gov/region1/newsevents/index.html, stating that there was a FYR being performed for the Site and inviting the public to submit any comments to the EPA. Refer to **Appendix B** for a copy of the notice.

The results of the review and the report will be made available at the Site information repository located at Gay-Kimball Library, 10 South Main Street, Troy, New Hampshire, and the EPA Records Center at 5 Post Office Square in Boston, Massachusetts. A copy will be provided to the Town Manager, and an electronic copy will be posted on the following:

EPA's TML web site at: www.epa.gov/superfund/troymills

NHDES OneStop Environmental Site Information web site at:
http://www2.des.state.nh.us/DESOnestop/PRSDetail.aspx?ID=0000104&Type=PRS

DOCUMENT REVIEW

This FYR consisted of a review of relevant documents including O&M records and monitoring data. Applicable groundwater and leachate cleanup standards, as listed in the September 2005 ROD and amended in a March 2014 ESD, which addressed changes to ARAR standards, were also reviewed.

Note that all **Figures, Tables,** and **Temporal Concentration Trend Graphs** referenced in the following sections are included in **Appendix C, D,** and **E,** respectively.

DATA REVIEW

Interim cleanup levels (ICLs) for COCs were established in the 2005 ROD issued by EPA Region 1 for groundwater and leachate at the Site and amended in the March 2014 ESD. Refer to **Figure 1** for a Site Locus and Site Plan illustrating monitoring well and multi-media sampling locations. The regulatory standards used to evaluate data for the various Site media include the following:

- Results of the analyses of groundwater samples were compared to the ROD ICLs for COCs, which are based on federal Safe Drinking Water Act, Maximum Contaminant Levels (MCLs) and Maximum Contaminant Level Goals (MCLGs) (40 C.F.R. 141, Subpart B, F and G); federal risk-based standards; and more stringent New Hampshire Ambient Groundwater Quality Standards (AGQS) as defined in State of New Hampshire Code of Administrative Rules Env-Or 600 (Contaminated Sites Management), Env-Or 603.3;
- Results of the analyses of leachate and surface water samples were compared to federal Clean Water Act, National Recommended Water Quality Criteria (NRWQC)(40 C.F.R. 122.44) and more stringent Water Quality Criteria for Toxic Substances (WQCTS) as defined in State of New Hampshire Code of Administrative Rules Env-Wq 1700 (Surface Water Quality Regulations), Env-Wq 1703.21. Leachate was further compared to the ROD ICL for bis(2-ethylhexyl) phthalate (DEHP);
- Results of the analyses of wetland soil samples were compared[1] to New Hampshire Soil Remediation Standards (SRS) as defined in State of New Hampshire Code of Administrative Rules Env-Or 600 (Contaminated Sites Management), Env-Or 606.19; and
- Results of the analyses of sediment collected from Rockwood Brook were compared to the consensus-based Threshold Effect Concentration (TEC) included in the National Oceanic and Atmospheric Administration (NOAA) Screening Quick Reference Table for Inorganics in Sediment (SQuIRT)[2].

The following summarizes the most recent analytical results for each media at the Site.

Groundwater – Background Water Quality

For the purposes of background water quality and confirmation of the eastern compliance boundary, well TRY_MW-701 (bedrock groundwater) situated east of the former drum disposal area was sampled. Refer to **Figure 2** that illustrates a general northwest groundwater flow direction at the Site. Consistent with results from historic monitoring events, VOCs, semi-volatile organic compounds (SVOCs), and arsenic were not detected above laboratory reporting limits in

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[1] The ROD did not establish remediation goals (RGs) for COCs in wetland soil based on risk calculations that determined there was currently no unacceptable risk for COCs in wetland soils based on the current undeveloped status of the Site. The ROD deferred any reassessment of wetland soil risk to the future, in the event that Site use changes.

[2] Buchman, M.F., 2008. NOAA Screening Quick Reference Tables, NOAA OR&R Report 08-1, Seattle, WA, Office of Response and Restoration Division, National Oceanic and Atmospheric Administration.

the groundwater sample collected from well TRY_MW-701. Manganese was detected within the groundwater sample collected from well TRY_MW-701 at a concentration of 0.018 milligrams per liter (mg/L), which is below the ROD ICL (0.3 mg/L).

Groundwater –ROD ICL Exceedances

VOCs detected in groundwater that exceeded ROD ICLs included the petroleum distillate related constituents 1,2,4-trimethylbenzene (1,2,4-TMB) and naphthalene[3] and the chlorinated VOC cis-1,2-dichloroethene (cis-DCE). The only detected SVOC that exceeds the ROD ICL is DEHP.

Detected concentrations of manganese exceed the ROD ICLs for 20 of the 27 wells from which groundwater samples were collected during November 2014.

Groundwater – Distribution of Contaminants

Refer to **Table 3A** and **Table 3B** for a summary of the groundwater analytical results, which represents only those contaminants detected in groundwater and illustrates exceedances of applicable action limits. Refer to **Figure 3** and **Figure 4** for the distribution of key COCs detected in Site groundwater from data collected during November 2014. At the TML Site, dissolved phase contaminants have migrated in groundwater from the former drum disposal areas toward the wetland and Rockwood Brook located on the western edge of the Site.

VOCs in Groundwater

- Consistent with historical data results from the Remedial Investigation (RI) dated September 2005 and historic monitoring data results since 2007, the source of residual contamination in groundwater is believed to be the former drum disposal area. The spatial variability of contaminant concentrations observed is suspected to be related to the historical nature of discrete releases from drums throughout this area as evidenced by varied plume compositions;
- The area of highest contaminant concentrations (highest number of detected contaminants per well, and longest traceable plume) continues to be within overburden groundwater along the northern side of the former drum disposal area with the primary axis trending along the east to west flow path and including wells TRY_MW-205, TRY_MW-803, TRY_MW-804, TRY_MW-805, TRY_MW-101, and TRY_MW-A28. Consistent with the RI, the plume appears to originate within the northeastern corner of the former drum disposal area or just to the north of it. Within this overburden plume area, contaminants are largely petroleum distillate-related and include the alkylbenzenes (sec-butylbenzene, t-butylbenzene, p-isopropyltoluene, n-propylbenzene, n-butylbenzene, 1,2,4-TMB, and 1,3,5-trimethylbenzene [1,3,5-TMB]), BTEX compounds (toluene, ethylbenzene, and xylenes), isopropylbenzene, acetone, and naphthalene (refer to **Figure 3**);

[3] Note that naphthalene is analyzed and reported as both a VOC and an SVOC. To be conservative for both discussion and illustrative purposes, the higher of the two naphthalene concentrations is always used.

- One chlorinated VOC of concern, cis-DCE, was detected during the fall 2014 monitoring round within groundwater samples collected from monitoring wells TRY_MW-C6S, TRY_MW-104S, and TRY_MW-601D (refer to **Figure 3**). The detected concentrations of cis-DCE ranged from 2.2 micrograms per liter (µg/L) at wells TRY_MW-104S (wetland well) to 173 µg/L at well TRY_MW-C6S located immediately to the west of the former location of the interceptor trenches. Groundwater concentrations of cis-DCE have historically been decreasing or generally stable at each of the well locations where cis-DCE has been detected in groundwater; and

- Concentrations of 1,4-dioxane below the ROD ICL of 3 µg/L were detected within groundwater samples collected from monitoring wells TRY_MW-C6S, TRY_M-7, TRY_MW-105S, TRY_MW-202P, and TRY_MW-301X. Concentrations of 1,4-dioxane detected at wells TRY_M-7 and TRY_MW-105S as well as the low concentration of the chlorinated VOC, 1,1-dichloroethane, detected at well TRY_M-7 are likely associated with the solid waste landfill located outside of the GMZ and to the northeast of the former drum disposal area. 1,4-dioxane has not been detected above the ROD ICL in any monitoring well at the Site since regular monitoring began during 2004.

SVOCs in Groundwater

- DEHP was detected in groundwater samples collected from monitoring wells TRY_MW-205, TRY_MW-702SX, TRY_MW-702D, TRY_MW-804, and TRY_MW-A28 at concentrations that exceeded the ROD ICL of 6 µg/L (refer to **Figure 3**). The highest concentration of DEHP was detected at TRY_MW-804 (439 µg/L) located just north of the defined former drum disposal area. With the exception of wells TRY_MW-702SX and TRY_MW-702D, the fall 2014 detections of DEHP are located along a west trending line proximate to the axis of the plume and are located hydraulically side gradient of the former drum disposal area; and

- The concentrations of DEHP detected within groundwater samples collected from wells TRY_MW-702SX and TRY_MW-702D during November 2014 are suspect due to the detection of DEHP within the equipment blank sample collected from a SamplePro bladder pump.

Manganese and Arsenic in Groundwater

- Manganese was detected at concentrations above the respective ROD ICL (0.3 mg/L) in groundwater samples collected from each of the sampled monitoring wells with the exception of wells TRY_M-1, TRY_M-7D, TRY_MW-202P, TRY_MW-508X, TRY_MW-701, TRY_MW-702SX, and TRY_MW-702D (refer to **Figure 4**). The highest manganese concentrations were generally detected in shallow overburden wells located near the axis of the contaminant plume.

  Arsenic was not detected at concentrations exceeding the ROD ICL of 10 µg/L in any of the groundwater samples collected during the fall 2014 monitoring event.

Leachate - Detected Contaminants

Refer to **Table 4** for a summary of the leachate analytical results, which represents only those contaminants detected in leachate and illustrates exceedances of applicable action limits. Refer to **Figure 5** for an illustration of the detected contaminants in leachate relative to the distribution of detected contaminants within surface water and wetland soils during November 2014. The following summarizes the leachate analytical results:

- Of the VOCs detected, none exceeded their respective AGQS or WQCTS. The contaminants detected consisted of various petroleum-related VOCs including ethylbenzene, sec-butylbenzene, t-butylbenzene, and isopropylbenzene, consistent with the observed groundwater contamination. Total detected VOC concentrations have generally displayed a decreasing trend since 2006;
- DEHP was detected in the duplicate sample collected from the leachate at a concentration of 13 µg/L, but was not detected above the laboratory reporting limit of 5 µg/L in the initial sample collected. The ROD ICL for DEHP in leachate is 13 µg/L. No other SVOCs were detected above the laboratory reporting limits in the sample collected from the leachate;
- The variability of the concentrations of DEHP detected within the leachate samples (**Graph 1**) is likely related to the strong tendency of DEHP to adsorb to suspended particulates and matrix particles; and
- Manganese was detected in the sample collected from the leachate in exceedance of the AGQS of 0.3 mg/L (300 µg/L) at a concentration of 5.09 mg/L (5,090 µg/L). There is currently no NRWQC, WQCTS, or ROD ICL to evaluate the data against. The concentration detected is consistent with historical manganese concentrations detected in the Site leachate.

Wetland Soil - Distribution of Contaminants

Monitoring of wetland soil is included in the monitoring program to help assess the impact from leachate and to monitor MNA progress. Refer to **Table 5** for a summary of the wetland soil analytical results, which represents only those contaminants detected in wetland soil and illustrates exceedances of applicable action limits. Refer to **Figure 5** for an illustration of the distribution of contaminants detected within wetland soil relative to the distribution of detected contaminants within leachate and surface water during November 2014. The following summarizes the wetland soil analytical results:

- Concentrations of SVOCs were not detected within the wetland soil samples collected during the fall 2014 monitoring round with the exception of DEHP (1.1 milligram per kilogram [mg/kg]) at TRY_WES-04 at a concentration well below the NH SRS of 72 mg/kg. It is noted that historically (refer to **Table 5**), elevated DEHP concentrations have been detected in wetland soil suggesting that the 2014 DEHP concentrations may be anomalous;
- Concentrations of arsenic were detected above the laboratory reporting limit, but below the SRS at each of the wetland soil sampling locations;

- Manganese was detected at concentrations exceeding the SRS of 1,000 mg/kg at each wetland soil sampling location; and
- Detected concentrations of total organic carbon ranged from 11,200 mg/kg at wetland soil sampling location TRY_WES-04 to 86,700 mg/kg at TRY_WES-03.

Surface Water - Distribution of Contaminants

Refer to **Table 6** for a summary of the surface water analytical results, which represents only those contaminants detected in surface water and illustrates exceedances of applicable action limits. Refer to **Figure 5** for an illustration of the distribution of contaminants detected within surface water relative to the distribution of detected contaminants within leachate and wetland soils during November 2014. The following summarizes the surface water analytical results:

- Consistent with historical results, concentrations of VOCs, SVOCs, and arsenic were not detected within the surface water samples collected during the fall 2014 monitoring round;
- Manganese was detected at relatively low concentrations (maximum of 0.022 mg/L at TRY_SW-1) within each of the surface water samples collected, consistent with historical results. There is currently no NRWQC or WQCTS to evaluate the surface water data against; and
- Based on the measured hardness within the collected samples of surface water, water within Rockwood Brook, both up and downgradient of the former drum disposal area, is classified as soft suggesting that metals mobilized by the Site may not impact surface water quality.

Sediment - Distribution of Contaminants

Refer to **Table 7** for a summary of the historical sediment analytical results, which represents only those contaminants detected in sediment and illustrates exceedances of applicable action limits. The following summarizes the sediment analytical results:

- Concentrations of VOCs and SVOCs were not detected above the laboratory reporting limit within sediment samples collected between 2006 and 2009; and
- Of the metals analyzed for between 2006 and 2009, none exceeded the NOAA SQuiRT TEC screening values available, with the exception of mercury during October 2009.

SITE INSPECTION

The inspection of the Site was conducted on 5/18/2015. In attendance were Richard Hull of EPA Region 1; Michael Summerlin of NHDES; and Amy Doherty of GZA GeoEnvironmental, Inc. (GZA), EPA's contractor. The purpose of the inspection was to assess the protectiveness of the remedy.

The Site inspection included visual inspection of the Site access gates, covered areas, and groundwater monitoring wells on the TML Site. The TML Site, covered areas, and well network generally appeared to be in good condition. The following issues were identified during the Site inspection:

- The chain on the northern Site gate had been cut and the gate was open;
- The northern Site gate does not currently have an identifying sign; and
- An upper beaver dam has been constructed proximate to wells TRY_MW-105S/D causing ponded water between the dam and the area of wetland soil sampling location TRY_WES-01. A lower beaver dam has been constructed across the access road to the gravel pit downstream from the Site causing ponding of water between the upper and lower beaver dams.

INTERVIEWS

During the FYR process, interviews were conducted with representatives from the Town of Troy Board of Selectmen, Conservation Commission, Police Department, as well as a representative from the company that owns the property located adjacent to the Site. The purpose of the interviews was to document any perceived problems or successes with the remedy that has been implemented to date. Interviews are summarized below and notes from the interviews are included in **Appendix F**.

Interviewees:

- Mr. Tom Matson, Chairman, Town of Troy Board of Selectmen;
- Ms. Marianne Salcetti, Town of Troy Conservation Commission;
- Ms. Sheila Ames, Town of Troy Conservation Commission;
- Mr. Craig Chamberlain, representative of H.C. Haynes, Inc.; and
- Mr. David Ellis, Jr., Town of Troy Police Chief.

Feedback provided, and issues raised by the interviewees included:

- According to one interviewee, the Site is "managed well" and "it has been a good neighbor for the past 5 years."
- The Town is especially concerned with the proposed installation of a natural gas pipeline adjacent to the Site and its potential impacts to the Site, the remedy and the surrounding environment. The Conservation Commission is especially interested in what impacts the installation and operation of a gas pipeline may have on the Site and its remediation, as well as the process for environmental review of this type of project located so close to a Superfund site.
- Ms. Salcetti and Ms. Ames raised concerns with trespassing at the Site relative to the risk of exposure to contaminants as well as the potential for harm to the remedy or the environment specifically from the use of ATVs at the Site. Suggestions for addressing this issue included more coordination with the Town, as well as trespassers, to provide information and education regarding the Site, the remediation and potential risks. Additional signage, trespassing enforcement, and fencing were discussed.

- The Conservation Commission is also concerned about the potential for the migration of contamination from the Site to Sand Dam Pond via Rockwood Brook. Sand Dam Pond is a recreational area located downstream of the Site. Data from surface water near the Site shows no contamination detected in surface water leaving the Site.
- Overall, the Town is pleased with the responsiveness of regulatory agencies regarding recent inquiries surrounding the proposed pipeline.
- With respect to the abutting property owned by H.C. Haynes, Inc., which is used to access the Site, Mr. Chamberlain indicated that the access road is currently in good condition and that it is normally maintained through grading approximately once per year, but that additional maintenance activity may be necessary in the future depending on the level of activity and traffic on the road. Mr. Chamberlain indicated that he has not had any issues with EPA, NHDES, or its contractors using the road for access to the Site.
- Chief Ellis said that there were no complaints on record but that there were occasionally concerns with respect to four-wheelers using the sand pit to the west of the Site. Chief Ellis also indicated that he believed there has been an increase in hunting for turkey and deer primarily in the area of the sand pit adjacent to the Site.

IV. TECHNICAL ASSESSMENT

QUESTION A: IS THE REMEDY FUNCTIONING AS INTENDED BY THE DECISION DOCUMENTS?

Yes. The remedy selected for the Site included source control (removal of LNAPL and maintenance of the permeable soil cap overlying residual contaminated soil), monitored natural attenuation of the groundwater underlying the TML, and ICs. A review of documents; applicable or relevant and appropriate requirements (ARARs); and the results of the Site inspection indicate that the remedy is currently protective for exposures envisioned by the ROD, as further discussed below:

LNAPL Interceptor Trenches

Based on supplemental investigation activities summarized in a May 2013 Investigation Report,[4] which focused on further delineation of the LNAPL impacted area in the vicinity of the LNAPL interceptor trenches and former drum disposal area, the following was concluded with regard to the persistence of LNAPL at the Site:

- LNAPL present in the vicinity of the interceptor trench area appears to be both laterally and vertically discontinuous, particularly under high water table conditions. The lack of discernible connectivity of the LNAPL in this area is likely a reflection of the combined influences of downgradient LNAPL recovery from the trench network, upgradient source reduction and hydraulic influences stemming from cap installation.
- The results of the LNAPL recovery test performed during 2012, when combined with the historical record of product thicknesses in wells near the interceptor trenches, indicates that the LNAPL appears to have transitioned away from a mobile state and toward a condition where LNAPL pore concentrations exist at or below residual saturation levels under current Site conditions (i.e., an immobile state).
- While historically effective, the interceptor trenches are no longer readily recovering free product. The cessation of LNAPL recovery from the trenches may be at least partially attributed to the previously-mentioned transition toward residual-dominated (i.e., immobile LNAPL) conditions in the trench area.
- Field screening and analytical data collected during subsurface explorations, as well as the data collected during the 2012 Laser-induced Florescence survey at TRY_B10, do not support the existence of a significant continuing LNAPL source residing below the former drum disposal area.
- The results of the free product laboratory analysis suggest that weathering and mass transfer from the LNAPL do not appear to be significantly changing mixture composition. The lack of an appreciable change in composition is not unexpected due to the recalcitrant nature of the primary LNAPL constituent (DEHP); however, this conclusion was based on spatially and temporally limited data.

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[4] LNAPL Investigation Report, Troy Mills Landfill Superfund Site prepared for NHDES by GZA and dated May 2013.

Pursuant to the ROD, the interceptor trenches are to "*continue to be maintained and operated until LNAPL levels dissipate, at which time, they will be kept available for continued monitoring as part of the groundwater component of the remedy*". The ROD further states that "*if continued monitoring is no longer necessary, the interceptor trenches will be decommissioned in a manner determined appropriate at that time*". In consideration of these statements and the conclusions summarized above, the trenches were decommissioned during January 2014. Remediation waste generated from decommissioning activities was disposed off-site at a licensed facility.

Permeable Soil Cap - Former Drum Disposal Area

A risk assessment was not performed to quantitatively assess risks from the residual contaminated soil as these soils are currently under a 2-foot soil cap and not available for potential exposure under current restricted access or reasonably-anticipated future recreational land uses. The capping remedy is effective if properly maintained to prevent potential future exposures. Inspection of the cap as discussed above indicated the cap was still in good condition and is functioning as intended.

Monitored Natural Attenuation

MNA of contaminated groundwater will be ongoing until groundwater cleanup levels are met and is identified in the ROD as the primary remedy component for MOM. The remedy is functioning as intended and the ICLs for groundwater remain reasonable given that there are no known consumers of the groundwater as drinking water. However, as discussed below, evaluation of concentration trends and the effectiveness of the MNA remedy for contaminated groundwater at the Site indicate that clean-up levels may not be attained within the anticipated time frame established in the ROD (less than 30 years after completion of the source control component for some contaminants). In addition, monitoring has shown that manganese levels are not declining as expected in wetland soils.

Temporal Concentration Trends in Groundwater

Temporal plots for parameters and wells with long-term or recent exceedances of ROD ICLs in groundwater samples collected from Site wells are included in **Appendix E**. Temporal concentration plots were reviewed to assess temporal trends in concentration. A Mann-Kendall statistical analysis of concentration data at TML wells was performed to further assess temporal trends. The analysis was performed using the Monitoring and Remediation Optimization System (MAROS) software developed by GSI Environmental, Inc. A 95% confidence level was used for the analysis. Copies of the MAROS Mann-Kendall results are included in **Appendix G**.

The following summarizes observations from the concentration trend graphs and the MAROS Mann-Kendall analysis.

Petroleum-Related VOCs

The temporal concentration trends for petroleum-related VOCs since 2008 have generally been relatively stable or decreasing for each of the monitoring wells with detections of these contaminants, with the exception of TRY_MW-205. Refer to the concentration trend graph developed for groundwater quality at this well (**Graph 2).** Detected concentrations of 1,2,4-TMB and naphthalene in groundwater samples collected from well TRY_MW-205 display generally increasing and stable trends, respectively, with some fluctuations between 2005 and 2014 (**Graph 2**).

The Mann-Kendall analysis confirms that the detected concentrations of 1,2,4-TMB are increasing within well TRY_MW-205; however, the naphthalene concentration trend is statistically only potentially increasing. Increasing concentrations of 1,2,4-TMB combined with the upgradient to cross-gradient location of TRY_MW-205 relative to the former drum disposal area suggests the potential for a residual source to be present upgradient and beyond the original excavation limits of the former drum disposal area.

Monitoring wells TRY_MW-804 and TRY_MW-805 were installed during the spring of 2011 and currently only have three rounds of sampling results. Preliminary review of the data for these wells indicates that the concentrations of 1,2,4-TMB and naphthalene, which exceed the ROD ICL, display a general decreasing to relatively stable trend (**Graph 3** and **Graph 4**). Additional data from future sample events will allow for a more comprehensive assessment of concentration trends in the groundwater at these locations.

Chlorinated VOCs (cVOCs)

Monitoring well TRY_MW-201M (decommissioned during 2013 in association with the LNAPL trench removal) is the only monitoring location with a long term history of cVOC detections exceeding the ROD ICL. Specifically, cis-DCE has been detected at concentrations exceeding the ROD ICL since December 2006, and the detected concentrations had indicated an increasing trend (**Graph 5**). Trichloroethene (TCE) has also been historically detected within the groundwater samples collected from monitoring well TRY_MW-201M. The concentrations of TCE at this monitoring location had indicated an overall decreasing trend, with concentrations consistently below the ROD ICL or non-detect above the laboratory reporting limit since May 2007.

The Mann-Kendall analysis also confirmed that the detected concentrations of cis-DCE were increasing within well TRY_MW-201M prior to decommissioning. The Mann-Kendall analysis indicates that, statistically, the concentrations of TCE at TRY_MW-201M were stable.

Well TRY_MW-201M was decommissioned during 2013; however, wells located downgradient of the trench area, including TRY_MW-C6S and newly installed wells TRY_MW-C6D and TRY_MW-501D, will continue to be monitored in order to capture the toe of the cVOC plume downgradient from the location of the former TRY_MW-201M.

The concentrations of cis-DCE and vinyl chloride (VC) detected within well TRY_MW-104S and cis-DCE within wells TRY_M-2, TRY_MW-501X, and TRY_MW-601D and bedrock well TRY_MW-602B were graphed due to the long history of detections of these cVOCs within the monitoring locations, although detected concentrations have generally not exceeded the ROD ICL. Refer to **Graph 6** for the temporal concentration trends of detected concentrations of cis-DCE and VC within well TRY_MW-104S. The concentrations indicate an overall decreasing trend for cis-DCE and no apparent trend for VC. Decreasing concentrations of cis-DCE were observed at wells TRY_M-2, TRY_MW-501X, and TRY_MW-602B and an increasing trend was observed at well TRY_MW-601D (**Graph 7**).

The Mann-Kendall analysis confirms that the detected concentrations of cis-DCE are increasing within well TRY_MW-601D and decreasing within wells TRY_M-2, TRY_MW-501X, and TRY_MW-602B; however, the analysis did not support a decreasing trend for concentrations within well TRY_MW-104S. The concentrations of cis-DCE at well TRY_MW-104S are statistically stable.

SVOCs

Monitoring well TRY_MW-205 is the only monitoring location with a long term and consistent history of DEHP detections, the primary SVOC groundwater contaminant. An overall temporal trend of decreasing concentrations has been observed in groundwater samples collected from this well since October 2005, although a potential increasing trend has been observed since June 2011 (refer to concentration trend **Graph 2**).

The Mann-Kendall analysis indicates that the concentrations of DEHP detected within TRY_MW-205 have a concentration trend of only potentially decreasing (decreasing with a 94.6% confidence in the trend).

Monitoring well TRY_MW-804 was installed during 2011 and currently only has three rounds of sampling results. The detected concentrations of DEHP in TRY_MW-804 have exhibited relatively steady exceedances between 2011 and 2014, but do not currently display a describable trend (**Graph 3**). Additional data from future sample events will allow for a more comprehensive assessment of concentration trends in the groundwater at this location.

Manganese

Fifteen wells have had consistent detections of manganese above the ROD ICL. Refer to **Graph 8A** and **Graph 8B** for wells with manganese detections consistently above the ROD ICL.

Detected manganese concentrations have generally been relatively stable to decreasing in individual wells over time. Wells that appear to display an increasing trend based on the temporal graphs include TRY_MW-101, TRY_MW-102, TRY_MW-201M, and TRY_MW-601D. Note that TRY_MW-102 is located upgradient of the former drum disposal area and that conditions at this well are most likely related to impacts from the solid waste landfill.

The Mann-Kendall analysis confirms the presence of a statistically significant increasing trend at wells TRY_MW-201M and TRY_MW-601D, and a statistically significant decreasing trend at wells TRY_M-2, TRY_MW-204, TRY_MW-501X, TRY_MW-602B, GZ-701 and GZ-702SX. A potentially increasing trend with a confidence level of 92.2% was identified at well TRY_MW-101.

MNA Conditions at the Site

The following sections summarize an assessment of MNA conditions at TML under current (i.e., consistent with the period associated with this review) conditions. The assessed data include aqueous COC concentration data and natural attenuation and reduction\oxidation (redox) condition indicator parameters such as aqueous concentrations of electron acceptors (EA) utilized during terminal electron acceptor processes (TEAPs), aqueous concentrations of electron donors (ED), and secondary condition indicator information, including oxidation-reduction potential (ORP).

The following groups of COCs and natural attenuation indicator parameters were used to assess MNA conditions at the Site:

cVOCs:

- TCE;
- cis-DCE; and
- VC.

Additional VOCs and SVOCs:

- 1,2,4-TMB;
- 1,3,5-TMB;
- Naphthalene; and
- DEHP.

Indicator Parameters**:**

- Dissolved oxygen (DO) – aqueous phase EA;
- Nitrate (NO_3^-) – aqueous phase EA;
- Manganese (Mn^{2+}) – aqueous phase end product;
- Ferrous Iron (Fe^{2+}) – aqueous phase end product;
- Sulfate (SO_4^{2-}) – aqueous phase EA;
- Total Organic Carbon (TOC) – aqueous phase ED; and
- ORP – redox potential metric.

These COCs and parameters are selected for assessing MNA conditions at the Site based on available information related to contaminant disposal/source history, historical detections, etc.

Local redox conditions are assessed using the Natural Attenuation Software (NAS©) package developed by researchers at Virginia Polytechnic Institute and State University (Virginia Tech) in collaboration with the U.S. Geological Survey (USGS) and the Naval Facilities Engineering Command (NAVFAC). The Site Data Assessment module within the NAS software package assists in the development of an interpretation of redox conditions along a user-specified longitudinal profile represented by monitoring wells and discrete sampling periods. At a minimum, NAS requires inputs of DO, Fe^{2+}, and SO_4^{2-} at each monitoring well to estimate a given redox condition. Supplemental data, including NO_3^- and Mn^{2+}, are included in the assessment for this Site.

Geospatial analyses and interpreted aqueous volume comparisons are performed using the Voxler© three-dimensional data visualization/modeling software package developed by Golden Software. The basis for the geospatial data model, which includes key site features and interpretations of local hydrogeology (e.g., bedrock surface), is shown in **Figure H-1**. Distributions of aqueous concentration data (i.e., COCs, EAs, EDs) developed using this software include spatial interpolations of output derived from MAROS for four specific sampling periods that were selected based on data availability: October 2009, June 2011, June 2013, and November 2014. Data obtained during the November 2014 sampling round were supplemented by additional data collected following well installations performed during June 2015. Secondary indicator data, such as ORP, were summarized externally from MAROS.

Data are generally depicted using isosurfaces generated from three-dimensional matrices calculated using an anisotropic inverse distance interpolation method. The calculated isosurfaces bound, in three dimensions, zones interpreted to be above or below a specified threshold value (i.e., specified aqueous concentration, ORP, etc.). In general, threshold values used in this assessment are not equal to ROD ICLs values for COCs, as use of these values does not provide adequate information to assess MNA conditions. The selected values and associated interpreted aqueous volumes are used for demonstration purposes only and do not reflect assumptions with respect to hazard levels. With respect to indicator parameters, commonly-identified activity levels, as described below, are typically used.

Local Redox Conditions

To assess local redox conditions using NAS, a longitudinal profile represented by a series of monitoring wells was developed. The wells used to develop this profile are (moving from upgradient to downgradient): TRY_MW-601D, TRY_MW-101, TRY_MW-201M, and TRY_MW-104S (refer to **Figure H-1**).

In assessing the indicator data available at these monitoring well locations, it was noted that complete (i.e., in terms of NAS requirements) data sets inclusive of DO, Fe^{2+}, and SO_4^{2-} at each location were only available for two sampling periods: December of 2008 and October of 2009. During these periods, redox conditions are interpreted as being relatively consistent and transitioning from generally suboxic at upgradient locations in the vicinity of the Lower Drum Area to weakly-to-moderately reducing (e.g., ferrogenic/iron reducing) at downgradient locations near or below the lower access road. These condition assessments are supported by DO concentrations between 0.6 and 1.4 mg/L in the generally suboxic upgradient areas and below 0.3 mg/L in the generally reducing downgradient areas.

Geospatial analyses of redox conditions are presented for the four considered sampling periods in **Figures H-2 through H-9**. Zones of depleted EAs (e.g., DO) and elevated potential end product (e.g., Fe^{2+}) concentrations are evident in the general vicinity and downgradient from the drum removal areas during the 2009 and 2011 sampling rounds. Zones of TOC concentrations in excess of 20 mg/L are also evident in this area based on data collected during 2009 and 2011. With respect to both periods, these zones appear to be collocated with moderately to strongly reducing conditions based on interpreted ORP data. While fewer indicator parameters are available for analysis during the more recent rounds (i.e., 2013 and 2014/2015), DO and ORP data suggest conditions have remained relatively consistent.

CH_4, which is a product of low-energy utilization of CO_2 as an EA, can also be indicative of favorable conditions for reductive dechlorination via methanogenesis (EPA, 1998); however, methane can also be produced as a result of decaying organic matter in the absence of cVOC contamination, such as landfill-related organic matter. Given the uncertainty associated with these data, methane is considered to be an unreliable indicator of natural attenuation activity at this Site. Therefore, while the CH_4 data during the selected sampling periods have been interpreted, they are provided as information only.

cVOCs

Three historically detected cVOCs were used to assess MNA conditions at this Site: TCE, cis-DCE, and VC. As a reliable history of disposal practices is not available, the source of cVOC contamination, for the purpose of this assessment, is assumed to be limited (i.e., small volume) disposal of TCE within the drum removal areas.

Estimated distributions of aqueous-phase TCE, cis-DCE and VC are shown for the four considered sampling periods in **Figures H-10 through H-17**. The depicted isosurfaces bound zones of interpolated TCE, cis-DCE, and VC concentrations of 2.5 ug/L, 70 ug/L, and 2 ug/L for TCE, cis-DCE, and VC, respectively. In general, the interpreted zones of cVOC contamination suggest less-chlorinated potential daughter products (i.e., cis-DCE and VC) are approximately co-located with and/or occur at locations downgradient from more-chlorinated potential parent compounds (i.e., TCE and cis-DCE). This behavior is consistent with potential daughter product formation via reductive dechlorination along a primary flow path. However, these comparisons do not provide conclusive evidence supporting efficient completion of the anaerobic reductive pathway, as cis-DCE appears to be more commonly detected above the applicable ROD ICL. Possible but currently unverified explanations for this behavior include limitations associated with microbial reductive capacity (i.e., inability to effectively reduce cis-DCE and/or VC, which is also more commonly and generally referred to as "DCE stall") and/or more efficient direct oxidation of VC relative to cis-DCE).

It is also useful to compare the interpreted extents of cVOCs to TEAP indicator data reflective of the redox conditions at the Site. **Figures H-10 through H-17** show the cVOC extents relative to several available TEAP indicators. As DO at a concentration greater than approximately 0.5 mg/L[5] represents a competing EA condition that is likely to inhibit rates of anaerobic reduction of cVOCs, average conditions support relatively inefficient reductive dechlorination. In addition to utilizing cVOCs as EAs, anaerobic reductive dechlorination reactions require an ED as a growth substrate for the active microbes. Native organic carbon, which is frequently measured as TOC, is typically utilized as a growth substrate (EPA, 1998); however, the bioavailability of TOC is highly variable and infrequently assessed. The interpreted zones of TOC concentrations exceeding 20 mg/L, which is an approximate level required to support the carbon and energy source requirements for anaerobic reductive dechlorination (EPA, 1998), are shown in **Figures H-10 through H-13** in relation to the interpreted cVOC extents. As evidenced by these comparisons, generally low concentrations of bioavailable organic carbon may be a limiting factor in terms of microbial growth sustainability.

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[5] U.S. EPA, 1998, "Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water," EPA/600/R-98/128.

Though daughter products of reductive dechlorination have been recently observed (e.g., cis-DCE during 2015 and VC during 2009), the factors discussed above suggest that natural attenuation of cVOCs at this Site is progressing slowly/intermittently or has stalled. The primary limitation appears to be a potentially inadequate carbon energy source to support microbial growth (i.e., TOC availability); though, variable conditions may support limited continuation of reduction, and direct oxidation may represent a viable sink for VC. In summary, cVOC natural attenuation has occurred and may be ongoing; however, rates of dechlorination are likely to be low to very low as a result of several limiting factors including ED availability.

Additional VOCs and SVOCs

In addition to the cVOC compounds discussed above, additional VOCs and SVOCs associated with non-aqueous petroleum distillate-related and plasticizer waste disposed at the Site have been historically detected above the applicable ROD ICL values. This assessment focuses on four specific additional VOCs and SVOCs: 1,2,4-TMB, 1,3,5-TMB, naphthalene, and DEHP, the last of which represents the COC most commonly and consistently detected above its respective ROD ICL. Aqueous-phase contamination from these COCs is believed to be derived from mass transfer from LNAPL, which may still persist at the Site sporadically as residual, matrix-bound (i.e., immobile as a separate-phase liquid) mass.

Interpreted distributions of 1,2,4-TMB, 1,3,5-TMB, naphthalene, and DEHP are shown in **Figures H-18 through H-25**. The depicted isosurfaces for 1,2,4-TMB, 1,3,5-TMB bound zones of interpolated concentrations greater than 115 ug/L, 30 ug/L, and 10 ug/L, respectively. As indicated by these figures, the isosurfaces overlap adjacent but to the north of the drum removal areas; an area that is shallow and upgradient relative to the cVOC-contaminated zone. In general, these petroleum-related compounds (i.e., 1,2,4-TMB, 1,3,5-TMB, and naphthalene) share the characteristic of having low aqueous solubilities and high organic matter sorption affinities relative to common LNAPL constituents such as benzene, toluene, ethylbenzene and the xylene isomers (i.e., the BTEX group). Biodegradability characteristics with respect to aqueous phase contamination by these COCs vary, particularly in anaerobic conditions. In the case of 1,2,4-TMB and 1,3,5-TMB, efficient degradation in anaerobic environments under iron-reducing conditions has been observed as opposed to inefficient degradation under denitrifying conditions and general recalcitrance in sulfate-reducing environments (Chen et al., 2009[6]).

Figures H-18 through H-25 also show the isosurfaces bounding interpreted zones of DEHP based on a variable concentration threshold (i.e., varies by sampling period due to effect of concentration data extremes on interpolation scheme). In some cases (e.g., 2011), these zones extend downgradient into the vicinity of the former LNAPL recovery trench. As suggested by a comparison of this figure to the interpreted extents of the petroleum-related COCs, DEHP appears to be more broadly distributed in groundwater at this Site. In consideration of this extent (i.e., compared to the cVOCs and petroleum-related COCs) and its general recalcitrance in anaerobic conditions, DEHP is considered to be controlling with respect to MNA effectiveness and general COC persistence in groundwater at this Site.

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[6] Chen, Y.D., Gui, L, Barker, J.F., *Biodegradability of trimethylbenzene isomers under the strictly anaerobic conditions in groundwater contaminated by gasoline*. Environ. Geol. (2009).

Figures H-18 through H-25 also compare the interpreted extents of these additional VOCs and SVOCs to the interpreted DO conditions. As suggested by these comparisons, suboxic conditions are common within the zone of significant DEHP contamination; therefore, aerobic degradation of this COC is not likely to be a significant or reliable sink for aqueous mass at this Site. As such, DEHP is likely to persist in the aqueous phase due to rate-limited mass transfer from remaining residual non-aqueous mass. This finding is consistent with the results of the trend analyses, which do not suggest consistently decreasing trends in DEHP-contaminated monitoring wells, particularly those adjacent to the drum removal areas.

Manganese

Manganese readily undergoes manganogenic reduction under anaerobic, chemically reducing conditions in the presence of organic carbon, which converts oxidized manganese (e.g., solid mineral containing manganese in the +4 valence state) to chemically reduced manganese (e.g., dissolved manganese ion in the +2 valence state). Under these conditions, the oxidized manganese in the formation is used by soil bacteria as a terminal electron acceptor for the electrons released during organic carbon metabolism.

A manganese stability (Eh-pH or Pourbaix) diagram was created using an average manganese activity for the TML Site based on the 2014 manganese results and field parameters collected during 2014, where available (refer to **Figure H-26**). Each of the included wells falls within the primary stability field for manganese in the +2 valence state (i.e., dissolved manganese ion).

The source of organic carbon driving manganogenic reduction likely includes cVOCs and petroleum-related VOCs from the dissolved-phase plumes and organic carbon. Dissolved manganese concentrations downgradient of the solid waste landfill and former drum disposal areas are anticipated to remain elevated until such time as available organic carbon is depleted.

<u>Summary of the MNA Evaluation</u>

The reviewed data suggest sporadic to potentially ongoing reduction of cVOCs in Site groundwater. Additionally, cVOC and SVOC (i.e., based on reviews of data pertaining to selected petroleum-related COCs) plumes may be stable or shrinking due to favorable redox conditions; however, DEHP appears to be controlling with respect to a remedial timeframe based on the interpreted extent of aqueous contamination and its general recalcitrance in anaerobic groundwater environments. Furthermore, uncertainty with respect to source characteristics (e.g., residual mass estimates) for all COCs is a limiting factor that precludes the development of a specific remedial timeframe projection.

The ROD estimated approximately up to 30 years (i.e., 2035) for the amount of time necessary to achieve the outcome consistent with consumption of groundwater as drinking water for many of the contaminants of concern. As mentioned previously, various limiting factors preclude the development of an accurate remedial timeframe projection; however, in consideration of the high concentrations and recalcitrant nature of DEHP, remedial goals for groundwater will likely not be met by the 2035 date estimated within the ROD. Future consideration should be given to evaluating MNA effectiveness and schedule for achieving cleanup levels relative to residual DEHP in soil and groundwater.

QUESTION B: ARE THE EXPOSURE ASSUMPTIONS, TOXICITY DATA, CLEANUP LEVELS, AND REMEDIAL ACTION OBJECTIVES (RAOS) USED AT THE TIME OF THE REMEDY SELECTION STILL VALID?

No. Although there have been some changes to the exposure assumptions and toxicity data as noted below; these changes do not impact the protectiveness of the remedy.

The RAOs remain valid and land use has not changed with the exception of evidence of increased trespassing. The Site remains within a large undeveloped parcel of land, and no new sources of contamination were identified during this FYR. Residual contaminated soil within the source area is currently under a 2-foot soil cap and not available for potential exposure under current or reasonably-anticipated future recreational land uses. Groundwater in the vicinity of the Site is not used as a potable water supply. ICs have been established to restrict the use of contaminated groundwater from being used for drinking water purposes until groundwater cleanup levels are achieved.

Additional contaminants of potential concern (COPCs) were proposed for the impacted media based on the comparison of Site data to the updated risk-based EPA regional screening levels (RSLs). The RSLs can be found on EPA website http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/. They are updated twice a year to reflect any changes in toxicity values and other contributing factors. The latest RSLs used for this FYR were updated in June 2015. These additional COPCs, and the changes in toxicity values for certain COPCs since the 2005 ROD are not expected to change the human health risk characterization conclusion or to impact the interim cleanup levels presented in the ROD or amended in the 2014 ESD.

The exposure assumptions have the following changes relative to risk to human health:

- Under the current use scenario, evidence of increased trespassing at the Site has been observed since the last FYR. Note that no evidence of direct human exposure to either the contaminated soils under the soil cap or contaminated wetland soil has been identified; and
- The human health risk calculation included in the 2005 Risk Assessment was based on the assumption of future residential development adjacent to the Site or development for public recreational use. These future development scenarios have not occurred although increased trespassing has been observed.

The 2005 Baseline Ecological Risk Assessment (BERA) assessed risk in the Rockwood Brook Wetland Study Area only for two terrestrial ecological receptor groups, consisting of earthworms (representing the soil invertebrate community) and the short-tailed shrew (representing small carnivorous mammals with a restricted home range). Over the last 10 years or so, increased beaver activity has resulted in standing water in part of the wetland, potentially creating a permanent new aquatic environment which was not present and therefore not evaluated in the 2005 BERA. The presence of standing water may attract benthic invertebrates. Fish are not expected to occur in the beaver impoundments based on a statement in the 2005 BERA that nearby Rockwood Brook lacks a viable fish community. The recent addition of surface water in parts of the Rockwood Brook Wetland Study Area represents a possible new exposure pathway for a new receptor group which requires further evaluation.

The exposure assumptions have the following changes relative to ecological risk:

- The physical conditions in the Rockwood Brook Wetland Study Area have changed as a result of increased beaver activity. The presence of standing water in the wetland has created new aquatic habitat in a previously terrestrial habitat. The current remedy was implemented in part to protect terrestrial receptors in the wetland. Further evaluation is needed to determine the protectiveness of the remedy to benthic invertebrates in the aquatic portions of the wetland.

Review of Additional Data

As described in **Section III, Data Review,** additional groundwater, surface water, leachate, wetland soil, and sediment data have been collected after the first FYR in 2010. The following provides a summary of the review of data from all media of concern in consideration of the 2005 Risk Assessment and the remedy selected.

- The COC concentrations in groundwater at the Site were generally consistent with the concentrations presented in the 2005 Risk Assessment, with few exceptions. Refer to the **Monitored Natural Attenuation** section included in **Question A** above for the trend analyses. Groundwater exposure was not identified as a complete pathway for the current use scenario. However, the 2005 Risk Assessment concluded that significant risks to future residents potentially exposed to COCs in groundwater existed. The additional groundwater data are not expected to change the overall management decision for the Site.
- A review of the leachate data (collected from TRY_SW-LEACHATE) indicated that the overall VOC, SVOC, and metals concentrations in leachate either decreased or remained stable between 2006 and 2014. The additional leachate data are not expected to change the overall management decision for the Site.
- A review of the wetland soil data (collected from TRY_WES-01, TRY_WES-02, TRY_WES-03, and TRY_WES-04) indicated that the concentrations of manganese (the predominant non-cancer risk driver) increased over time at three locations (TRY_WES-01, TRY_WES-03, and TRY_WES-04). Specifically, the manganese concentrations detected at TRY_WES-01 during the three sampling rounds (December 2006, October 2009, and November 2014) as well as during the December 2006 round at TRY_WES-02 (77,485 mg/kg, 130,810 mg/kg, 242,567 mg/kg, and 44,620 mg/kg, respectively) were higher than the EPC of 40,000 mg/kg adopted in the 2005 Risk Characterization. In addition, the reference dose (RfD) for manganese has been updated for non-food exposure and is more stringent than the RfD used in the 2005 Risk Assessment as discussed below in **Changes in Toxicity Values Used in Human Health Risk Assessment**. The manganese concentrations detected at TRY_WES-01 during the recent two rounds (October 2009, and November 2014) would pose potential risks to recreational users under the current and future use conditions based on a comparison with the EPA screening

values[7]. Using the risk ratio approach to compare detected concentrations to the adjusted manganese RSL of 85,615 mg/kg for recreational user scenario associated with a target HQ level of 1, the maximum detected manganese concentration of 242,567 mg/kg would result in an HQ of 3, exceeding EPA's acceptable HQ level of 1. Based on this review, risk of exposure to wetland soil may require further evaluation and potential modification of the ROD remedy, including the consideration of an expansion of ICs to prevent potential exposure. It should be noted that no evidence of direct human exposure to contaminated wetland soil was observed during the Site Inspection conducted as part of this FYR, nor at any time since the implementation of the remedy.

- A review of the surface water data (collected from TRY_SW-1, TRY_SW-3, and TRY_SW-4) indicated that the arsenic and manganese concentrations remained stable between 2006 and 2014. Note that no VOCs or SVOCs have been detected in surface water. The additional surface water data are not expected to change the overall management decision for the Site.
- A review of the sediment data (collected from TRY_SEDSW-3) indicated that metal concentrations did not change significantly over time during the period between 2006 and 2009. DEHP was not detected in the three duplicate pair samples collected in 2007, 2008, and 2009. Mercury was detected in the duplicate pair samples collected in October 2009 and the concentrations (26.3 mg/kg and 6.01 mg/kg) were above the screening level (2.3 mg/kg for mercuric chloride and other mercury salts). These sample results were qualified by both the analytical lab and GZA, and the possibility of equipment contamination is still being investigated. The additional sediment data are not expected to change the overall management decision for the Site; however, consideration should be given to future monitoring for mercury in sediment to further evaluate the validity of 2009 data results and the potential for cross-contamination.

Review of Toxicity and Chemical Characteristics

Changes in Toxicity Values Used in Human Health Risk Assessment

Changes of toxicity values for the COCs at the Site are summarized in **Table 8** and briefly discussed in this Section. This review only focused on the toxicity value changes that would result in higher risk estimates than those presented in the 2005 Risk Assessment; thus, only those changes that would result in higher risk estimates are listed in **Table 8**.

[7] As a screening evaluation, the manganese concentrations detected during the two recent rounds at TRY_WES-01 (130,810 mg/kg and 242,567 mg/kg) were compared with the adjusted EPA Regional Screening Value (RSL) for residential non-diet intake. The RSL of 1,800 mg/kg listed in the EPA RSL table (corresponding to a hazard quotient of 1) was adjusted to reflect the difference between the exposure assumptions used in the 2005 Risk Characterization and the RSL (i.e., the exposure frequency of 52 days per year vs. 350 days per year, the soil ingestion rate of 100 mg/day vs. 200 mg/day, and the body weight of 53 kg vs. 15 kg). The adjusted RSL of 85,615 mg/kg was lower than the manganese concentrations detected during the two recent rounds at TRY_WES-01 (130,810 mg/kg and 242,567 mg/kg), indicating potentially significant risks to recreational users under the current and future use conditions.

The following changes would result in elevated risk estimates relative to the 2005 risk results:

- n-Butylbenzene, n-propylbenzene, and 1,3,5-TMB. The Provisional Peer Reviewed Toxicity Values (PPRTVs; including PPRTV screening values) for the oral chronic RfD values are lower than the RfD values presented in the ROD;
- cis-DCE, tetrachloroethene, toluene, pentachlorophenol. The oral chronic RfD values provided by the Integrated Risk Information System (IRIS) are lower than the RfD values presented in the ROD;
- 1,2-Dichloroethane, 1,4-dichlorobenzene, 1,1,2,2-tetrachloroethane, TCE, and 1,4-dioxane. No oral chronic RfD value was listed for TCE or 1,4-dioxane in the 2005 ROD while oral chronic RfD values are provided by IRIS;
- Manganese. The IRIS RfD (0.14 milligrams per kilogram day [mg/kg-day]) includes manganese from all sources, including diet. The author of the IRIS assessment for manganese recommended that the dietary contribution from the normal U.S. diet (an upper limit of 5 milligrams per day [mg/day]) be subtracted when evaluating non-food (e.g., drinking water or soil) exposures to manganese, leading to a RfD of 0.071 mg/kg-day for non-food items. The explanatory text in IRIS further recommends using a modifying factor of 3 when calculating risks associated with non-food sources due to a number of uncertainties that are discussed in the IRIS file for manganese, leading to a RfD of 0.024 mg/kg-day, which is lower than the oral chronic RfD value presented in the 2005 ROD.
- N-Propylbenzene, benzo(a)pyrene, dibenzo(a,h)anthracene, pentachlorophenol, 1,4-dioxane, arsenic, cadmium, manganese, and vanadium. No chronic inhalation reference concentration (RfC) values were listed in the 2005 ROD while RfC values are provided by IRIS, PPRTV, Agency for Toxic Substances and Disease Registry (ATSDR), and California Environmental Protection Agency (CalEPA);
- Tetrachloroethene and TCE. The inhalation chronic RfC values provided by IRIS are lower than the RfC values presented in the ROD;
- Pentachlorophenol and 1,4-dioxane. The oral cancer slope factors (CSFs) provided by the IRIS are higher than the CSFs listed in the 2005 ROD[8];
- 1,4-Dichlorobenzene, ethylbenzene, benzo(a)pyrene, DEHP, dibenzo(a,h)anthracene, naphthalene, pentachlorophenol, 1,4-dioxane, arsenic, and vanadium. No inhalation unit risk values were listed in the 2005 ROD while unit risk values are provided by IRIS, PPRTV, and CalEPA;
- Ethylbenzene and chromium(VI). No oral CSFs were listed in the 2005 ROD while oral CSFs are provided by New Jersey and CalEPA;

[8] Oral CSF was not listed in Table G-4 of the 2005 ROD for 1,4-dioxane. The value listed in Table 8 was from the EPA Toxicity Criteria Table, which was the value recommended by EPA in October 2004.

The other toxicity values are either the same or less stringent compared to the values presented in the 2005 ROD and therefore are not listed in **Table 8** or discussed above. The toxicity value changes would not change the overall risk assessment conclusion presented in the 2005 Risk Assessment and the 2005 ROD. The changes in toxicity values will not impact the interim cleanup levels presented in the 2005 ROD and subsequently updated in 2014.

It is noted, however, that the updated RfD value for manganese could result in risk to potential recreational users via exposure to wetland soils. As indicated above, no evidence of direct exposure to contaminated wetland soil was observed during the Site Inspection conducted as part of this FYR or during any time since implementation of the remedy. Risk of exposure to wetland soil may require further evaluation and/or consideration of an expansion of ICs to prevent potential exposure.

Changes in Screening Values Used in COPC Selection

The 2005 Risk Assessment used preliminary remediation goals (PRGs) published by EPA Region 9 as screening values for the COPC selection. Specifically, tap water PRGs were used for comparison to maximum detected groundwater, surface water, and leachate concentrations; while residential soil PRGs were used for comparison to the maximum detected soil, sediment, and wetland soil concentrations. For purposes of the COPC identification, the PRGs corresponding to a hazard quotient (HQ) of 0.1, or a $1x10^{-6}$ target risk level, whichever was lower, were used for the screening purposes.

The EPA Region 9 PRGs have since been harmonized with similar risk-based screening levels used by EPA Regions 3 and 6 into Regional Screening Levels (RSLs). As part of this FYR a comparison of the maximum concentrations included in the 2005 Risk Assessment to the most recent RSLs (last updated in June 2015) was completed. The focus of this evaluation related to the screening level updates that would include those previously excluded as COPCs into the risk assessment. The table below summarizes the additional COPCs identified based on the updated RSLs.

Table 9: Additional Identified COPCs

Media/Location	Additional COPCs
Groundwater	1,1-dichloroethane, 1,2,4-TMB, 1,4-dioxane, tetrahydrofuran, benzo(b)fluoranthene, cobalt, iron
Surface Soil (Access Road)	cobalt, iron
Sediment (Rockwood Brook)	cobalt, iron
Sediment (Sand Dam Pond)	cobalt, iron
Wetland Soil (Rockwood Brook)	benzo(a)pyrene, cobalt, iron, thallium
Surface Water (Rockwood Brook)	Cyanide
Surface Water (Rockwood Brook Wetland)	1,1-dichloroethane, 1,2,4-TMB, ethylbenzene, di-n-octylphthalate, cobalt, iron
Surface Water (Sand Dam Pond/Beach)	Aluminum, cobalt, cyanide, iron
Surface Water (Former Railroad Bed)	Cobalt
Leachate (Access Road, Current)	Iron
Leachate (Access Road, Future)	1,1-dichloroethane, 1,2,4-TMB, ethylbenzene, cobalt, iron

Additional COPCs Identified

The following provides a summary of the additional COPCs identified in each media of concern in consideration of the 2005 Risk Assessment and the remedy selected.

- Inclusion of cobalt and iron into the quantitative calculation of risks to recreational users via exposure to surface soil on the access road would not change the overall risk assessment conclusion that there is no significant risk to recreational users via soil exposure under the current or future use conditions.
- Groundwater exposure was not identified as a complete pathway for the current use scenario. The 2005 Risk Assessment concluded significant risks to future residents potentially exposed to COPCs in groundwater.

  1,2,4-TMB, 1,4-dioxane, tetrahydrofuran, and benzo(b)fluoranthene were not identified as groundwater COPCs in the 2005 Risk Assessment. However, the above referenced compounds were listed in Table L-1 of the 2005 ROD as groundwater COCs and were included in the long-term monitoring program. 1,1-Dichloroethane, iron and cobalt were not identified as groundwater COPCs in the 2005 Risk Assessment; nor were they listed in Table L-1 of the 2005 ROD as a groundwater COC. The omission of the groundwater COPCs would not change the overall risk assessment conclusion for the Site.
- Ethylbenzene 1,1-dichloroethane, 1,2,4-TMB, cobalt, and iron were not identified as leachate COPCs in the 2005 Risk Assessment. Inclusion of these analytes into the quantitative calculation of risks to recreational users via exposure to leachate would not change the overall risk assessment conclusion that there will be significant risk to recreational users via leachate exposure under the future use condition.
- Iron, benzo(a)pyrene, cobalt, and thallium were not identified as a wetland soil COPCs in the 2005 Risk Assessment. Inclusion of the analytes into the quantitative calculation of risks to recreational users via exposure to wetland soil would not change the overall risk assessment conclusion as the potential for risk is controlled by manganese in wetland soil.
- Cyanide, 1,1-dichloroethane, 1,2,4-TMB, ethylbenzene, di-n-octylphthalate, aluminum, cobalt, and iron were not identified as surface water COPCs in the 2005 Risk Assessment. Inclusion of the analytes into the quantitative calculation of risks to recreational users via exposure to surface water would not change the overall risk assessment conclusion that there is no significant risk to recreational users via surface water exposure under the current or future use conditions.
- Iron and cobalt were not identified as a sediment COPC in the 2005 Risk Assessment. Inclusion of cobalt and iron into the quantitative calculation of risks to recreational users via exposure to sediment in Rockwood Brook and Sand Dam Pond would not change the overall risk assessment conclusion that there is no significant risk to recreational users via sediment exposure under the current or future use conditions.

Changes in Benchmark Values used in Ecological Risk Assessment

A Screening-Level Ecological Risk Assessment (SLERA) was performed in 2015 by Techlaw, Inc., under the Environmental Services Assistance Team (ESAT) contract in support of the 5YR. The SLERA was performed to evaluate risk to aquatic and terrestrial community-level receptors in the Rockwood Brook Wetland Study Area and Rockwood Brook exposed to contaminants present in groundwater, leachate, surface water, and wetland soil. The SLERA included an ecological effects evaluation using contaminant-specific screening benchmarks representing contaminant levels which, if not exceeded, are not expected to cause long-term harm to aquatic and terrestrial community level receptor groups.

Review of New Guidance and Risk Assessment Methods

Since the last FYR in 2010, EPA has published the following guidance for performing risk assessment.

- *2014 Office of Solid Waste and Emergency Response (OSWER) Directive Determining Groundwater Exposure Point Concentrations, Supplemental Guidance*

  In 2014, EPA finalized a Directive to determine groundwater exposure point concentrations (EPCs)[9]. This Directive provides recommendations to develop groundwater EPCs. The recommendations to calculate the 95% upper confidence limit (95% UCL) of the arithmetic mean concentration for each contaminant from wells within the core/center of the plume, using the statistical software ProUCL could result in lower groundwater EPCs than the maximum concentrations routinely used for EPCs as past practice in risk assessment, leading to changes in groundwater risk screening and evaluation. In general this approach could result in slightly lower risk or lower screening levels. (Reference: EPA. 2014. Determining Groundwater Exposure Point Concentrations. OSWER Directive 9283.1-42. February 2014.)

- *2014 OSWER Directive on the Update of Standard Default Exposure Factors*

  In 2014, EPA finalized a Directive to update standard default exposure factors and frequently asked questions associated with these updates[10]. Many of these exposure factors differ from those used in the risk assessment supporting the ROD. These changes in general would result in a slight decrease of the risk estimates for most chemicals. (Reference: EPA. 2014. Human Health Evaluation Manual, Supplemental Guidance: Update of Standard Default Exposure Factors. OSWER Directive 9200.1-120. February 6, 2014.)

[9] http://www.epa.gov/oswer/riskassessment/pdf/superfund-hh-exposure/OSWER-Directive-9283-1-42-GWEPC-2014.pdf

[10] http://www.epa.gov/oswer/riskassessment/superfund_hh_exposure.htm *(items # 22 and #23 of this web link).*

- *2012 OSWER Directive on Recommendations for Default Value for Relative Bioavailability of Arsenic in Soil*

  Based on a compilation and review of data on relative bioavailability of arsenic in soil in 2012, arsenic was found to be less bioavailable via soil ingestion relative to other analytes. A default value of relative bioavailability (RBA) of 60% is now applied during soil/sediment ingestion calculations of risk/cleanup levels. This default RBA value reduces arsenic contribution to risk and/or increases arsenic cleanup levels. (Reference: EPA. 2012. Compilation and Review of Data on Relative Bioavailability of Arsenic in Soil and Recommendations for Default Value for Relative Bioavailability of Arsenic in Soil Documents. OSWER Directive 9200.1-113. December 31, 2012.)

  Although calculated risks from potential exposure pathways at the Site may differ from those previously estimated for the ROD, slightly higher for some contaminants and slightly lower for others, the revised methodologies themselves are not expected to affect the protectiveness of the remedy. A review of Site information identifies that these updates do not call into question the protectiveness of the remedy.

Review of Interim Cleanup Levels

The leachate cleanup level for DEHP was a risk-based level for the protection of recreational dermal contact exposure. The RfD value for DEHP used in the 2005 ROD is still valid. Although an inhalation unit risk value is available for DEHP, the level in ambient air is expected to be minimal and therefore inhalation is not a complete exposure pathway. Based on the above discussion, the risk-based cleanup goal for DEHP in leachate is still valid.

Interim Cleanup Levels were identified in the 2005 ROD for groundwater based on Safe Drinking Water Act Maximum Contaminant Levels (MCLs) and Maximum Contaminant Level Goals (MCLGs), federal risk-based standards, and more stringent New Hampshire AGQS. In March 2014, EPA issued an EPA Superfund Explanation of Significant Differences for the TML Site and updated cleanup levels for several COCs. The ESD also updated ARARs cited in the 2005 ROD both to include the revised State and federal standards and to identify additional standards that were not specifically identified in the ROD. The updated ARARs were included in Attachment 1 of the ESD. None of the revisions significantly changed the scope of the remedy.

As part of this FYR, current EPA MCLs, MCLGs, federal risk-based standards, and New Hampshire AGQS published by the NHDES during 2013 were reviewed. The Groundwater ICLs presented in the 2005 ROD and updated in the March 2014 ESD remain valid.

QUESTION C: HAS ANY OTHER INFORMATION COME TO LIGHT THAT COULD CALL INTO QUESTION THE PROTECTIVENESS OF THE REMEDY?

No; however, as discussed under **Question B**, further evaluation of the wetland should be conducted, with the testing described in the memorandum to be performed if significant areas of sediment habitat are identified.

TECHNICAL ASSESSMENT SUMMARY

In general, the remedy appears to be functioning as intended by the ROD based on the monitoring data collected at the TML Superfund Site since the 2010 FYR.

The ICLs for groundwater remain reasonable, given that there are no known consumers of the groundwater as drinking water and the risk-based cleanup goal for DEHP in leachate is still valid. With few exceptions, the concentrations of COCs in various media at the Site appear to be relatively stable. Results of the MNA Assessment suggest sporadic to potentially ongoing reduction of cVOCs in groundwater. Additional cVOC and SVOC plumes may be stable or shrinking due to favorable redox conditions; however, DEHP appears to be controlling, with respect to the entire Site, the remedial timeframe for achieving full groundwater cleanup based on the interpreted extent of aqueous contamination and its general recalcitrance in anaerobic groundwater environments. Furthermore, uncertainty with respect to source characteristics (e.g., residual mass estimates) for all COCs is a limiting factor that precludes the development of a specific remedial timeframe projection. Overall, the information reviewed suggests that the clean-up goals may not be attained within the anticipated time frame established in the ROD. Future consideration should be given to evaluating MNA effectiveness and schedule for achieving cleanup levels relative to residual DEHP in soil and groundwater.

A review of the wetland soil data indicated that the concentrations of manganese have fluctuated over time. In addition, the RfD value for manganese has been updated for non-food exposure and is more stringent than the RfD value used in the 2005 Risk Assessment. A screening evaluation suggested that the manganese concentrations detected at TRY_WES-01 during the recent two rounds (October 2009, and November 2014) would pose potential risks to recreational users under the current and future use conditions based on a comparison with the EPA screening values. It was concluded that under the current use scenario, evidence of increased trespasser use at the Site has been observed since the last FYR; however, no evidence of direct exposure to contaminated wetland soil has been identified.

The physical conditions in the Rockwood Brook Wetland Study Area have changed as a result of increased beaver activity. The presence of standing water in the wetland has created new aquatic habitat in a previously terrestrial habitat. The current remedy was implemented in part to protect terrestrial receptors in the wetland. Further evaluation is needed to determine the protectiveness of the remedy to benthic invertebrates in the aquatic portions of the wetland.

V. ISSUES/RECOMMENDATIONS AND FOLLOW-UP ACTIONS

Table 10: Issues and Recommendations/Follow-up Actions

OU #	Issue	Recommendations/ Follow-up Actions	Party Responsible	Oversight Agency	Milestone Date	Affects Protectiveness? (Y/N)	
						Current	Future
Entire Site	Evidence of trespassing and recreational use of Site areas. Access is obtained by cutting locks and opening gates installed to prohibit trespassing.	EPA will review options with State and Town officials including but not limited to: erect additional fences and signage; relocate the gate; determine in consultation with State and Town officials whether there are other effective means to limit trespassing and access. If trespassing persists, EPA will consider whether a revised risk determination is needed.	EPA/State	EPA/State	6/30/2016	No	Yes
Entire Site	Current ICs to limit access to contaminated Site soils are not fully effective.	EPA, in consultation with State and Town officials, will consider modification of existing ICs, more effective enforcement of existing ICs, or implementation of additional ICs to limit exposure to contaminated soils.	EPA/State	EPA/State	6/30/2016	No	Yes

OU #	Issue	Recommendations/ Follow-up Actions	Party Responsible	Oversight Agency	Milestone Date	Affects Protectiveness? (Y/N)	
						Current	Future
Entire Site	Flooding of the wetland areas due to beaver damning activity may have dispersed contaminated leachate within the wetland areas. The extent of sediment and wetland soil currently impacted by the discharge of contaminated leachate and groundwater is unknown, potentially resulting in changes to ecological receptors.	Determine the nature and extent of sediment and wetland soil contaminated by flooding of the wetland areas. Review the ecological risk assessment, especially for benthic invertebrates. Determine if a revised decision document is needed to address any change to conditions at the Site.	EPA/State	EPA/State	9/30/2016	No	Yes

In addition, the following are recommendations that may *reduce costs and accelerate Site close out,* but do not affect current protectiveness and were identified during the FYR:

<u>Evaluation of the MNA remedy to achieve the remedial objectives established in the ROD</u>

- Consider further evaluation of the effectiveness of the MNA remedy and projected schedule for meeting cleanup levels relative to residual DEHP in soils and groundwater.

VI. PROTECTIVENESS STATEMENT

Site wide Protectiveness Statement	
Protectiveness Determination: Short-term Protective	*Addendum Due Date (if applicable):*

Protectiveness Statement:
The remedy implemented at the TML Superfund Site is currently protective of human health and the environment, because the remedy included source control (removal of LNAPL and maintenance of the permeable soil cap overlying residual contaminated soil), MNA of contaminated groundwater underlying TML, and ICs. With the source control remedy completed, groundwater quality is anticipated to be restored to acceptable levels through dilution and natural attenuation. A review of documents; applicable or relevant and appropriate requirements (ARARs); and the results of the Site inspection indicate that the remedy is currently protective for exposures envisioned by the ROD.

In order for the remedy to be protective in the long term, however, the following actions should be considered:

<u>Site security options to limit trespassing and Site access</u>

- EPA will review options with State and Town officials including but not limited to: erect additional fences and signage; relocate the gate; determine in consultation with State and Town officials whether there are other effective means to limit trespassing and access. If trespassing persists, EPA will consider whether a revised human health risk assessment is needed.

<u>IC options to prevent potential exposure to contaminated soils</u>

- EPA, in consultation with State and Town officials, will consider modification of existing ICs, more effective enforcement of existing ICs, or implementation of additional ICs to limit exposure to contaminated soils.

<u>Evaluate extent of contaminated sediment and conduct toxicity evaluation and ecological risk assessment</u>

- Evaluate wetland to determine current extent of contaminated sediment and if some areas need a re-assessment of ecological risk to benthic invertebrates through chemical analysis and toxicity testing.

VII. NEXT REVIEW

The next FYR report for the TML Superfund Site is required five years from the signature date of this review.

APPENDIX A

EXISTING SITE INFORMATION

A. SITE CHRONOLOGY

Table 11: Site Chronology

Event	Date
Troy Mills, Inc. (TMI) begins using the Site as a solid waste landfill. Filling began in the southern half of the landfill in the area now designated as the former drum disposal landfill. Based on photographs, company records, and interviews with former employees, a weekly average of 15 to 20 55-gallon drums of hazardous waste were disposed of into trenches (Weston, 2003).	1967-1968
First documented inspection at the Troy Mills Landfill (TML) Site performed by New Hampshire Bureau of Solid Waste Management (NHSWM) notes the existence of iron-stained water, characterized as leachate, emanating from the landfill.	August 1978
TMI obtains a permit from the New Hampshire Department of Health and Welfare (NHDOH) to operate a solid waste disposal facility on the Site for landfilling waste acrylic fabric, wood scraps, broken tools, and empty/damaged 55-gallon drums. Materials such as waste solvents, oils, plastisols, and liquids were specifically excluded from dumping at the Site.	October 1978
NHDES issued an order requiring TMI to cease dumping in the drum disposal landfill, excavate a minimum of three test pits in this area, and install well points for collecting groundwater samples. TMI contracted with Normandeau Associates, Inc. (NAI) to conduct a three-phase landfill leachate investigation.	October 1980
TMI filed a Notification of Hazardous Waste Site form with U.S. EPA for the drum disposal landfill.	May 1981
Phase I Investigation completed by NAI.	August 1981
Phase II Investigation completed by NAI.	December 1981
Phase III Investigation completed by NAI. Four monitoring wells were installed (M1, M2, M3, and M4).	July 1982
Eighteen shallow hand borings advanced at and near the TML: nine in the solid waste landfill, five soil borings in or adjacent to the drum disposal landfill, and one at the sand quarry where the TML cover material was obtained. Analytical results from the drum disposal landfill indicated the presence of chlorobenzene and ethylbenzene.	April 1983
NAI installed three additional monitoring wells (M5, M6, and M7) to determine if the active solid waste landfill was a source of contaminants detected in the groundwater.	October 1983
Based on the Phase II Investigation seismic geophysical survey results (1981), NAI estimated that the drum disposal landfill contained about 11,429 drums. Analytical results of samples from the drums and/or containerized wastes indicated the presence of eight volatile organic compounds (VOCs), four semi-volatile organic compounds (SVOCs), and three metals.	November 1983
NAI letter report presented results of additional seismic monitoring, topographic survey, groundwater and water quality monitoring conducted in July 1984. Concluded that low levels (140 parts per billion, ppb) of 1,1,1-trichloroethane detected at wells M6 and M7 may result from solid waste landfill. No VOCs were detected above analytical reporting limits in surface water.	August 1984
NUS Corporation collected groundwater samples from monitoring wells M2, M3, and M7.	November 1984
TMI entered into a Consent Agreement with NHDES which required the submittal of a Waste Analysis Plan, a Preliminary Risk Assessment, a Remedial Investigation/Feasibility Study, and an engineering design of the selected remedial alternative.	January 1985
Level I Human Health Risk Assessment completed by Charles T. Main.	March 1986
Remedial Investigation (RI) (ChemCycle and GEI Consultants, Inc. [GEI]) completed.	October 1988

Event	Date
Risk Assessment Rockwood Brook Landfill (Menzie-Cura & Associates, and GEI) completed. Report concluded that there is no demonstrable risk to human health or aquatic biota under prevailing steady-state conditions.	November 1991
Draft Feasibility Study (GEI) completed. Recommended remedy is based on the absence of existing risks to the environment or human health, the lack of degradation of groundwater quality at the drum disposal landfill and the conclusion that unacceptable risks to human health or the environment would result only under extraordinary conditions.	December 1992
Based on a further review of historical waste disposal information, GEI provides TMI with a revised buried drum estimate of between about 6,400 and 9,100.	February 1994
Phase I Pre-Design Study (GEI) completed. Eleven monitoring wells were installed (MW-200 series), and LNAPL was observed in wells MW201S and MW203S. GEI continued to monitor surface water quality at the TML until November 1997.	October 1995
Two additional monitoring wells installed (MW201M and MW301), downgradient and crossgradient from the drum disposal landfill, as well as two piezometers (P1 and P2, south of the drum disposal landfill).	June 1998
GEI submitted a Technical Memorandum for the Phase II Pre-Design Investigation to NHDES.	August 1998
Phase II Pre-Design Report (GEI) submitted, detailing the pre-design engineering to evaluate alternatives for TML. The report proposed the installation of the hanging slurry wall combined with product collection and a flow-through (intrinsic) treatment gate downgradient of the drum disposal landfill and the location of the leachate outbreak.	September 1998
GEI proposed that a Preliminary Closure Plan and Engineering Report be submitted to NHDES by summer 2002.	November 1999
NHDES agreed to a modified version of a containment-based remedial action proposed in 1998, with the condition of commitment by TMI to long-term operation, maintenance, and monitoring. Cost of the proposed remediation estimated to be $1.7M.	April 2000
TMI deferred remediation of the drum disposal landfill from the originally proposed date to a later unspecified date due to unfavorable corporate financial and market conditions. Based on the remote location of the TML Site and monitoring data that did not suggest an imminent and substantial threat to public health or the environment, NHDES approved the deferral.	December 2000
NHDES requested U.S. EPA initiate an Expanded Site Inspection (ESI) and prepare a Hazard Ranking System package for the TML Site in case TMI became unable to implement the proposed remediation.	July 2001
NHDES issued Groundwater Management Permit No. GWP-198405082-T-001 with an expiration date of 6 July 2006.	July 2001
Superfund Technical Assessment and Response Team (START) personnel conduct on-Site reconnaissance to initiate the ESI.	October 2001
TMI filed for Chapter 11 bankruptcy (reorganization) on November 2, 2001.	November 2001
As part of the ESI, START collected leachate and soil samples from the drum disposal landfill, and sediment and surface water samples to assess the potential impacts of contaminant migration from the drum disposal landfill to downstream water bodies.	December 2001
TMI ceased disposal operations at the Troy Mills Landfill.	December 2001
NHDES requested TMI to take action in the Remedial Activities Contingency Plan for TML. Following a determination by NHDES (February 2002) that TMI did not have the resources or financing to undertake either the Contingency Plan or the long-term operation, maintenance, or monitoring of the TML, U.S. EPA was requested to implement the Contingency Plan and prepare for the removal of buried drums that still contained liquid product.	January 2002

Event	Date
START conducted a Site reconnaissance of the TML as part of U.S. EPA Program Preliminary Assessment/Site Investigation (PA/SI), including a geophysical survey to delineate the approximate boundary of the buried drum landfill and identify possible test pit locations. Results were reported in Weston (November 2002).	August 2002
START personnel excavated 14 test pits on the TML, in the abutting drainage ditch, and in the downgradient wetland area. In test pits excavated in the drum disposal landfill, more than 20 intact or crushed drums were encountered at various depths between 0 and 8 feet below ground surface (bgs). Investigators noted that six drums contained either liquid or sludge.	September 2002
On September 4, U.S. Trustee filed a motion to convert TMI Chapter 11 to Chapter 7 (dissolution). The motion was granted on September 25.	September 2002
Placed on the National Priorities List (NPL) on September 29, 2003.	September 2003
Installation of LNAPL interceptor trenches.	September-October 2003
Shaw Environmental, Inc. (Shaw) completed a study to identify the most cost effective and timely cleanup approach for the drum disposal landfill.	June 2004
U.S. EPA START and Emergency and Rapid Response Services contractors excavated and removed approximately 7,670 55-gallon drums from the drum disposal landfill.	July- November 2004
Metcalf & Eddy, Inc. installed five additional 600-series groundwater monitoring wells at the Site (MW601S, MW601D, MW602S, MW602B, and MW603), and conducted groundwater, surface water, soil, and sediment sampling.	November- December 2004
The Reuse Assessment was issued by U.S. EPA.	July 2005
Final Remedial Investigation (RI) and Feasibility Study (FS) report was prepared by Metcalf & Eddy, Inc.	September 2005
The ROD was issued by U.S. EPA.	September 2005
The Preliminary Close Out Report was issued by U.S. EPA.	September 2005
Long Term Remedial Action Implementation including multi-media monitoring began.	Fall 2006
Three additional groundwater monitoring wells were installed at the Site by GZA including MW701, MW702S, and MW702D.	November 2006
Interim Remedial Action (IRA) Report prepared by GZA	September 2007
Bankruptcy Court approves settlement with the U.S., one of the terms of which is that TMI (through the Bankruptcy Trustee) grant an Easement Deed and Restrictive Covenants to the State of New Hampshire to establish Institutional Controls for the TML Site.	June 2008
Spring and Fall 2008 Monitoring Data Evaluation Report prepared by GZA.	April 2009
Institutional Controls "Easement Deed and Restrictive Covenants" recorded with the New Hampshire Registry of Deeds for the TML Site.	January 28, 2010
Spring and Fall 2009 Monitoring Data Evaluation Report prepared by GZA.	September 2010
First Five-Year Review Report.	September 2010
Installation of a beaver pipe in the culvert under the dirt road that provides access to the western side of Rockwood Brook.	November 2010
Installation of LNAPL monitoring wells TRY_MW-C1S through TRY_MW-C8S, replacement wells TRY_MW-501X, TRY_MW-508X, and TRY_MW-702SX	November 2010
June 2009 Through June 2010 Sampling Data Report, Volumes I, II and III prepared by GZA.	March 2011
Installation of 800-series wells (TRY_MW-801 through TRY_MW-805) and replacement well TRY_MW-301X.	May 2011
Laser Induced Fluorescence (LIF) LNAPL investigation performed by Columbia Technologies, GeoSearch, Inc., and GZA within and just north of the LNAPL trench area.	September 2011
Summary of LNAPL Investigation prepared by GZA.	December 2011

Event	Date
Supplemental LIF and Combined Membrane Interface Probe/Hydraulic Profiling Tool investigation performed within the former drum disposal area by Columbia Technologies, GeoSearch, Inc., and GZA.	July 2012
Installation of groundwater monitoring well TRY_MW-A28	July 2012
Final Fall 2010 – Summer 2011 Summary Report, Volumes I, II and III prepared by GZA.	September 2012
LNAPL Investigation Report prepared by GZA.	May 2013
June 2013 Monitoring Report Volumes I and II prepared by GZA.	April 2014
LNAPL trench decommissioning with excavation, removal, and decommissioning of LNAPL wells and 201-series wells.	December 2013 – January 2014
Final Site restoration following removal of LNAPL-impacted soils and trench decommissioning.	May 2014
Decommissioning of 18 obsolete Site monitoring wells.	November 2014
Initiation of the Second FYR Process.	March 2015
Installation of replacement and supplemental monitoring wells and groundwater sample collection.	June 2015
Delineation of Site wetlands.	June 2015

B. BACKGROUND

Physical Characteristics

The Site is an undeveloped 2-acre former drum disposal area and associated 17.8-acre groundwater management zone located in Troy, New Hampshire (Cheshire County) about 1.5 miles south of the Center of Troy (refer to **Figure 1**). Access to the Site is off of Rockwood Pond Road via a private gravel pit access road in Fitzgerald, New Hampshire.

The Site is bordered by the following:

- To the north by an 8-acre solid waste landfill that is separately regulated by the NHDES;
- To the east by a former railroad bed currently used as a walking, all-terrain vehicle, and snowmobile trail, and beyond by undeveloped land;
- To the west by the main Site access road, a wetland area, and Rockwood Brook; and
- To the south by the eastern branch of Rockwood Brook and beyond by undeveloped land.

Rockwood Brook flows south to north and continues downstream to Sand Dam Pond, a recreational area located approximately 1 mile north of the Site. The former drum disposal area is located in an area outside of the 500-year floodplain of Rockwood Brook.

Hydrology

The 2005 RI reports two groundwater flow systems are present at the TML Site, including an overburden and bedrock system. The overburden groundwater flow system is inclusive of the sand and till units, with depth to groundwater generally ranging from about 5 to 20 feet bgs. Groundwater flow in the overburden is to the west or northwest, toward Rockwood Brook. Refer to **Table 12** for tabularized groundwater elevation data and **Figure 2** for overburden groundwater elevation contours inferred from the October 2014 water level measurements. These data are generally consistent with the site and vicinity topography.

Current and historical water level measurements from bedrock wells along a northwest transect across the site (TRY_MW-701, TRY_MW-602B, TRY_MW-108, TRY_M-7D, and TRY_MW-702D) suggest that groundwater flow direction in bedrock is consistent with that observed in overburden groundwater. Previous reports by others and hydrostratigraphic modeling for the Site indicates that the bedrock surface slopes downwards from east to west across the Site, towards Rockwood Brook.

During November 2014, water level measurements at the TRY_MW-601 well cluster indicated a downward vertical gradient. At the TRY_MW-104 cluster, water level measurements indicated a slight upwards vertical gradient, which is consistent with historical data within this discharge area proximate to Rockwood Brook and the wetland area. Water level measurements at both of the overburden/bedrock well couplets located east of Rockwood Brook (TRY_M-7/D and TRY_MW-602S/B) indicate an upwards vertical gradient. Well couplet TRY_MW-702SX/D located on the western side of Rockwood Brook and consisting of an overburden well and bedrock well had water level measurements that indicate a neutral vertical gradient. The gradients observed during 2014 were consistent with historical data.

Land and Resource Use

The TML Site is undeveloped and is surrounded primarily by undeveloped woodlands, a gravel access road to the west, and a former railroad bed currently used as a recreational trail to the east. The area within 1/2 mile of the Site is primarily forested and residential. Wetlands are located downgradient from the former drum disposal area. Active sand and gravel operations are located within 1,000 feet of the TML Site to the north, northwest, and southwest. Based on review of recent aerial photographs, an area of agricultural land is located approximately 700 feet northeast of the Site.

The 270-acre former Troy Mills property and the immediately surrounding parcels are zoned "rural district." Allowable uses include: one- and two-family dwellings, agricultural uses, stables and riding academies, plant nurseries and greenhouses, veterinary hospitals, family daycare, and sand and gravel operations. Other allowable uses subject to a special permit are: conversion apartments, accessory apartments, family group day care, and group childcare centers.

As a practical matter, residential and other uses that require the construction of buildings and other significant structures within the TML Site would be limited due to the ICs in place at the Site to protect the remedy (the Easement Deed and Restrictive Covenants held by the State). Furthermore, as part of the settlement of the Troy Mills, Inc. (TMI) bankruptcy, the property has been abandoned, so there presently is no landowner to develop the property.

As indicated in the ROD, reasonably-anticipated future uses of the Site include passive and active recreational use. Reasonably-anticipated future uses of adjacent land and in surrounding areas include recreational and residential use. The future land use assumptions for the Site and surrounding areas are based on discussions with State and local officials. In July 2005, EPA prepared a Reuse Assessment for the Site that summarizes information on current and the potential future land uses at the Site that were known to EPA at that time.

The Town of Troy operates a public water supply system that serves the downtown Troy area and vicinity. Public water and sewer extend to residents on South Street for about 1,500 feet south of downtown and about 1/2 mile northeast of the Site. Troy's public water supply wells and the associated wellhead protection area are several miles north of the Site. A transient water supply well is located at the Meadowood Assembly Hall in Fitzwilliam, about a mile east of the Site. The nearest private drinking water wells are on South Street approximately ½ mile northeast of the Site.

NHDES has prepared a Groundwater Use and Value Determination and has determined that Site groundwater is classified as "medium," based primarily on the low yield of the underlying overburden and bedrock aquifers and the moderate likelihood of future drinking water use in the area. There is no current use of the groundwater at the Site and surrounding areas.

The potential future beneficial use of the groundwater at the Site and surrounding areas is for drinking water purposes assuming portions of the 270-acre property in vicinity of the Site are developed for residential use. The current use of the surface water at the Site and surrounding areas is recreational. Hikers, fishermen, hunters, birders, and other similar users access and travel along Rockwood Brook. In addition, Sand Dam Pond, a recreational area located approximately one mile north of the Site, receives surface water discharges from Rockwood Brook. From Sand Dam Pond, Rockwood Brook enters the South Branch of the Ashuelot River. The potential beneficial use of the surface water at the Site and surrounding areas is recreational. Rockwood Brook and the Ashuelot River are designated as Class B surface waters by NHDES. The Class B designation indicates surface waters that are "potentially of the second highest quality and are acceptable for swimming and other recreation, fish habitat and for use as a water supply following adequate treatment." There are no known drinking water intakes within 15 miles downstream of the Site. Evidence of fishing along Rockwood Brook, downstream of the Site, has been documented in the past.

History of Contamination

TMI disposed of hazardous substances that were generated at its acrylic fabric manufacturing facility in Troy between 1967 and 1978. An estimated 6,000 to 10,000 55-gallon drums of waste liquid and sludge containing mostly plasticizers such as DEHP and a petroleum-based solvent known as Varsol™ were disposed of on Site. Other drummed waste included pigments, surplus mixes, and tank residuals of vinyl resins, paint resins, and top coating products. Environmental investigations conducted throughout the 1980s and 1990s documented VOCs, sVOCs, and inorganic compounds in groundwater, leachate, surface soil, surface water, and sediment in and around the former drum disposal area.

Initial Response

During September 2003 the Site was listed on the NPL and a time-critical removal action was initiated. The first phase of the removal action included the installation of three LNAPL interceptor trenches to capture free product floating on the groundwater. The trenches consist of slotted rectangular concrete structures (4 feet high by 4 feet wide by 8 feet long) placed at the top of the water table. The downgradient sides of the trenches are covered with a geomembrane designed to limit the migration of LNAPL. The trenches were designed to capture LNAPL before it discharges along with groundwater along the western edge of the former drum disposal area. The LNAPL was recovered periodically via vacuum extraction or absorbed onto sorbent booms.

The second phase of the removal action, which was initiated in July 2004, involved the excavation of 7,692 buried drums, the removal of about 29,924 gallons of flammable liquid waste and about 3,099 cubic yards of sludge, and the excavation of about 26,244 tons of heavily contaminated soil, which were transported off Site for disposal at permitted facilities. Less contaminated residual soil, which met contaminant field screening levels developed by EPA in consultation with NHDES, were segregated from the soil and other materials to be disposed of off-Site and backfilled into the excavation. Post-excavation sampling and laboratory analyses conducted by EPA identified no residual soil with contaminant concentrations above NHDES soil screening criteria and confirmed that all soil with the potential to leach contaminants into groundwater had been effectively removed from the Site.

In summer 2005, EPA completed its removal action with the construction of a 2-foot-thick permeable soil cap over the excavation area to prevent direct contact risks to underlying residual contaminated soil. The permeable soil cap is constructed of a geotextile placed over the residual soil, a minimum of 18 inches of sand from a nearby sand quarry, and 6 inches of topsoil which was hydroseeded to establish a vegetative cover that protects the surface of the cap from erosion. In addition, several drainage structures were constructed (riprap drainage swales) to limit cap erosion due to surface runoff.

The NHDES and EPA entered into a Cooperative Agreement to implement the requirements of the 2005 ROD for the TML Site. NHDES serves as the lead State regulatory agency providing direct oversight of implementation of the long-term remedial action at the Site, which began in 2006. The long-term remedial action includes continued maintenance of the LNAPL interceptor trenches and permeable soil cap, implementation of an environmental monitoring program and the maintenance and enforcement of ICs.

Basis for Taking Action

In 2005 subsequent to the removal actions within the drum disposal area, EPA completed a RI at the Site. As part of the RI, EPA collected and analyzed surface water, sediment, and wetland soil samples from nearby Rockwood Brook and the surrounding wetland, referred to as the "Rockwood Brook Wetland Study Area." EPA also evaluated historical groundwater data, collected and analyzed air and soil samples from locations throughout the TML Site, and evaluated analytical data collected over the course of the drum removal action.

The baseline human health risk assessment completed as part of the RI indicated that future recreational users and near-Site residents potentially exposed to residual contaminants of concern (COCs) in groundwater, LNAPL-contaminated leachate, and wetland soil via ingestion or direct contact may present an unacceptable human health risk (e.g., cancer risk exceeding 1E-04 and non-cancer hazard index exceeding 1.0). As concluded in the RI and presented in the ROD, actual or threatened releases of residual hazardous substances from this Site, if not addressed, may present an imminent and substantial endangerment to public health or welfare.

The ROD-specified COCs for leachate included DEHP.

The ROD-specified COCs for wetland soil included Manganese.

The ROD-specified COCs for groundwater included:

- Trimethylbenzne
- 1,4-Dioxane
- 2-Butanone
- 4-lsopropylene
- Benzene
- cis-1,2-Dichloroethene
- n-Butylbenzene
- n-Propylbenzene
- Tetrachloroethene
- Tetrahydrofuran
- Toluene
- Trichloroethene
- Vinyl Chloride
- Benzo(a)pyrene
- Benzo(b)fluoranthene
- Bis (2-ethylhexyl) phthalate
- Dibenzo(a,h)anthracene
- Naphthalene
- Pentachlorophenol
- Arsenic
- Boron
- Manganese

The baseline ecological risk assessment completed as part of the RI concluded that there is negligible ecological risk to organisms within Rockwood Brook surface water, sediment, and wetlands at the TML Site.

The long-term remedial actions as specified in the ROD were implemented to address the risks identified through monitored natural attenuation (MNA) of groundwater contaminants; collection and off-Site disposal of LNAPL for source control; monitoring of groundwater, surface water, sediment, leachate, and wetland soil; maintaining the permeable soil cap over the former drum disposal area; and implementing appropriate ICs.

C. REMEDIAL ACTIONS

Remedy Selection

The selected remedy specified in the 2005 ROD included both source control and management of migration components to obtain a comprehensive remedy. The selected remedy incorporated components of the time-critical removal action completed by EPA in summer 2005 and additional remedial activities to address unacceptable levels of risk posed by Site COCs.

The source control remedial components of the selected remedy included:

- Removing all potential floating free product, LNAPL, before it can reach the nearby wetlands in a series of existing LNAPL interceptor trenches constructed by EPA in 2003 until LNAPL levels dissipate; and

- Maintaining the 2-foot-thick permeable soil cap constructed by EPA in 2005 to prevent potential contact with residual contaminated soil in the former drum disposal area. The permeable cap also allows precipitation to infiltrate through the cap and facilitate the cleanup of groundwater.

The management of migration remedial component of the selected remedy included:

- MNA of contaminated groundwater until groundwater cleanup levels are met.

Additional remedial components of the selected remedy included:

- Establishing ICs that restrict the use of contaminated groundwater for drinking water purposes until groundwater cleanup levels are achieved, restrict activities that would disturb the cap, prevent the disturbance of remedy components until they are no longer needed, and require notification of any changes in the use of the land;
- Implementing a comprehensive monitoring and sampling program to evaluate groundwater, surface water, leachate, sediment, and wetlands soil to ensure that natural attenuation processes are continuing as expected; and
- Since hazardous substances will remain at the Site, review of the remedy at least once every five years after the initiation of remedial action at the Site, as required by law.

Based on information relating to types of contaminants, environmental media of concern, and potential exposure pathways, response action objectives (RAOs) were developed to mitigate, restore, and/or prevent existing and future potential threats to human health and the environment. The RAOs for the selected remedy for the TML Site are:

- Prevent dermal contact exposure to LNAPL-contaminated leachate until the LNAPL has dissipated. The baseline human health risk assessment concluded that elevated levels of DEHP in LNAPL-contaminated leachate pose a potential cancer risk and non-cancer hazard to future adult and young child recreational users of the Site.
- Limit migration of groundwater contaminants beyond a designated New Hampshire Groundwater Management Zone (GMZ) to downgradient areas, and over time, restore Site groundwater to safe drinking water levels. In addition, prevent ingestion of Site groundwater until it has been restored to safe drinking water levels. The baseline human health risk assessment concluded that elevated levels of VOCs, SVOCs, and metals pose a cancer and non-cancer hazard to future adult and young child residential drinking water users. In addition, the human health risk assessment concluded that an elevated level of naturally-occurring manganese in natural soils released due to Site-related chemical processes and carried by the migration of contaminated groundwater to the adjacent wetlands poses a non-cancer hazard to future adult and young child recreational users.
- Implement EPA's presumptive capping remedy for landfill sites to continue to prevent direct contact with residual soils within the former drum disposal area, through the maintenance of the permeable soil cap installed as part of EPA's removal action. A risk assessment was not performed to quantitatively assess exposure risks from the residual soils as the soils are currently under a 2-foot soil cap and not available to exposure under

current or reasonably-anticipated future recreational land uses. Implementation of EPA's presumptive capping remedy will ensure that the cap is maintained to prevent potential future exposures.

ICLs were established in the 2005 ROD for groundwater and leachate for all COCs identified in the human health risk assessment found to pose an unacceptable risk to public health or were in exceedance of an applicable or relevant and appropriate requirement (ARAR). The ICLs were updated with the issuance of the Explanation of Significant Differences (ESD) on March 26, 2014. Refer to the table below for a summary of the COCs and the associated ICLs.

Table 13 Summary of Cleanup Levels Established in the 2005 ROD and Amended by the 2014 ESD

Contaminant of Concern	ROD ICLs (μg/L)	NH AGQS (μg/L)	ESD ICLs (μg/L)
Groundwater			
1,4 Dioxane	3	3	N/A
Benzene	5	5	N/A
Tetrachloroethene	5	5	N/A
Trichloroethene	5	5	N/A
Vinyl Chloride	2	2	N/A
Benzo(a)pyrene	0.2	0.2	N/A
benzo(b)fluoranthene	0.05	0.1	0.1
bis(2-Ethylhexyl)phthalate	6	-	N/A
Dibenzo(a,h)anthracene	0.01	0.1	0.1
Pentachlorophenol	1	1	N/A
1,2,4-Trimethylbenzene	50	330	330
1,3,5-Trimethylbenzene	50	330	330
2-Butanone	170	4,000	4,000
P-Isopropyltoluene	50	260	260
cis-1,2 Dichloroethene	70	70	N/A
n-Butylbenzene	50	260	260
n-Propylbenzene	50	260	260
Tetrahydrofuran	154	154	N/A
Toluene	1,000	1,000	N/A
Naphthalene	20	20	N/A
Arsenic	10	10	N/A
Boron	620	620	N/A
Manganese	300	840	N/A
Leachate			
Bis (2-Ethylhexyl) phthalate	40	N/A	N/A

Notes:
ROD ICLs = Interim Cleanup Levels found in the ROD
AGQS = New Hampshire Ambient Groundwater Quality Standards
μg/L = micrograms per liter
mg/kg = milligrams per kilogram
An ICL for manganese in wetland soil was not established in the ROD.

The primary expected outcome of the ROD selected remedy was that the entire 2-acre former drum disposal area within the TML Site and impacted downgradient areas within the 17.8 acre GMZ will no longer present an unacceptable risk to future recreational users and will be suitable for recreational use. In addition, approximately five years were estimated in the ROD as the amount of time necessary to achieve RAOs. Another expected outcome of the ROD selected remedy was that groundwater at the Site will not present an unacceptable risk to future nearby residents and will be suitable for consumption in approximately 30 years for some contaminants of concern. MNA modeling estimated 30 years as the amount of time necessary to achieve this outcome consistent with consumption of groundwater for drinking water purposes.

Remedy Implementation

The remedy identified in the ROD was divided into source control, management of migration, and IC components.

Source Control

With the completion of the removal action in 2005, all known drums have been removed from the TML Site. Removal and off-Site disposal of the drums, their contents, and heavily contaminated soils represents a significant source control accomplishment and was incorporated into the final remedy.

Additional source control measures were required to address potential human health risks posed by LNAPL and residual low-level contaminated soils remaining in the former drum disposal area. Maintenance of the permeable soil cap that was constructed by EPA in 2005 as part of the removal action was selected as the most effective alternative to address potential direct exposure risks to underlying residual contaminated soils. This alternative was selected because it effectively prevents potential direct exposure risks to underlying soils, makes use of a permeable soil cap that has already been constructed and thus easy to implement, and facilitates the MNA management of migration remedy for contaminated groundwater. Groundwater monitoring of the capped contamination will be required as long as contamination exceeding CERCLA risk levels remains in place.

Continued maintenance of the LNAPL interceptor trenches, installed by EPA in 2003, was selected because the trenches were effectively capturing LNAPL and, therefore, the source control effectively made use of components that were already available and thus easy to implement.

Between 2011 and 2013, phased supplemental LNAPL investigations were conducted to further delineate the LNAPL source area and aid the evaluation of potential focused remedial alternatives in the vicinity of the LNAPL interceptor trenches and former drum disposal area. It was recommended in the May 2013 Investigation Report prepared by GZA that trench decommissioning be performed. This work was largely completed by January 2014 with final Site restoration occurring during May 2014.

Monitored Natural Attenuation

MNA was selected because it provides, in combination with the completed source control actions, the cost-effective restoration of groundwater to drinking water standards, protects human health and the environment, complies with all ARARs, and will allow for the future use of groundwater for drinking water at the Site. This remedy will allow naturally occurring processes to continue reducing contaminant concentrations in groundwater. The 2005 ROD also required monitoring of groundwater, surface water, sediment, leachate, and wetlands soil to ensure the effectiveness of the remedy.

The key elements of the groundwater management of migration remedy:

- A network of monitoring wells will be included in the long-term groundwater monitoring program (refer to **Table 14** for well construction information and **Figure 2** for an illustration of well locations).
- Environmental monitoring will be performed in order to evaluate the progress and success of the groundwater remedy. Groundwater monitoring will consist of collecting samples from selected monitoring wells from areas both within and outside of contaminated groundwater areas. Groundwater samples will be analyzed for VOCs, SVOCs, 1,4-dioxane, metals, water quality parameters (i.e., alkalinity, chloride, nitrate, nitrite, ortho-phosphate, sulfate, and total organic carbon), and natural attenuation parameters (e.g., methane/ethane/ethane, carbon dioxide, and volatile fatty acids).

  Surface water, sediment, leachate, and wetland soil samples will also be collected from locations within Rockwood Brook and the adjacent wetland to evaluate the effect of contaminated groundwater discharge on Rockwood Brook and its wetland (refer to **Figure 1** for an illustration of sampling locations). Surface water samples will be analyzed for VOCs, SVOCs, metals, and water quality parameters. Leachate will be analyzed for VOCs, SVOCs, and metals. Sediment samples will be analyzed for VOCs, SVOCs, and metals. Wetland soil samples will be analyzed for SVOCs and metals. The approximate dimensions or area of sediment in Rockwood Brook or the wetland soil in the wetland where ground water discharges to surface water, will be delineated using field techniques to estimate extent of the resource areas affected.

  The frequency of groundwater, surface water, leachate, and wetland soil sampling is currently annually. Sediment samples have not been collected since 2009 due to flooding impacts from the downstream beaver dam.
- Environmental sampling of leachate mentioned above will be conducted on a periodic basis to evaluate contaminant concentrations. To confirm that LNAPL-related contaminants (primarily DEHP) continue to remain below PRGs for the leachate, periodic sampling and analysis of the leachate will be required.
- The wetland soil sampling mentioned above will be conducted primarily to determine if elevated levels of naturally-occurring manganese still persist in the wetland. Manganese is not a known contaminant attributable to wastes disposed of at the Site. However, manganese is often mobilized to groundwater from soils when a hydrostratigraphic unit is in a chemically reduced state due to the presence of organic carbon, either anthropogenic

or natural. As the wetland is the discharge point for the groundwater, the dissolved-phase manganese contacting the atmosphere is oxidized and precipitates out in the wetland, accounting for the higher concentration in that area. Manganese concentrations in wetland soils should diminish as organic contamination in groundwater decreases, and this expected trend will be confirmed through wetland soil sampling.

- Once groundwater and leachate concentrations dissipate below PRGs, final wetland monitoring activities will be conducted and will include an evaluation of the wetland (which may include conducting a wetland functions and values assessment; visual observation of stained soil, iron staining, and/or stressed vegetation, etc.), as appropriate, to determine if the wetlands have been impacted and to assess what, if any, mitigation efforts may be required to mitigate the impact to the wetlands.

Institutional Controls

The intent of Institutional Controls (ICs) is to minimize the possibility of exposure to residual contaminated media. An "Easement Deed and Restrictive Covenants" for the TML Site is held by the State and was recorded with the Registry of Deeds on January 28, 2010. The 2010 ICs at the TML Site included:

- Boundaries have been established for a GMZ pursuant to the New Hampshire Code of Administrative Rule Env-Or 607.05 (refer to **Figure 1** for an illustration of the GMZ for the TML Site). The extraction of any groundwater, injection of water into the ground or application of surface water in a manner that causes the migration of any contaminated groundwater in excess of the ICLs established under the ROD to a point beyond the applicable GMZ is prohibited;
- Activity and Use Restrictions (AUR) in the form of Restrictive Covenants held by the State have been established and prohibit the use of any portion of the area of the TML Site for residential use, childcare centers, playgrounds, athletic fields, or elementary or secondary schools. Digging, excavation, or construction within the AUR area is also prohibited unless approval is obtained from the NHDES with notification of the EPA; and
- In order to protect the integrity of the remedies at the TML Site, no action that impacts the integrity of the soil cap within the AUR shall be taken. Such prohibited activities include, but are not limited to, use of all ATVs or other similar vehicles, excavation, or other activities that lead to erosion or damage of the soil cap.

Refer to Section V. Issues/Recommendations and Follow-up Actions for recommendations for possible future expansion of these ICs.

System Operation/Operation and Maintenance

The first 10 years of Fund-financed operation of groundwater restoration measures are termed Long-Term Response Action (LTRA) activities (EPA 540-R-98-016, January 2000). After the initial 10-year period, the State funds the entire monitoring effort as operation and maintenance. See also Section 300.435(f)(3) of the NCP, 40 CFR § 300.435(f)(3). Several LTRA tasks are required at the TML Site to preserve the integrity of the remedies. In addition to the maintenance activities listed above in **Section II. Progress Since The Last Review** (System O&M Activities), the LTRA tasks include:

- Inspection and maintenance of the soil cap. Inspections are conducted to verify the following activities:
  - Maintaining the vegetative growth and soil cover through annual reseeding, fertilizing, and mowing, as necessary;
  - Repairing the soil cover if settlement occurs;
  - Assessing that land use activities do not cause impacts to the cover materials;
  - Maintaining the gates and any perimeter Site fencing; and
  - Miscellaneous maintenance and inspection.
- Inspection and maintenance of the monitoring well network. Inspections are conducted to verify the following activities:
  - Maintenance or replacement of monitoring well locks;
  - Replacement of monitoring well protective casings or surface seals if damaged;
  - Redevelopment of monitoring wells if sediment accumulates in well; and
  - Replacement of damaged dedicated sampling equipment.
- Sampling and analysis of groundwater, surface water, sediment, wetland soil and leachate.

O&M costs for the last five years since October 2010 have totaled $882,600 for an average cost of $176,520 per year.

APPENDIX B

COMMUNITY NOTIFICATION

Advanced Search

EPA Will Review 24 Hazardous Site Cleanups during 2015

Release Date: 01/05/2015
Contact Information: Emily Bender, 617-918-1037

EPA will review site clean ups and remedies at 20 Superfund Sites and oversee reviews at 4 Federal Facilities across New England this year by doing scheduled Five-Year Reviews at each site.

EPA conducts evaluations every five years on previously-completed clean up and remediation work performed at Superfun sites and Federal Facilities listed on the "National Priorities List" (aka Superfund sites) to determine whether the implemented remedies at the sites continue to be protective of human health and the environment. Further, five year reviev evaluations identify any deficiencies to the previous work and, if called for, recommend action(s) necessary to address ther

The Superfund Sites where EPA will begin Five Year Reviews in FY' 2015 (October 1, 2014 through September 30, 2015) are below. Please note, the Web link provided after each site provides detailed information on the site status and past assessment and cleanup activity. The web link also provides contact information for the EPA Project Manager and Community Involvement Coordinator at each site. Community members and local officials are invited to contact EPA with any comments or current concerns about a Superfund Site or about the conclusions of the previous Five Year Review.

The Superfund Sites at which EPA is performing Five Year Reviews over the following several months include the following sites.

Connecticut
Durham Meadows, Durham
http://www.epa.gov/region1/superfund/sites/durham

Old Southington Landfill, Southington
http://www.epa.gov/region1/superfund/sites/oldsouthington

Raymark Industries, Stratford
http://www.epa.gov/region1/superfund/sites/raymark

Solvents Recovery Services of New England, Southington
http://www.epa.gov/region1/superfund/sites/srs

Maine

Brunswick Naval Air Station (Federal Facility), Brunswick
http://www.epa.gov/region1/superfund/sites/brunswick

Callahan Mining Corp., Brooksville
http://www.epa.gov/region1/superfund/sites/callahan

Eastland Woolen Mill, Corinna
http://www.epa.gov/region1/superfund/sites/eastland

Loring Air Force Base (Federal Facility), Limestone
http://www.epa.gov/region1/superfund/sites/loring

Pinette's Salvage Yard, Washburn
http://www.epa.gov/region1/superfund/sites/pinette

Saco Municipal Landfill, Saco
http://www.epa.gov/region1/superfund/sites/sacolandfill

Massachusetts

Atlas Tack Corp., Fairhaven
http://www.epa.gov/region1/superfund/sites/atlas

Cannon Engineering Corp., Bridgewater
http://www.epa.gov/region1/superfund/sites/cannon

Charles-George Reclamation Trust Landfill, Tyngsborough
http://www.epa.gov/region1/superfund/sites/charlesgeorge

Fort Devens (Federal Facility), Ayer, Harvard, Lancaster & Shirley
http://www.epa.gov/region1/superfund/sites/devens

Groveland Wells No. 1 & 2 Site, Groveland
http://www.epa.gov/region1/superfund/sites/groveland

Materials Technology Laboratory (US ARMY, Federal Facility), Watertown
http://www.epa.gov/region1/superfund/sites/amtl

New Bedford Harbor, New Bedford
www.epa.gov/nbh

PSC Resources, Palmer
http://www.epa.gov/region1/superfund/sites/psc

New Hampshire

Somersworth Sanitary Landfill, Somersworth
http://www.epa.gov/region1/superfund/sites/somersworth

South Municipal Water Supply Well (Five Year Review Addendum), Peterborough
http://www.epa.gov/region1/superfund/sites/southmuni

Troy Mills Landfill, Troy
http://www.epa.gov/region1/superfund/sites/troymills

Rhode Island

Stamina Mills Inc., North Smithfield
http://www.epa.gov/region1/superfund/sites/stamina

West Kingston Town Dump/URI Disposal Area, South Kingstown
http://www.epa.gov/region1/superfund/sites/wkingston

Vermont

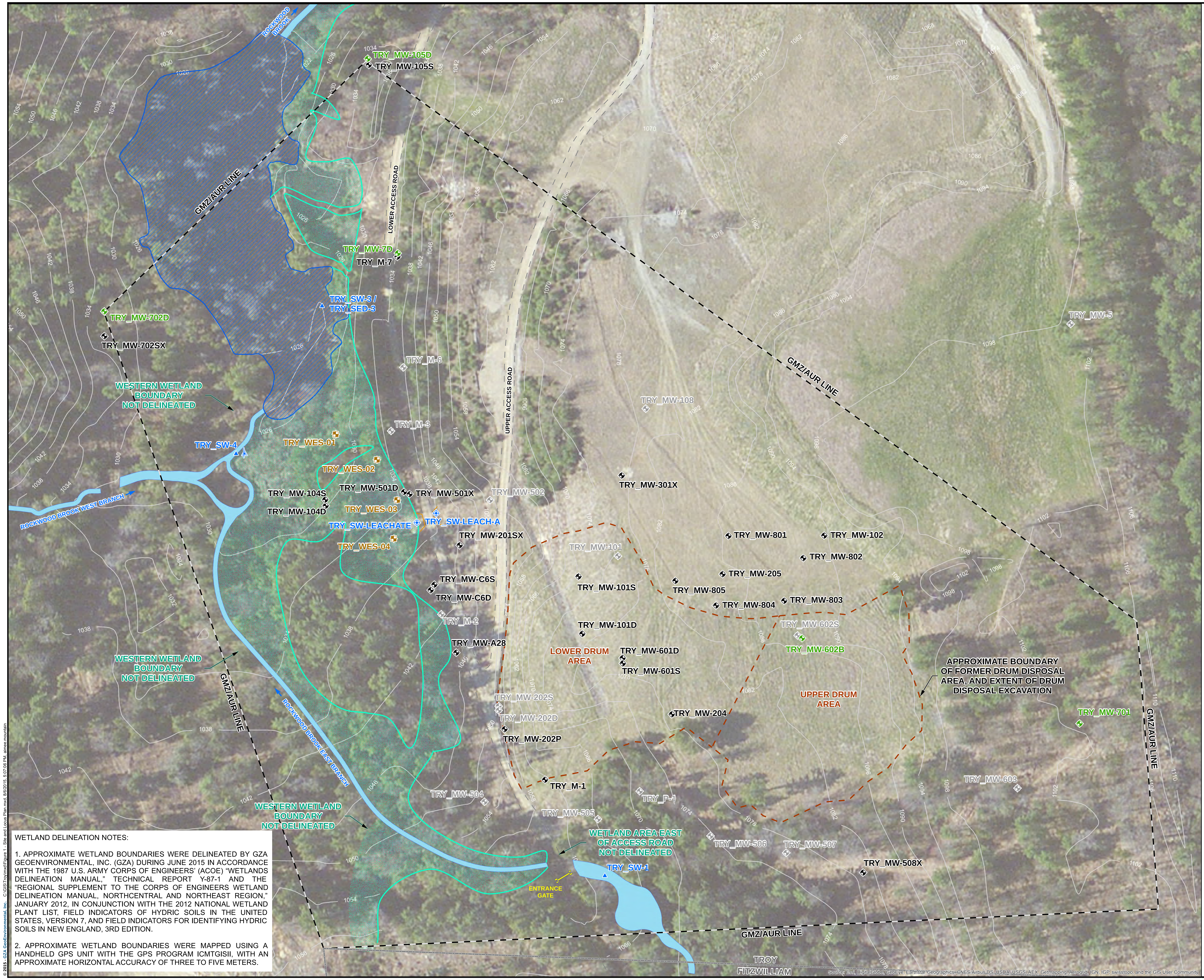
Burgess Brothers Landfill, Woodford and Bennington
http://www.epa.gov/region1/superfund/sites/burgess

Receive our News Releases Automatically by Email

Last updated on 4/23/2015

APPENDIX C

FIGURES

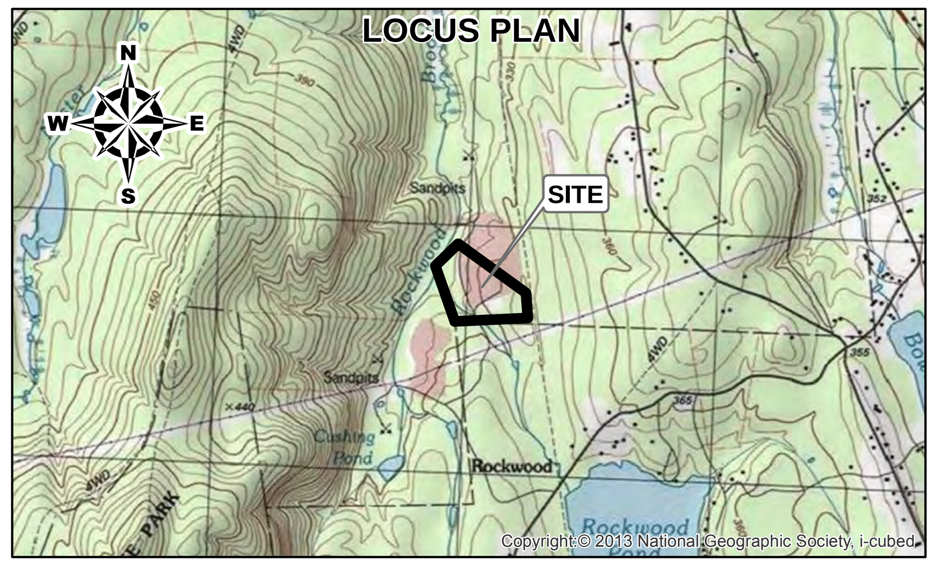


WETLAND DELINEATION NOTES:

1. APPROXIMATE WETLAND BOUNDARIES WERE DELINEATED BY GZA GEOENVIRONMENTAL, INC. (GZA) DURING JUNE 2015 IN ACCORDANCE WITH THE 1987 U.S. ARMY CORPS OF ENGINEERS' (ACOE) "WETLANDS DELINEATION MANUAL," TECHNICAL REPORT Y-87-1 AND THE "REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL, NORTHCENTRAL AND NORTHEAST REGION," JANUARY 2012, IN CONJUNCTION WITH THE 2012 NATIONAL WETLAND PLANT LIST, FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 7, AND FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, 3RD EDITION.

2. APPROXIMATE WETLAND BOUNDARIES WERE MAPPED USING A HANDHELD GPS UNIT WITH THE GPS PROGRAM ICMTGISII, WITH AN APPROXIMATE HORIZONTAL ACCURACY OF THREE TO FIVE METERS.

LOCUS PLAN



0 1,000 2,000 4,000 6,000
GRAPHIC SCALE IN FEET

LEGEND:

MW-701	BEDROCK MONITORING WELL
MW-601	OVERBURDEN MONITORING WELL
WES-01	WETLAND SOIL SAMPLE LOCATION
SW-1	SURFACE WATER AND/OR SEDIMENT SAMPLE LOCATION
SW-LEACH-A	LEACHATE SAMPLE LOCATION
	PERMANENTLY INSTALLED STAFF GAUGE
MW-507	DECOMMISSIONED WELL AS OF 2015
	STREAM FLOW DIRECTION
	CONTOURS
	APPROXIMATE LOCATION OF FORMER DRUM DISPOSAL AREA
	APPROXIMATE WETLAND BOUNDARY
	CULVERT
	ENTRANCE GATE
	GMZ/AUR
	GRAVEL ACCESS ROAD
	TOWN LINE
	APPROXIMATE EXTENT OF PONDING
	APPROXIMATE WETLAND AREA
	SURFACE WATER

NOTES:
1. BASE PLAN IS FROM NHDES GPS DATA POINTS TAKEN ON SEPTEMBER 29, 2011.

2. THE GROUNDWATER MANAGEMENT ZONE (GMZ)/ACTIVITY AND USE RESTRICTION (AUR) LINE IS FROM "GROUNDWATER MANAGEMENT ZONE & ACTIVITY AND USE RESTRICTION PLAN, TROY MILLS LANDFILL, TROY, NEW HAMPSHIRE", PREPARED BY TF MORAN, INC., DATED DECEMBER 18, 2006, REVISED JANUARY 17, 2007 AND MARCH 19, 2007.

3. A SURVEY OF THE SITE WELLS WAS CONDUCTED DURING FEBRUARY 2005 BY CONKLIN & SOROKA OF CHESHIRE, CONNECTICUT. THE BENCHMARK POINT USED FOR THIS SURVEY WAS MONITORING WELL TRY_M-3; ITS ELEVATION WAS ESTABLISHED AS 1037.65 (PVC) ACCORDING TO THE PLAN TITLED "TOPOGRAPHIC SURVEY DEPICTING MONITORING WELL LOCATIONS, LAND OF TROY MILLS LANDFILL." THE HORIZONTAL DATUM USED TO IDENTIFY SITE MONITORING WELLS IS NAD 83/96 PER NHDOT BASE STATION, FOLLOWING THE NEW HAMPSHIRE STATE PLANE PROJECTION, IN UNITS OF U.S. SURVEY FEET.

N W E S

0 25 50 100 150
GRAPHIC SCALE IN FEET

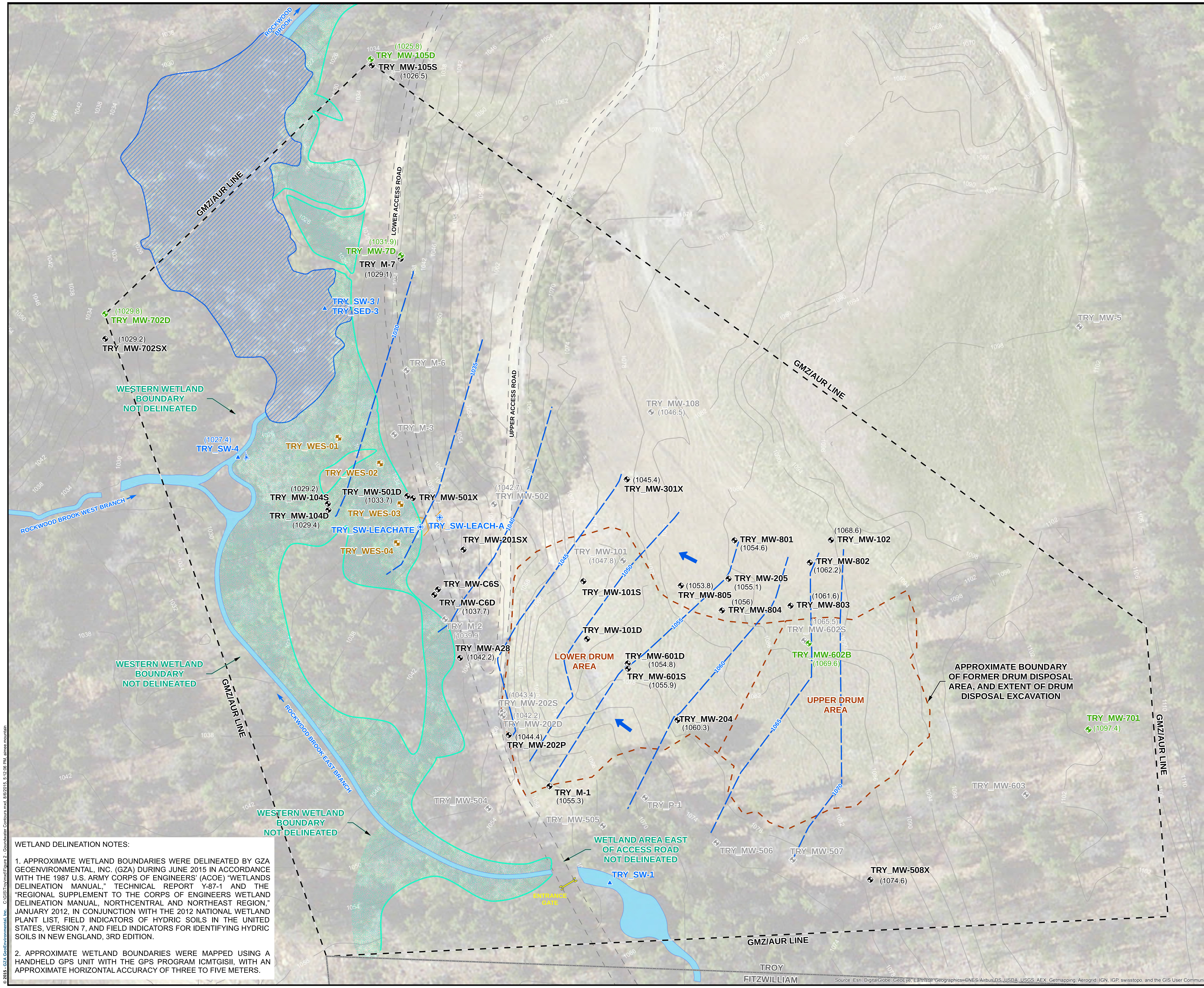
TROY MILLS LANDFILL
SUPERFUND SITE
TROY, NEW HAMPSHIRE

LOCUS AND SITE EXPLORATION PLAN

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com

PREPARED FOR: NHDES/EPA

PROJ MGR: ATD	REVIEWED BY: SRL	CHECKED BY: MAM	FIGURE 1
DESIGNED BY: TPJ	DRAWN BY: ADM	SCALE: 1 in = 50 ft	
DATE: AUGUST 2015	PROJECT NO. 04.0029395.37	REVISION NO.	



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2. APPROXIMATE WETLAND BOUNDARIES WERE MAPPED USING A HANDHELD GPS UNIT WITH THE GPS PROGRAM ICMTGISII, WITH AN APPROXIMATE HORIZONTAL ACCURACY OF THREE TO FIVE METERS.

NOTES:

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4. GROUNDWATER ELEVATIONS WERE CALCULATED FROM THE DATA COLLECTED DURING THE NOVEMBER 2014 GROUNDWATER LEVEL MEASUREMENT ROUND.

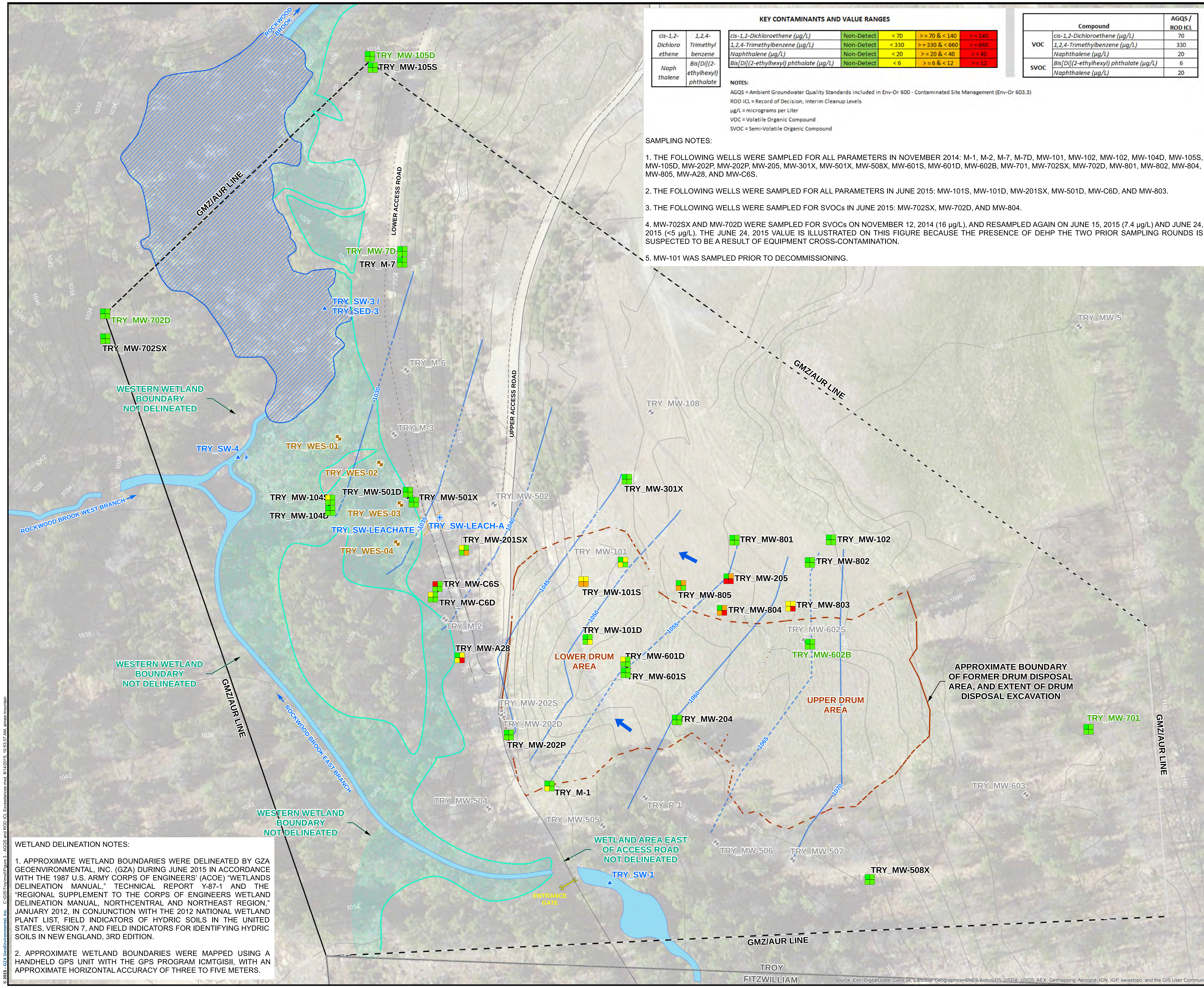
LEGEND:

MW-701	BEDROCK MONITORING WELL
MW-601	OVERBURDEN MONITORING WELL
WES-01	WETLAND SOIL SAMPLE LOCATION
SW-1	SURFACE WATER AND/OR SEDIMENT SAMPLE LOCATION
SW-LEACH-A	LEACHATE SAMPLE LOCATION
	PERMANENTLY INSTALLED STAFF GAUGE
MW-507	DECOMMISSIONED WELL AS OF 2015
	STREAM FLOW DIRECTION
(1061.6)	CALCULATED GROUNDWATER ELEVATION
	ESTIMATED OVERBURDEN GROUNDWATER ELEVATION CONTOURS
	ESTIMATED BULK GROUNDWATER FLOW DIRECTION
	CONTOURS
	APPROXIMATE LOCATION OF FORMER DRUM DISPOSAL AREA
	APPROXIMATE WETLAND BOUNDARY
	CULVERT
	ENTRANCE GATE
	GMZ/AUR
	GRAVEL ACCESS ROAD
	TOWN LINE
	APPROXIMATE EXTENT OF PONDING
	APPROXIMATE WETLAND AREA
	SURFACE WATER

TROY MILLS LANDFILL
SUPERFUND SITE
TROY, NEW HAMPSHIRE

OVERBURDEN GROUNDWATER ELEVATIONS AND POTENTIOMETRIC SURFACES (2014)

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: NHDES/EPA	
PROJ MGR: ATD	REVIEWED BY: SRL	CHECKED BY: MAM	FIGURE
DESIGNED BY: TPJ	DRAWN BY: ADM	SCALE: 1 in = 50 ft	2
DATE: AUGUST 2015	PROJECT NO. 04.0029395.37	REVISION NO.	



KEY CONTAMINANTS AND VALUE RANGES

cis-1,2-Dichloroethene	1,2,4-Trimethylbenzene
Naphthalene	Bis[Di](2-ethylhexyl) phthalate

cis-1,2-Dichloroethene (µg/L)	Non-Detect	< 70	>= 70 & < 140	>= 140
1,2,4-Trimethylbenzene (µg/L)	Non-Detect	< 330	>= 330 & < 660	>= 660
Naphthalene (µg/L)	Non-Detect	< 20	>= 20 & < 40	>= 40
Bis[Di](2-ethylhexyl) phthalate (µg/L)	Non-Detect	< 6	>= 6 & < 12	>= 12

	Compound	AGQS / ROD ICL
VOC	cis-1,2-Dichloroethene (µg/L)	70
	1,2,4-Trimethylbenzene (µg/L)	330
	Naphthalene (µg/L)	20
SVOC	Bis[Di](2-ethylhexyl) phthalate (µg/L)	6
	Naphthalene (µg/L)	20

NOTES:

AGQS = Ambient Groundwater Quality Standards included in Env-Or 600 - Contaminated Site Management (Env-Or 603.3)

ROD ICL = Record of Decision, Interim Cleanup Levels

µg/L = micrograms per Liter

VOC = Volatile Organic Compound

SVOC = Semi-Volatile Organic Compound

SAMPLING NOTES:

1. THE FOLLOWING WELLS WERE SAMPLED FOR ALL PARAMETERS IN NOVEMBER 2014: M-1, M-2, M-7, M-7D, MW-101, MW-102, MW-102, MW-104D, MW-105S, MW-105D, MW-202P, MW-202P, MW-205, MW-301X, MW-501X, MW-508X, MW-601S, MW-601D, MW-602B, MW-701, MW-702SX, MW-702D, MW-801, MW-802, MW-804, MW-805, MW-A28, AND MW-C6S.

2. THE FOLLOWING WELLS WERE SAMPLED FOR ALL PARAMETERS IN JUNE 2015: MW-101S, MW-101D, MW-201SX, MW-501D, MW-C6D, AND MW-803.

3. THE FOLLOWING WELLS WERE SAMPLED FOR SVOCs IN JUNE 2015: MW-702SX, MW-702D, AND MW-804.

4. MW-702SX AND MW-702D WERE SAMPLED FOR SVOCs ON NOVEMBER 12, 2014 (16 µg/L), AND RESAMPLED AGAIN ON JUNE 15, 2015 (7.4 µg/L) AND JUNE 24, 2015 (<5 µg/L). THE JUNE 24, 2015 VALUE IS ILLUSTRATED ON THIS FIGURE BECAUSE THE PRESENCE OF DEHP THE TWO PRIOR SAMPLING ROUNDS IS SUSPECTED TO BE A RESULT OF EQUIPMENT CROSS-CONTAMINATION.

5. MW-101 WAS SAMPLED PRIOR TO DECOMMISSIONING.

WETLAND DELINEATION NOTES:

1. APPROXIMATE WETLAND BOUNDARIES WERE DELINEATED BY GZA GEOENVIRONMENTAL, INC. (GZA) DURING JUNE 2015 IN ACCORDANCE WITH THE 1987 U.S. ARMY CORPS OF ENGINEERS' (ACOE) "WETLANDS DELINEATION MANUAL," TECHNICAL REPORT Y-87-1 AND THE "REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION," JANUARY 2012, IN CONJUNCTION WITH THE 2012 NATIONAL WETLAND PLANT LIST, FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 7, AND FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, 3RD EDITION.

2. APPROXIMATE WETLAND BOUNDARIES WERE MAPPED USING A HANDHELD GPS UNIT WITH THE GPS PROGRAM ICMTGISII, WITH AN APPROXIMATE HORIZONTAL ACCURACY OF THREE TO FIVE METERS.

NOTES:

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4. GROUNDWATER ELEVATIONS WERE CALCULATED FROM THE DATA COLLECTED DURING THE NOVEMBER 2014 GROUNDWATER LEVEL MEASUREMENT ROUND.

LEGEND:

- MW-701 — BEDROCK MONITORING WELL
- MW-601 — OVERBURDEN MONITORING WELL
- WES-01 — WETLAND SOIL SAMPLE LOCATION
- SW-1 — SURFACE WATER AND/OR SEDIMENT SAMPLE LOCATION
- SW-LEACH-A — LEACHATE SAMPLE LOCATION
- PERMANENTLY INSTALLED STAFF GAUGE
- MW-507 — DECOMMISSIONED WELL AS OF 2015
- STREAM FLOW DIRECTION
- ESTIMATED OVERBURDEN GROUNDWATER ELEVATION CONTOURS
- ESTIMATED BULK GROUNDWATER FLOW DIRECTION
- CONTOURS
- APPROXIMATE LOCATION OF FORMER DRUM DISPOSAL AREA
- APPROXIMATE WETLAND BOUNDARY
- CULVERT
- ENTRANCE GATE
- GMZ/AUR
- GRAVEL ACCESS ROAD
- TOWN LINE
- APPROXIMATE EXTENT OF PONDING
- APPROXIMATE WETLAND AREA
- SURFACE WATER

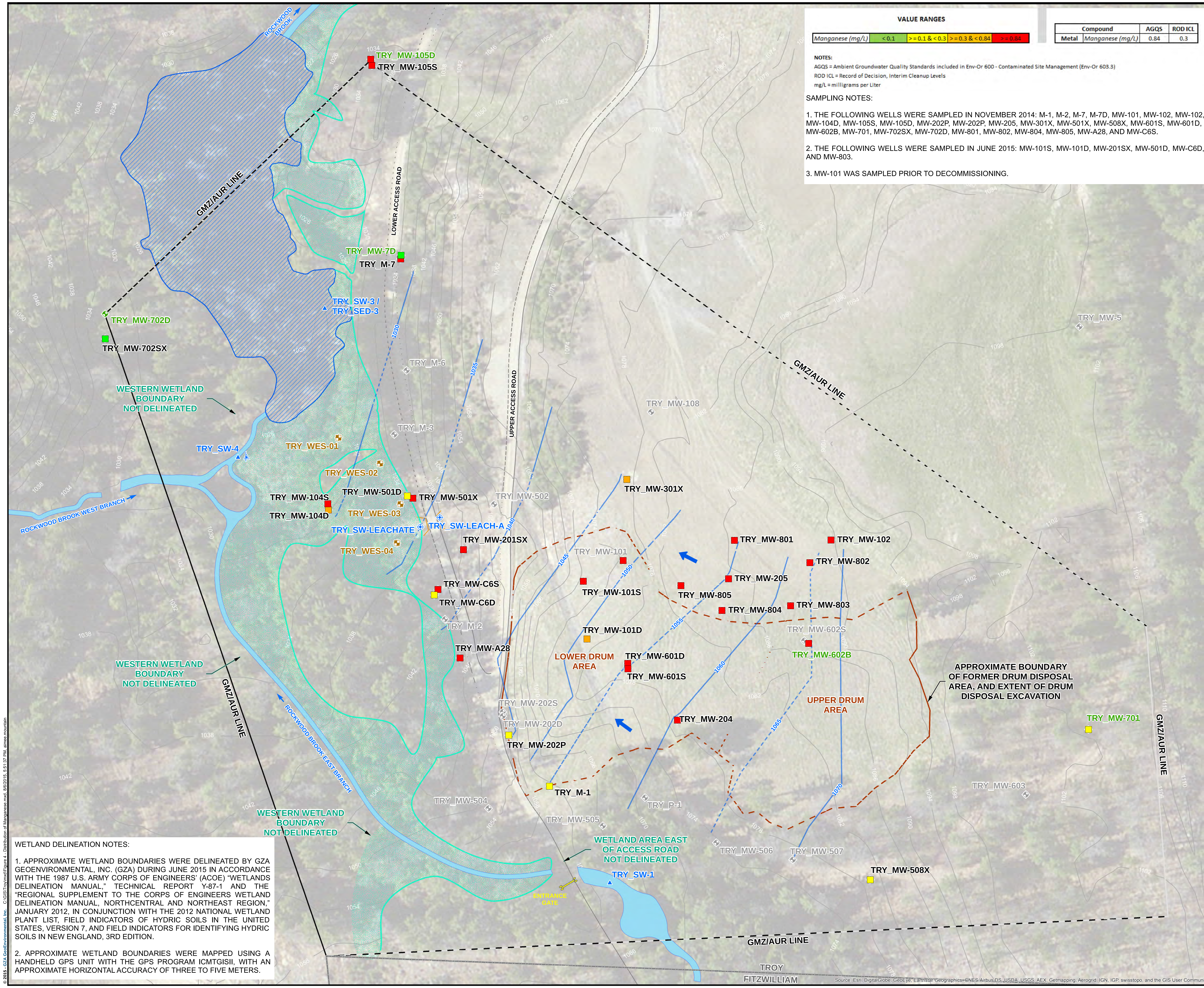
N W E S

0 25 50 100 150
GRAPHIC SCALE IN FEET

TROY MILLS LANDFILL
SUPERFUND SITE
TROY, NEW HAMPSHIRE

GROUNDWATER VOC/SVOC
KEY CONTAMINANT RESULT SUMMARY (2014/2015)

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: NHDES/EPA	
PROJ MGR: ATD	REVIEWED BY: SRL	CHECKED BY: MAM	FIGURE 3
DESIGNED BY: TPJ	DRAWN BY: ADM	SCALE: 1 in = 50 ft	
DATE: AUGUST 2015	PROJECT NO. 04.0029395.37	REVISION NO.	



VALUE RANGES

Manganese (mg/L)	< 0.1	>= 0.1 & < 0.3	>= 0.3 & < 0.84	>= 0.84

Compound		AGQS	ROD ICL
Metal	Manganese (mg/L)	0.84	0.3

NOTES:

AGQS = Ambient Groundwater Quality Standards included in Env-Or 600 - Contaminated Site Management (Env-Or 603.3)

ROD ICL = Record of Decision, Interim Cleanup Levels

mg/L = milligrams per Liter

SAMPLING NOTES:

1. THE FOLLOWING WELLS WERE SAMPLED IN NOVEMBER 2014: M-1, M-2, M-7, M-7D, MW-101, MW-102, MW-102, MW-104D, MW-105S, MW-105D, MW-202P, MW-202P, MW-205, MW-301X, MW-501X, MW-508X, MW-601S, MW-601D, MW-602B, MW-701, MW-702SX, MW-702D, MW-801, MW-802, MW-804, MW-805, MW-A28, AND MW-C6S.

2. THE FOLLOWING WELLS WERE SAMPLED IN JUNE 2015: MW-101S, MW-101D, MW-201SX, MW-501D, MW-C6D, AND MW-803.

3. MW-101 WAS SAMPLED PRIOR TO DECOMMISSIONING.

WETLAND DELINEATION NOTES:

1. APPROXIMATE WETLAND BOUNDARIES WERE DELINEATED BY GZA GEOENVIRONMENTAL, INC. (GZA) DURING JUNE 2015 IN ACCORDANCE WITH THE 1987 U.S. ARMY CORPS OF ENGINEERS' (ACOE) "WETLANDS DELINEATION MANUAL," TECHNICAL REPORT Y-87-1 AND THE "REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL, NORTHCENTRAL AND NORTHEAST REGION," JANUARY 2012, IN CONJUNCTION WITH THE 2012 NATIONAL WETLAND PLANT LIST, FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 7, AND FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, 3RD EDITION.

2. APPROXIMATE WETLAND BOUNDARIES WERE MAPPED USING A HANDHELD GPS UNIT WITH THE GPS PROGRAM ICMTGISII, WITH AN APPROXIMATE HORIZONTAL ACCURACY OF THREE TO FIVE METERS.

NOTES:

1. BASE PLAN IS FROM NHDES GPS DATA POINTS TAKEN ON SEPTEMBER 29, 2011.

2. THE GROUNDWATER MANAGEMENT ZONE (GMZ)/ACTIVITY AND USE RESTRICTION (AUR) LINE IS FROM "GROUNDWATER MANAGEMENT ZONE & ACTIVITY AND USE RESTRICTION PLAN, TROY MILLS LANDFILL, TROY, NEW HAMPSHIRE", PREPARED BY TF MORAN, INC., DATED DECEMBER 18, 2006, REVISED JANUARY 17, 2007 AND MARCH 19, 2007.

3. A SURVEY OF THE SITE WELLS WAS CONDUCTED DURING FEBRUARY 2005 BY CONKLIN & SOROKA OF CHESHIRE, CONNECTICUT. THE BENCHMARK POINT USED FOR THIS SURVEY WAS MONITORING WELL TRY_M-3; ITS ELEVATION WAS ESTABLISHED AS 1037.65 (PVC) ACCORDING TO THE PLAN TITLED "TOPOGRAPHIC SURVEY DEPICTING MONITORING WELL LOCATIONS, LAND OF TROY MILLS LANDFILL." THE HORIZONTAL DATUM USED TO IDENTIFY SITE MONITORING WELLS IS NAD 83/96 PER NHDOT BASE STATION, FOLLOWING THE NEW HAMPSHIRE STATE PLANE PROJECTION, IN UNITS OF U.S. SURVEY FEET.

4. GROUNDWATER ELEVATIONS WERE CALCULATED FROM THE DATA COLLECTED DURING THE NOVEMBER 2014 GROUNDWATER LEVEL MEASUREMENT ROUND.

LEGEND:

- MW-701 BEDROCK MONITORING WELL
- MW-601 OVERBURDEN MONITORING WELL
- WES-01 WETLAND SOIL SAMPLE LOCATION
- SW-1 SURFACE WATER AND/OR SEDIMENT SAMPLE LOCATION
- SW-LEACH-A LEACHATE SAMPLE LOCATION
- PERMANENTLY INSTALLED STAFF GAUGE
- MW-507 DECOMMISSIONED WELL AS OF 2015
- STREAM FLOW DIRECTION
- ESTIMATED OVERBURDEN GROUNDWATER ELEVATION CONTOURS
- ESTIMATED BULK GROUNDWATER FLOW DIRECTION
- CONTOURS
- APPROXIMATE LOCATION OF FORMER DRUM DISPOSAL AREA
- APPROXIMATE WETLAND BOUNDARY
- CULVERT
- ENTRANCE GATE
- GMZ/AUR
- GRAVEL ACCESS ROAD
- TOWN LINE
- APPROXIMATE EXTENT OF PONDING
- APPROXIMATE WETLAND AREA
- SURFACE WATER

N W E S

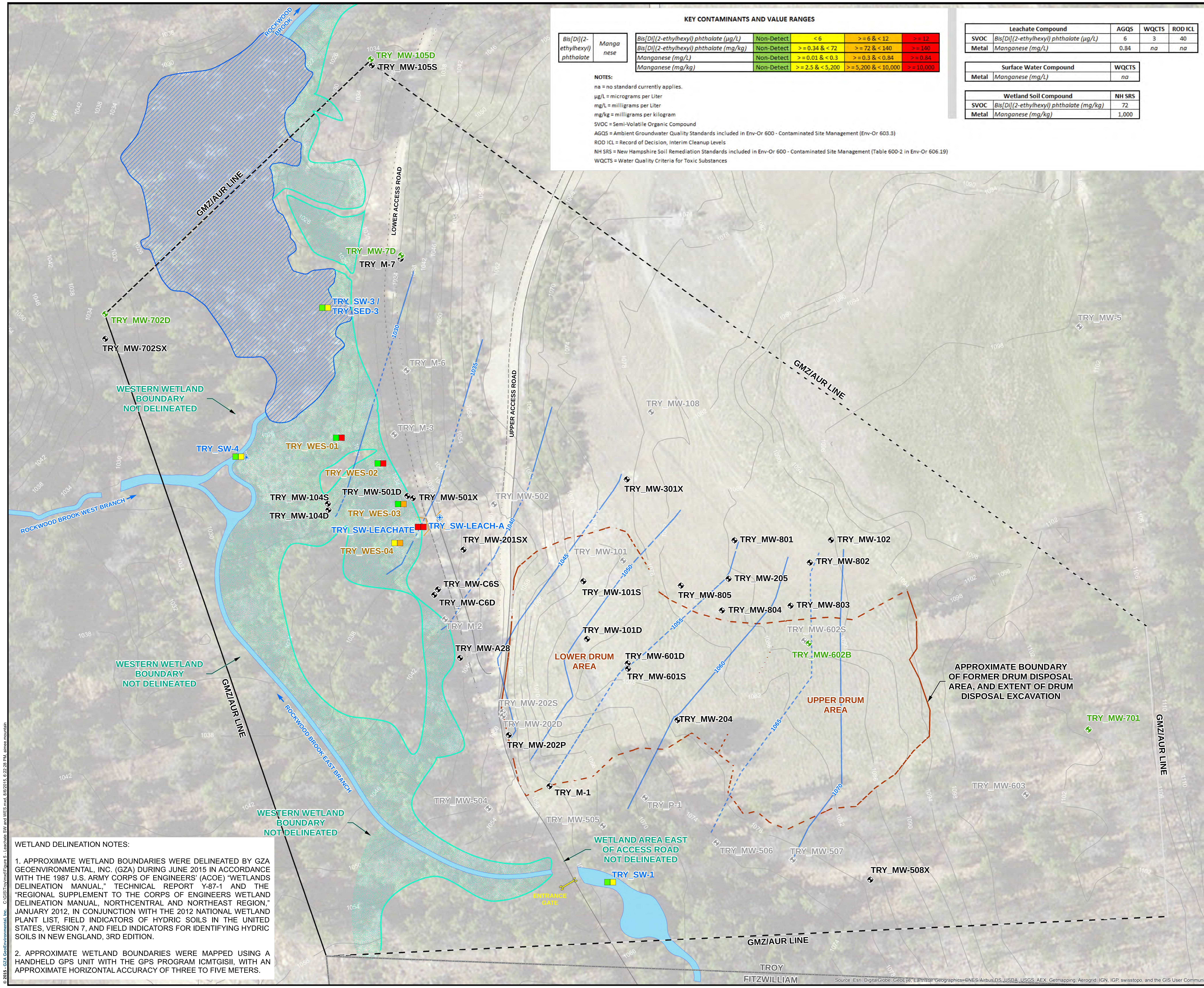
0 25 50 100 150

GRAPHIC SCALE IN FEET

TROY MILLS LANDFILL
SUPERFUND SITE
TROY, NEW HAMPSHIRE

GROUNDWATER MANGANESE
KEY CONTAMINANT RESULT SUMMARY (2014/2015)

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: NHDES/EPA	
PROJ MGR: ATD	REVIEWED BY: SRL	CHECKED BY: MAM	FIGURE 4
DESIGNED BY: TPJ	DRAWN BY: ADM	SCALE: 1 in = 50 ft	
DATE: AUGUST 2015	PROJECT NO. 04.0029395.37	REVISION NO.	



KEY CONTAMINANTS AND VALUE RANGES

Bis[Di](2-ethylhexyl) phthalate	Manganese

Bis[Di](2-ethylhexyl) phthalate (µg/L)	Non-Detect	< 6	> = 6 & < 12	> = 12
Bis[Di](2-ethylhexyl) phthalate (mg/kg)	Non-Detect	> = 0.34 & < 72	> = 72 & < 140	> = 140
Manganese (mg/L)	Non-Detect	> = 0.01 & < 0.3	> = 0.3 & < 0.84	> = 0.84
Manganese (mg/kg)	Non-Detect	> = 2.5 & < 5,200	> = 5,200 & < 10,000	> = 10,000

NOTES:

na = no standard currently applies.
µg/L = micrograms per Liter
mg/L = milligrams per Liter
mg/kg = milligrams per kilogram
SVOC = Semi-Volatile Organic Compound
AGQS = Ambient Groundwater Quality Standards included in Env-Or 600 - Contaminated Site Management (Env-Or 603.3)
ROD ICL = Record of Decision, Interim Cleanup Levels
NH SRS = New Hampshire Soil Remediation Standards included in Env-Or 600 - Contaminated Site Management (Table 600-2 in Env-Or 606.19)
WQCTS = Water Quality Criteria for Toxic Substances

Leachate Compound		AGQS	WQCTS	ROD ICL
SVOC	Bis[Di](2-ethylhexyl) phthalate (µg/L)	6	3	40
Metal	Manganese (mg/L)	0.84	na	na

Surface Water Compound		WQCTS
Metal	Manganese (mg/L)	na

Wetland Soil Compound		NH SRS
SVOC	Bis[Di](2-ethylhexyl) phthalate (mg/kg)	72
Metal	Manganese (mg/kg)	1,000

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2. APPROXIMATE WETLAND BOUNDARIES WERE MAPPED USING A HANDHELD GPS UNIT WITH THE GPS PROGRAM ICMTGISII, WITH AN APPROXIMATE HORIZONTAL ACCURACY OF THREE TO FIVE METERS.

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

NOTES:

1. BASE PLAN IS FROM NHDES GPS DATA POINTS TAKEN ON SEPTEMBER 29, 2011.

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4. THE FOLLOWING LOCATIONS WERE SAMPLED IN NOVEMBER 2014: SW-1, SW-3, SW-4, SW-LEACHATE, WES-01, WES-02, WES-03, AND WES-04.

LEGEND:

- MW-701 — BEDROCK MONITORING WELL
- MW-601 — OVERBURDEN MONITORING WELL
- WES-01 — WETLAND SOIL SAMPLE LOCATION
- SW-1 — SURFACE WATER AND/OR SEDIMENT SAMPLE LOCATION
- SW-LEACH-A — LEACHATE SAMPLE LOCATION
- PERMANENTLY INSTALLED STAFF GAUGE
- MW-507 — DECOMMISSIONED WELL AS OF 2015
- STREAM FLOW DIRECTION
- ESTIMATED OVERBURDEN GROUNDWATER ELEVATION CONTOURS
- CONTOURS
- APPROXIMATE LOCATION OF FORMER DRUM DISPOSAL AREA
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- ENTRANCE GATE
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- GRAVEL ACCESS ROAD
- TOWN LINE
- APPROXIMATE EXTENT OF PONDING
- APPROXIMATE WETLAND AREA
- SURFACE WATER

N S W E

0 25 50 100 150
GRAPHIC SCALE IN FEET

TROY MILLS LANDFILL
SUPERFUND SITE
TROY, NEW HAMPSHIRE

KEY CONTAMINANTS WITHIN SURFACE WATER, LEACHATE AND WETLAND SOILS (2014)

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com

PREPARED FOR: NHDES/EPA

PROJ MGR: ATD	REVIEWED BY: SRL	CHECKED BY: MAM	FIGURE 5
DESIGNED BY: TPJ	DRAWN BY: ADM	SCALE: 1 in = 50 ft	
DATE: AUGUST 2015	PROJECT NO. 04.0029395.37	REVISION NO.	

APPENDIX D

TABLES

TABLE 3A - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID / Geological Unit of Well Screen / Sampling Event Date	NH AGQS	ROD ICL	TRY_M-1 Overburden				TRY_M-2 Overburden												
			Jun-11	Jun-13	Nov-14	Jun-15	Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Oct-09	Jun-11	Jun-13	Nov-14	Jun-15
VOCs of Concern (µg/L)																			
Tetrachloroethene	5	5	<2.0	ns	<2.0	ns	<2	<1.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	DE
Trichloroethene	5	5	<2.0	ns	<2.0	ns	<2	<1.0	ns	<2.0	**3.2**	<2.0	**2.2**	<2.0	<2.0	<2.0	<2.0	ns	DE
cis-1,2-Dichloroethene	70	70	<2.0	ns	<2.0	ns	**68**	**11**	ns	**11**	**23**	<2.0	**16**	**2.9**	**8.4**	<2.0	<2.0	ns	DE
Vinyl Chloride	2	2	<2.0	ns	<2.0	ns	<2	<1.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	DE
1,2,4-Trimethylbenzene	330	330	<2.0	ns	<2.0	ns	**217 E**	**48**	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	DE
1,3,5-Trimethylbenzene	330	330	<2.0	ns	<2.0	ns	**57**	**2.6**	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	DE
2-Butanone(MEK)	4,000	4,000	<10	ns	<10	ns	---	<1.0	ns	<10	<10	<10	<10	<10	<10	<10	<10	ns	DE
Benzene	5	5	<2.0	ns	<2.0	ns	**3.8**	<1.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	DE
Naphthalene	20	20	**13**	ns	**4.7**	ns	**30**	**8.7**	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	DE
n-Butylbenzene	260	260	**5.5**	ns	<2.0	ns	---	**6.9**	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	DE
n-Propylbenzene	260	260	<2.0	ns	<2.0	ns	**27**	**9.6**	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	DE
p-Isopropyltoluene (4-cymene)	260	260	<2.0	ns	<2.0	ns	**11**	**2.4**	ns	<2.0	**2.8**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	DE
Tetrahydrofuran(THF)	600	154	<10	ns	<10	ns	**16**	**2.8**	ns	<9	<10	<10	<10	<10	<10	<10	<10	ns	DE
Toluene	1,000	1,000	<2.0	ns	<2.0	ns	<2	**1.5**	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	DE
Additional VOCs (µg/L)																			
1,1,1-Trichloroethane	200	na	<2.0	ns	<2.0	ns	<2	<1.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	DE
1,1-Dichloroethane	81	na	<2.0	ns	<2.0	ns	<2	<1.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	DE
1,1-Dichloroethene	7	na	<2.0	ns	<2.0	ns	<2	<1.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	DE
1,2,4-Trichlorobenzene	70	na	<10	ns	<10	ns	<2	<1.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	DE
1,2-Dichloroethane	5	na	<2.0	ns	<2.0	ns	<2	<1.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	DE
1,4-Dichlorobenzene	75	na	<2.0	ns	<2.0	ns	<2	<1.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	DE
2-Chlorotoluene	100	na	<2.0	ns	<2.0	ns	---	<1.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	DE
4-Methyl-2-pentanone (MIBK)	2,000	na	<10	ns	<10	ns	<10	<1.0	ns	<10	<10	<10	<10	<10	<10	<10	<10	ns	DE
Acetone	6,000	na	<10	ns	<10	ns	<10	<1.0	ns	<10	<10	<10	<10	<10	<10	<10	<10	ns	DE
Carbon Disulfide	70	na	*	ns	*	ns	*	*	ns	*	*	*	*	*	*	*	*	ns	DE
Ethylbenzene	700	na	<2.0	ns	<2.0	ns	<2	**13**	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	**2.5**	ns	DE
Isopropylbenzene (cumene)	800	na	**12**	ns	**2.7**	ns	**20**	**8.5**	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	**3.0**	ns	DE
Methylene Chloride (Dichloromethane)	5	na	<2.0	ns	<2.0	ns	<2	<1.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	DE
sec-Butylbenzene	260	na	**14**	ns	**6.3**	ns	**11.0**	**8.9**	ns	**2**	**7.0**	<2.0	**2.9**	**2.8**	**2.0**	**2.7**	**4.5**	ns	DE
t-Butanol (TBA)	40	na	<10	ns	<10	ns	<10	---	ns	<10	<10	<10	<10	<10	<10	<10	<10	ns	DE
t-Butylbenzene	260	na	**2.5**	ns	<2.0	ns	**3**	**2.8**	ns	<2.0	**2.1**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	DE
Trichlorofluoromethane	2,000	na	<2.0	ns	<2.0	ns	---	<1.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	DE
m/p-Xylene	10, 000 [1]	na	<2.0	ns	<2.0	ns	**55**	**3.8**	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	DE
o-Xylene		na	<2.0	ns	<2.0	ns	<2	**2.0**	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	DE
Total VOCs (µg/L)	na	na	**47**	ns	**14**	ns	**519**	**133**	ns	**13**	**38**	ND	**21**	**6**	**10**	**3**	**10**	ns	DE
1,4-Dioxane (µg/L)																			
1,4-Dioxane	3	3	<0.20	ns	<0.20	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	DE
SVOCs of Concern (µg/L)																			
Benzo(a)pyrene	0.2	0.2	<10	ns	<10	ns	<10	<5	ns	<10	<10	<10	<10	<10	<10	<10	<10	ns	DE
Benzo(b)fluoranthene	0.1	0.1	<10	ns	<10	ns	<10	<5	ns	<10	<10	<10	<10	<10	<10	<10	<10	ns	DE
Bis[Di](2-ethylhexyl) phthalate	6	6	<5	ns	<5	ns	<10	<5	ns	**27**	<10	**21**	<5.0	<5.0	<5.0	<5.0	<5.0	ns	DE
Dibenzo(a,h)anthracene	0.1	0.1	<10	ns	<10	ns	<10	<5	ns	<10	<10	<10	<10	<10	<10	<10	<10	ns	DE
Naphthalene	20	20	<10	ns	<10	ns	**30**	**5**	ns	<10	<10	<10	<10	<10	<10	<10	<10	ns	DE
Pentachlorophenol	1	1	<20	ns	<20	ns	<25	<5	ns	<20	<20	<20	<20	<20	<20	<20	ns [2]	ns	DE
2-Methylnaphthalene	280	na	*	ns	<10	ns	*	<5	ns	<10	<10	<10	<10	<10	<10	*	*	ns	DE
Additional SVOCs (µg/L)																			
Benzyl butyl phthalate	na	na	<10	ns	<10	ns	<10	<5	ns	<10	<10	<10	<10	<10	<10	<10	<10	ns	DE
Di-n-butylphthalate	na	na	<10	ns	<10	ns	<10	<5	ns	<10	<10	<10	<10	<10	<10	<10	<10	ns	DE
Di-n-octylphalate	na	na	<10	ns	<10	ns	<10	<5	ns	<10	<10	<10	<10	<10	<10	<10	<10	ns	DE
Total SVOCs (µg/L)	na	na	ND	ns	ND	ns	**30**	**21**	ns	**27**	ND	**21**	ND	ND	ND	ND	ND	ns	DE
Metals of Concern (mg/L)																			
Arsenic	0.01	0.01	<0.001	ns	<0.0010	ns	ns	<0.200	ns	**0.0030**	**0.0029**	**0.0029**	ns	ns	ns	ns	ns	ns	DE
Manganese	0.84	0.3	**0.121**	ns	**0.124**	ns	ns	**5.50**	ns	**4.270**	**3.430**	**2.77**	**4.05**	**2.73**	**3.05**	**1.94**	**2.31**	ns	DE
Additional Metals (mg/L)																			
Barium	2	na	**0.007**	ns	ns	ns	ns	<0.030	ns	**0.0132**	**0.0218**	**0.0128**	ns	ns	ns	ns	ns	ns	DE
Cadmium	0.005	na	<0.002	ns	ns	ns	ns	<0.030	ns	<0.0020	<0.0020	<0.0020	ns	ns	ns	ns	ns	ns	DE
Chromium	0.1	na	<0.005	ns	ns	ns	ns	<0.030	ns	<0.0050	<0.0050	<0.0050	ns	ns	ns	ns	ns	ns	DE
Lead	0.015	na	<0.001	ns	ns	ns	ns	<0.100	ns	<0.0010	<0.0010	<0.0010	ns	ns	ns	ns	ns	ns	DE
Selenium	0.05	na	<0.005	ns	ns	ns	ns	<0.100	ns	<0.0050	<0.0050	<0.0050	ns	ns	ns	ns	ns	ns	DE
Iron	na	na	**0.908**	ns	ns	ns	ns	**43.00**	ns	**30.70**	**21.70**	**30.80**	ns	ns	ns	ns	ns	ns	DE

TABLE 3A - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID / Geological Unit of Well Screen / Sampling Event Date	NH AGQS	ROD ICL	TRY_M-7 Overburden Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Oct-09	Oct-09 DUP	Jun-11	Jun-13	Nov-14	Jun-15	TRY_M-7D Bedrock Nov-14	Jun-15
VOCs of Concern (µg/L)																		
Tetrachloroethene	5	5	<2	<1.0	ns	<0.4	ns	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns	<2.0	ns	<2.0	ns
Trichloroethene	5	5	<2	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns	<2.0	ns	<2.0	ns
cis-1,2-Dichloroethene	70	70	<2	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns	<2.0	ns	<2.0	ns
Vinyl Chloride	2	2	<2	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns	<2.0	ns	<2.0	ns
1,2,4-Trimethylbenzene	330	330	<2	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns	<2.0	ns	<2.0	ns
1,3,5-Trimethylbenzene	330	330	<2	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns	<2.0	ns	<2.0	ns
2-Butanone(MEK)	4,000	4,000	---	<1.0	ns	<10	ns	<10	<10	<10	<10	ns	<10	ns	<2.0	ns	<2.0	ns
Benzene	5	5	<2	<1.0	ns	<0.3	ns	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns	<2.0	ns	<2.0	ns
Naphthalene	20	20	<2	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns	<2.0	ns	<2.0	ns
n-Butylbenzene	260	260	---	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns	<2.0	ns	<2.0	ns
n-Propylbenzene	260	260	<2	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns	<2.0	ns	<2.0	ns
p-Isopropyltoluene (4-cymene)	260	260	<2	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns	<2.0	ns	<2.0	ns
Tetrahydrofuran(THF)	600	154	<10	<1.0	ns	<10	ns	<10	<10	<10	<10	ns	<10	ns	<10	ns	<10	ns
Toluene	1,000	1,000	<2	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns	<2.0	ns	<2.0	ns
Additional VOCs (µg/L)																		
1,1,1-Trichloroethane	200	na	**3.6**	**3.5**	**4.0**	**4.5**	ns	**2.4**	**2.8**	**2.3**	**2.2**	ns	<2.0	ns	<2.0	ns	<2.0	ns
1,1-Dichloroethane	81	na	**10**	<1.0	**8.0**	**7.8**	ns	**11**	**10**	**8.1**	**10**	ns	**6.4**	ns	**7.2**	ns	<2.0	ns
1,1-Dichloroethene	7	na	<2	**3.0**	<2.0	<2.0	ns	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns	<2.0	ns	<2.0	ns
1,2,4-Trichlorobenzene	70	na	<2	<1.0	<2.0	<2.0	ns	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns	<2.0	ns	<2.0	ns
1,2-Dichloroethane	5	na	<2	<1.0	<2.0	<0.4	ns	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns	<2.0	ns	<2.0	ns
1,4-Dichlorobenzene	75	na	<2	<1.0	<2.0	<2.0	ns	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns	<2.0	ns	<2.0	ns
2-Chlorotoluene	100	na	---	<1.0	<2.0	<2.0	ns	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns	<2.0	ns	<2.0	ns
4-Methyl-2-pentanone (MIBK)	2,000	na	<10	<1.0	<2.0	<10	ns	<10	<10	<10	<10	ns	<10	ns	<10	ns	<10	ns
Acetone	6,000	na	<10	<1.0	<10	<10	ns	<10	<10	<10	<10	ns	<10	ns	<10	ns	<10	ns
Carbon Disulfide	70	na	*	*	*	*	ns	*	*	*	*	ns	*	ns	*	ns	*	ns
Ethylbenzene	700	na	<2	<1.0	<10	<2.0	ns	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns	<2.0	ns	<2.0	ns
Isopropylbenzene (cumene)	800	na	<2	<1.0	<2.0	<2.0	ns	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns	<2.0	ns	<2.0	ns
Methylene Chloride (Dichloromethane)	5	na	<2	<1.0	<2.0	<2.0	ns	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns	<2.0	ns	<2.0	ns
sec-Butylbenzene	260	na	**<2**	<1.0	<2.0	<2.0	ns	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns	<2.0	ns	<2.0	ns
t-Butanol (TBA)	40	na	<10	---	<10	<10	ns	<10	<10	<10	**16**	ns	**10**	ns	<10	ns	<10	ns
t-Butylbenzene	260	na	<2	<1.0	<2.0	<2.0	ns	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns	<2.0	ns	<2.0	ns
Trichlorofluoromethane	2,000	na	---	**2.0**	<2.0	<2.0	ns	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns	<2.0	ns	<2.0	ns
m/p-Xylene	10, 000[1]	na	<2	<2.0	<2.0	<2.0	ns	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns	<2.0	ns	<2.0	ns
o-Xylene		na	<2	<1.0	<2.0	<2.0	ns	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns	<2.0	ns	<2.0	ns
Total VOCs (µg/L)	na	na	**14**	**9**	**32**	**12**	ns	**13**	**13**	**10**	**28**	ns	**16**	ns	**7**	ns	ND	ns
1,4-Dioxane (µg/L)																		
1,4-Dioxane	3	3	ns	ns	ns	ns	ns	**2.2**	ns	ns	**2.7**	**2.9**	ns	ns	**1.63**	ns	ns	ns
SVOCs of Concern (µg/L)																		
Benzo(a)pyrene	0.2	0.2	<10	<5	ns	<10	ns	<10	<10	<10	<10	ns	<10	ns	<10	ns	<10	ns
Benzo(b)fluoranthene	0.1	0.1	<10	<5	ns	<10	ns	<10	<10	<10	<10	ns	<10	ns	<10	ns	<10	ns
Bis[Di](2-ethylhexyl) phthalate	6	6	<10	<5	ns	<10	ns	<5.0	<5.0	<5.0	<5.0	ns	<5.0	ns	<5.0	ns	<5.0	ns
Dibenzo(a,h)anthracene	0.1	0.1	<10	<5	ns	<10	ns	<10	<10	<10	<10	ns	<10	ns	<10	ns	<10	ns
Naphthalene	20	20	<2	<5	ns	<10	ns	<10	<10	<10	<10	ns	<10	ns	<10	ns	<10	ns
Pentachlorophenol	1	1	<25	<5	ns	<20	ns	<20	<20	<20	<20	ns	<20	ns	<20	ns	<20	ns
2-Methylnaphthalene	280	na	*	<5	ns	<10	ns	<10	<10	<10	<10	*	<10	ns	<10	ns	<10	ns
Additional SVOCs (µg/L)																		
Benzyl butyl phthalate	na	na	<10	<5	ns	<10	ns	<10	<10	<10	<10	<10	<10	ns	<10	ns	<10	ns
Di-n-butylphthalate	na	na	<10	<5	ns	<10	ns	<10	<10	<10	<10	ns	<10	ns	<10	ns	<10	ns
Di-n-octylphalate	na	na	<10	<5	ns	<10	ns	<10	<10	<10	<10	ns	<10	ns	<10	ns	<10	ns
Total SVOCs (µg/L)	na	na	ND	ND	ns	ND	ns	ND	ND	ND	ND	ns	ND	ns	ND	ns	ND	ns
Metals of Concern (mg/L)																		
Arsenic	0.01	0.01	ns	<0.200	<0.0010	<0.0010	<0.0010	<0.0010	ns	ns	ns	ns	ns	ns	<0.0010	ns	<0.0010	ns
Manganese	0.84	0.3	**3.69**	**1.2**	**1.810**	**3.320**	**1.500**	**0.839**	**2.85**	**1.97**	**2.92**	ns	**0.729**	ns	**3.07**	ns	**0.026**	ns
Additional Metals (mg/L)																		
Barium	2	na	ns	<0.030	**0.0378**	**0.0528**	**0.0425**	**0.0420**	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Cadmium	0.005	na	ns	<0.030	<0.0020	<0.0020	<0.0020	<0.0020	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Chromium	0.1	na	ns	<0.030	<0.0050	<0.0050	<0.0050	<0.0050	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Lead	0.015	na	ns	<0.100	<0.0010	<0.0010	<0.0010	<0.0010	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Selenium	0.05	na	ns	<0.100	<0.0050	<0.0050	<0.0050	<0.0050	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Iron	na	na	<0.05	<0.100	ns	<0.050	<0.050	<0.050	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns

TABLE 3A - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	NH	ROD	TRY_MW-101													TRY_MW-101S	TRY_MW-101D
Geological Unit of Well Screen	AGQS	ICL	Predominantly Overburden													Overburden	Overburden
Sampling Event Date			Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Oct-09	Jun-11	Jun-13	Nov-14 [3]	Jun-15	Jun-15	Jun-15
VOCs of Concern (µg/L)																	
Tetrachloroethene	5	5	<2	<1.0	*ns*	<4.0	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*DE*	<1	<1
Trichloroethene	5	5	<2	<1.0	*ns*	<4.0	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*DE*	<1	<1
cis-1,2-Dichloroethene	70	70	<2	**8.0**	*ns*	**4.3**	**8.1**	**2.5**	**2.8**	**4.0**	**2.7**	**2.7**	**2.5**	<2.0	*DE*	**2.4**	<1
Vinyl Chloride	2	2	<2	<1.0	*ns*	<4.0	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*DE*	<1	<1
1,2,4-Trimethylbenzene	330	330	**44**	**80**	*ns*	**201**	**347**	**181**	**183**	**30**	**169**	**65**	**90**	**120**	*DE*	**266**	<1
1,3,5-Trimethylbenzene	330	330	**13**	**25**	*ns*	**65**	**114**	**55**	**47**	**11**	**42**	**20**	**16**	**32**	*DE*	**115**	<1
2-Butanone(MEK)	4,000	4,000	---	<1.0	*ns*	<20	<20	<10	<10	<10	<10	<10	<10	<10	*DE*	<25	<25
Benzene	5	5	<2	**2.2**	*ns*	<4.0	<4.0	<2.0	**2.2**	<2.0	**2.0**	<2.0	<2.0	<2.0	*DE*	<1	<1
Naphthalene	20	20	**4.5**	**5.5**	*ns*	**10**	**18**	**8.0**	**11**	**5.0**	**14 J***	**4**	**5.7**	**9.8**	*DE*	**24.2**	<1
n-Butylbenzene	260	260	---	**3.1**	*ns*	<4.0	<4.0	**30**	**30**	**22**	**31**	**21**	<2.0	**20**	*DE*	**31.0**	<1
n-Propylbenzene	260	260	**14**	**7.1**	*ns*	**28**	**51**	**51**	**58**	**39**	**49**	**32**	**39**	**33**	*DE*	**31.8**	<1
p-Isopropyltoluene (4-cymene)	260	260	**6.6**	**2.9**	*ns*	**9.8**	**23**	**20**	**26**	**11**	**22**	**8.4**	**7.8**	**11**	*DE*	**19.5**	<1
Tetrahydrofuran(THF)	600	154	**26**	**7.8**	*ns*	<20	<20	<10	<10	<10	<10	<10	<10	<10	*DE*	<5	<5
Toluene	1,000	1,000	**3**	**6.6**	*ns*	<4.0	<4.0	**4.9**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*DE*	<1	<1
Additional VOCs (µg/L)																	
1,1,1-Trichloroethane	200	na	**7.9**	<1.0	*ns*	<4.0	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*DE*	<1	<1
1,1-Dichloroethane	81	na	<2	**10**	*ns*	<4.0	**5.0**	**3.2**	**3.4**	<2.0	**3.0**	<2.0	<2.0	<2.0	*DE*	<1	<1
1,1-Dichloroethene	7	na	<2	<1.0	*ns*	**5.6**	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*DE*	<1	<1
1,2,4-Trichlorobenzene	70	na	<2	<1.0	*ns*	<4.0	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*DE*	<1	<
1,2-Dichloroethane	5	na	<2	<1.0	*ns*	<4.0	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*DE*	<1	<1
1,4-Dichlorobenzene	75	na	<2	<1.0	*ns*	<4.0	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*DE*	<1	<1
2-Chlorotoluene	100	na	---	<1.0	*ns*	<4.0	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*DE*	<1	<1
4-Methyl-2-pentanone (MIBK)	2,000	na	<10	<1.0	*ns*	<20	<20	<10	<10	<10	<10	<10	<10	<10	*DE*	<10	<10
Acetone	6,000	na	<10	<1.0	*ns*	<20	<20	<10	<10	<10	<10	<10	<10	<10	*DE*	<25	<25
Carbon Disulfide	70	na	*	*	*ns*	*	*	*	*	*	*	*	*	*	*DE*	<1	*
Ethylbenzene	700	na	<2	**49**	*ns*	**110**	**141**	**97**	**108**	**65**	**92**	**59**	**69**	**60**	*DE*	**49.0**	<1
Isopropylbenzene (cumene)	800	na	**12**	**9.2**	*ns*	**24**	**45**	**38**	**39**	**28**	**36**	**27**	**30**	**27**	*DE*	**24.8**	<1
Methylene Chloride (Dichloromethane)	5	na	<2	<1.0	*ns*	<4.0	<4.0	<2.0	<2.0	**2.1**	<2.0	<2.0	<2.0	<2.0	*DE*	<4	<4
sec-Butylbenzene	260	na	**9.6**	**2.4**	*ns*	**8**	**20**	**27**	**27**	**23**	**28**	**23**	**23**	**22**	*DE*	**23.0**	<1
t-Butanol (TBA)	40	na	<10	---	*ns*	<20	<20	<10	<10	<10	<10	<10	<10	<10	*DE*	<25	<25
t-Butylbenzene	260	na	**2.3**	<1.0	*ns*	<4.0	**4.3**	**4.9**	**5**	**4.1**	**5.4**	**4.3**	**4.5**	**4.6**	*DE*	**5.2**	<1
Trichlorofluoromethane	2,000	na	---	<1.0	*ns*	<4.0	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*DE*	<1	<1
m/p-Xylene	10, 000 [1]	na	**11**	**50**	*ns*	**88**	**144**	**30**	**28**	**7.9**	**42**	**10**	**11**	**29**	*DE*	**52.3**	<2
o-Xylene		na	<2	**49**	*ns*	**49**	**93**	**9.5**	**4.1**	<2.0	**28**	**6.2**	**5.1**	<2.0	*DE*	**4.9**	<1
Total VOCs (µg/L)	na	na	**154**	**318**	*ns*	**602**	**1,013**	**562**	**575**	**252**	**566**	**283**	**304**	**368**	*DE*	**649.1**	ND
1,4-Dioxane (µg/L)																	
1,4-Dioxane	3	3	*ns*	*ns*	*ns*	<2.0	*ns*	<2.0	*ns*	*ns*	*ns*	*ns*	*ns*	<0.20	*DE*	<1.01	<0.96
SVOCs of Concern (µg/L)																	
Benzo(a)pyrene	0.2	0.2	<10	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	<10	*DE*	<0.05	<0.05
Benzo(b)fluoranthene	0.1	0.1	<10	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	<10	*DE*	<0.05	<0.05
Bis[Di](2-ethylhexyl) phthalate	6	6	<10	**6**	*ns*	<10	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	*DE*	<6.1	**5.80**
Dibenzo(a,h)anthracene	0.1	0.1	<10	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	<10	*DE*	<0.05	<0.05
Naphthalene	20	20	**4.5**	<5	*ns*	<10	**13**	<10	<10	<10	<10	<10	<10	<10	*DE*	**9.6**	<0.19
Pentachlorophenol	1	1	<25	<5	*ns*	<25	<20	<20	<20	<20	<20	<20	*ns* [2]	<20	*DE*	<0.81	<0.77
2-Methylnaphthalene	280	na	*	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	*	*	*DE*	**0.82**	<0.19
Additional SVOCs (µg/L)																	
Benzyl butyl phthalate	na	na	<10	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	<10	*DE*	<10.1	<9.6
Di-n-butylphthalate	na	na	<10	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	<10	*DE*	<10.1	<9.6
Di-n-octylphalate	na	na	<10	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	<10	*DE*	<10.1	<9.6
Total SVOCs (µg/L)	na	na	5	**6**	*ns*	ND	**13**	ND	ND	ND	ND	ND	ND	ND	*DE*	**10**	**6**
Metals of Concern (mg/L)																	
Arsenic	0.01	0.01	*ns*	<0.200	*ns*	**0.0021**	**0.0031**	**0.0016**	*ns*	*ns*	*ns*	*ns*	*ns*	**0.0011**	*DE*	<0.001	<0.001
Manganese	0.84	0.3	*ns*	**2.10**	*ns*	**2.23**	**2.50**	**2.62**	**2.89**	**2.54**	**2.25**	**2.7**	**2.2**	**3.50**	*DE*	**6.5**	**0.331**
Additional Metals (mg/L)																	
Barium	2	na	*ns*	<0.030	*ns*	0.0277	0.0266	0.0253	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*	*ns*	*ns*
Cadmium	0.005	na	*ns*	<0.030	*ns*	<0.0020	<0.0020	<0.0020	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*	*ns*	*ns*
Chromium	0.1	na	*ns*	<0.030	*ns*	0.0017	<0.0050	<0.0050	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*	*ns*	*ns*
Lead	0.015	na	*ns*	<0.100	*ns*	0.0001	<0.0010	<0.0010	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*	*ns*	*ns*
Selenium	0.05	na	*ns*	<0.100	*ns*	0.0018	<0.0050	<0.0050	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*	*ns*	*ns*
Iron	na	na	*ns*	**99**	*ns*	**114**	**121**	**124**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*	*ns*	*ns*

TABLE 3A - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID / Geological Unit of Well Screen / Sampling Event Date	NH AGQS	ROD ICL	TRY_MW-102 Predominantly Overburden														
			Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Oct-09	Jun-10, 28.5	Jun-10, 28.5 DUP	Jun-11	Jun-13	Nov-14	Jun-15
VOCs of Concern (µg/L)																	
Tetrachloroethene	5	5	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
Trichloroethene	5	5	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
cis-1,2-Dichloroethene	70	70	ns	<1.0	ns	<10	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
Vinyl Chloride	2	2	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
1,2,4-Trimethylbenzene	330	330	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
1,3,5-Trimethylbenzene	330	330	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
2-Butanone(MEK)	4,000	4,000	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<10	<10	<10	ns	<10	ns
Benzene	5	5	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
Naphthalene	20	20	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
n-Butylbenzene	260	260	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
n-Propylbenzene	260	260	ns	<1.0	ns	<10	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
p-Isopropyltoluene (4-cymene)	260	260	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
Tetrahydrofuran(THF)	600	154	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<10	<10	<10	ns	<10	ns
Toluene	1,000	1,000	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
Additional VOCs (µg/L)																	
1,1,1-Trichloroethane	200	na	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
1,1-Dichloroethane	81	na	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
1,1-Dichloroethene	7	na	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
1,2,4-Trichlorobenzene	70	na	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
1,2-Dichloroethane	5	na	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
1,4-Dichlorobenzene	75	na	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
2-Chlorotoluene	100	na	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
4-Methyl-2-pentanone (MIBK)	2,000	na	ns	<1.0	ns	<10	ns	ns	ns	ns	ns	<10	<10	<10	ns	<10	ns
Acetone	6,000	na	ns	<1.0	ns	<10	ns	ns	ns	ns	ns	<10	<10	<10	ns	<10	ns
Carbon Disulfide	70	na	ns	*	ns	*	ns	ns	ns	ns	ns	*	*	*	ns	*	ns
Ethylbenzene	700	na	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
Isopropylbenzene (cumene)	800	na	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
Methylene Chloride (Dichloromethane)	5	na	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
sec-Butylbenzene	260	na	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
t-Butanol (TBA)	40	na	ns	---	ns	**11**	ns	ns	ns	ns	ns	<10	<2.0	<2.0	ns	<2.0	ns
t-Butylbenzene	260	na	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
Trichlorofluoromethane	2,000	na	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
m/p-Xylene	10, 000 [1]	na	ns	<2.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
o-Xylene		na	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
Total VOCs (µg/L)	na	na	ns	ND	ns	11.0	ns	ns	ns	ns	ns	ND	ND	ND	ns	ND	ns
1,4-Dioxane (µg/L)																	
1,4-Dioxane	3	3	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	<0.20	ns	<0.20	ns
SVOCs of Concern (µg/L)																	
Benzo(a)pyrene	0.2	0.2	ns	<5	ns	<10	ns	ns	ns	ns	ns	<10	<10	<10	ns	<10	ns
Benzo(b)fluoranthene	0.1	0.1	ns	<5	ns	<10	ns	ns	ns	ns	ns	<10	<10	<10	ns	<10	ns
Bis[Di](2-ethylhexyl) phthalate	6	6	ns	<5	ns	<10	ns	ns	ns	ns	ns	<5 J	**9.3 J**	<5	ns	<5	ns
Dibenzo(a,h)anthracene	0.1	0.1	ns	<5	ns	<10	ns	ns	ns	ns	ns	<10	<10	<10	ns	<10	ns
Naphthalene	20	20	ns	<5	ns	<10	ns	ns	ns	ns	ns	<10	<10	<10	ns	<10	ns
Pentachlorophenol	1	1	ns	<5	ns	<20	ns	ns	ns	ns	ns	<20	<20	<20	ns	<20	ns
2-Methylnaphthalene	280	na	ns	*	ns	*	ns	ns	ns	ns	ns	*	*	*	ns	*	ns
Additional SVOCs (µg/L)																	
Benzyl butyl phthalate	na	na	ns	<5	ns	<10	ns	ns	ns	ns	ns	<10	<10	<10	ns	<10	ns
Di-n-butylphthalate	na	na	ns	<5	ns	<10	ns	ns	ns	ns	ns	<10	<10	<10	ns	<10	ns
Di-n-octylphalate	na	na	ns	<5	ns	<10	ns	ns	ns	ns	ns	<10	<10	<10	ns	<10	ns
Total SVOCs (µg/L)	na	na	ns	ND	ns	ND	ns	ns	ns	ns	ns	ND	9.3	ND	ns	ND	ns
Metals of Concern (mg/L)																	
Arsenic	0.01	0.01	ns	<0.200	ns	<0.0010	ns	ns	ns	ns	ns	<0.0010	<0.0010	<0.001	ns	**0.0011**	ns
Manganese	0.84	0.3	ns	**1.10**	ns	**3.15**	ns	ns	ns	ns	ns	**3.58**	**3.64**	**1.51**	ns	**5.49 B***	ns
Additional Metals (mg/L)																	
Barium	2	na	ns	**0.041**	ns	**0.0434**	ns	ns	ns	ns	ns	**0.0332**	**0.0332**	**0.0319**	ns	ns	ns
Cadmium	0.005	na	ns	<0.030	ns	<0.0020	ns	ns	ns	ns	ns	<0.0020	<0.0020	<0.002	ns	ns	ns
Chromium	0.1	na	ns	<0.030	ns	0.0064	ns	ns	ns	ns	ns	<0.0050	<0.0050	<0.005	ns	ns	ns
Lead	0.015	na	ns	<0.100	ns	<0.0010	ns	ns	ns	ns	ns	<0.0010	<0.0010	<0.001	ns	ns	ns
Selenium	0.05	na	ns	<0.100	ns	<0.0050	ns	ns	ns	ns	ns	<0.0050	<0.0050	<0.005	ns	ns	ns
Iron	na	na	ns	**57.7**	ns	**57.7**	ns	ns	ns	ns	ns	**62.4**	**63.0**	**5.28**	ns	ns	ns

TABLE 3A - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID / Geological Unit of Well Screen / Sampling Event Date	NH AGQS	ROD ICL	TRY_MW-104S Overburden Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Oct-09	Jun-11	Jun-13	Nov-14	Jun-15
VOCs of Concern (µg/L)															
Tetrachloroethene	5	5	<2	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
Trichloroethene	5	5	<2	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
cis-1,2-Dichloroethene	70	70	**12**	<1.0	ns	**6.8**	ns	**4.0**	**6.5**	**2.5**	**4.2**	**4.8**	**3.0**	**2.2**	ns
Vinyl Chloride	2	2	<2	<1.0	ns	<2.0	ns	**4.1**	**2.7**	**2.2**	**3.8**	<2.0	<2.0	<2.0	ns
1,2,4-Trimethylbenzene	330	330	<2	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
1,3,5-Trimethylbenzene	330	330	<2	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
2-Butanone(MEK)	4,000	4,000	---	<1.0	ns	<10	ns	<10	<10	<10	<10	<10	<10	<10	ns
Benzene	5	5	<2	**1.4**	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
Naphthalene	20	20	<2	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
n-Butylbenzene	260	260	---	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
n-Propylbenzene	260	260	<2	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
p-Isopropyltoluene (4-cymene)	260	260	<2	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
Tetrahydrofuran(THF)	600	154	<10	<1.0	ns	<10	ns	<10	<10	<10	<10	<10	<10	<10	ns
Toluene	1,000	1,000	<2	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
Additional VOCs (µg/L)															
1,1,1-Trichloroethane	200	na	<2	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
1,1-Dichloroethane	81	na	<2	**4.7**	ns	<2.0	ns	<2.0	**2.1**	<2.0	**2.3**	**2.1**	<2.0	<2.0	ns
1,1-Dichloroethene	7	na	<2	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
1,2,4-Trichlorobenzene	70	na	<2	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
1,2-Dichloroethane	5	na	<2	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
1,4-Dichlorobenzene	75	na	<2	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
2-Chlorotoluene	100	na	---	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
4-Methyl-2-pentanone (MIBK)	2,000	na	<10	<1.0	ns	<10	ns	<10	<10	<10	<10	<10	<10	<10	ns
Acetone	6,000	na	<10	<1.0	ns	<10	ns	<10	<10	<10	<10	<10	<10	<10	ns
Carbon Disulfide	70	na	*	*	ns	*	ns	*	*	*	*	*	*	*	ns
Ethylbenzene	700	na	<2	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
Isopropylbenzene (cumene)	800	na	<2	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
Methylene Chloride (Dichloromethane)	5	na	<2	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
sec-Butylbenzene	260	na	<2	**2.4**	ns	<2.0	ns	<2.0	<2.0	<2.0	**2.2**	**2.4**	**2.1**	<2.0	ns
t-Butanol (TBA)	40	na	<10	---	ns	<10	ns	<10	<10	<10	<10	<10	<10	<10	ns
t-Butylbenzene	260	na	<2	**1.7**	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
Trichlorofluoromethane	2,000	na	---	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
m/p-Xylene	10, 000 [1]	na	<2	<2.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
o-Xylene		na	<2	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
Total VOCs (µg/L)	na	na	**12**	**10**	ns	**7**	ns	**8**	**11**	**5**	**13**	**9**	**5**	**2**	ns
1,4-Dioxane (µg/L)															
1,4-Dioxane	3	3	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
SVOCs of Concern (µg/L)															
Benzo(a)pyrene	0.2	0.2	<10	<5	ns	<10	ns	<10	<10	<10	<10	<10	<10	<10	ns
Benzo(b)fluoranthene	0.1	0.1	<10	<5	ns	<10	ns	<10	<10	<10	<10	<10	<10	<10	ns
Bis[Di](2-ethylhexyl) phthalate	6	6	<10	<5	ns	<10	ns	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	ns
Dibenzo(a,h)anthracene	0.1	0.1	<10	<5	ns	<10	ns	<10	<10	<10	<10	<10	<10	<10	ns
Naphthalene	20	20	<2	<5	ns	<10	ns	<10	<10	<10	<10	<10	<10	<10	ns
Pentachlorophenol	1	1	<25	<5	ns	<20	ns	<20	<20	<20	<20	<20	ns [2]	<20 Q	ns
2-Methylnaphthalene	280	na	*	<5	ns	<10	ns	<10	<10	<10	<10	<10	*	*	ns
Additional SVOCs (µg/L)															
Benzyl butyl phthalate	na	na	<10	<5	ns	<10	ns	<10	<10	<10	<10	<10	<10	<10	ns
Di-n-butylphthalate	na	na	<10	<5	ns	<10	ns	<10	<10	<10	<10	<10	<10	<10	ns
Di-n-octylphalate	na	na	<10	<5	ns	<10	ns	<10	<10	<10	<10	<10	<10	<10	ns
Total SVOCs (µg/L)	na	na	ND	ND	ns	ND	ns	ND	ND	ND	ND	ND	ND	ND	ns
Metals of Concern (mg/L)															
Arsenic	0.01	0.01	ns	<0.200	ns	<0.0010	ns	0.0010	ns	ns	ns	ns	ns	**0.0021**	ns
Manganese	0.84	0.3	ns	**19**	ns	**14.2**	ns	**6.63**	**13.7**	**9.13**	**14.9**	**11**	**9.62**	**10.7**	ns
Additional Metals (mg/L)															
Barium	2	na	ns	**0.041**	ns	**0.0199**	ns	**0.0286**	ns	ns	ns	ns	ns	ns	ns
Cadmium	0.005	na	ns	<0.030	ns	<0.0020	ns	<0.0020	ns	ns	ns	ns	ns	ns	ns
Chromium	0.1	na	ns	<0.030	ns	<0.0050	ns	<0.0050	ns	ns	ns	ns	ns	ns	ns
Lead	0.015	na	ns	<0.100	ns	<0.0010	ns	<0.0010	ns	ns	ns	ns	ns	ns	ns
Selenium	0.05	na	ns	<0.100	ns	<0.0050	ns	<0.0050	ns	ns	ns	ns	ns	ns	ns
Iron	na	na	ns	**1.1**	ns	**37.5**	ns	**36.4**	ns	ns	ns	ns	ns	ns	ns

TABLE 3A - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID / Geological Unit of Well Screen / Sampling Event Date	NH AGQS	ROD ICL	TRY_MW-104D Overburden Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Oct-09	Jun-11	Jun-13	Nov-14	Jun-15
VOCs of Concern (µg/L)															
Tetrachloroethene	5	5	ns	<1.0	ns	<0.4	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns
Trichloroethene	5	5	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns
cis-1,2-Dichloroethene	70	70	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns
Vinyl Chloride	2	2	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns
1,2,4-Trimethylbenzene	330	330	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns
1,3,5-Trimethylbenzene	330	330	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns
2-Butanone(MEK)	4,000	4,000	ns	<1.0	ns	<10	ns	ns	ns	ns	ns	<10	<10	<10	ns
Benzene	5	5	ns	<1.0	ns	<0.3	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns
Naphthalene	20	20	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns
n-Butylbenzene	260	260	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns
n-Propylbenzene	260	260	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns
p-Isopropyltoluene (4-cymene)	260	260	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns
Tetrahydrofuran(THF)	600	154	ns	<1.0	ns	<10	ns	ns	ns	ns	ns	<10	<10	<10	ns
Toluene	1,000	1,000	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns
Additional VOCs (µg/L)															
1,1,1-Trichloroethane	200	na	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns
1,1-Dichloroethane	81	na	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns
1,1-Dichloroethene	7	na	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns
1,2,4-Trichlorobenzene	70	na	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns
1,2-Dichloroethane	5	na	ns	<1.0	ns	<0.4	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns
1,4-Dichlorobenzene	75	na	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns
2-Chlorotoluene	100	na	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns
4-Methyl-2-pentanone (MIBK)	2,000	na	ns	<1.0	ns	<10	ns	ns	ns	ns	ns	<10	<10	<10	ns
Acetone	6,000	na	ns	<1.0	ns	<10	ns	ns	ns	ns	ns	<10	<10	<10	ns
Carbon Disulfide	70	na	ns	*	ns	*	ns	ns	ns	ns	ns	*	*	*	ns
Ethylbenzene	700	na	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns
Isopropylbenzene (cumene)	800	na	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns
Methylene Chloride (Dichloromethane)	5	na	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns
sec-Butylbenzene	260	na	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns
t-Butanol (TBA)	40	na	ns	---	ns	<10	ns	ns	ns	ns	ns	<10	<10	<10	ns
t-Butylbenzene	260	na	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns
Trichlorofluoromethane	2,000	na	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns
m/p-Xylene	10, 000 [1]	na	ns	<2.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns
o-Xylene		na	ns	<1.0	ns	<2.0	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns
Total VOCs (µg/L)	na	na	ns	ND	ns	ND	ns	ns	ns	ns	ns	ND	ND	ND	ns
1,4-Dioxane (µg/L)															
1,4-Dioxane	3	3	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	ns	ns	ns	ns
SVOCs of Concern (µg/L)															
Benzo(a)pyrene	0.2	0.2	ns	<5	ns	<10	ns	ns	ns	ns	ns	<10	<10	<10	ns
Benzo(b)fluoranthene	0.1	0.1	ns	<5	ns	<10	ns	ns	ns	ns	ns	<10	<10	<10	ns
Bis[Di](2-ethylhexyl) phthalate	6	6	ns	<5	ns	<10	ns	ns	ns	ns	ns	<5.0	<5.0	<5.0	ns
Dibenzo(a,h)anthracene	0.1	0.1	ns	<5	ns	<10	ns	ns	ns	ns	ns	<10	<10	<10	ns
Naphthalene	20	20	ns	<5	ns	<10	ns	ns	ns	ns	ns	<10	<10	<10	ns
Pentachlorophenol	1	1	ns	<5	ns	<20	ns	ns	ns	ns	ns	<20	ns [2]	<20	ns
2-Methylnaphthalene	280	na	ns	<5	ns	<10	ns	ns	ns	ns	ns	<10	*	*	ns
Additional SVOCs (µg/L)															
Benzyl butyl phthalate	na	na	ns	<5	ns	<10	ns	ns	ns	ns	ns	<10	<10	<10	ns
Di-n-butylphthalate	na	na	ns	<5	ns	<10	ns	ns	ns	ns	ns	<10	<10	<10	ns
Di-n-octylphalate	na	na	ns	<5	ns	<10	ns	ns	ns	ns	ns	<10	<10	<10	ns
Total SVOCs (µg/L)	na	na	ns	ND	ns	ND	ns	ns	ns	ns	ns	ND	ND	ND	ns
Metals of Concern (mg/L)															
Arsenic	0.01	0.01	ns	<0.200	ns	**0.0011**	ns	ns	ns	ns	ns	ns	ns	**0.0015**	ns
Manganese	0.84	0.3	ns	**0.630**	ns	**0.409**	ns	ns	ns	ns	ns	**0.227**	**0.27**	**0.717**	ns
Additional Metals (mg/L)															
Barium	2	na	ns	**0.041**	ns	0.0063	ns	ns	ns	ns	ns	ns	ns	ns	ns
Cadmium	0.005	na	ns	<0.030	ns	<0.0020	ns	ns	ns	ns	ns	ns	ns	ns	ns
Chromium	0.1	na	ns	<0.030	ns	<0.0050	ns	ns	ns	ns	ns	ns	ns	ns	ns
Lead	0.015	na	ns	<0.100	ns	<0.0010	ns	ns	ns	ns	ns	ns	ns	ns	ns
Selenium	0.05	na	ns	<0.100	ns	<0.0050	ns	ns	ns	ns	ns	ns	ns	ns	ns
Iron	na	na	ns	**0.10**	ns	**0.55**	ns	ns	ns	ns	ns	ns	ns	ns	ns

TABLE 3A - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID / Geological Unit of Well Screen / Sampling Event Date	NH AGQS	ROD ICL	TRY_MW-105S Overburden Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Oct-09	Jun-11	Jun-13	Nov-14	Jun-15
VOCs of Concern (µg/L)															
Tetrachloroethene	5	5	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
Trichloroethene	5	5	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
cis-1,2-Dichloroethene	70	70	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
Vinyl Chloride	2	2	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
1,2,4-Trimethylbenzene	330	330	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
1,3,5-Trimethylbenzene	330	330	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
2-Butanone(MEK)	4,000	4,000	ns	ns	ns	ns	ns	ns	ns	ns	<10	<10	ns	<10	ns
Benzene	5	5	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
Naphthalene	20	20	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
n-Butylbenzene	260	260	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
n-Propylbenzene	260	260	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
p-Isopropyltoluene (4-cymene)	260	260	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
Tetrahydrofuran(THF)	600	154	ns	ns	ns	ns	ns	ns	ns	ns	<10	<10	ns	<10	ns
Toluene	1,000	1,000	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
Additional VOCs (µg/L)															
1,1,1-Trichloroethane	200	na	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
1,1-Dichloroethane	81	na	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
1,1-Dichloroethene	7	na	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
1,2,4-Trichlorobenzene	70	na	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
1,2-Dichloroethane	5	na	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
1,4-Dichlorobenzene	75	na	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
2-Chlorotoluene	100	na	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
4-Methyl-2-pentanone (MIBK)	2,000	na	ns	ns	ns	ns	ns	ns	ns	ns	<10	<10	ns	<10	ns
Acetone	6,000	na	ns	ns	ns	ns	ns	ns	ns	ns	<10	<10	ns	<10	ns
Carbon Disulfide	70	na	ns	ns	ns	ns	ns	ns	ns	ns	*	*	ns	*	ns
Ethylbenzene	700	na	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
Isopropylbenzene (cumene)	800	na	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
Methylene Chloride (Dichloromethane)	5	na	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
sec-Butylbenzene	260	na	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
t-Butanol (TBA)	40	na	ns	ns	ns	ns	ns	ns	ns	ns	<10	<10	ns	<10	ns
t-Butylbenzene	260	na	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
Trichlorofluoromethane	2,000	na	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
m/p-Xylene	10, 000 [1]	na	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
o-Xylene		na	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
Total VOCs (µg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ND	ND	ns	ND	ns
1,4-Dioxane (µg/L)															
1,4-Dioxane	3	3	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	ns	ns	**0.24**	ns
SVOCs of Concern (µg/L)															
Benzo(a)pyrene	0.2	0.2	ns	ns	ns	ns	ns	ns	ns	ns	<10	<10	ns	<10	ns
Benzo(b)fluoranthene	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	ns	<10	<10	ns	<10	ns
Bis[Di](2-ethylhexyl) phthalate	6	6	ns	ns	ns	ns	ns	ns	ns	ns	<5.0	<5.0	ns	<5.0	ns
Dibenzo(a,h)anthracene	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	ns	<10	<10	ns	<10	ns
Naphthalene	20	20	ns	ns	ns	ns	ns	ns	ns	ns	<10	<10	ns	<10	ns
Pentachlorophenol	1	1	ns	ns	ns	ns	ns	ns	ns	ns	<20	<20	ns	<20	ns
2-Methylnaphthalene	280	na	ns	ns	ns	ns	ns	ns	ns	ns	<10	<10	ns	<10	ns
Additional SVOCs (µg/L)															
Benzyl butyl phthalate	na	na	ns	ns	ns	ns	ns	ns	ns	ns	<10	<10	ns	<10	ns
Di-n-butylphthalate	na	na	ns	ns	ns	ns	ns	ns	ns	ns	<10	<10	ns	<10	ns
Di-n-octylphalate	na	na	ns	ns	ns	ns	ns	ns	ns	ns	<10	<10	ns	<10	ns
Total SVOCs (µg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ND	ND	ns	ND	ns
Metals of Concern (mg/L)															
Arsenic	0.01	0.01	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	<0.0010	ns
Manganese	0.84	0.3	ns	ns	ns	ns	ns	ns	ns	ns	**34.4**	**4.13**	ns	**4.14**	ns
Additional Metals (mg/L)															
Barium	2	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Cadmium	0.005	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Chromium	0.1	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Lead	0.015	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Selenium	0.05	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Iron	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns

TABLE 3A - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID / Geological Unit of Well Screen / Sampling Event Date	NH AGQS	ROD ICL	TRY_MW-105D Bedrock Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Oct-09	Jun-11	Jun-13	Nov-14	Jun-15
VOCs of Concern (µg/L)															
Tetrachloroethene	5	5	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
Trichloroethene	5	5	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
cis-1,2-Dichloroethene	70	70	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
Vinyl Chloride	2	2	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
1,2,4-Trimethylbenzene	330	330	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
1,3,5-Trimethylbenzene	330	330	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
2-Butanone(MEK)	4,000	4,000	ns	ns	ns	ns	ns	ns	ns	ns	<10	<10	ns	<10	ns
Benzene	5	5	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
Naphthalene	20	20	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
n-Butylbenzene	260	260	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
n-Propylbenzene	260	260	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
p-Isopropyltoluene (4-cymene)	260	260	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
Tetrahydrofuran(THF)	600	154	ns	ns	ns	ns	ns	ns	ns	ns	<10	<10	ns	<10	ns
Toluene	1,000	1,000	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
Additional VOCs (µg/L)															
1,1,1-Trichloroethane	200	na	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
1,1-Dichloroethane	81	na	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
1,1-Dichloroethene	7	na	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
1,2,4-Trichlorobenzene	70	na	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
1,2-Dichloroethane	5	na	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
1,4-Dichlorobenzene	75	na	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
2-Chlorotoluene	100	na	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
4-Methyl-2-pentanone (MIBK)	2,000	na	ns	ns	ns	ns	ns	ns	ns	ns	<10	<10	ns	<10	ns
Acetone	6,000	na	ns	ns	ns	ns	ns	ns	ns	ns	<10	<10	ns	<10	ns
Carbon Disulfide	70	na	ns	ns	ns	ns	ns	ns	ns	ns	*	*	ns	*	ns
Ethylbenzene	700	na	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
Isopropylbenzene (cumene)	800	na	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
Methylene Chloride (Dichloromethane)	5	na	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
sec-Butylbenzene	260	na	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
t-Butanol (TBA)	40	na	ns	ns	ns	ns	ns	ns	ns	ns	<10	<10	ns	<10	ns
t-Butylbenzene	260	na	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
Trichlorofluoromethane	2,000	na	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
m/p-Xylene	10, 000 [1]	na	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
o-Xylene		na	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns
Total VOCs (µg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ND	ND	ns	ND	ns
1,4-Dioxane (µg/L)															
1,4-Dioxane	3	3	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	ns	ns	<0.20	ns
SVOCs of Concern (µg/L)															
Benzo(a)pyrene	0.2	0.2	ns	ns	ns	ns	ns	ns	ns	ns	<10	<10	ns	<10	ns
Benzo(b)fluoranthene	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	ns	<10	<10	ns	<10	ns
Bis[Di](2-ethylhexyl) phthalate	6	6	ns	ns	ns	ns	ns	ns	ns	ns	<5.0	<5.0	ns	<5.0	ns
Dibenzo(a,h)anthracene	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	ns	<10	<10	ns	<10	ns
Naphthalene	20	20	ns	ns	ns	ns	ns	ns	ns	ns	<10	<10	ns	<10	ns
Pentachlorophenol	1	1	ns	ns	ns	ns	ns	ns	ns	ns	<20	<20	ns	<20	ns
2-Methylnaphthalene	280	na	ns	ns	ns	ns	ns	ns	ns	ns	<10	<10	ns	<10	ns
Additional SVOCs (µg/L)															
Benzyl butyl phthalate	na	na	ns	ns	ns	ns	ns	ns	ns	ns	<10	<10	ns	<10	ns
Di-n-butylphthalate	na	na	ns	ns	ns	ns	ns	ns	ns	ns	<10	<10	ns	<10	ns
Di-n-octylphalate	na	na	ns	ns	ns	ns	ns	ns	ns	ns	<10	<10	ns	<10	ns
Total SVOCs (µg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ND	ND	ns	ND	ns
Metals of Concern (mg/L)															
Arsenic	0.01	0.01	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	<0.0010	ns
Manganese	0.84	0.3	ns	ns	ns	ns	ns	ns	ns	ns	**2.39**	**4.39**	ns	**2.05 B***	ns
Additional Metals (mg/L)															
Barium	2	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Cadmium	0.005	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Chromium	0.1	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Lead	0.015	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Selenium	0.05	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Iron	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns

TABLE 3A - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	NH AGQS	ROD ICL	TRY_MW-201SX	TRY_MW-201M													TRY_MW-201P		
Geological Unit of Well Screen			Overburden	Overburden													Overburden		
Sampling Event Date			Jun-15	Aug-04	Oct-05	Jun-06	Dec-06	May-07	May-07 DUP	Jun-08	Dec-08	Jun-09	Oct-09	Jun-11	Jun-13	Nov-14	Jun-11 [4]	Jun-13 [5]	Nov-14
VOCs of Concern (µg/L)																			
Tetrachloroethene	5	5	<1	<2	<1.0	ns	<2.0	<4.0	<4.0	<2.0	<2.0	<10	<2.0	<10	<10	DE	<10	ns	DE
Trichloroethene	5	5	<1	**7**	**7.9**	ns	**6.2**	<4.0	<4.0	<2.0	<2.0	<10	**3.8**	<10	<10	DE	<10	ns	DE
cis-1,2-Dichloroethene	70	70	**2.2**	**38**	<1.0	ns	**297**	**242**	**249**	**485**	**617**	**576**	**639**	**660**	**533**	DE	**608 J***	ns	DE
Vinyl Chloride	2	2	<1	<2	<1.0	ns	<2.0	<4.0	<4.0	<2.0	<2.0	<10	<2.0	<10	<10	DE	<10	ns	DE
1,2,4-Trimethylbenzene	330	330	<1	<2	<1.0	ns	<2.0	<4.0	<4.0	<2.0	<2.0	<10	<2.0	<10	<10	DE	<10	ns	DE
1,3,5-Trimethylbenzene	330	330	<1	<2	<1.0	ns	<2.0	<4.0	<4.0	<2.0	<2.0	<10	<2.0	<10	<10	DE	<10	ns	DE
2-Butanone(MEK)	4,000	4,000	<25	---	<1.0	ns	<10	<20	<20	<10	<10	<50	<10	<50	<50	DE	<50	ns	DE
Benzene	5	5	<1	<2	**1.1**	ns	<2.0	<4.0	<4.0	<2.0	<2.0	<10	<2.0	<10	<10	DE	<10	ns	DE
Naphthalene	20	20	<1	<2	<1.0	ns	<2.0	<4.0	<4.0	<2.0	<2.0	<10	**4.4 J***	<10	<10	DE	<10	ns	DE
n-Butylbenzene	260	260	<1	---	<1.0	ns	<2.0	<4.0	<4.0	**30**	<2.0	<10	<2.0	<10	<10	DE	<10	ns	DE
n-Propylbenzene	260	260	<1	<2	<1.0	ns	<2.0	<4.0	<4.0	<2.0	<2.0	<10	<2.0	<10	<10	DE	<10	ns	DE
p-Isopropyltoluene (4-cymene)	260	260	<1	<2	<1.0	ns	<2.0	<4.0	<4.0	<2.0	<2.0	<10	<2.0	<10	<10	DE	<10	ns	DE
Tetrahydrofuran(THF)	600	154	<5	<10	**1.9**	ns	<10	<20	<20	<10	<10	<50	<10	<50	<50	DE	<50	ns	DE
Toluene	1,000	1,000	<1	<2	<1.0	ns	<2.0	<4.0	<4.0	<2.0	<2.0	<10	<2.0	<10	<10	DE	<10	ns	DE
Additional VOCs (µg/L)																			
1,1,1-Trichloroethane	200	na	<1	<2	<1.0	ns	<2.0	<4.0	<4.0	<2.0	<2.0	<10	<2.0	<10	<10	DE	<10	ns	DE
1,1-Dichloroethane	81	na	<1	**2.2**	**3.1**	ns	**5.9**	**4.5**	**4.7**	<2.0	<2.0	<10	**8.5**	<10	<10	DE	<10	ns	DE
1,1-Dichloroethene	7	na	<1	<2	<1.0	ns	<2.0	<4.0	<4.0	<2.0	<2.0	<10	<2.0	<10	<10	DE	<10	ns	DE
1,2,4-Trichlorobenzene	70	na	<1	<2	<1.0	ns	<2.0	<4.0	<4.0	<2.0	<2.0	<10	<2.0	<10	<10	DE	<10	ns	DE
1,2-Dichloroethane	5	na	<1	<2	<1.0	ns	<2.0	<4.0	<4.0	<2.0	<2.0	<10	**3.3**	<10	<10	DE	<10	ns	DE
1,4-Dichlorobenzene	75	na	<1	<2	<1.0	ns	<2.0	<4.0	<4.0	<2.0	<2.0	<10	<2.0	<10	<10	DE	<10	ns	DE
2-Chlorotoluene	100	na	<1	---	<1.0	ns	<2.0	<4.0	<4.0	<2.0	<2.0	<10	<2.0	<10	<10	DE	<10	ns	DE
4-Methyl-2-pentanone (MIBK)	2,000	na	<10	<10	<1.0	ns	<10	<20	<20	<10	<10	<50	<10	<50	<50	DE	<50	ns	DE
Acetone	6,000	na	<25	<10	<1.0	ns	<10	<20	<20	<10	<10	<50	<10	<50	<50	DE	<50	ns	DE
Carbon Disulfide	70	na	<1	*	*	ns	*	*	*	*	*	*	*	*	*	DE	*	ns	DE
Ethylbenzene	700	na	<1	<2	<1.0	ns	<2.0	<4.0	<4.0	<2.0	<2.0	<10	<2.0	<10	<10	DE	<10	ns	DE
Isopropylbenzene (cumene)	800	na	<1	**5.1**	**8.6**	ns	**3.6**	**4.5**	<4.0	<2.0	<2.0	<10	**3.5**	<10	<10	DE	<10	ns	DE
Methylene Chloride (Dichloromethane)	5	na	<4	<2	<1.0	ns	<2.0	<4.0	<4.0	<2.0	<2.0	<10	<2.0	<10	<10	DE	<10	ns	DE
sec-Butylbenzene	260	na	**7.0**	**8.1**	**12**	ns	**7.2**	**7.2**	**5.9**	**27**	<2.0	<10	**9.0**	<10	<10	DE	**15 J***	ns	DE
t-Butanol (TBA)	40	na	<25	<10	---	ns	<10	<20	<20	<10	<10	<50	<10	<50	<50	DE	<50	ns	DE
t-Butylbenzene	260	na	**3.1**	<2	**2.0**	ns	<2.0	<4.0	<4.0	**4.9**	<2.0	<10	**2.8**	<10	<10	DE	<10	ns	DE
Trichlorofluoromethane	2,000	na	<1	---	<1.0	ns	<2.0	<4.0	<4.0	<2.0	<2.0	<10	<2.0	<10	<10	DE	<10	ns	DE
m/p-Xylene	10, 000 [1]	na	<2	<2	<2.0	ns	<2.0	<4.0	<4.0	<2.0	<2.0	<10	<2.0	<10	<10	DE	<10	ns	DE
o-Xylene		na	<1	<2	<1.0	ns	<2.0	<4.0	<4.0	<2.0	<2.0	<10	<2.0	<10	<10	DE	<10	ns	DE
Total VOCs (µg/L)	na	na	**12.3**	**60**	**37**	ns	**320**	**258**	**260**	**547**	**617**	**576**	**674**	**660**	**533**	DE	**623 J***	ns	DE
1,4-Dioxane (µg/L)																			
1,4-Dioxane	3	3	<0.93	ns	ns	ns	**2.3**	ns	ns	**2.3**	ns	ns	**2.5**	ns	ns	DE	**0.58**	ns	DE
SVOCs of Concern (µg/L)																			
Benzo(a)pyrene	0.2	0.2	<0.05	<10	<5	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	DE	<100	ns	DE
Benzo(b)fluoranthene	0.1	0.1	<0.05	<10	<5	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	DE	<100	ns	DE
Bis[Di](2-ethylhexyl) phthalate	6	6	**7.2**	<10	<5	ns	<10	**464**	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	DE	**334 J***	ns	DE
Dibenzo(a,h)anthracene	0.1	0.1	<0.05	<10	<5	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	DE	<100	ns	DE
Naphthalene	20	20	<0.19	<2	<5	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	DE	<100	ns	DE
Pentachlorophenol	1	1	<0.75	<25	<5	ns	<20	<20	<20	<20	<20	<20	<20	<20	ns [2]	DE	<200	ns	DE
2-Methylnaphthalene	280	na	<0.19	*	<5	ns	<10	<10	*	<10	<10	<10	<10	<10	*	DE	*	ns	DE
Additional SVOCs (µg/L)																			
Benzyl butyl phthalate	na	na	<9.3	<10	<5	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	DE	<100	ns	DE
Di-n-butylphthalate	na	na	<9.3	<10	<5	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	DE	<100	ns	DE
Di-n-octylphalate	na	na	<9.3	<10	<5	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	DE	<100	ns	DE
Total SVOCs (µg/L)	na	na	**7**	ND	ND	ns	ND	**464**	ND	ND	ND	ND	ND	ND	ND	DE	**334**	ns	DE
Metals of Concern (mg/L)																			
Arsenic	0.01	0.01	**0.0015**	ns	<0.200	ns	<0.0010	<0.0010	<0.0010	<0.0010	ns	ns	ns	ns	ns	DE	<0.0010	ns	DE
Manganese	0.84	0.3	**8.59**	ns	**0.350**	ns	**0.399**	**0.481**	**0.480**	**0.452**	**0.481**	**0.523**	**0.512**	**0.604**	**0.702**	DE	**2.47**	ns	DE
Additional Metals (mg/L)																			
Barium	2	na	ns	ns	<0.030	ns	**0.0277**	**0.0431**	**0.0437**	**0.0314**	ns	ns	ns	ns	ns	DE	**0.0138**	ns	DE
Cadmium	0.005	na	ns	ns	<0.030	ns	<0.0020	<0.0020	<0.0020	<0.0020	ns	ns	ns	ns	ns	DE	<0.0020	ns	DE
Chromium	0.1	na	ns	ns	<0.030	ns	<0.0050	<0.0050	<0.0050	<0.0050	ns	ns	ns	ns	ns	DE	<0.0050	ns	DE
Lead	0.015	na	ns	ns	<0.100	ns	<0.0010	<0.0010	<0.0010	<0.0010	ns	ns	ns	ns	ns	DE	<0.0010	ns	DE
Selenium	0.05	na	ns	ns	<0.100	ns	<0.0050	<0.0050	<0.0050	<0.0050	ns	ns	ns	ns	ns	DE	<0.0050	ns	DE
Iron	na	na	ns	ns	**7.20**	ns	**7.63**	**7.91**	**7.91**	**9.19**	ns	ns	ns	ns	ns	DE	**18.3**	ns	DE

TABLE 3A - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID / Geological Unit of Well Screen / Sampling Event Date	NH AGQS	ROD ICL	TRY_MW-202S Overburden														TRY_MW-202P Overburden			
			Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Jun-09 DUP	Oct-09	Jun-11	Jun-13	Nov-14	Jun-15	Jun-11	Jun-13	Nov-14	Jun-15
VOCs of Concern (µg/L)																				
Tetrachloroethene	5	5	ns	ns	ns	ns	ns	ns	ns	<2.0	ns	ns	ns	ns	ns	DE	<2.0	ns	<2.0	ns
Trichloroethene	5	5	ns	ns	ns	ns	ns	ns	ns	<2.0	ns	ns	ns	ns	ns	DE	<2.0	ns	<2.0	ns
cis-1,2-Dichloroethene	70	70	ns	ns	ns	ns	ns	ns	ns	<2.0	ns	ns	ns	ns	ns	DE	**2.9**	ns	<2.0	ns
Vinyl Chloride	2	2	ns	ns	ns	ns	ns	ns	ns	<2.0	ns	ns	ns	ns	ns	DE	<2.0	ns	<2.0	ns
1,2,4-Trimethylbenzene	330	330	ns	ns	ns	ns	ns	ns	ns	<2.0	ns	ns	ns	ns	ns	DE	<2.0	ns	<2.0	ns
1,3,5-Trimethylbenzene	330	330	ns	ns	ns	ns	ns	ns	ns	<2.0	ns	ns	ns	ns	ns	DE	<2.0	ns	<2.0	ns
2-Butanone(MEK)	4,000	4,000	ns	ns	ns	ns	ns	ns	ns	<10	ns	ns	ns	ns	ns	DE	<10	ns	<10	ns
Benzene	5	5	ns	ns	ns	ns	ns	ns	ns	<2.0	ns	ns	ns	ns	ns	DE	<2.0	ns	<2.0	ns
Naphthalene	20	20	ns	ns	ns	ns	ns	ns	ns	<2.0	ns	ns	ns	ns	ns	DE	<2.0	ns	<2.0	ns
n-Butylbenzene	260	260	ns	ns	ns	ns	ns	ns	ns	<2.0	ns	ns	ns	ns	ns	DE	<2.0	ns	<2.0	ns
n-Propylbenzene	260	260	ns	ns	ns	ns	ns	ns	ns	<2.0	ns	ns	ns	ns	ns	DE	<2.0	ns	<2.0	ns
p-Isopropyltoluene (4-cymene)	260	260	ns	ns	ns	ns	ns	ns	ns	<2.0	ns	ns	ns	ns	ns	DE	<2.0	ns	<2.0	ns
Tetrahydrofuran(THF)	600	154	ns	ns	ns	ns	ns	ns	ns	<10	ns	ns	ns	ns	ns	DE	**12**	ns	**15**	ns
Toluene	1,000	1,000	ns	ns	ns	ns	ns	ns	ns	<2.0	ns	ns	ns	ns	ns	DE	<2.0	ns	<2.0	ns
Additional VOCs (µg/L)																				
1,1,1-Trichloroethane	200	na	ns	ns	ns	ns	ns	ns	ns	<2.0	ns	ns	ns	ns	ns	DE	<2.0	ns	<2.0	ns
1,1-Dichloroethane	81	na	ns	ns	ns	ns	ns	ns	ns	<2.0	ns	ns	ns	ns	ns	DE	<2.0	ns	<2.0	ns
1,1-Dichloroethene	7	na	ns	ns	ns	ns	ns	ns	ns	<2.0	ns	ns	ns	ns	ns	DE	<2.0	ns	<2.0	ns
1,2,4-Trichlorobenzene	70	na	ns	ns	ns	ns	ns	ns	ns	<2.0	ns	ns	ns	ns	ns	DE	<2.0	ns	<2.0	ns
1,2-Dichloroethane	5	na	ns	ns	ns	ns	ns	ns	ns	<2.0	ns	ns	ns	ns	ns	DE	<2.0	ns	<2.0	ns
1,4-Dichlorobenzene	75	na	ns	ns	ns	ns	ns	ns	ns	<2.0	ns	ns	ns	ns	ns	DE	<2.0	ns	<2.0	ns
2-Chlorotoluene	100	na	ns	ns	ns	ns	ns	ns	ns	<2.0	ns	ns	ns	ns	ns	DE	<2.0	ns	<2.0	ns
4-Methyl-2-pentanone (MIBK)	2,000	na	ns	ns	ns	ns	ns	ns	ns	<10	ns	ns	ns	ns	ns	DE	<10	ns	<10	ns
Acetone	6,000	na	ns	ns	ns	ns	ns	ns	ns	<10	ns	ns	ns	ns	ns	DE	<10	ns	<10	ns
Carbon Disulfide	70	na	ns	ns	ns	ns	ns	ns	ns	*	ns	ns	ns	ns	ns	DE	*		*	ns
Ethylbenzene	700	na	ns	ns	ns	ns	ns	ns	ns	<2.0	ns	ns	ns	ns	ns	DE	<2.0	ns	<2.0	ns
Isopropylbenzene (cumene)	800	na	ns	ns	ns	ns	ns	ns	ns	<2.0	ns	ns	ns	ns	ns	DE	**14**	ns	**15**	ns
Methylene Chloride (Dichloromethane)	5	na	ns	ns	ns	ns	ns	ns	ns	<2.0	ns	ns	ns	ns	ns	DE	<2.0	ns	<2.0	ns
sec-Butylbenzene	260	na	ns	ns	ns	ns	ns	ns	ns	<2.0	ns	ns	ns	ns	ns	DE	**9.7**	ns	**13**	ns
t-Butanol (TBA)	40	na	ns	ns	ns	ns	ns	ns	ns	<10	ns	ns	ns	ns	ns	DE	<2.0	ns	<2.0	ns
t-Butylbenzene	260	na	ns	ns	ns	ns	ns	ns	ns	<2.0	ns	ns	ns	ns	ns	DE	**2.2**	ns	**2.7**	ns
Trichlorofluoromethane	2,000	na	ns	ns	ns	ns	ns	ns	ns	<2.0	ns	ns	ns	ns	ns	DE	<2.0	ns	<2.0	ns
m/p-Xylene	10, 000 [1]	na	ns	ns	ns	ns	ns	ns	ns	<2.0	ns	ns	ns	ns	ns	DE	<2.0	ns	<2.0	ns
o-Xylene		na	ns	ns	ns	ns	ns	ns	ns	<2.0	ns	ns	ns	ns	ns	DE	<2.0	ns	<2.0	ns
Total VOCs (µg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	ND	ns	ns	ns	ns	ns	DE	**41**	ns	**45.7**	ns
1,4-Dioxane (µg/L)																				
1,4-Dioxane	3	3	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	ns	ns	ns	ns	DE	**0.41**	ns	**0.64**	ns
SVOCs of Concern (µg/L)																				
Benzo(a)pyrene	0.2	0.2	ns	ns	ns	ns	ns	ns	ns	<10	ns	ns	ns	ns	ns	DE	<10	ns	<10	ns
Benzo(b)fluoranthene	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	<10	ns	ns	ns	ns	ns	DE	<10	ns	<10	ns
Bis[Di](2-ethylhexyl) phthalate	6	6	ns	ns	ns	ns	ns	ns	ns	<5.0	ns	ns	ns	ns	ns	DE	<5.0	ns	<5.0	ns
Dibenzo(a,h)anthracene	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	<10	ns	ns	ns	ns	ns	DE	<10	ns	<10	ns
Naphthalene	20	20	ns	ns	ns	ns	ns	ns	ns	<10	ns	ns	ns	ns	ns	DE	<10	ns	<10	ns
Pentachlorophenol	1	1	ns	ns	ns	ns	ns	ns	ns	<20	ns	ns	ns	ns	ns	DE	<20	ns	<20	ns
2-Methylnaphthalene	280	na	ns	ns	ns	ns	ns	ns	ns	<10	ns	ns	ns	ns	ns	DE	*	ns	*	ns
Additional SVOCs (µg/L)																				
Benzyl butyl phthalate	na	na	ns	ns	ns	ns	ns	ns	ns	<10	ns	ns	ns	ns	ns	DE	<10	ns	<10	ns
Di-n-butylphthalate	na	na	ns	ns	ns	ns	ns	ns	ns	<10	ns	ns	ns	ns	ns	DE	<10	ns	<10	ns
Di-n-octylphalate	na	na	ns	ns	ns	ns	ns	ns	ns	<10	ns	ns	ns	ns	ns	DE	<10	ns	<10	ns
Total SVOCs (µg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	ND	ns	ns	ns	ns	ns	DE	ND	ns	ND	ns
Metals of Concern (mg/L)																				
Arsenic	0.01	0.01	ns	ns	ns	ns	ns	ns	ns	<0.0010	<0.0010	ns	ns	ns	ns	DE	<0.0010	ns	<0.0010	ns
Manganese	0.84	0.3	ns	ns	ns	ns	ns	ns	ns	**0.128 J***	**0.091 J***	ns	ns	ns	ns	DE	**0.108**	ns	**0.144 B***	ns
Additional Metals (mg/L)																				
Barium	2	na	ns	ns	ns	ns	ns	ns	ns	**0.3441**	**0.2792**	ns	ns	ns	ns	DE	**0.0122**	ns	ns	ns
Cadmium	0.005	na	ns	ns	ns	ns	ns	ns	ns	<0.0020	<0.0020	ns	ns	ns	ns	DE	<0.0020	ns	ns	ns
Chromium	0.1	na	ns	ns	ns	ns	ns	ns	ns	<0.0050	<0.0050	ns	ns	ns	ns	DE	<0.0050	ns	ns	ns
Lead	0.015	na	ns	ns	ns	ns	ns	ns	ns	**0.0018**	**0.0013**	ns	ns	ns	ns	DE	<0.100	ns	ns	ns
Selenium	0.05	na	ns	ns	ns	ns	ns	ns	ns	<0.0050	<0.0050	ns	ns	ns	ns	DE	<0.0050	ns	ns	ns
Iron	na	na	ns	ns	ns	ns	ns	ns	ns	**7.66 J***	**5.25 J***	ns	ns	ns	ns	DE	**2.29**	ns	ns	ns

TABLE 3A - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID / Geological Unit of Well Screen / Sampling Event Date	NH AGQS	ROD ICL	Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Oct-09	Jun-11	Jun-13	Nov-14	Jun-15
			TRY_MW-204 Overburden												
VOCs of Concern (µg/L)															
Tetrachloroethene	5	5	ns	<1.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns
Trichloroethene	5	5	ns	<1.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns
cis-1,2-Dichloroethene	70	70	ns	<1.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns
Vinyl Chloride	2	2	ns	<1.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns
1,2,4-Trimethylbenzene	330	330	ns	<1.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns
1,3,5-Trimethylbenzene	330	330	ns	<1.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns
2-Butanone(MEK)	4,000	4,000	ns	<1.0	ns	<10	<2.0	<10	<10	<10	<10	<10	ns	<10	ns
Benzene	5	5	ns	<1.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns
Naphthalene	20	20	ns	<1.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns
n-Butylbenzene	260	260	ns	**9.4**	ns	<2.0	**6.7**	**3.0**	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns
n-Propylbenzene	260	260	ns	**4.8**	ns	<2.0	**2.7**	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns
p-Isopropyltoluene (4-cymene)	260	260	ns	**1.0**	ns	<2.0	<2.0	**4.1**	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns
Tetrahydrofuran(THF)	600	154	ns	**8.5**	ns	<10	<2.0	<10	<10	<10	<10	<10	ns	<10	ns
Toluene	1,000	1,000	ns	<1.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns
Additional VOCs (µg/L)															
1,1,1-Trichloroethane	200	na	ns	<1.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns
1,1-Dichloroethane	81	na	ns	<1.0	ns	<10	<10	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns
1,1-Dichloroethene	7	na	ns	<1.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns
1,2,4-Trichlorobenzene	70	na	ns	<1.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns
1,2-Dichloroethane	5	na	ns	<1.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns
1,4-Dichlorobenzene	75	na	ns	<1.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns
2-Chlorotoluene	100	na	ns	<1.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns
4-Methyl-2-pentanone (MIBK)	2,000	na	ns	<1.0	ns	**5.9**	<2.0	<10	<10	<10	<10	<10	ns	<10	ns
Acetone	6,000	na	ns	<1.0	ns	**6.1**	<2.0	<10	<10	<10	<10	<10	ns	<10	ns
Carbon Disulfide	70	na	ns	*	ns	*	*	*	*	*	*	*	ns	*	ns
Ethylbenzene	700	na	ns	**1.6**	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns
Isopropylbenzene (cumene)	800	na	ns	**13**	ns	<2.0	**10**	**3.9**	**5.1**	**2.7**	**4.2**	<2.0	ns	<2.0	ns
Methylene Chloride (Dichloromethane)	5	na	ns	<1.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns
sec-Butylbenzene	260	na	ns	**9.7**	ns	<2.0	**8.1**	**6.7**	**7.7**	**4.7**	**6.5**	**4.1**	ns	**4.7**	ns
t-Butanol (TBA)	40	na	ns	---	ns	<2.0	<2.0	<10	<10	<10	<10	<10	ns	<10	ns
t-Butylbenzene	260	na	ns	**1.5**	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns
Trichlorofluoromethane	2,000	na	ns	<1.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns
m/p-Xylene	10, 000 [1]	na	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns
o-Xylene		na	ns	<1.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<2.0	ns
Total VOCs (µg/L)	na	na	ns	**50**	ns	**12**	**28**	**18**	**13**	**7**	**11**	**4**	ns	**5**	ns
1,4-Dioxane (µg/L)															
1,4-Dioxane	3	3	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
SVOCs of Concern (µg/L)															
Benzo(a)pyrene	0.2	0.2	ns	<5	ns	<10	<10	<10	<10	<10	<10	<10	ns	<10	ns
Benzo(b)fluoranthene	0.1	0.1	ns	<5	ns	<10	<10	<10	<10	<10	<10	<10	ns	<10	ns
Bis[Di](2-ethylhexyl) phthalate	6	6	ns	<5	ns	<10	<10	<5.0	<5.0	<5.0	**28**	<5.0	ns	<5.0	ns
Dibenzo(a,h)anthracene	0.1	0.1	ns	<5	ns	<10	<10	<10	<10	<10	<10	<10	ns	<10	ns
Naphthalene	20	20	ns	**5.0**	ns	<10	<10	<10	<10	<10	<10	<10	ns	<10	ns
Pentachlorophenol	1	1	ns	<5	ns	<20	<20	<20	<20	<20	<20	<20	ns	<20	ns
2-Methylnaphthalene	280	na	ns	<5	ns	<10	<10	<10	<10	<10	<10	*	ns	*	ns
Additional SVOCs (µg/L)															
Benzyl butyl phthalate	na	na	ns	<5	ns	<10	<10	<10	<10	<10	<10	<10	ns	<10	ns
Di-n-butylphthalate	na	na	ns	<5	ns	<10	<10	**11**	<10	<10	<10	<10	ns	<10	ns
Di-n-octylphalate	na	na	ns	<5	ns	<10	<10	<10	<10	<10	<10	<10	ns	<10	ns
Total SVOCs (µg/L)	na	na	ns	**5**	ns	ND	ND	**11**	ND	ND	**28**	ND	ns	ND	ns
Metals of Concern (mg/L)															
Arsenic	0.01	0.01	ns	<0.200	ns	<0.0010	<0.0010	<0.0010	ns	ns	ns	ns	ns	<0.0010	ns
Manganese	0.84	0.3	ns	**8.5**	ns	**14.1**	**14.5**	**14.1**	**13.8**	**11.1**	**10.3**	**9.15**	ns	**6.52**	ns
Additional Metals (mg/L)															
Barium	2	na	ns	<0.030	ns	**0.0118**	**0.0112**	**0.0084**	ns	ns	ns	ns	ns	ns	ns
Cadmium	0.005	na	ns	<0.030	ns	<0.0020	<0.0020	<0.0020	ns	ns	ns	ns	ns	ns	ns
Chromium	0.1	na	ns	<0.030	ns	<0.0050	<0.0050	<0.0050	ns	ns	ns	ns	ns	ns	ns
Lead	0.015	na	ns	<0.100	ns	<0.0010	<0.0010	<0.0010	ns	ns	ns	ns	ns	ns	ns
Selenium	0.05	na	ns	<0.100	ns	<0.0050	<0.0050	<0.0050	ns	ns	ns	ns	ns	ns	ns
Iron	na	na	ns	**11**	ns	**12.3**	**11.5**	**25.80**	ns	ns	ns	ns	ns	ns	ns

TABLE 3A - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	NH AGQS	ROD ICL	TRY_MW-205																		
Geological Unit of Well Screen			Overburden																		
Sampling Event Date			Aug-04	Oct-05	Jun-06	Dec-06	Dec-06 DUP	May-07	Jun-08	Dec-08	Dec-08 DUP	Jun-09	Jun-09 DUP	Oct-09	Oct-09 DUP	Jun-11	Jun-11 DUP	Jun-13	Jun-13 DUP	Nov-14	Jun-15
VOCs of Concern (µg/L)																					
Tetrachloroethene	5	5	ns	<1.0	ns	<2.0	<4.0	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<10	<10	<4	<4	<10	ns
Trichloroethene	5	5	ns	<1.0	ns	<2.0	<4.0	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<10	<10	<4	<4	<10	ns
cis-1,2-Dichloroethene	70	70	ns	<1.0	ns	<2.0	<4.0	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<10	<10	<4	<4	<10	ns
Vinyl Chloride	2	2	ns	<1.0	ns	<2.0	<4.0	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<10	<10	<4	<4	<10	ns
1,2,4-Trimethylbenzene	330	330	ns	83	ns	195	201	294	314	159	172	444	435	477	522	394	423	222	212	433	ns
1,3,5-Trimethylbenzene	330	330	ns	33	ns	77	73	92	186	120	125	223	216	154	183	203	213	44	39	144	ns
2-Butanone(MEK)	4,000	4,000	ns	<1.0	ns	<20	<20	<20	<10	<10	<10	<10	<10	<50	<50	<50	<50	<20	<20	<50	ns
Benzene	5	5	ns	<1.0	ns	<2.0	<4.0	<4.0	<2.0	2.6	2.6	<2.0	<2.0	<10	<10	<10	<10	<4	<4	<10	ns
Naphthalene	20	20	ns	13	ns	19	19	28	55	59	61	44	43	40	45	58	61	29	28	44	ns
n-Butylbenzene	260	260	ns	<1.0	ns	<2.0	<4.0	ns	34	<2.0	<2.0	<2.0	<2.0	<10	<10	32	34	<4	<4	28	ns
n-Propylbenzene	260	260	ns	11	ns	16	16	30	45	60	62	34	34	49	55	39	41	20	20	53	ns
p-Isopropyltoluene (4-cymene)	260	260	ns	2.9	ns	9.2	8.5	17	26	11	12	29	28	31	33	22	25	10	9.6	23	ns
Tetrahydrofuran(THF)	600	154	ns	<1.0	ns	10	<20	<20	<10	<10	<10	<10	<10	<50	<50	<50	<50	<20	<20	<50	ns
Toluene	1,000	1,000	ns	12.0	ns	40	80	117	<2.0	6.3	6.8	<2.0	<2.0	<10	<10	<10	<10	<4	<4	<10	ns
Additional VOCs (µg/L)																					
1,1,1-Trichloroethane	200	na	ns	<1.0	ns	<2.0	<4.0	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<10	<10	<4	<4	<10	ns
1,1-Dichloroethane	81	na	ns	2.7	ns	3.8	<4.0	<4.0	<2.0	3.5	3.5	<2.0	<2.0	<10	<10	<10	<10	<4	<4	<10	ns
1,1-Dichloroethene	7	na	ns	<1.0	ns	<2.0	<4.0	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<10	<10	<4	<4	<10	ns
1,2,4-Trichlorobenzene	70	na	ns	<1.0	ns	<2.0	<4.0	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<10	<10	<4	<4	<10	ns
1,2-Dichloroethane	5	na	ns	<1.0	ns	<2.0	<4.0	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<10	<10	<4	<4	<10	ns
1,4-Dichlorobenzene	75	na	ns	<1.0	ns	<2.0	<4.0	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<10	<10	<4	<4	<10	ns
2-Chlorotoluene	100	na	ns	<1.0	ns	<2.0	<4.0	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<10	<10	<4	<4	<10	ns
4-Methyl-2-pentanone (MIBK)	2,000	na	ns	<1.0	ns	<10	<20	<20	<10	<10	<10	<10	<10	<50	<50	<50	<50	<20	<20	<50	ns
Acetone	6,000	na	ns	<1.0	ns	<10	<20	<20	<10	12	13	<10	<10	<50	<50	<50	<50	<20	<20	<50	ns
Carbon Disulfide	70	na	ns	*	ns	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	ns
Ethylbenzene	700	na	ns	39	ns	55	55	74	93	127	130	78	77	123	122	92	95	47	44	128	ns
Isopropylbenzene (cumene)	800	na	ns	21	ns	13	12	25	36	46	47	23	24	39	40	30	31	18	17	44	ns
Methylene Chloride (Dichloromethane)	5	na	ns	<1.0	ns	<2.0	<4.0	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<10	<10	<4	<4	<10	ns
sec-Butylbenzene	260	na	ns	3.3	ns	5	4.5	15	23	25	26	20	20	22	23	18	20	8.1	7.7	20	ns
t-Butanol (TBA)	40	na	ns	---	ns	<10	<20	<20	<10	<10	<10	<10	<10	<50	<50	<50	<50	<20	<20	<50	ns
t-Butylbenzene	260	na	ns	2.2	ns	2.2	<4.0	<4.0	6	7.4	7.5	<2.0	<2.0	<10	<10	<10	<10	<4	<4	<10	ns
Trichlorofluoromethane	2,000	na	ns	<1.0	ns	<2.0	<4.0	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<10	<10	<4	<4	<10	ns
m/p-Xylene	10, 000 [1]	na	ns	27	ns	42	47	96	88	101	108	141	137	185	189	97	96	49	46	190	ns
o-Xylene		na	ns	21	ns	39	40	68	43	46	50	62	61	115	114	55	55	<4	<4	<10.0	ns
Total VOCs (µg/L)	na	na	ns	271	ns	526	556	856	949	786	826	1,096	1,075	1,235	1,326	1,040	1,094	447	423	1,107	ns
1,4-Dioxane (µg/L)																					
1,4-Dioxane	3	3	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
SVOCs of Concern (µg/L)																					
Benzo(a)pyrene	0.2	0.2	ns	<5	ns	<50	<40	<500	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	ns
Benzo(b)fluoranthene	0.1	0.1	ns	<5	ns	<50	<40	<500	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	ns
Bis[Di](2-ethylhexyl) phthalate	6	6	ns	510	ns	316	227	5,070	35	49	38	10.0	7.8	37	40	8.4	9.3	21	26	77	ns
Dibenzo(a,h)anthracene	0.1	0.1	ns	<5	ns	<50	<40	<500	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	ns
Naphthalene	20	20	ns	<5	ns	<50	<40	901	32	40	30	26	25	26	21	34	34	17	17	36	ns
Pentachlorophenol	1	1	ns	<5	ns	<100	<80	<1000	<20	<20	<20	<20	<20	<20	<20	<20	<20	ns [2]	ns [2]	<20	ns
2-Methylnaphthalene	280	na	ns	<5	ns	<50	*	<500	<10	<10	*	<10	*	<10	*	*	*	*	*	*	ns
Additional SVOCs (µg/L)																					
Benzyl butyl phthalate	na	na	ns	<5	ns	<50		<500	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	ns
Di-n-butylphthalate	na	na	ns	<5	ns	<50	<40	<500	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	ns
Di-n-octylphalate	na	na	ns	72	ns	<50	<40	852	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	11	ns
Total SVOCs (µg/L)	na	na	ns	582	ns	316	227	6,823	67	89	68	36	33	63	61	42	43	38	43	124	ns
Metals of Concern (mg/L)																					
Arsenic	0.01	0.01	ns	<0.200	ns	0.0029	0.0031	0.0044	0.0044	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	0.0041	ns
Manganese	0.84	0.3	ns	1.10	ns	1.48	1.48	1.78	1.78	2.01	1.99	1.60	1.60	1.69	1.71	1.63	1.62	1.36	1.39	1.91	ns
Additional Metals (mg/L)																					
Barium	2	na	ns	0.0650	ns	0.0912	0.0897	0.0721	0.0833	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Cadmium	0.005	na	ns	<0.030	ns	<0.0020	<0.0020	<0.0020	<0.0020	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Chromium	0.1	na	ns	<0.030	ns	<0.0050	<0.0050	<0.0050	<0.0050	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Lead	0.015	na	ns	<0.100	ns	<0.0010	<0.0010	<0.0010	<0.0010	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Selenium	0.05	na	ns	<0.100	ns	<0.0050	0.0052	0.0108	0.0153	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Iron	na	na	ns	39.0	ns	36.8	38.7	94.0	124	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns

TABLE 3A - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID / Geological Unit of Well Screen	NH AGQS	ROD ICL	TRY_MW-301 Overburden									TRY_MW-301X Overburden			
Sampling Event Date			Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Oct-09	Jun-11	Jun-13	Nov-14	Jun-15
VOCs of Concern (µg/L)															
Tetrachloroethene	5	5	ns	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
Trichloroethene	5	5	ns	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
cis-1,2-Dichloroethene	70	70	ns	**1.2**	ns	<2.0	ns	<2.0	**3.1**	<2.0	**2.4**	**2.4**	**2.5**	<2.0	ns
Vinyl Chloride	2	2	ns	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
1,2,4-Trimethylbenzene	330	330	ns	**1.1**	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
1,3,5-Trimethylbenzene	330	330	ns	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
2-Butanone(MEK)	4,000	4,000	ns	<1.0	ns	<10	ns	<10	<10	<10	<10	<10	<10	<10	ns
Benzene	5	5	ns	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
Naphthalene	20	20	ns	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
n-Butylbenzene	260	260	ns	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
n-Propylbenzene	260	260	ns	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
p-Isopropyltoluene (4-cymene)	260	260	ns	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
Tetrahydrofuran(THF)	600	154	ns	<1.0	ns	<10	ns	<10	<10	<10	<10	<10	<10	<10	ns
Toluene	1,000	1,000	ns	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
Additional VOCs (µg/L)															
1,1,1-Trichloroethane	200	na	ns	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
1,1-Dichloroethane	81	na	ns	**4.4**	ns	**4.5**	ns	**5**	**4.2**	**2.9**	**3.8**	**2.3**	<2.0	<2.0	ns
1,1-Dichloroethene	7	na	ns	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
1,2,4-Trichlorobenzene	70	na	ns	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
1,2-Dichloroethane	5	na	ns	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
1,4-Dichlorobenzene	75	na	ns	**1.2**	ns	<2.0	ns	**2.6**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
2-Chlorotoluene	100	na	ns	**5.8**	ns	**6.0**	ns	**19**	**11**	**4.3**	**13**	<2.0	<2.0	<2.0	ns
4-Methyl-2-pentanone (MIBK)	2,000	na	ns	<1.0	ns	<10	ns	<10	<2.0	<10	<10	<10	<10	<10	ns
Acetone	6,000	na	ns	<1.0	ns	<10	ns	<10	<2.0	<10	<10	<10	<10	<10	ns
Carbon Disulfide	70	na	ns	*	ns	*	ns	*	*	*	*	*	*	*	ns
Ethylbenzene	700	na	ns	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
Isopropylbenzene (cumene)	800	na	ns	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
Methylene Chloride (Dichloromethane)	5	na	ns	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
sec-Butylbenzene	260	na	ns	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	**2.7**	**4.5**	**5.2**	**4.6**	ns
t-Butanol (TBA)	40	na	ns	---	ns	<10	ns	<10	<10	<10	<10	<10	<10	<10	ns
t-Butylbenzene	260	na	ns	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
Trichlorofluoromethane	2,000	na	ns	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
m/p-Xylene	10, 000 [1]	na	ns	<2.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
o-Xylene		na	ns	<1.0	ns	<2.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns
Total VOCs (µg/L)	na	na	ns	**14**	ns	**11**	ns	**27**	**18**	**7**	**22**	**9**	**8**	**5**	ns
1,4-Dioxane (µg/L)															
1,4-Dioxane	3	3	ns	ns	ns	ns	ns	ns	ns	ns	ns	**0.29**	ns	**0.20**	ns
SVOCs of Concern (µg/L)															
Benzo(a)pyrene	0.2	0.2	ns	<5	ns	<10	ns	<10	<10	<10	<10	<10	<10	<10	ns
Benzo(b)fluoranthene	0.1	0.1	ns	<5	ns	<10	ns	<10	<10	<10	<10	<10	<10	<10	ns
Bis[Di](2-ethylhexyl) phthalate	6	6	ns	<5	ns	**12**	ns	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	ns
Dibenzo(a,h)anthracene	0.1	0.1	ns	<5	ns	<10	ns	<10	<10	<10	<10	<10	<10	<10	ns
Naphthalene	20	20	ns	<5	ns	<10	ns	<10	<10	<10	<10	<10	<10	<10	ns
Pentachlorophenol	1	1	ns	<5	ns	<25	ns	<20	<20	<20	<20	<20	ns [2]	<20	ns
2-Methylnaphthalene	280	na	ns	<5	ns	<10	ns	<10	<10	<10	<10	<10	<10	<10	ns
Additional SVOCs (µg/L)															
Benzyl butyl phthalate	na	na	ns	<5	ns	<10	ns	<10	<10	<10	<10	<10	<10	<10	ns
Di-n-butylphthalate	na	na	ns	<5	ns	<10	ns	<10	<10	<10	<10	<10	<10	<10	ns
Di-n-octylphalate	na	na	ns	<5	ns	<10	ns	<10	<10	<10	<10	<10	<10	<10	ns
Total SVOCs (µg/L)	na	na	ns	ND	ns	**12**	ns	ND	ND	ND	ND	ND	ND	ND	ns
Metals of Concern (mg/L)															
Arsenic	0.01	0.01	ns	<0.200	ns	**0.0610**	ns	**0.0017**	ns	ns	ns	<0.001	ns	<0.0010	ns
Manganese	0.84	0.3	ns	**7.8**	ns	**4.57**	ns	**4.32**	**4.78**	**6.35**	**6.85**	**1.47**	**0.651**	**0.713 B***	ns
Additional Metals (mg/L)															
Barium	2	na	ns	**0.057**	ns	**0.2951**	ns	**0.0558**	ns	ns	ns	**0.0125**	ns	ns	ns
Cadmium	0.005	na	ns	<0.030	ns	<0.0020	ns	<0.0020	ns	ns	ns	<0.002	ns	ns	ns
Chromium	0.1	na	ns	<0.030	ns	0.0394	ns	<0.0050	ns	ns	ns	<0.005	ns	ns	ns
Lead	0.015	na	ns	<0.100	ns	**0.0370**	ns	<0.0010	ns	ns	ns	<0.001	ns	ns	ns
Selenium	0.05	na	ns	<0.100	ns	<0.0050	ns	<0.0050	ns	ns	ns	<0.005	ns	ns	ns
Iron	na	na	ns	**62**	ns	**107**	ns	**61.2**	ns	ns	ns	**1.56**	ns	ns	ns

TABLE 3A - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID / Geological Unit of Well Screen	NH AGQS	ROD ICL	TRY_MW-501 Overburden													TRY_MW-501X Overburden				TRY_MW-501D Overburden
Sampling Event Date			**Aug-04**	**Oct-05**	**Jun-06**	**Dec-06**	**May-07**	**Jun-08**	**Jun-08 DUP**	**Dec-08**	**Dec-08 DUP**	**Jun-09**	**Jun-09 DUP**	**Oct-09**	**Oct-09 DUP**	**Jun-11**	**Jun-13**	**Nov-14**	**Jun-15**	**Jun-15**
VOCs of Concern (µg/L)																				
Tetrachloroethene	5	5	ns	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<1
Trichloroethene	5	5	ns	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<1
cis-1,2-Dichloroethene	70	70	ns	**40**	**29**	**24**	**12**	**19**	**21**	**14**	**14**	**8.7**	**8.9**	**5.2**	**6.4**	**2**	<2.0	<2.0	ns	<1
Vinyl Chloride	2	2	ns	<1.0	<2.0	<2.0	<2.0	**2.5**	**2.6**	<2.0	<2.0	<2.0	<2.0	**3.4**	**4.0**	<2.0	<2.0	<2.0	ns	<1
1,2,4-Trimethylbenzene	330	330	ns	**2.1**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<1
1,3,5-Trimethylbenzene	330	330	ns	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<1
2-Butanone(MEK)	4,000	4,000	ns	<1.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	**12**	<10	<10	ns	<25
Benzene	5	5	ns	**1.0**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<1
Naphthalene	20	20	ns	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<1
n-Butylbenzene	260	260	ns	**1.0**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<1
n-Propylbenzene	260	260	ns	**2.8**	**2.5**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<1
p-Isopropyltoluene (4-cymene)	260	260	ns	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<1
Tetrahydrofuran(THF)	600	154	ns	<1.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	ns	<5
Toluene	1,000	1,000	ns	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<1
Additional VOCs (µg/L)																				
1,1,1-Trichloroethane	200	na	ns	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<1
1,1-Dichloroethane	81	na	ns	<1.0	**5.0**	<2.0	**3.3**	**4.1**	**3.9**	**2.4**	**2.4**	**2.1**	**2.1**	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<1
1,1-Dichloroethene	7	na	ns	<1.0	<2.0	**3.2**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<1
1,2,4-Trichlorobenzene	70	na	ns	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<1
1,2-Dichloroethane	5	na	ns	**2**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<1
1,4-Dichlorobenzene	75	na	ns	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<1
2-Chlorotoluene	100	na	ns	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<1
4-Methyl-2-pentanone (MIBK)	2,000	na	ns	<1.0	<2.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	ns	<10
Acetone	6,000	na	ns	<1.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	**50**	<10	ns	<25
Carbon Disulfide	70	na	ns	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	ns	*
Ethylbenzene	700	na	ns	**8.8**	**8.0**	**5.7**	**2.9**	**3.6**	**3.9**	**3.3**	**3.5**	**3.0**	**3.3**	**2.7**	**3.0**	<2.0	<2.0	<2.0	ns	<1
Isopropylbenzene (cumene)	800	na	ns	**3.7**	**3.7**	**3.2**	**2.7**	**3.4**	**3.9**	**2.5**	**2.7**	**3.6**	**3.9**	**3.6**	**3.7**	<2.0	<2.0	<2.0	ns	<1
Methylene Chloride (Dichloromethane)	5	na	ns	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<4
sec-Butylbenzene	260	na	ns	**3.1**	**3.1**	**3.0**	**2.5**	**4.7**	**5.2**	**3.3**	**3.6**	**4.4**	**4.8**	**4.6**	**4.2**	<2.0	<2.0	<2.0	ns	<1
t-Butanol (TBA)	40	na	ns	---	---	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	ns	<25
t-Butylbenzene	260	na	ns	**1.6**	**1.6**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	**2.0**	**2.0**	**2.1**	**2.1**	<2.0	<2.0	<2.0	ns	<1
Trichlorofluoromethane	2,000	na	ns	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<1
m/p-Xylene	10, 000 [1]	na	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<2
o-Xylene		na	ns	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	<1
Total VOCs (µg/L)	na	na	ns	**66**	**63**	**39**	**23**	**37**	**41**	**26**	**26**	**24**	**25**	**22**	**23**	**14**	**50**	ND	ns	**ND**
1,4-Dioxane (µg/L)																				
1,4-Dioxane	3	3	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	**0.39**	ns	<0.20	ns	<0.93
SVOCs of Concern (µg/L)																				
Benzo(a)pyrene	0.2	0.2	ns	<5	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	ns	<0.05
Benzo(b)fluoranthene	0.1	0.1	ns	<5	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	ns	<0.05
Bis[Di](2-ethylhexyl) phthalate	6	6	ns	**10**	ns	<10	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	ns	<5.6
Dibenzo(a,h)anthracene	0.1	0.1	ns	<5	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	ns	<0.05
Naphthalene	20	20	ns	<5	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	ns	<0.19
Pentachlorophenol	1	1	ns	<5	ns	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	ns [2]	<20	ns	<0.75
2-Methylnaphthalene	280	na	ns	<5	ns	<10	<10	<10	*	<10	*	<10	*	<10	*	*	*	*	ns	<0.19
Additional SVOCs (µg/L)																				
Benzyl butyl phthalate	na	na	ns	<5	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	ns	<9.3
Di-n-butylphthalate	na	na	ns	<5	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	ns	<9.3
Di-n-octylphalate	na	na	ns	<5	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	ns	<9.3
Total SVOCs (µg/L)	na	na	ns	**10**	ns	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**11**	ND	ND	ns	ND
Metals of Concern (mg/L)																				
Arsenic	0.01	0.01	ns	<0.200	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	ns	ns	ns	ns	ns	ns	<0.001	ns	**0.0011**	ns	<0.001
Manganese	0.84	0.3	ns	**14**	**13.4**	**13.5**	**2.56**	**12.7**	**12.5**	**12**	**12.3**	**9.82**	**9.91**	**9.78**	**9.57**	**5.24**	**1.93**	**3.82 B***	ns	**0.151**
Additional Metals (mg/L)																				
Barium	2	na	ns	**0.0450**	**0.0577**	**0.0504**	**0.535**	**0.0585**	**0.0593**	ns	ns	ns	ns	ns	ns	**0.0458**	ns	ns	ns	ns
Cadmium	0.005	na	ns	<0.030	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	ns	ns	ns	ns	ns	ns	<0.002	ns	ns	ns	ns
Chromium	0.1	na	ns	<0.030	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	ns	ns	ns	ns	ns	ns	<0.005	ns	ns	ns	ns
Lead	0.015	na	ns	<0.100	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	ns	ns	ns	ns	ns	ns	**0.0017**	ns	ns	ns	ns
Selenium	0.05	na	ns	<0.100	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	ns	ns	ns	ns	ns	ns	<0.005	ns	ns	ns	ns
Iron	na	na	ns	**47**	**63.4**	**130.0**	**130**	**62**	**61.1**	ns	ns	ns	ns	ns	ns	**64.4**	ns	ns	ns	ns

TABLE 3A - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID / Geological Unit of Well Screen / Sampling Event Date	NH AGQS	ROD ICL	TRY_MW-508 Overburden Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Oct-09	TRY_MW-508X Overburden Jun-11	Jun-13	Nov-14	Jun-15
VOCs of Concern (µg/L)															
Tetrachloroethene	5	5	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
Trichloroethene	5	5	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
cis-1,2-Dichloroethene	70	70	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
Vinyl Chloride	2	2	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
1,2,4-Trimethylbenzene	330	330	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
1,3,5-Trimethylbenzene	330	330	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
2-Butanone(MEK)	4,000	4,000	ns	ns	ns	ns	ns	ns	ns	<10	<10	<10	ns	<10	ns
Benzene	5	5	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
Naphthalene	20	20	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
n-Butylbenzene	260	260	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
n-Propylbenzene	260	260	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
p-Isopropyltoluene (4-cymene)	260	260	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
Tetrahydrofuran(THF)	600	154	ns	ns	ns	ns	ns	ns	ns	<10	<10	<10	ns	<10	ns
Toluene	1,000	1,000	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
Additional VOCs (µg/L)															
1,1,1-Trichloroethane	200	na	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
1,1-Dichloroethane	81	na	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
1,1-Dichloroethene	7	na	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
1,2,4-Trichlorobenzene	70	na	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
1,2-Dichloroethane	5	na	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
1,4-Dichlorobenzene	75	na	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
2-Chlorotoluene	100	na	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
4-Methyl-2-pentanone (MIBK)	2,000	na	ns	ns	ns	ns	ns	ns	ns	<10	<10	<10	ns	<10	ns
Acetone	6,000	na	ns	ns	ns	ns	ns	ns	ns	<10	<10	<10	ns	<10	ns
Carbon Disulfide	70	na	ns	ns	ns	ns	ns	ns	ns	*	*	*	ns	*	ns
Ethylbenzene	700	na	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
Isopropylbenzene (cumene)	800	na	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
Methylene Chloride (Dichloromethane)	5	na	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
sec-Butylbenzene	260	na	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
t-Butanol (TBA)	40	na	ns	ns	ns	ns	ns	ns	ns	<10	<10	<10	ns	<10	ns
t-Butylbenzene	260	na	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
Trichlorofluoromethane	2,000	na	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
m/p-Xylene	10, 000 [1]	na	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
o-Xylene		na	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	<2.0	ns
Total VOCs (µg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	ND	ND	ND	ns	ND	ns
1,4-Dioxane (µg/L)															
1,4-Dioxane	3	3	ns	ns	ns	ns	ns	ns	ns	<2.0	ns	<0.20	ns	<0.20	ns
SVOCs of Concern (µg/L)															
Benzo(a)pyrene	0.2	0.2	ns	ns	ns	ns	ns	ns	ns	<10	<10	<10	ns	<10	ns
Benzo(b)fluoranthene	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	<10	<10	<10	ns	<10	ns
Bis[Di](2-ethylhexyl) phthalate	6	6	ns	ns	ns	ns	ns	ns	ns	<5.0	<5.0	<5.0	ns	<5.0	ns
Dibenzo(a,h)anthracene	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	<10	<10	<10	ns	<10	ns
Naphthalene	20	20	ns	ns	ns	ns	ns	ns	ns	<10	<10	<10	ns	<10	ns
Pentachlorophenol	1	1	ns	ns	ns	ns	ns	ns	ns	<20	<20	<20	ns	<20 Q	ns
2-Methylnaphthalene	280	na	ns	ns	ns	ns	ns	ns	ns	<10	<10	<10	ns	<10	ns
Additional SVOCs (µg/L)															
Benzyl butyl phthalate	na	na	ns	ns	ns	ns	ns	ns	ns	<10	<10	<10	ns	<10	ns
Di-n-butylphthalate	na	na	ns	ns	ns	ns	ns	ns	ns	<10	<10	<10	ns	<10	ns
Di-n-octylphalate	na	na	ns	ns	ns	ns	ns	ns	ns	<10	<10	<10	ns	<10	ns
Total SVOCs (µg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	ND	ND	ND	ns	ND	ns
Metals of Concern (mg/L)															
Arsenic	0.01	0.01	ns	ns	ns	ns	ns	ns	ns	<0.0010	ns	<0.001	ns	<0.0010	ns
Manganese	0.84	0.3	ns	ns	ns	ns	ns	ns	ns	**0.057**	**0.058**	**0.353**	ns	**0.020 B***	ns
Additional Metals (mg/L)															
Barium	2	na	ns	ns	ns	ns	ns	ns	ns	**0.0529**	ns	**0.0357**	ns	ns	ns
Cadmium	0.005	na	ns	ns	ns	ns	ns	ns	ns	<0.0020	ns	<0.002	ns	ns	ns
Chromium	0.1	na	ns	ns	ns	ns	ns	ns	ns	<0.0050	ns	<0.005	ns	ns	ns
Lead	0.015	na	ns	ns	ns	ns	ns	ns	ns	**0.0011**	ns	<0.001	ns	ns	ns
Selenium	0.05	na	ns	ns	ns	ns	ns	ns	ns	<0.0050	ns	<0.005	ns	ns	ns
Iron	na	na	ns	ns	ns	ns	ns	ns	ns	**2.45**	ns	**1.47**	ns	ns	ns

TABLE 3A - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID			**TRY_MW-601S**													
Geological Unit of Well Screen	**NH AGQS**	**ROD ICL**	**Overburden**													
Sampling Event Date			**Aug-04**	**Oct-05**	**Jun-06**	**Dec-06**	**May-07**	**Jun-08**	**Dec-08**	**Jun-09**	**Jun-09 DUP**	**Oct-09**	**Jun-11**	**Jun-13**	**Nov-14**	**Jun-15**
VOCs of Concern (µg/L)																
Tetrachloroethene	5	5	*ns*	<1.0	*ns*	<0.4	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	*ns*
Trichloroethene	5	5	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	*ns*
cis-1,2-Dichloroethene	70	70	*ns*	**3.1**	*ns*	<2.0	<2.0	**2.1**	<2.0	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	*ns*
Vinyl Chloride	2	2	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	*ns*
1,2,4-Trimethylbenzene	330	330	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	*ns*
1,3,5-Trimethylbenzene	330	330	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	*ns*
2-Butanone(MEK)	4,000	4,000	*ns*	<1.0	*ns*	<10	<10	<10	<10	<10	*ns*	<10	<10	<10	<10	*ns*
Benzene	5	5	*ns*	<1.0	*ns*	<0.3	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	*ns*
Naphthalene	20	20	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	*ns*
n-Butylbenzene	260	260	*ns*	**6.4**	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	*ns*
n-Propylbenzene	260	260	*ns*	**1.4**	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	*ns*
p-Isopropyltoluene (4-cymene)	260	260	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	*ns*
Tetrahydrofuran(THF)	600	154	*ns*	**9.9**	*ns*	<10	<10	<10	<10	<10	*ns*	<10	<10	<10	<10	*ns*
Toluene	1,000	1,000	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	*ns*
Additional VOCs (µg/L)																
1,1,1-Trichloroethane	200	na	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	*ns*
1,1-Dichloroethane	81	na	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	*ns*
1,1-Dichloroethene	7	na	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	*ns*
1,2,4-Trichlorobenzene	70	na	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	*ns*
1,2-Dichloroethane	5	na	*ns*	<1.0	*ns*	<0.4	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	*ns*
1,4-Dichlorobenzene	75	na	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	*ns*
2-Chlorotoluene	100	na	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	*ns*
4-Methyl-2-pentanone (MIBK)	2,000	na	*ns*	<1.0	*ns*	<10	<10	<10	<10	<10	*ns*	<10	<10	<10	<10	*ns*
Acetone	6,000	na	*ns*	<1.0	*ns*	<10	<10	<10	<10	<10	*ns*	<10	<10	<10	<10	*ns*
Carbon Disulfide	70	na	*ns*	*	*ns*	*	*	*	*	*	*ns*	*	*	*	*	*ns*
Ethylbenzene	700	na	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	*ns*
Isopropylbenzene (cumene)	800	na	*ns*	**12**	*ns*	<2.0	<2.0	**4.5**	<2.0	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	*ns*
Methylene Chloride (Dichloromethane)	5	na	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	*ns*
sec-Butylbenzene	260	na	*ns*	**9.6**	*ns*	<2.0	<2.0	**10**	**3.8**	**4.0**	*ns*	**3.2**	**6.1**	**3.5**	**2.6**	*ns*
t-Butanol (TBA)	40	na	*ns*	---	*ns*	<10	<10	<10	<10	<10	*ns*	<10	<10	<10	<10	*ns*
t-Butylbenzene	260	na	*ns*	**1.5**	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	*ns*
Trichlorofluoromethane	2,000	na	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	*ns*
m/p-Xylene	10, 000 [1]	na	*ns*	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	*ns*
o-Xylene		na	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	*ns*
Total VOCs (µg/L)	na	na	*ns*	**44**	*ns*	ND	ND	**17**	**4**	**4**	*ns*	**3**	**6**	**4**	**3**	*ns*
1,4-Dioxane (µg/L)																
1,4-Dioxane	3	3	*ns*	*ns*	*ns*	*ns*	*ns*	<2.0	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
SVOCs of Concern (µg/L)																
Benzo(a)pyrene	0.2	0.2	*ns*	<5	*ns*	<10	<10	<10	<10	<10	*ns*	<10	<10	<10	<10	*ns*
Benzo(b)fluoranthene	0.1	0.1	*ns*	<5	*ns*	<10	<10	<10	<10	<10	*ns*	<10	<10	<10	<10	*ns*
Bis[Di](2-ethylhexyl) phthalate	6	6	*ns*	<5	*ns*	<10	**11**	<5.0	<5.0	<5.0	*ns*	<5.0	<5.0	<5.0	<5.0	*ns*
Dibenzo(a,h)anthracene	0.1	0.1	*ns*	<5	*ns*	<10	<10	<10	<10	<10	*ns*	<10	<10	<10	<10	*ns*
Naphthalene	20	20	*ns*	<5	*ns*	<10	<10	<10	<10	<10	*ns*	<10	<10	<10	<10	*ns*
Pentachlorophenol	1	1	*ns*	<5	*ns*	<25	<20	<20	<20	<20	*ns*	<20	<20	*ns* [2]	<20	*ns*
2-Methylnaphthalene	280	na	*ns*	<5	*ns*	<10	<10	<10	<10	<10	*ns*	<10	<10	*	<10	*ns*
Additional SVOCs (µg/L)																
Benzyl butyl phthalate	na	na	*ns*	<5	*ns*	<10	<10	<10	<10	<10	*ns*	<10	<10	<10	<10	*ns*
Di-n-butylphthalate	na	na	*ns*	<5	*ns*	<10	<10	<10	<10	<10	*ns*	<10	<10	<10	<10	*ns*
Di-n-octylphalate	na	na	*ns*	<5	*ns*	<10	<10	<10	<10	<10	*ns*	<10	<10	<10	<10	*ns*
Total SVOCs (µg/L)	na	na	*ns*	ND	*ns*	ND	**11**	ND	ND	ND	*ns*	ND	ND	ND	ND	*ns*
Metals of Concern (mg/L)																
Arsenic	0.01	0.01	*ns*	<0.200	*ns*	<0.0010	<0.0010	<0.0010	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<0.0010	*ns*
Manganese	0.84	0.3	*ns*	**5.2**	*ns*	**9.85**	**9.450**	**15.7**	**14.5**	**13.8**	*ns*	**10.7**	**10.8**	**8.02**	**5.01**	*ns*
Additional Metals (mg/L)																
Barium	2	na	*ns*	<0.030	*ns*	**0.0089**	**0.0525**	**0.0109**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Cadmium	0.005	na	*ns*	<0.030	*ns*	<0.0020	<0.0020	<0.0020	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Chromium	0.1	na	*ns*	<0.030	*ns*	<0.0050	0.0071	<0.0050	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Lead	0.015	na	*ns*	<0.100	*ns*	<0.0010	0.0027	<0.0010	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Selenium	0.05	na	*ns*	<0.100	*ns*	<0.0050	<0.0050	<0.0050	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Iron	na	na	*ns*	**0.055**	*ns*	**0.124**	**7.360**	**0.196**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*

TABLE 3A - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID / Geological Unit of Well Screen / Sampling Event Date	NH AGQS	ROD ICL	TRY_MW-601D Overburden Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Oct-09	Jun-11	Jun-13	Nov-14	Jun-15
VOCs of Concern (µg/L)															
Tetrachloroethene	5	5	*ns*	**1.4**	*ns*	<0.4	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
Trichloroethene	5	5	*ns*	**1.2**	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	**2.4**	*ns*
cis-1,2-Dichloroethene	70	70	*ns*	**9.4**	*ns*	**8.7**	**11**	**11**	**15**	**12**	**14**	**14**	**12**	**18**	*ns*
Vinyl Chloride	2	2	*ns*	**1.6**	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
1,2,4-Trimethylbenzene	330	330	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
1,3,5-Trimethylbenzene	330	330	*ns*	<1.0	*ns*	**59**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
2-Butanone(MEK)	4,000	4,000	*ns*	<1.0	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	<10	*ns*
Benzene	5	5	*ns*	**3.2**	*ns*	**2.6**	**3**	**2.5**	**2.2**	<2.0	**2.5**	<2.0	<2.0	<2.0	*ns*
Naphthalene	20	20	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	**3.9 J***	<2.0	<2.0	<2.0	*ns*
n-Butylbenzene	260	260	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
n-Propylbenzene	260	260	*ns*	**12.0**	*ns*	**8.4**	**11**	**5.9**	**4.5**	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
p-Isopropyltoluene (4-cymene)	260	260	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
Tetrahydrofuran(THF)	600	154	*ns*	**9.5**	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	<10	*ns*
Toluene	1,000	1,000	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
Additional VOCs (µg/L)															
1,1,1-Trichloroethane	200	na	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
1,1-Dichloroethane	81	na	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
1,1-Dichloroethene	7	na	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
1,2,4-Trichlorobenzene	70	na	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
1,2-Dichloroethane	5	na	*ns*	<1.0	*ns*	<0.4	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
1,4-Dichlorobenzene	75	na	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
2-Chlorotoluene	100	na	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
4-Methyl-2-pentanone (MIBK)	2,000	na	*ns*	<1.0	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	<10	*ns*
Acetone	6,000	na	*ns*	**1.1**	*ns*	<10	<10	<10	<10	<10	**20**	<10	<10	<10	*ns*
Carbon Disulfide	70	na	*ns*	*	*ns*	*	*	*	*	*	*	*	*	*	*ns*
Ethylbenzene	700	na	*ns*	**51**	*ns*	**29**	**39**	**31**	**21**	**8.5**	**8.5**	**7.6**	<2.0	**3.3**	*ns*
Isopropylbenzene (cumene)	800	na	*ns*	**18**	*ns*	**9.4**	**16**	**11**	**10**	**6.8**	**13**	**10**	**10**	**26**	*ns*
Methylene Chloride (Dichloromethane)	5	na	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
sec-Butylbenzene	260	na	*ns*	**1.4**	*ns*	<2.0	**2.2**	**11**	<2.0	<2.0	**2.8**	**2.2**	**2.5**	**7.8**	*ns*
t-Butanol (TBA)	40	na	*ns*	---	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	<10	*ns*
t-Butylbenzene	260	na	*ns*	**1.2**	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	**2.2**	*ns*
Trichlorofluoromethane	2,000	na	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
m/p-Xylene	10, 000 [1]	na	*ns*	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
o-Xylene		na	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
Total VOCs (µg/L)	na	na	*ns*	**111**	*ns*	**117**	**82**	**72**	**53**	**27**	**65**	**34**	**25**	**60**	*ns*
1,4-Dioxane (µg/L)															
1,4-Dioxane	3	3	*ns*	*ns*	*ns*	<2.0	*ns*	<2.0	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
SVOCs of Concern (µg/L)															
Benzo(a)pyrene	0.2	0.2	*ns*	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	<10	*ns*
Benzo(b)fluoranthene	0.1	0.1	*ns*	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	<10	*ns*
Bis[Di](2-ethylhexyl) phthalate	6	6	*ns*	<5	*ns*	<10	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	*ns*
Dibenzo(a,h)anthracene	0.1	0.1	*ns*	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	<10	*ns*
Naphthalene	20	20	*ns*	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	<10	*ns*
Pentachlorophenol	1	1	*ns*	<5	*ns*	<25	<20	<20	<20	<20	<20	<20	*ns* [2]	<20	*ns*
2-Methylnaphthalene	280	na	*ns*	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	*	<10	*ns*
Additional SVOCs (µg/L)															
Benzyl butyl phthalate	na	na	*ns*	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	<10	*ns*
Di-n-butylphthalate	na	na	*ns*	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	<10	*ns*
Di-n-octylphalate	na	na	*ns*	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	<10	<10	*ns*
Total SVOCs (µg/L)	na	na	*ns*	ND	*ns*	ND	ND	ND	ND	ND	ND	ND	ND	ND	*ns*
Metals of Concern (mg/L)															
Arsenic	0.01	0.01	*ns*	**0.0014**	*ns*	**0.0014**	**0.0012**	**0.0012**	*ns*	*ns*	*ns*	*ns*	*ns*	**0.0012**	*ns*
Manganese	0.84	0.3	*ns*	**0.884**	*ns*	**0.884**	**0.821**	**0.821**	**0.935**	**0.901**	**0.939**	**1.03**	**1.18**	**1.35**	*ns*
Additional Metals (mg/L)															
Barium	2	na	*ns*	<0.030	*ns*	**0.0148**	**0.0161**	**0.013**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Cadmium	0.005	na	*ns*	<0.030	*ns*	<0.0020	<0.0020	<0.0020	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Chromium	0.1	na	*ns*	<0.030	*ns*	<0.0050	<0.0050	<0.0050	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Lead	0.015	na	*ns*	<0.100	*ns*	<0.0010	<0.0010	<0.0010	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Selenium	0.05	na	*ns*	<0.100	*ns*	<0.0050	<0.0050	<0.0050	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Iron	na	na	*ns*	**1.8**	*ns*	**2.26**	**1.72**	**2.32**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*

TABLE 3A - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID / Geological Unit of Well Screen / Sampling Event Date	NH AGQS	ROD ICL	TRY_MW-602S Overburden Aug-04	Oct-05	Jun-06	Dec-06	Dec-06 DUP	May-07	Jun-08	Dec-08	Jun-09	Oct-09	Jun-11	Jun-13	Nov-14	Jun-15
VOCs of Concern (µg/L)																
Tetrachloroethene	5	5	ns	<1.0	ns	<0.4	<0.4	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	DE
Trichloroethene	5	5	ns	<1.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	DE
cis-1,2-Dichloroethene	70	70	ns	<1.0	ns	<2.0	**2.1**	**3.6**	**11**	**9.0**	<2.0	**3.4**	<2.0	<2.0	ns	DE
Vinyl Chloride	2	2	ns	<1.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	DE
1,2,4-Trimethylbenzene	330	330	ns	**71**	ns	**41**	**57**	**38**	<2.0	**626**	**81**	**297**	**4.5**	<2.0	ns	DE
1,3,5-Trimethylbenzene	330	330	ns	<1.0	ns	**38**	**49**	**16**	**112**	**243**	**15**	**87**	<2.0	<2.0	ns	DE
2-Butanone(MEK)	4,000	4,000	ns	<1.0	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	ns	DE
Benzene	5	5	ns	<1.0	ns	<0.3	<0.3	<2.0	**2.5**	<2.0	<2.0	<2.0	<2.0	<2.0	ns	DE
Naphthalene	20	20	ns	**9.2**	ns	<2.0	<2.0	**2.7**	<2.0	**52**	**5.2**	**25 J***	<2.0	<2.0	ns	DE
n-Butylbenzene	260	260	ns	**43**	ns	<2.0	**8.9**	**6.2**	<2.0	<2.0	**8.1**	<2.0	<2.0	<2.0	ns	DE
n-Propylbenzene	260	260	ns	**16**	ns	<2.0	<2.0	**4.2**	**20**	**86**	<2.0	**36**	<2.0	<2.0	ns	DE
p-Isopropyltoluene (4-cymene)	260	260	ns	**26**	ns	**7.8**	**8.6**	<2.0	<2.0	**32**	**2.4**	**14**	<2.0	<2.0	ns	DE
Tetrahydrofuran(THF)	600	154	ns	<1.0	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	ns	DE
Toluene	1,000	1,000	ns	<1.0	ns	<2.0	**25**	**72**	**1,040**	**998**	**53**	**313**	<2.0	<2.0	ns	DE
Additional VOCs (µg/L)																
1,1,1-Trichloroethane	200	na	ns	<1.0	ns	<2.0	<2.0	<2.0	<2.0	**4.7**	<2.0	<2.0	<2.0	<2.0	ns	DE
1,1-Dichloroethane	81	na	ns	<1.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	DE
1,1-Dichloroethene	7	na	ns	<1.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	DE
1,2,4-Trichlorobenzene	70	na	ns	<1.0	ns	<2.0	<2.0	<2.0	**358**	**2.1**	<2.0	<2.0	<2.0	<2.0	ns	DE
1,2-Dichloroethane	5	na	ns	<1.0	ns	<0.4	<0.4	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	DE
1,4-Dichlorobenzene	75	na	ns	<1.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	DE
2-Chlorotoluene	100	na	ns	<1.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	DE
4-Methyl-2-pentanone (MIBK)	2,000	na	ns	<1.0	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	ns	DE
Acetone	6,000	na	ns	**2.0**	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	ns	DE
Carbon Disulfide	70	na	ns	*	ns	*	*	*	*	*	*	*	*	*	ns	DE
Ethylbenzene	700	na	ns	**32**	ns	**5.4**	**8.3**	**16**	**111**	**184**	**21**	**84**	**4.6**	<2.0	ns	DE
Isopropylbenzene (cumene)	800	na	ns	**13**	ns	<2.0	<2.0	**3.8**	<2.0	**58**	**6.3**	**27**	<2.0	<2.0	ns	DE
Methylene Chloride (Dichloromethane)	5	na	ns	<1.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	DE
sec-Butylbenzene	260	na	ns	**17**	ns	**2.2**	**2.4**	**2.9**	<2.0	**28**	**4**	**19**	<2.0	<2.0	ns	DE
t-Butanol (TBA)	40	na	ns	---	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	ns	DE
t-Butylbenzene	260	na	ns	**2.8**	ns	<2.0	<2.0	<2.0	<2.0	**4.9**	<2.0	**3.4**	<2.0	<2.0	ns	DE
Trichlorofluoromethane	2,000	na	ns	<1.0	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	ns	DE
m/p-Xylene	10, 000 [1]	na	ns	**88**	ns	**14**	**22**	**21**	**236**	**313**	**24**	**117**	<2.0	<2.0	ns	DE
o-Xylene		na	ns	**83**	ns	**11**	**16**	**27**	**202**	**209**	**22**	**80**	<2.0	<2.0	ns	DE
Total VOCs (µg/L)	na	na	ns	**403**	ns	**119**	**199**	**213**	**2,093**	**2,850**	**242**	**1,106**	**9**	ND	ns	DE
1,4-Dioxane (µg/L)																
1,4-Dioxane	3	3	ns	ns	ns	<2.0	<2.0	ns	<2.0	ns	ns	ns	ns	ns	ns	DE
SVOCs of Concern (µg/L)																
Benzo(a)pyrene	0.2	0.2	ns	<5	ns	<10	<10	<50	<10	<10	<10	<10	<10	<10	ns	DE
Benzo(b)fluoranthene	0.1	0.1	ns	<5	ns	<10	<10	<50	<10	<10	<10	<10	<10	<10	ns	DE
Bis[Di](2-ethylhexyl) phthalate	6	6	ns	<5	ns	<10	<10	**403**	**34**	**38**	<5.0	<5.0	<5.0	<5.0	ns	DE
Dibenzo(a,h)anthracene	0.1	0.1	ns	<5	ns	<10	<10	<50	<10	<10	<10	<10	<10	<10	ns	DE
Naphthalene	20	20	ns	<5	ns	<10	<10	<50	**11**	**35**	<10	**12**	<10	<10	ns	DE
Pentachlorophenol	1	1	ns	<5	ns	<20	<20	<100	<20	<20	<20	<20	<20	ns [2]	ns	DE
2-Methylnaphthalene	280	na	ns	<5	ns	<10	*	<50	<10	<10	<10	<10	*	*	ns	DE
Additional SVOCs (µg/L)																
Benzyl butyl phthalate	na	na	ns	<5	ns	<10	<10	<50	<10	<10	<10	<10	<10	<10	ns	DE
Di-n-butylphthalate	na	na	ns	<5	ns	<10	<10	<50	<10	<10	<10	<10	<10	<10	ns	DE
Di-n-octylphalate	na	na	ns	<5	ns	<10	<10	<50	<10	<10	<10	<10	<10	<10	ns	DE
Total SVOCs (µg/L)	na	na	ns	ND	ns	ND	ND	**403**	**45**	**73**	ND	**12**	ND	ND	ns	DE
Metals of Concern (mg/L)																
Arsenic	0.01	0.01	ns	<0.200	ns	**0.001**	**0.001**	<0.0010	0.0031	ns	ns	ns	ns	ns	ns	DE
Manganese	0.84	0.3	ns	**4.7**	ns	**3.93**	**4.05**	**2.910**	**9.42**	**10.3**	**2.18**	**7.79**	**0.337**	**0.076**	ns	DE
Additional Metals (mg/L)																
Barium	2	na	ns	**0.36**	ns	**0.0573**	**0.0565**	**0.0796**	**0.0272**	ns	ns	ns	ns	ns	ns	DE
Cadmium	0.005	na	ns	<0.030	ns	<0.0020	<0.0020	<0.0020	<0.0020	ns	ns	ns	ns	ns	ns	DE
Chromium	0.1	na	ns	<0.030	ns	<0.0050	<0.0050	<0.0050	<0.0050	ns	ns	ns	ns	ns	ns	DE
Lead	0.015	na	ns	<0.100	ns	<0.0010	<0.0010	0.0014	<0.0010	ns	ns	ns	ns	ns	ns	DE
Selenium	0.05	na	ns	<0.100	ns	<0.0050	<0.0050	<0.0050	<0.0050	ns	ns	ns	ns	ns	ns	DE
Iron	na	na	ns	**34**	ns	**24.1**	**26.4**	**22.70**	**105**	ns	ns	ns	ns	ns	ns	DE

TABLE 3A - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID / Geological Unit of Well Screen / Sampling Event Date	NH AGQS	ROD ICL	TRY_MW-602B Bedrock Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Oct-09	Jun-11	Jun-13	Nov-14	Jun-15
VOCs of Concern (µg/L)															
Tetrachloroethene	5	5	*ns*	<1.0	*ns*	<0.4	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	*ns*
Trichloroethene	5	5	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	*ns*
cis-1,2-Dichloroethene	70	70	*ns*	**10**	*ns*	**3.0**	**2.1**	**2.6**	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	*ns*
Vinyl Chloride	2	2	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	*ns*
1,2,4-Trimethylbenzene	330	330	*ns*	**47**	*ns*	**2**	**6.8**	**23**	<2.0	**6.9**	<2.0	**19**	*ns*	<2.0	*ns*
1,3,5-Trimethylbenzene	330	330	*ns*	**11**	*ns*	**4.1**	**4.9**	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	*ns*
2-Butanone(MEK)	4,000	4,000	*ns*	<1.0	*ns*	<10	<10	<10	<10	<10	<10	<10	*ns*	<10	*ns*
Benzene	5	5	*ns*	**1.6**	*ns*	<0.3	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	*ns*
Naphthalene	20	20	*ns*	**19**	*ns*	**9.5**	**8.1**	**6.8**	<2.0	<2.0	**4.8 J***	<2.0	*ns*	<2.0	*ns*
n-Butylbenzene	260	260	*ns*	**7.4**	*ns*	**4.7**	**2.8**	**8.1**	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	*ns*
n-Propylbenzene	260	260	*ns*	**9.6**	*ns*	**4.7**	**4.8**	**10**	<2.0	<2.0	<2.0	**3.3**	*ns*	<2.0	*ns*
p-Isopropyltoluene (4-cymene)	260	260	*ns*	<1.0	*ns*	<2.0	**3**	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	*ns*
Tetrahydrofuran(THF)	600	154	*ns*	**42**	*ns*	<10	<10	<10	<10	<10	<10	<10	*ns*	<10	*ns*
Toluene	1,000	1,000	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	*ns*
Additional VOCs (µg/L)															
1,1,1-Trichloroethane	200	na	*ns*	**1.2**	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	*ns*
1,1-Dichloroethane	81	na	*ns*	**2.0**	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	*ns*
1,1-Dichloroethene	7	na	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	*ns*
1,2,4-Trichlorobenzene	70	na	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	*ns*
1,2-Dichloroethane	5	na	*ns*	<1.0	*ns*	<0.4	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	*ns*
1,4-Dichlorobenzene	75	na	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	*ns*
2-Chlorotoluene	100	na	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	*ns*
4-Methyl-2-pentanone (MIBK)	2,000	na	*ns*	<1.0	*ns*	<10	<10	<10	<10	<10	<10	<10	*ns*	<10	*ns*
Acetone	6,000	na	*ns*	<1.0	*ns*	<10	<10	<10	<10	<10	<10	<10	*ns*	<10	*ns*
Carbon Disulfide	70	na	*ns*	*	*ns*	*	*	*	*	*	*	*	*ns*	*	*ns*
Ethylbenzene	700	na	*ns*	**17**	*ns*	**5.2**	**5.9**	**14**	**21**	<2.0	<2.0	**3.4**	*ns*	<2.0	*ns*
Isopropylbenzene (cumene)	800	na	*ns*	**13**	*ns*	**6.9**	**6.8**	**11**	**10**	2.0	<2.0	**3.3**	*ns*	<2.0	*ns*
Methylene Chloride (Dichloromethane)	5	na	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	*ns*
sec-Butylbenzene	260	na	*ns*	**9.8**	*ns*	**11**	**11**	**19**	**10**	**11**	**11**	**13**	*ns*	**8.0**	*ns*
t-Butanol (TBA)	40	na	*ns*	---	*ns*	<10	<10	<10	<10	<10	<10	<10	*ns*	<10	*ns*
t-Butylbenzene	260	na	*ns*	**1.4**	*ns*	<2.0	<2.0	**2.7**	<2.0	**2.0**	**2.3**	**2.5**	*ns*	<2.0	*ns*
Trichlorofluoromethane	2,000	na	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	*ns*
m/p-Xylene	10, 000 [1]	na	*ns*	**5.5**	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	*ns*
o-Xylene		na	*ns*	<1.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*	<2.0	*ns*
Total VOCs (µg/L)	na	na	*ns*	**198**	*ns*	**51**	**56**	**97**	**41**	**22**	**18**	**45**	*ns*	**8**	*ns*
1,4-Dioxane (µg/L)															
1,4-Dioxane	3	3	*ns*	*ns*	*ns*	<2.0	*ns*	<2.0	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
SVOCs of Concern (µg/L)															
Benzo(a)pyrene	0.2	0.2	*ns*	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	*ns*	<10	*ns*
Benzo(b)fluoranthene	0.1	0.1	*ns*	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	*ns*	<10	*ns*
Bis[Di](2-ethylhexyl) phthalate	6	6	*ns*	<5	*ns*	<10	<10	<5.0	<5.0	<5.0	<5.0	<5.0	*ns*	<5.0	*ns*
Dibenzo(a,h)anthracene	0.1	0.1	*ns*	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	*ns*	<10	*ns*
Naphthalene	20	20	*ns*	**10**	*ns*	<10	<10	<10	<10	<10	<10	<10	*ns*	<10	*ns*
Pentachlorophenol	1	1	*ns*	<5	*ns*	<25	<20	<20	<20	<20	<20	<20	*ns*	<20	*ns*
2-Methylnaphthalene	280	na	*ns*	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	*ns*	<10	*ns*
Additional SVOCs (µg/L)															
Benzyl butyl phthalate	na	na	*ns*	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	*ns*	<10	*ns*
Di-n-butylphthalate	na	na	*ns*	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	*ns*	<10	*ns*
Di-n-octylphalate	na	na	*ns*	<5	*ns*	<10	<10	<10	<10	<10	<10	<10	*ns*	<10	*ns*
Total SVOCs (µg/L)	na	na	*ns*	**10**	*ns*	ND	ND	ND	ND	ND	ND	ND	*ns*	ND	*ns*
Metals of Concern (mg/L)															
Arsenic	0.01	0.01	*ns*	<0.200	*ns*	**0.0041**	**0.0034**	**0.0024**	*ns*	*ns*	*ns*	*ns*	*ns*	**0.0033**	*ns*
Manganese	0.84	0.3	*ns*	**9.3**	*ns*	**8.44**	**6.910**	**8.52**	**7.65**	**7.16**	**6.58**	**6.67**	*ns*	**6.81**	*ns*
Additional Metals (mg/L)															
Barium	2	na	*ns*	<0.030	*ns*	**0.0266**	**0.0269**	**0.0298**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Cadmium	0.005	na	*ns*	<0.030	*ns*	<0.0020	<0.0020	<0.0020	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Chromium	0.1	na	*ns*	<0.030	*ns*	<0.0050	<0.0050	<0.0050	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Lead	0.015	na	*ns*	<0.100	*ns*	<0.0010	<0.0010	<0.0010	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Selenium	0.05	na	*ns*	<0.100	*ns*	<0.0050	<0.0050	<0.0050	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Iron	na	na	*ns*	**12**	*ns*	**8.48**	**6.3**	**9.53**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*

TABLE 3A - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID / Geological Unit of Well Screen / Sampling Event Date	NH AGQS	ROD ICL	TRY_MW-701 Bedrock Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Oct-09	Jun-11	Jun-13	Nov-14	Jun-15
VOCs of Concern (µg/L)															
Tetrachloroethene	5	5	*ns*	*ns*	*ns*	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
Trichloroethene	5	5	*ns*	*ns*	*ns*	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
cis-1,2-Dichloroethene	70	70	*ns*	*ns*	*ns*	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
Vinyl Chloride	2	2	*ns*	*ns*	*ns*	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
1,2,4-Trimethylbenzene	330	330	*ns*	*ns*	*ns*	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
1,3,5-Trimethylbenzene	330	330	*ns*	*ns*	*ns*	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
2-Butanone(MEK)	4,000	4,000	*ns*	*ns*	*ns*	<10	*ns*	<10	<10	<10	<10	<10	<10	<10	*ns*
Benzene	5	5	*ns*	*ns*	*ns*	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
Naphthalene	20	20	*ns*	*ns*	*ns*	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
n-Butylbenzene	260	260	*ns*	*ns*	*ns*	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
n-Propylbenzene	260	260	*ns*	*ns*	*ns*	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
p-Isopropyltoluene (4-cymene)	260	260	*ns*	*ns*	*ns*	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
Tetrahydrofuran(THF)	600	154	*ns*	*ns*	*ns*	<10	*ns*	<10	<10	<10	<10	<10	<10	<10	*ns*
Toluene	1,000	1,000	*ns*	*ns*	*ns*	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
Additional VOCs (µg/L)															
1,1,1-Trichloroethane	200	na	*ns*	*ns*	*ns*	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
1,1-Dichloroethane	81	na	*ns*	*ns*	*ns*	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
1,1-Dichloroethene	7	na	*ns*	*ns*	*ns*	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
1,2,4-Trichlorobenzene	70	na	*ns*	*ns*	*ns*	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
1,2-Dichloroethane	5	na	*ns*	*ns*	*ns*	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
1,4-Dichlorobenzene	75	na	*ns*	*ns*	*ns*	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
2-Chlorotoluene	100	na	*ns*	*ns*	*ns*	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
4-Methyl-2-pentanone (MIBK)	2,000	na	*ns*	*ns*	*ns*	<10	*ns*	<10	<10	<10	<10	<10	<10	<10	*ns*
Acetone	6,000	na	*ns*	*ns*	*ns*	<10	*ns*	<10	<10	<10	<10	<10	<10	<10	*ns*
Carbon Disulfide	70	na	*ns*	*ns*	*ns*	*	*ns*	*	*	*	*	*	*	*	*ns*
Ethylbenzene	700	na	*ns*	*ns*	*ns*	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
Isopropylbenzene (cumene)	800	na	*ns*	*ns*	*ns*	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
Methylene Chloride (Dichloromethane)	5	na	*ns*	*ns*	*ns*	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
sec-Butylbenzene	260	na	*ns*	*ns*	*ns*	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
t-Butanol (TBA)	40	na	*ns*	*ns*	*ns*	<10	*ns*	<10	<10	<10	<10	<10	<10	<10	*ns*
t-Butylbenzene	260	na	*ns*	*ns*	*ns*	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
Trichlorofluoromethane	2,000	na	*ns*	*ns*	*ns*	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
m/p-Xylene	10, 000 [1]	na	*ns*	*ns*	*ns*	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
o-Xylene		na	*ns*	*ns*	*ns*	<2.0	*ns*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*ns*
Total VOCs (µg/L)	na	na	*ns*	*ns*	*ns*	ND	*ns*	ND	ND	ND	ND	ND	ND	ND	*ns*
1,4-Dioxane (µg/L)															
1,4-Dioxane	3	3	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
SVOCs of Concern (µg/L)															
Benzo(a)pyrene	0.2	0.2	*ns*	*ns*	*ns*	<10	*ns*	<10	<10	<10	<10	<10	<10	<10	*ns*
Benzo(b)fluoranthene	0.1	0.1	*ns*	*ns*	*ns*	<10	*ns*	<10	<10	<10	<10	<10	<10	<10	*ns*
Bis[Di](2-ethylhexyl) phthalate	6	6	*ns*	*ns*	*ns*	<10	*ns*	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	*ns*
Dibenzo(a,h)anthracene	0.1	0.1	*ns*	*ns*	*ns*	<10	*ns*	<10	<10	<10	<10	<10	<10	<10	*ns*
Naphthalene	20	20	*ns*	*ns*	*ns*	<10	*ns*	<10	<10	<10	<10	<10	<10	<10	*ns*
Pentachlorophenol	1	1	*ns*	*ns*	*ns*	<25	*ns*	<20	<20	<20	<20	<20	*ns* [2]	<20	*ns*
2-Methylnaphthalene	280	na	*ns*	*ns*	*ns*	<10	*ns*	<10	<10	<10	<10	<10	*	<10	*ns*
Additional SVOCs (µg/L)															
Benzyl butyl phthalate	na	na	*ns*	*ns*	*ns*	<10	*ns*	<10	<10	<10	<10	<10	<10	<10	*ns*
Di-n-butylphthalate	na	na	*ns*	*ns*	*ns*	<10	*ns*	<10	<10	<10	<10	<10	<10	<10	*ns*
Di-n-octylphalate	na	na	*ns*	*ns*	*ns*	<10	*ns*	<10	<10	<10	<10	<10	<10	<10	*ns*
Total SVOCs (µg/L)	na	na	*ns*	*ns*	*ns*	ND	*ns*	ND	ND	ND	ND	ND	ND	ND	*ns*
Metals of Concern (mg/L)															
Arsenic	0.01	0.01	*ns*	*ns*	*ns*	**0.0010**	<0.0010	<0.0010	<0.0010	*ns*	*ns*	*ns*	*ns*	<0.0010	*ns*
Manganese	0.84	0.3	*ns*	*ns*	*ns*	**0.037**	**0.023**	**0.018**	**0.025**	**0.020**	**0.020**	**0.016**	**0.019**	**0.018**	*ns*
Additional Metals (mg/L)															
Barium	2	na	*ns*	*ns*	*ns*	**0.0101**	**0.0093**	**0.0129**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Cadmium	0.005	na	*ns*	*ns*	*ns*	<0.0020	<0.0020	<0.0020	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Chromium	0.1	na	*ns*	*ns*	*ns*	<0.0050	<0.0050	<0.0050	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Lead	0.015	na	*ns*	*ns*	*ns*	<0.0010	<0.0010	<0.0010	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Selenium	0.05	na	*ns*	*ns*	*ns*	<0.0050	<0.0050	<0.0050	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Iron	na	na	*ns*	*ns*	*ns*	**0.244**	**0.088**	**<0.050**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*

TABLE 3A - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	NH	ROD	TRY_MW-702S									TRY_MW-702SX				
Geological Unit of Well Screen	AGQS	ICL	Overburden									Overburden				(resample)
Sampling Event Date			Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Oct-09	Jun-11	Jun-13	Nov-14	Jun-15	Jun-15
VOCs of Concern (µg/L)																
Tetrachloroethene	5	5	ns	ns	ns	<0.4	ns	<2.0	ns	ns	<2.0	<2.0	ns	<2.0	ns	ns
Trichloroethene	5	5	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	ns	<2.0	ns	ns
cis-1,2-Dichloroethene	70	70	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	ns	<2.0	ns	ns
Vinyl Chloride	2	2	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	ns	<2.0	ns	ns
1,2,4-Trimethylbenzene	330	330	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	ns	<2.0	ns	ns
1,3,5-Trimethylbenzene	330	330	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	ns	<2.0	ns	ns
2-Butanone(MEK)	4,000	4,000	ns	ns	ns	<10	ns	<10	ns	ns	<10	<10	ns	<10	ns	ns
Benzene	5	5	ns	ns	ns	<0.3	ns	<2.0	ns	ns	<2.0	<2.0	ns	<2.0	ns	ns
Naphthalene	20	20	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	ns	<2.0	ns	ns
n-Butylbenzene	260	260	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	ns	<2.0	ns	ns
n-Propylbenzene	260	260	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	ns	<2.0	ns	ns
p-Isopropyltoluene (4-cymene)	260	260	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	ns	<2.0	ns	ns
Tetrahydrofuran(THF)	600	154	ns	ns	ns	<10	ns	<10	ns	ns	<10	<10	ns	<10	ns	ns
Toluene	1,000	1,000	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	ns	<2.0	ns	ns
Additional VOCs (µg/L)																
1,1,1-Trichloroethane	200	na	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	ns	<2.0	ns	ns
1,1-Dichloroethane	81	na	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	ns	<2.0	ns	ns
1,1-Dichloroethene	7	na	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	ns	<2.0	ns	ns
1,2,4-Trichlorobenzene	70	na	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	ns	<2.0	ns	ns
1,2-Dichloroethane	5	na	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	ns	<2.0	ns	ns
1,4-Dichlorobenzene	75	na	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	ns	<2.0	ns	ns
2-Chlorotoluene	100	na	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	ns	<2.0	ns	ns
4-Methyl-2-pentanone (MIBK)	2,000	na	ns	ns	ns	<10	ns	<10	ns	ns	<10	<10	ns	<10	ns	ns
Acetone	6,000	na	ns	ns	ns	<10	ns	<10	ns	ns	<10	<10	ns	<10	ns	ns
Carbon Disulfide	70	na	ns	ns	ns	*	ns	*	ns	ns	*	*	ns	*	ns	ns
Ethylbenzene	700	na	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	ns	<2.0	ns	ns
Isopropylbenzene (cumene)	800	na	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	ns	<2.0	ns	ns
Methylene Chloride (Dichloromethane)	5	na	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	ns	<2.0	ns	ns
sec-Butylbenzene	260	na	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	ns	<2.0	ns	ns
t-Butanol (TBA)	40	na	ns	ns	ns	<10	ns	<10	ns	ns	<10	<10	ns	<10	ns	ns
t-Butylbenzene	260	na	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	ns	<2.0	ns	ns
Trichlorofluoromethane	2,000	na	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	ns	<2.0	ns	ns
m/p-Xylene	10, 000 [1]	na	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	ns	<2.0	ns	ns
o-Xylene		na	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	ns	<2.0	ns	ns
Total VOCs (µg/L)	na	na	ns	ns	ns	ND	ns	ND	ns	ns	ND	ND	ns	ND	ns	ns
1,4-Dioxane (µg/L)																
1,4-Dioxane	3	3	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<0.20	ns	<0.20	ns	ns
SVOCs of Concern (µg/L)																
Benzo(a)pyrene	0.2	0.2	ns	ns	ns	<10	ns	<10	ns	ns	<10	<10	ns	<10	<0.05	ns
Benzo(b)fluoranthene	0.1	0.1	ns	ns	ns	<10	ns	<10	ns	ns	<10	<10	ns	<10	<0.05	ns
Bis[Di](2-ethylhexyl) phthalate	6	6	ns	ns	ns	<10	ns	<5.0	ns	ns	<5.0	<5.0	ns	**16 B***	**7.4 B****	<5
Dibenzo(a,h)anthracene	0.1	0.1	ns	ns	ns	<10	ns	<10	ns	ns	<10	<10	ns	<10	<0.05	ns
Naphthalene	20	20	ns	ns	ns	<10	ns	<10	ns	ns	<10	<10	ns	<10	<0.19	ns
Pentachlorophenol	1	1	ns	ns	ns	<25	ns	<20	ns	ns	<20	<20	ns	<20	<0.75	ns
2-Methylnaphthalene	280	na	ns	ns	ns	<10	ns	<10	ns	ns	<10	<10	ns	*	<0.19	ns
Additional SVOCs (µg/L)																
Benzyl butyl phthalate	na	na	ns	ns	ns	<10	ns	<10	ns	ns	<10	<10	ns	**10 B***	<9.4	<5
Di-n-butylphthalate	na	na	ns	ns	ns	<10	ns	<10	ns	ns	<10	<10	ns	<10	<9.4	<5
Di-n-octylphalate	na	na	ns	ns	ns	<10	ns	<10	ns	ns	<10	<10	ns	<10	<9.4	<5
Total SVOCs (µg/L)	na	na	ns	ns	ns	ND	ns	ND	ns	ns	ND	ND	ns	**26**	**7**	ND
Metals of Concern (mg/L)																
Arsenic	0.01	0.01	ns	ns	ns	**0.0010**	<0.0010	<0.0010	ns	ns	ns	<0.0010	ns	<0.0010	ns	ns
Manganese	0.84	0.3	ns	ns	ns	**1.45**	**0.555**	**0.254**	ns	ns	**0.185**	**0.039**	ns	**0.025 B***	ns	ns
Additional Metals (mg/L)																
Barium	2	na	ns	ns	ns	**0.0227**	**0.0272**	**0.0423**	ns	ns	ns	**0.0222**	ns	ns	ns	ns
Cadmium	0.005	na	ns	ns	ns	<0.0020	<0.0020	<0.0020	ns	ns	ns	<0.0020	ns	ns	ns	ns
Chromium	0.1	na	ns	ns	ns	<0.0050	<0.0050	<0.0050	ns	ns	ns	<0.0050	ns	ns	ns	ns
Lead	0.015	na	ns	ns	ns	<0.0010	<0.0010	<0.0010	ns	ns	ns	<0.0010	ns	ns	ns	ns
Selenium	0.05	na	ns	ns	ns	<0.0050	<0.0050	<0.0050	ns	ns	ns	<0.0050	ns	ns	ns	ns
Iron	na	na	ns	ns	ns	**3.06**	**2.220**	**0.281**	ns	ns	ns	**0.112**	ns	ns	ns	ns

TABLE 3A - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID / Geological Unit of Well Screen / Sampling Event Date	NH AGQS	ROD ICL	TRY_MW-702D Bedrock Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Oct-09, 25.9'	Oct-09, 35.9'	Oct-09, 44.4'	Apr-10, 25.9'	pr-10, 25.9' DL	Jun-11	Jun-13	Nov-14	Jun-15	(resample) Jun-15
VOCs of Concern (µg/L)																				
Tetrachloroethene	5	5	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	<2.0	ns	ns	<2.0	ns	<2.0	ns	ns
Trichloroethene	5	5	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	<2.0	ns	ns	<2.0	ns	<2.0	ns	ns
cis-1,2-Dichloroethene	70	70	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	<2.0	ns	ns	<2.0	ns	<2.0	ns	ns
Vinyl Chloride	2	2	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	<2.0	ns	ns	<2.0	ns	<2.0	ns	ns
1,2,4-Trimethylbenzene	330	330	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	<2.0	ns	ns	<2.0	ns	<2.0	ns	ns
1,3,5-Trimethylbenzene	330	330	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	<2.0	ns	ns	<2.0	ns	<2.0	ns	ns
2-Butanone(MEK)	4,000	4,000	ns	ns	ns	<10	ns	<10	ns	ns	<10	<10	<10	ns	ns	<10	ns	<10	ns	ns
Benzene	5	5	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	<2.0	ns	ns	<2.0	ns	<2.0	ns	ns
Naphthalene	20	20	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	<2.0	ns	ns	<2.0	ns	<2.0	ns	ns
n-Butylbenzene	260	260	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	<2.0	ns	ns	<2.0	ns	<2.0	ns	ns
n-Propylbenzene	260	260	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	<2.0	ns	ns	<2.0	ns	<2.0	ns	ns
p-Isopropyltoluene (4-cymene)	260	260	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	<2.0	ns	ns	<2.0	ns	<2.0	ns	ns
Tetrahydrofuran(THF)	600	154	ns	ns	ns	<10	ns	<10	ns	ns	<10	<10	<10	ns	ns	<10	ns	<10	ns	ns
Toluene	1,000	1,000	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	<2.0	ns	ns	<2.0	ns	<2.0	ns	ns
Additional VOCs (µg/L)																				
1,1,1-Trichloroethane	200	na	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	<2.0	ns	ns	<2.0	ns	<2.0	ns	ns
1,1-Dichloroethane	81	na	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	<2.0	ns	ns	<2.0	ns	<2.0	ns	ns
1,1-Dichloroethene	7	na	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	<2.0	ns	ns	<2.0	ns	<2.0	ns	ns
1,2,4-Trichlorobenzene	70	na	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	<2.0	ns	ns	<2.0	ns	<2.0	ns	ns
1,2-Dichloroethane	5	na	ns	ns	ns	<0.4	ns	<2.0	ns	ns	<2.0	<2.0	<2.0	ns	ns	<2.0	ns	<2.0	ns	ns
1,4-Dichlorobenzene	75	na	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	<2.0	ns	ns	<2.0	ns	<2.0	ns	ns
2-Chlorotoluene	100	na	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	<2.0	ns	ns	<2.0	ns	<2.0	ns	ns
4-Methyl-2-pentanone (MIBK)	2,000	na	ns	ns	ns	<10	ns	<10	ns	ns	<10	<10	<10	ns	ns	<10	ns	<10	ns	ns
Acetone	6,000	na	ns	ns	ns	<10	ns	<10	ns	ns	<10	<10	<10	ns	ns	<10	ns	<10	ns	ns
Carbon Disulfide	70	na	ns	ns	ns	*	ns	*	ns	ns	*	*	*	ns	ns	*	ns	*	ns	ns
Ethylbenzene	700	na	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	<2.0	ns	ns	<2.0	ns	<2.0	ns	ns
Isopropylbenzene (cumene)	800	na	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	<2.0	ns	ns	<2.0	ns	<2.0	ns	ns
Methylene Chloride (Dichloromethane)	5	na	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	<2.0	ns	ns	<2.0	ns	<2.0	ns	ns
sec-Butylbenzene	260	na	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	<2.0	ns	ns	<2.0	ns	<2.0	ns	ns
t-Butanol (TBA)	40	na	ns	ns	ns	<10	ns	<10	ns	ns	<10	<10	<10	ns	ns	<10	ns	<10	ns	ns
t-Butylbenzene	260	na	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	<2.0	ns	ns	<2.0	ns	<2.0	ns	ns
Trichlorofluoromethane	2,000	na	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	<2.0	ns	ns	<2.0	ns	<2.0	ns	ns
m/p-Xylene	10, 000 [1]	na	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	<2.0	ns	ns	<2.0	ns	<2.0	ns	ns
o-Xylene		na	ns	ns	ns	<2.0	ns	<2.0	ns	ns	<2.0	<2.0	<2.0	ns	ns	<2.0	ns	<2.0	ns	ns
Total VOCs (µg/L)	na	na	ns	ns	ns	ND	ns	ND	ns	ns	ND	ND	ND	ND	ND	ND	ns	ND	ns	ns
1,4-Dioxane (µg/L)																				
1,4-Dioxane	3	3	ns	ns	ns	ns	ns	ns	ns	ns	<2.0	<2.0	<2.0	ns	ns	ns	ns	<0.20	ns	ns
SVOCs of Concern (µg/L)																				
Benzo(a)pyrene	0.2	0.2	ns	ns	ns	<10	ns	<10	ns	ns	<10	<10	<10	<10	<10	<10	ns	<10	<0.05	ns
Benzo(b)fluoranthene	0.1	0.1	ns	ns	ns	<10	ns	<10	ns	ns	<10	<10	<10	<10	<10	<10	ns	<10	<0.05	ns
Bis[Di](2-ethylhexyl) phthalate	6	6	ns	ns	ns	<10	ns	<5.0	ns	ns	**14 J***	<5.0	<5.0	<5.0	<5.0	<5.0	ns	**22 B***	**173 B****	<5
Dibenzo(a,h)anthracene	0.1	0.1	ns	ns	ns	<10	ns	<10	ns	ns	<10	<10	<10	<10	<10	<10	ns	<10	<0.05	ns
Naphthalene	20	20	ns	ns	ns	<10	ns	<10	ns	ns	<10	<10	<10	<10	<10	<10	ns	<10	<0.19	ns
Pentachlorophenol	1	1	ns	ns	ns	<25	ns	<20	ns	ns	<20	<20	<20	<20	<20	<20	ns	<20	<0.75	ns
2-Methylnaphthalene	280	na	ns	ns	ns	<10	ns	<10	ns	ns	<10	<10	<10	*	*	*	ns	*	<0.19	ns
Additional SVOCs (µg/L)																				
Benzyl butyl phthalate	na	na	ns	ns	ns	<10	ns	<10	ns	ns	<10	<10	<10	<10	<10	<10	ns	**15 B***	<9.4	<5
Di-n-butylphthalate	na	na	ns	ns	ns	<10	ns	<10	ns	ns	<10	<10	<10	<10	<10	<10	ns	<10	<9.4	<5
Di-n-octylphalate	na	na	ns	ns	ns	<10	ns	<10	ns	ns	<10	<10	<10	<10	<10	<10	ns	<10	<9.4	<5
Total SVOCs (µg/L)	na	na	ns	ns	ns	ND	ns	ND	ns	ns	**14**	ND	ND	ND	ND	ND	ns	**37**	**173**	ND
Metals of Concern (mg/L)																				
Arsenic	0.01	0.01	ns	ns	ns	<0.0010	<0.0010	<0.0010	ns	ns	ns	ns	ns	ns	ns	ns	ns	<0.0010	ns	ns
Manganese	0.84	0.3	ns	ns	ns	<0.010	<0.010	<0.010	ns	ns	**0.118**	**0.198**	**0.720**	ns	ns	**0.012**	ns	<0.010	ns	ns
Additional Metals (mg/L)																				
Barium	2	na	ns	ns	ns	<0.0050	0.0050	<0.0050	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Cadmium	0.005	na	ns	ns	ns	<0.0020	<0.0020	<0.0020	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Chromium	0.1	na	ns	ns	ns	<0.0050	<0.0050	<0.0050	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Lead	0.015	na	ns	ns	ns	<0.0010	<0.0010	<0.0010	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Selenium	0.05	na	ns	ns	ns	<0.0050	<0.0050	<0.0050	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Iron	na	na	ns	ns	ns	**0.066**	**0.067**	**0.077**	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns

TABLE 3A - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	NH AGQS	ROD ICL	TRY_MW-801				TRY_MW-802				TRY_MW-803				TRY_MW-804						
Geological Unit of Well Screen			Overburden				Overburden				Overburden				Overburden						
Sampling Event Date			Jun-11	Jun-13	Nov-14	Jun-15	Jun-11	Jun-13	Nov-14	Jun-15	Jun-11	Jun-13	Nov-14	Jun-15	Jun-11	Jun-11 DUP	Jun-13	Jun-13 DUP	Nov-14	Nov-14 DUP	Jun-15
VOCs of Concern (µg/L)																					
Tetrachloroethene	5	5	<2.0	<2.0	<2.0	ns	<2.0	<2.0	<2.0	ns	<2.0	<10	ns	<1	<10	<10	<4.0	<4.0	<4.0	<4.0	ns
Trichloroethene	5	5	<2.0	<2.0	<2.0	ns	<2.0	<2.0	<2.0	ns	<2.0	<10	ns	<1	<10	<10	<4.0	<4.0	<4.0	<4.0	ns
cis-1,2-Dichloroethene	70	70	<2.0	<2.0	<2.0	ns	<2.0	<2.0	<2.0	ns	<2.0	<10	ns	1.6	<10	<10	<4.0	<4.0	<4.0	<4.0	ns
Vinyl Chloride	2	2	<2.0	<2.0	<2.0	ns	<2.0	<2.0	<2.0	ns	<2.0	<10	ns	<1	<10	<10	<4.0	<4.0	<4.0	<4.0	ns
1,2,4-Trimethylbenzene	330	330	<2.0	<2.0	<2.0	ns	148 J*	7	<2.0	ns	12	664	ns	130	412	415	223	211	305	330	ns
1,3,5-Trimethylbenzene	330	330	<2.0	<2.0	<2.0	ns	12 J*	<2.0	<2.0	ns	5	222	ns	25.2	97	97	70	67	77	92	ns
2-Butanone(MEK)	4,000	4,000	<10	<10	<10	ns	<10	<10	<10	ns	<10	<50	ns	<25	<50	<50	<20	<20	<20	<20	ns
Benzene	5	5	<2.0	<2.0	<2.0	ns	<2.0	<10	<2.0	ns	<2.0	<10	ns	1.2	<10	<10	<4.0	<4.0	<4.0	<4.0	ns
Naphthalene	20	20	<2.0	<2.0	<2.0	ns	8.4 J*	2.3	<2.0	ns	2	42	ns	2.2	41	44	18	17	31	32	ns
n-Butylbenzene	260	260	<2.0	<2.0	<2.0	ns	11 J*	<2.0	<2.0	ns	2.5	<10	ns	<1	48	47	<4.0	<4.0	39	39	ns
n-Propylbenzene	260	260	<2.0	<2.0	<2.0	ns	17 J*	<2.0	<2.0	ns	<2.0	61	ns	13.9	58	56	36	34	62	66	ns
p-Isopropyltoluene (4-cymene)	260	260	<2.0	<2.0	<2.0	ns	7.9 J*	3.7	<2.0	ns	<2.0	24	ns	4.8	28	28	19	18	23	25	ns
Tetrahydrofuran(THF)	600	154	<10	<10	<10	ns	<10	<10	<10	ns	<10	<50	ns	<5	<50	<50	<20	<20	<20	<20	ns
Toluene	1,000	1,000	<2.0	<2.0	<2.0	ns	<2.0	<2.0	<2.0	ns	2	118	ns	<1	<10	<10	<4.0	<4.0	<4.0	<4.0	ns
Additional VOCs (µg/L)																					
1,1,1-Trichloroethane	200	na	<2.0	<2.0	<2.0	ns	<2.0	<2.0	<2.0	ns	<2.0	<10	ns	<1	<10	<10	<4.0	<4.0	<4.0	<4.0	ns
1,1-Dichloroethane	81	na	<2.0	<2.0	<2.0	ns	<2.0	<2.0	<2.0	ns	<2.0	<10	ns	1.2	<10	<10	<4.0	<4.0	<4.0	<4.0	ns
1,1-Dichloroethene	7	na	<2.0	<2.0	<2.0	ns	<2.0	<2.0	<2.0	ns	<2.0	<10	ns	<1	<10	<10	<4.0	<4.0	<4.0	<4.0	ns
1,2,4-Trichlorobenzene	70	na	<2.0	<2.0	<2.0	ns	<2.0	<2.0	<2.0	ns	<2.0	<10	ns	<1	<10	<10	<4.0	<4.0	<4.0	<4.0	ns
1,2-Dichloroethane	5	na	<2.0	<2.0	<2.0	ns	<2.0	<2.0	<2.0	ns	<2.0	<10	ns	<1	<10	<10	<4.0	<4.0	<4.0	<4.0	ns
1,4-Dichlorobenzene	75	na	<2.0	<2.0	<2.0	ns	<2.0	<2.0	<2.0	ns	<2.0	<10	ns	<1	<10	<10	<4.0	<4.0	<4.0	<4.0	ns
2-Chlorotoluene	100	na	<2.0	<2.0	<2.0	ns	<2.0	<2.0	<2.0	ns	<2.0	<10	ns	<1	<10	<10	<4.0	<4.0	<4.0	<4.0	ns
4-Methyl-2-pentanone (MIBK)	2,000	na	<10	<10	<10	ns	<10	<10	<10	ns	<10	<50	ns	<10	<50	<50	<20	<20	<20	<20	ns
Acetone	6,000	na	<10	<10	<10	ns	<10	<10	<10	ns	<10	<50	ns	<25	<50	<50	<20	<20	<20	<20	ns
Carbon Disulfide	70	na	*	*	*	ns	*	*	*	ns	*	*	ns	*	*	*	*	*	*	*	ns
Ethylbenzene	700	na	3.6	<2.0	<2.0	ns	27 J*	<2.0	<2.0	ns	2.9	209	ns	54.9	75	76	59	56	90	101	ns
Isopropylbenzene (cumene)	800	na	3.9	<2.0	<2.0	ns	11 J*	2.3	<2.0	ns	<2.0	47	ns	11.9	32	34	20	19	38	40	ns
Methylene Chloride (Dichloromethane)	5	na	<2.0	<2.0	<2.0	ns	<2.0	<2.0	<2.0	ns	<2.0	<10	ns	<4	<10	<10	<4.0	<4.0	<4.0	<4.0	ns
sec-Butylbenzene	260	na	<2.0	6.3	5.3	ns	10 J*	5.9	<2.0	ns	<2.0	18	ns	<1	35	34	17	16	31	31	ns
t-Butanol (TBA)	40	na	<10	<10	<10	ns	<10	<10	<10	ns	<10	<50	ns	<25	<50	<50	<20	<20	<20	<20	ns
t-Butylbenzene	260	na	<2.0	<2.0	<2.0	ns	<2.0	<2.0	<2.0	ns	<2.0	<10	ns	1.7	<10	<10	<4.0	<4.0	4.2	4.4	ns
Trichlorofluoromethane	2,000	na	<2.0	<2.0	<2.0	ns	<2.0	<2.0	<2.0	ns	<2.0	<10	ns	<1	<10	<10	<4.0	<4.0	<4.0	<4.0	ns
m/p-Xylene	10, 000 [1]	na	<2.0	<2.0	<2.0	ns	16 J*	<2.0	<2.0	ns	4.5	336	ns	50.4	54	55	49	48	46 Z	64 Z	ns
o-Xylene		na	<2.0	<2.0	<2.0	ns	2.8 J*	<2.0	<2.0	ns	3.4	276	ns	19.9	26	27	40	39	28 Z	44 Z	ns
Total VOCs (µg/L)	na	na	8	6	5	ns	271 J*	21	ND	ns	34	2,017	ns	319	906	913	551	525	700	760	ns
1,4-Dioxane (µg/L)																					
1,4-Dioxane	3	3	<0.20	ns	<0.20	ns	<0.20	ns	<0.20	ns	<0.20	ns	ns	<0.93	0.53	0.52	ns	ns	<0.20	<0.20	ns
SVOCs of Concern (µg/L)																					
Benzo(a)pyrene	0.2	0.2	<10	<10	<10	ns	<10	<10	<10	ns	<10	<10	ns	<0.05	<200	<200	<10	<10	<100	<10	<0.05
Benzo(b)fluoranthene	0.1	0.1	<10	<10	<10	ns	<10	<10	<10	ns	<10	<10	ns	<0.05	<200	<200	<10	<10	<100	<10	<0.05
Bis[Di](2-ethylhexyl) phthalate	6	6	<5.0	<5.0	<5.0	ns	<5.0	<5.0	<5.0	ns	<5.0	32	ns	12.9 B**	990	818	67	68	439 B*Z	62 B*Z	194 B**
Dibenzo(a,h)anthracene	0.1	0.1	<10	<10	<10	ns	<10	<10	<10	ns	<10	<10	ns	<0.05	<200	<200	<10	<10	<100	<10	<0.05
Naphthalene	20	20	<10	<10	<10	ns	<10	<10	<10	ns	<10	27	ns	1.76	<200	<200	<10	<10	<100	14	18.2
Pentachlorophenol	1	1	<20	ns [2]	<20	ns	<20	ns [2]	<20	ns	<20	ns [2]	ns	<0.75	<400	<400	ns [2]	ns [2]	<200	<20	<0.76
2-Methylnaphthalene	280	na	*	*	*	ns	*	*	*	ns	*	*	ns	0.19	*	*	*	*	*	*	0.73
Additional SVOCs (µg/L)																					
Benzyl butyl phthalate	na	na	<10	<10	<10	ns	<10	<10	<10	ns	<10	<10	ns	<9.3	<200	<200	47	47	<100	28 B*	<9.5
Di-n-butylphthalate	na	na	<10	<10	<10	ns	<10	<10	<10	ns	<10	<10	ns	<9.3	<200	<200	<10	<10	<100	<10	<9.5
Di-n-octylphalate	na	na	<10	<10	<10	ns	<10	<10	<10	ns	<10	<10	ns	<9.3	<200	<200	<10	<10	<100	<10	<9.5
Total SVOCs (µg/L)	na	na	ND	ND	ND	ns	ND	ND	ND	ns	11	59	ns	15	990	818	114	115	439	104	213
Metals of Concern (mg/L)																					
Arsenic	0.01	0.01	0.0017	ns	0.0019	ns	0.0015	ns	0.0010	ns	0.0013	ns	ns	0.0013	<0.0010	<0.0010	ns	ns	0.0010	<0.0010	ns
Manganese	0.84	0.3	6.530	7.31	6.85 B*	ns	1.220	2.88	2.71 B*	ns	2.420	3.15	ns	1.730	6.350	6.440	5.96	5.83	6.12 B*	6.08 B*	ns
Additional Metals (mg/L)																					
Barium	2	na	0.0233	ns	ns	ns	0.0605	ns	ns	ns	0.0124	ns	ns	ns	0.0752	0.0725	ns	ns	ns	ns	ns
Cadmium	0.005	na	<0.0020	ns	ns	ns	<0.0020	ns	ns	ns	<0.0020	ns	ns	ns	<0.0020	<0.0020	ns	ns	ns	ns	ns
Chromium	0.1	na	<0.0050	ns	ns	ns	<0.0050	ns	ns	ns	<0.0050	ns	ns	ns	<0.0050	<0.0050	ns	ns	ns	ns	ns
Lead	0.015	na	<0.0010	ns	ns	ns	<0.0010	ns	ns	ns	<0.0010	ns	ns	ns	<0.0010	<0.0010	ns	ns	ns	ns	ns
Selenium	0.05	na	<0.0050	ns	ns	ns	<0.0050	ns	ns	ns	<0.0050	ns	ns	ns	<0.0050	<0.0050	ns	ns	ns	ns	ns
Iron	na	na	19.3	ns	ns	ns	19.5	ns	ns	ns	123	ns	ns	ns	71.6	72.2	ns	ns	ns	ns	ns

TABLE 3A - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID / Geological Unit of Well Screen	NH AGQS	ROD ICL	TRY_MW-805 Overburden				TRY_MW-A28 Overburden				TRY_MW-C6S Overburden		TRY_MW-C6D Overburden
Sampling Event Date			**Jun-11**	**Jun-13**	**Nov-14**	**Jun-15**	**Jun-13**	**Nov-14**	**Nov-14 DUP**	**Jun-15**	**Nov-14**	**Jun-15**	**Jun-15**
VOCs of Concern (µg/L)													
Tetrachloroethene	5	5	<10	<4.0	<10	*ns*	<2.0	<2.0	<2.0	*ns*	<2.0	*ns*	<1
Trichloroethene	5	5	<10	<4.0	<10	*ns*	<2.0	<2.0	<2.0	*ns*	<2.0	*ns*	<1
cis-1,2-Dichloroethene	70	70	<10	<4.0	<10	*ns*	<2.0	<2.0	<2.0	*ns*	**173**	*ns*	**14.7**
Vinyl Chloride	2	2	<10	<4.0	<10	*ns*	<2.0	<2.0	<2.0	*ns*	<2.0	*ns*	<1
1,2,4-Trimethylbenzene	330	330	**509**	**353**	**386**	*ns*	**18**	**58**	**53**	*ns*	<2.0	*ns*	<1
1,3,5-Trimethylbenzene	330	330	**218**	**43**	**170**	*ns*	**15**	**8.3**	**6.6**	*ns*	<2.0	*ns*	<1
2-Butanone(MEK)	4,000	4,000	<50	<20	<50	*ns*	<10	<10	<10	*ns*	<10	*ns*	<25
Benzene	5	5	<10	<4.0	<10	*ns*	<2.0	<2.0	<2.0	*ns*	<2.0	*ns*	<1
Naphthalene	20	20	**36**	**29**	**23**	*ns*	<2.0	**2.9**	**2.8**	*ns*	<2.0	*ns*	<1
n-Butylbenzene	260	260	**46**	<4.0	**32**	*ns*	<2.0	**2.9**	**2.6**	*ns*	<2.0	*ns*	<1
n-Propylbenzene	260	260	**69**	**39**	**53**	*ns*	<2.0	**6.8**	**6.5**	*ns*	<2.0	*ns*	<1
p-Isopropyltoluene (4-cymene)	260	260	**37**	**20**	**26**	*ns*	<2.0	**2.9**	**2.6**	*ns*	<2.0	*ns*	<1
Tetrahydrofuran(THF)	600	154	<50	<20	<50	*ns*	<10	<10	<10	*ns*	<10	*ns*	<5
Toluene	1,000	1,000	**248**	**10**	<10	*ns*	<2.0	<2.0	<2.0	*ns*	<2.0	*ns*	<1
Additional VOCs (µg/L)													
1,1,1-Trichloroethane	200	na	<10	<4.0	<10	*ns*	<2.0	<2.0	<2.0	*ns*	<2.0	*ns*	<1
1,1-Dichloroethane	81	na	<10	<4.0	<10	*ns*	<2.0	<2.0	<2.0	*ns*	<2.0	*ns*	<1
1,1-Dichloroethene	7	na	<10	<4.0	<10	*ns*	<2.0	<2.0	<2.0	*ns*	<2.0	*ns*	<1
1,2,4-Trichlorobenzene	70	na	<10	<4.0	<10	*ns*	<2.0	<2.0	<2.0	*ns*	<2.0	*ns*	<1
1,2-Dichloroethane	5	na	<10	<4.0	<10	*ns*	<2.0	<2.0	<2.0	*ns*	**4.4**	*ns*	<1
1,4-Dichlorobenzene	75	na	<10	<4.0	<10	*ns*	<2.0	<2.0	<2.0	*ns*	<2.0	*ns*	<1
2-Chlorotoluene	100	na	<10	<4.0	<10	*ns*	<2.0	<2.0	<2.0	*ns*	<2.0	*ns*	<1
4-Methyl-2-pentanone (MIBK)	2,000	na	<50	<20	<50	*ns*	<10	<10	<10	*ns*	<10	*ns*	<10
Acetone	6,000	na	<50	<20	<50	*ns*	<10	<10	<10	*ns*	<10	*ns*	**37.4**
Carbon Disulfide	70	na	*	*	*	*ns*	*	*	*	*ns*	*	*ns*	**1.1**
Ethylbenzene	700	na	**117**	**70**	**107**	*ns*	<2.0	**7.0**	**6.5**	*ns*	<2.0	*ns*	<1
Isopropylbenzene (cumene)	800	na	**46**	**26**	**39**	*ns*	<2.0	**5.5**	**5.1**	*ns*	<2.0	*ns*	<1
Methylene Chloride (Dichloromethane)	5	na	<10	<4.0	<10	*ns*	<2.0	<2.0	<2.0	*ns*	<2.0	*ns*	<4
sec-Butylbenzene	260	na	**31**	**20**	**22**	*ns*	<2.0	**3.2**	**3.0**	*ns*	**13**	*ns*	**2.4**
t-Butanol (TBA)	40	na	<50	<20	<50	*ns*	<10	<10	<10	*ns*	<10	*ns*	<25
t-Butylbenzene	260	na	<10	<4.0	<10	*ns*	<2.0	<2.0	<2.0	*ns*	**3.9**	*ns*	**1.6**
Trichlorofluoromethane	2,000	na	<10	<4.0	<10	*ns*	<2.0	<2.0	<2.0	*ns*	<2.0	*ns*	<1
m/p-Xylene	10, 000 [1]	na	**177**	**119**	**125**	*ns*	<2.0	**3.1**	**2.7**	*ns*	<2.0	*ns*	<2
o-Xylene		na	**123**	**48**	<10	*ns*	<2.0	<2.0	<2.0	*ns*	<2.0	*ns*	<1
Total VOCs (µg/L)	na	na	**1,657**	**777**	**983**	*ns*	**33**	**101**	**91**	*ns*	**194**	*ns*	**57.2**
1,4-Dioxane (µg/L)													
1,4-Dioxane	3	3	<0.20	*ns*	<0.20	*ns*	*ns*	*ns*	*ns*	*ns*	**0.25**	*ns*	<0.93
SVOCs of Concern (µg/L)													
Benzo(a)pyrene	0.2	0.2	<10	<10	<10	*ns*	<10	<10	<10	*ns*	<10	*ns*	<0.05
Benzo(b)fluoranthene	0.1	0.1	<10	<10	<10	*ns*	<10	<10	<10	*ns*	<10	*ns*	<0.05
Bis[Di](2-ethylhexyl) phthalate	6	6	<5.0	<5.0	<5.0	*ns*	**11**	**33**	**25**	*ns*	<5.0	*ns*	<5.6
Dibenzo(a,h)anthracene	0.1	0.1	<10	<10	<10	*ns*	<10	<10	<10	*ns*	<10	*ns*	<0.05
Naphthalene	20	20	**20**	**20**	**16**	*ns*	<10	<10	<10	*ns*	<10	*ns*	<0.19
Pentachlorophenol	1	1	<20	*ns* [2]	<20	*ns*	*ns* [2]	<20	<20	*ns*	<20	*ns*	<0.75
2-Methylnaphthalene	280	na	*	*	*	*ns*	*	*	*	*ns*	*	*ns*	<0.19
Additional SVOCs (µg/L)													
Benzyl butyl phthalate	na	na	<10	<10	<10	*ns*	<10	<10	<10	*ns*	<10	*ns*	<9.3
Di-n-butylphthalate	na	na	<10	<10	<10	*ns*	<10	<10	<10	*ns*	<10	*ns*	<9.3
Di-n-octylphalate	na	na	<10	<10	<10	*ns*	<10	<10	<10	*ns*	<10	*ns*	<9.3
Total SVOCs (µg/L)	na	na	**20**	**20**	**16**	*ns*	**11**	**33**	**25**	*ns*	ND	*ns*	ND
Metals of Concern (mg/L)													
Arsenic	0.01	0.01	**0.0019**	*ns*	**0.0022**	*ns*	*ns*	**0.0012**	**0.0012**	*ns*	<0.0010	*ns*	0.001
Manganese	0.84	0.3	**2.630**	**3.15**	**2.75 B***	*ns*	**0.689**	**1.26**	**1.28**	*ns*	**10.6**	*ns*	**0.262**
Additional Metals (mg/L)													
Barium	2	na	**0.0335**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Cadmium	0.005	na	<0.0020	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Chromium	0.1	na	<0.0050	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Lead	0.015	na	<0.0010	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Selenium	0.05	na	<0.0050	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Iron	na	na	**95.4**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*

TABLE 3A - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

TABLE KEY:
AGQS = Ambient Groundwater Quality Standards included in Env-Or 600 - Contaminated Site Management (Env-Or 603.3)
ROD ICL = Record of Decision, Interim Cleanup Levels
VOCs = Volatile Organic Compounds
SVOCs = Semi-Volatile Organic Compounds
µg/L = micrograms per liter
mg/L = milligrams per liter
na = no standard applies.
ns = not sampled.
< = analyte not detected above the laboratory reporting limit
J = estimated concentration qualified by the laboratory (NHDPHS or EPA) or by the Environmental Data Services (third party data validation), see laboratory report for explanation
E = Estimated concentration qualified by the laboratory due to the result exceeding the upper calibration level for the parameter
J* = estimated concentration qualified by GZA due to observed field conditions
B* = analyte detected in the equipment blank for the sampling equipment used at these wells, its presence in the sample may be suspect
B** = analyte detected in the 2014 equipment blank for the sampling equipment used at these wells, its presence in the sample may be suspect.
Z = estimated concentration qualified by GZA, based on the RPD being outside the acceptance criteria
Q = the concentration has been qualified by the laboratory, see laboratory report for explanation
DE = well decommissioned
"---" = available historical data is unclear as to whether the parameter was not sampled, or sampled but not detected.
"*" = historical data for analyte will be identified and entered as part of the next monitoring round.

GENERAL NOTES:
1. The analytical test methods for each compound analyzed during the 2014 monitoring round are as follows: VOCs by NHDPHS Lab's 8260B; 1,4-dioxane by EPA Method 522; SVOCs by 8270C; and Metals by EPA Method 200.7/200.8.
2. Groundwater samples collected during November 2014 were collected using bladder pumps or peristaltic pumps and dedicated tubing. Refer to**Table 2** for the sampling equipment used at each well.
3. **Bold** indicates that the concentration was detected above the laboratory reporting detection limit. Shading indicates that the concentration exceeds the AGQS and/or ROD ICL.

SPECIFIC NOTES:
1. The individual xylene isomers (m/p-xylene and o-xylene) do not have separate AGQS values; the AGQS for xylene (mixed isomers) is 10,000 µg/L.
2. Groundwater samples submitted to the laboratory for SVOC analyses were not analyzed for the acid fraction compounds in 2013 due to an error on the chain of custody in the SAP.
3. Well TRY_MW-101 was sampled during fall 2014 prior to being decommissioned.
4. VOC, SVOC, and 1,4-dioxane data collected on June 15, 2011 at well TRY_MW-201P should be considered estimated because LNAPL was observed coating the pump and tubing when removed from the well.
5. Well TRY_MW-201P had LNAPL observed during the June 2013 groundwater level round; therefore, it was not sampled during the monitoring round.

TABLE 3B - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES - NA PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID / Geological Unit of Well Screen / Sampling Event Date	NH AGQS	ROD ICL	TRY_M-1 Overburden Jun-11	Jun-13	Nov-14	Jun-15	TRY_M-2 Overburden Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Oct-09	Jun-11	Jun-13	Nov-14	Jun-15
MNA - Laboratory																			
Methane (µg/L)	na	na	**1400**	ns	ns	ns	ns	ns	ns	**400**	**610**	**420**	**870**	**39**	**1,200**	**550**	ns	ns	DE
Ethane (µg/L)	na	na	**0.058**	ns	ns	ns	ns	ns	ns	<10	<10	<0.025	**0.029**	< 0.025	0.014 J	<0.025	ns	ns	DE
Ethene (µg/L)	na	na	**0.044**	ns	ns	ns	ns	ns	ns	<10	<10	**0.016**	**0.052**	**0.030**	**0.056**	**0.060**	ns	ns	DE
Alkalinity (mg/L)	na	na	**72.4**	ns	ns	ns	ns	**140**	ns	**77.7**	ns	**92.9**	**107**	**53.0**	**62.0**	**49.6**	ns	ns	DE
Chloride (mg/L)	na	na	**5**	ns	ns	ns	ns	**10**	ns	**3.0**	**3.0**	**4.7**	<3.0	<3.0	<3.0	<3.0	ns	ns	DE
Nitrite-Nitrogen (mg/L)	1	na	<0.050	ns	ns	ns	ns	<0.03	ns	<0.25	<0.05	<0.050	<0.050	ns	ns	<0.05	ns	ns	DE
Nitrate+Nitrite-Nitrogen (mg/L)	na	na	**0.26**	ns	ns	ns	ns	ns	ns	<0.5	<0.05	<0.050	<0.050	ns	ns	<0.05 J	ns	ns	DE
Nitrate-Nitrogen (mg/L)	10	na	**0.25**	ns	ns	ns	ns	<0.02	ns	<0.25	<0.05	<0.050	<0.050	ns	ns	<0.05 J	ns	ns	DE
Sulfate, as SO4 (mg/L)	500	na	**9**	ns	ns	ns	ns	ns	ns	**7.8**	**10**	**15**	**9.2**	**7.0**	**9.1**	**8.2**	ns	ns	DE
Total Organic Carbon (mg/L)	na	na	**2.1**	ns	ns	ns	ns	**6.8**	ns	**7.1**	**13**	**9.5**	**6.5**	**5.9**	**8.3**	**2.5**	ns	ns	DE
Carbon Dioxide (mg/L)	na	na	**230**	ns	ns	ns	ns	ns	ns	**120**	ns	**100**	**130**	**300**	**120**	**77**	ns	ns	DE
Volatile Fatty Acids (mg/L)																			
Acetic acid	na	na	ns	ns	ns	ns	ns	<1	ns	<1	ns	<1.0	<1.0	ns	**1.2 J**	ns	ns	ns	DE
Butyric acid	na	na	ns	ns	ns	ns	ns	<1	ns	<1	ns	<1.0	<1.0	ns	**0.5 J**	ns	ns	ns	DE
Lactic acid and HIBA	na	na	ns	ns	ns	ns	ns	<25	ns	<25	ns	<25.0	<25.0	ns	<25.0 UJ	ns	ns	ns	DE
Pentanoic acid	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	DE
Propionic acid	na	na	ns	ns	ns	ns	ns	<1	ns	<1	ns	<1.0	<1.0	ns	**1 J**	ns	ns	ns	DE
Pyruvic acid	na	na	ns	ns	ns	ns	ns	<10	ns	<10	ns	<10.0	<10.0	ns	**1.8 J**	ns	ns	ns	DE
MNA - Field Screening																			
pH (SU)	na	na	**5.8**	ns	**5.7**	ns	ns	**6.38**	ns	**6.35**	**5.17**	**6.15**	**6.3**	**6.1**	**6.4**	**6.5**	**6.1**	ns	DE
ORP (mV)	na	na	**97**	ns	**105**	ns	ns	**293.3**	ns	**-50.8**	**12.2**	**-73.9**	**-31**	**9 J***	**-50**	**-30**	**-23**	ns	DE
Specific Conductance (µS/cm)	na	na	**212**	ns	**164**	ns	ns	**271**	ns	**210**	**240**	**246**	**242**	**175**	**199**	**150**	**220**	ns	DE
Dissolved Oxygen (mg/L)	na	na	**0.6**	ns	**0.6**	ns	ns	**0.2**	ns	**0.3**	**2.2**	**0.22**	**0.21**	**0.2**	**0.7**	<0.5	**0.7**	ns	DE
Turbidity (ntu)	na	na	<5	ns	<5	ns	ns	**1.4**	ns	**1.9**	**>1,100**	**2.5**	<1	**3**	<1	<5	<5	ns	DE
Temperature (°C)	na	na	**11**	ns	**10**	ns	ns	---	ns	---	---	**13**	**9**	**9**	**11**	**11**	**10**	ns	DE
Ferrous Iron (mg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	**1.46**	**2.6**	**1.60**	ns	ns	ns	DE
Nitrate (mg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	0.0	**0.4**	ns	ns	ns	DE

TABLE 3B - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES - NA PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID / Geological Unit of Well Screen / Sampling Event Date	NH AGQS	ROD ICL	TRY_M-7 Overburden Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Oct-09	Oct-09 DUP	Jun-11	Jun-13	Nov-14	Jun-15	TRY_M-7D Bedrock Nov-14	Jun-15
MNA - Laboratory																		
Methane (µg/L)	na	na	*ns*	*ns*	*ns*	**31**	**13**	*ns*	**12**	**800**	**57**	*ns*	**22**	*ns*	*ns*	*ns*	*ns*	*ns*
Ethane (µg/L)	na	na	*ns*	*ns*	*ns*	<10	<10	*ns*	**0.003**	**0.012 J**	<0.025	*ns*	<0.025	*ns*	*ns*	*ns*	*ns*	*ns*
Ethene (µg/L)	na	na	*ns*	*ns*	*ns*	<10	<10	*ns*	**0.011**	**0.120**	**0.056**	*ns*	**0.014 J**	*ns*	*ns*	*ns*	*ns*	*ns*
Alkalinity (mg/L)	na	na	*ns*	**60**	*ns*	**75.4**	*ns*	**87.9**	**85.2**	**85.6**	**94.0**	*ns*	**96.7**	*ns*	*ns*	*ns*	*ns*	*ns*
Chloride (mg/L)	na	na	*ns*	**2.8**	*ns*	**10**	**9**	**9.0**	**9.3**	**7.8**	**7.9**	*ns*	**7.3**	*ns*	*ns*	*ns*	*ns*	*ns*
Nitrite-Nitrogen (mg/L)	1	na	*ns*	<0.03	*ns*	<0.05	<0.050	<0.050	<0.050	*ns*	*ns*	*ns*	<0.05	*ns*	*ns*	*ns*	*ns*	*ns*
Nitrate+Nitrite-Nitrogen (mg/L)	na	na	*ns*	*ns*	*ns*	**0.38**	**0.36**	**0.25**	**0.38**	*ns*	*ns*	*ns*	**0.3**	*ns*	*ns*	*ns*	*ns*	*ns*
Nitrate-Nitrogen (mg/L)	10	na	*ns*	**0.93**	*ns*	**0.36**	**0.36**	**0.24**	**0.37**	*ns*	*ns*	*ns*	**0.29**	*ns*	*ns*	*ns*	*ns*	*ns*
Sulfate, as SO4 (mg/L)	500	na	*ns*	*ns*	*ns*	**34**	**31**	**42**	**52**	**47**	**47**	*ns*	**51**	*ns*	*ns*	*ns*	*ns*	*ns*
Total Organic Carbon (mg/L)	na	na	*ns*	**1.8**	*ns*	**11**	**12**	**16**	*ns*	**9.1**	**2.5**	*ns*	**3.9**	*ns*	*ns*	*ns*	*ns*	*ns*
Carbon Dioxide (mg/L)	na	na	*ns*	*ns*	*ns*	**350**	*ns*	*ns*	**340**	**84**	**330**	*ns*	**350**	*ns*	*ns*	*ns*	*ns*	*ns*
Volatile Fatty Acids (mg/L)																		
Acetic acid	na	na	*ns*	<1	*ns*	<1	*ns*	*ns*	<1.0	*ns*	<1.0 UJ	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Butyric acid	na	na	*ns*	<1	*ns*	<1	*ns*	*ns*	<1.0	*ns*	<1.0 UJ	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Lactic acid and HIBA	na	na	*ns*	<25	*ns*	<25	*ns*	*ns*	<25.0	*ns*	<25.0 UJ	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Pentanoic acid	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Propionic acid	na	na	*ns*	<1	*ns*	<1	*ns*	*ns*	<1.0	*ns*	<1.0 UJ	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Pyruvic acid	na	na	*ns*	<10	*ns*	<10	*ns*	*ns*	<10.0	*ns*	<10.0 UJ	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
MNA - Field Screening																		
pH (SU)	na	na	*ns*	**7.98**	*ns*	**5.71**	**8.08**	**5.76**	**5.7**	**5.2**	**5.9**	*ns*	**5.7**	*ns*	**5.8**	*ns*	*ns/ir*	*ns*
ORP (mV)	na	na	*ns*	*ns*	*ns*	**279**	**69**	**278**	**245**	**1.32 J***	**116**	*ns*	**100**	*ns*	**82**	*ns*	*ns/ir*	*ns*
Specific Conductance (µS/cm)	na	na	*ns*	**188**	*ns*	**214**	**80**	**206**	**297**	**290**	**292**	*ns*	**326**	*ns*	**350**	*ns*	*ns/ir*	*ns*
Dissolved Oxygen (mg/L)	na	na	*ns*	**1.2**	*ns*	**0.1**	**1.7**	**0.55**	**0.2**	**0.4**	**0.3**	*ns*	**2.0**	*ns*	<0.5	*ns*	*ns/ir*	*ns*
Turbidity (ntu)	na	na	*ns*	**0.1**	*ns*	**0.0**	**50.8**	**1.11**	<1	<1	<1	*ns*	<5	*ns*	<5	*ns*	*ns/ir*	*ns*
Temperature (°C)	na	na	*ns*	---	*ns*	---	---	**11**	**9**	**9**	**10**	*ns*	**9**	*ns*	**9**	*ns*	*ns/ir*	*ns*
Ferrous Iron (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**0.05**	**0.01**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Nitrate (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**0.5**	**0.3**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*

TABLE 3B - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES - NA PARAMETERS

Troy Mills Landfill Superfund Site

Troy, New Hampshire

Monitoring Well ID			TRY_MW-101													TRY_MW-101S	TRY_MW-101D
Geological Unit of Well Screen	NH AGQS	ROD ICL	Predominantly Overburden													Overburden	Overburden
Sampling Event Date			Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Oct-09	Jun-11	Jun-13	Nov-14 [1]	Jun-15	Jun-15	Jun-15
MNA - Laboratory																	
Methane (µg/L)	na	na	*ns*	*ns*	*ns*	**3,000**	**2,300**	**1,100**	**2,200**	**1,500**	**3,600**	**940**	*ns*	*ns*	*DE*	*ns*	*ns*
Ethane (µg/L)	na	na	*ns*	*ns*	*ns*	<50	<20	**0.015**	**0.016**	**0.021 J**	**0.036**	**0.019 J**	*ns*	*ns*	*DE*	*ns*	*ns*
Ethene (µg/L)	na	na	*ns*	*ns*	*ns*	<50	<20	**0.062**	**0.072**	**0.110**	**0.095**	**0.080**	*ns*	*ns*	*DE*	*ns*	*ns*
Alkalinity (mg/L)	na	na	*ns*	**270**	*ns*	**228**	*ns*	**233**	**298**	**196**	**232**	**196**	*ns*	*ns*	*DE*	*ns*	*ns*
Chloride (mg/L)	na	na	*ns*	**3.2**	*ns*	**19**	**16**	**16**	**9.5**	**5.4**	**4.5**	**3.5**	*ns*	*ns*	*DE*	*ns*	*ns*
Nitrite-Nitrogen (mg/L)	1	na	*ns*	<0.3	*ns*	**0.06**	**0.07**	**0.067**	**0.077**	*ns*	*ns*	**0.068**	*ns*	*ns*	*DE*	*ns*	*ns*
Nitrate+Nitrite-Nitrogen (mg/L)	na	na	*ns*	*ns*	*ns*	<1	<0.050	<0.050	*ns*	*ns*	*ns*	<0.050 J	*ns*	*ns*	*DE*	*ns*	*ns*
Nitrate-Nitrogen (mg/L)	10	na	*ns*	**0.32**	*ns*	<0.5	<0.050	<0.050	*ns*	*ns*	*ns*	<0.050 J	*ns*	*ns*	*DE*	*ns*	*ns*
Sulfate, as SO4 (mg/L)	500	na	*ns*	*ns*	*ns*	**1.3**	**2.0**	**9.3**	**6.3**	**16**	**3.8**	**4.4**	*ns*	*ns*	*DE*	*ns*	*ns*
Total Organic Carbon (mg/L)	na	na	*ns*	**22**	*ns*	**44**	**38**	**29**	**54**	**31**	**43**	**21**	*ns*	*ns*	*DE*	*ns*	*ns*
Carbon Dioxide (mg/L)	na	na	*ns*	*ns*	*ns*	**340**	*ns*	**320**	**380**	**330**	**340**	**300**	*ns*	*ns*	*DE*	*ns*	*ns*
Volatile Fatty Acids (mg/L)																	
Acetic acid	na	na	*ns*	<1	*ns*	<1	*ns*	<1.0	<1.0	*ns*	<1.0 UJ	*ns*	*ns*	*ns*	*DE*	*ns*	*ns*
Butyric acid	na	na	*ns*	<1	*ns*	<1	*ns*	<1.0	<1.0	*ns*	<1.0 UJ	*ns*	*ns*	*ns*	*DE*	*ns*	*ns*
Lactic acid and HIBA	na	na	*ns*	<25	*ns*	<25	*ns*	<25.0	<25.0	*ns*	<25.0 UJ	*ns*	*ns*	*ns*	*DE*	*ns*	*ns*
Pentanoic acid	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*	*ns*	*ns*
Propionic acid	na	na	*ns*	<1	*ns*	<1	*ns*	<1.0	<1.0	*ns*	<1.0 UJ	*ns*	*ns*	*ns*	*DE*	*ns*	*ns*
Pyruvic acid	na	na	*ns*	<10	*ns*	<10	*ns*	<10.0	<10.0	*ns*	<10.0 UJ	*ns*	*ns*	*ns*	*DE*	*ns*	*ns*
MNA - Field Screening																	
pH (SU)	na	na	*ns*	**6.48**	*ns*	**6.39**	**6.91**	**6.21**	**6.1**	**6.3**	**6.6**	**6.2**	**6.3**	**6.4**	*DE*	**6.3**	*ns/ir*
ORP (mV)	na	na	*ns*	**300**	*ns*	**-46**	**-106.2**	**-58.6**	**-56**	**-64**	**-76**	**2**	**-65**	**-34**	*DE*	**-50**	*ns/ir*
Specific Conductance (µS/cm)	na	na	*ns*	**645**	*ns*	**509**	**720**	**720**	**780**	**675**	**671**	**597**	**456**	**574**	*DE*	**379**	*ns/ir*
Dissolved Oxygen (mg/L)	na	na	*ns*	**0.5**	*ns*	**3.2**	**0.2**	**0.47**	**0.6**	**0.9**	**1.4**	**2.4**	<0.5	**0.6**	*DE*	**<0.5**	*ns/ir*
Turbidity (ntu)	na	na	*ns*	**16.6**	*ns*	**5.9**	**51.9**	**6.18**	<1	**5**	**1**	<5	<5	<5	*DE*	<5	*ns/ir*
Temperature (°C)	na	na	*ns*	---	*ns*	---	---	**13**	**6**	**12**	**11**	**12**	**12**	**10**	*DE*	**12**	*ns/ir*
Ferrous Iron (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**1.01**	**2.74**	**1.68**	*ns*	*ns*	*ns*	*DE*	*ns*	*ns/ir*
Nitrate (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**0.1**	**0.4 J***	*ns*	*ns*	*ns*	*DE*	*ns*	*ns/ir*

TABLE 3B - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES - NA PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID / Geological Unit of Well Screen / Sampling Event Date	NH AGQS	ROD ICL	TRY_MW-102 Predominantly Overburden Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Oct-09	Jun-10, 28.5	Jun-10, 28.5 DUP	Jun-11	Jun-13	Nov-14	Jun-15
MNA - Laboratory																	
Methane (µg/L)	na	na	ns	ns	ns	**1100**	ns	ns	ns	ns	ns	**2,200**	**2,700**	ns	ns	ns	ns
Ethane (µg/L)	na	na	ns	ns	ns	<10	ns	ns	ns	ns	ns	**0.027**	**0.033**	ns	ns	ns	ns
Ethene (µg/L)	na	na	ns	ns	ns	<10	ns	ns	ns	ns	ns	**0.044**	**0.073**	ns	ns	ns	ns
Alkalinity (mg/L)	na	na	ns	**62**	ns	**37.8**	ns	ns	ns	ns	ns	**133**	**133**	ns	ns	ns	ns
Chloride (mg/L)	na	na	ns	**13**	ns	**19**	ns	ns	ns	ns	ns	**7.8**	**7.9**	ns	ns	ns	ns
Nitrite-Nitrogen (mg/L)	1	na	ns	<0.03	ns	<0.25	ns	ns	ns	ns	ns	**0.053**	**0.053**	ns	ns	ns	ns
Nitrate+Nitrite-Nitrogen (mg/L)	na	na	ns	ns	ns	<0.5	ns	ns	ns	ns	ns	<0.050	**0.064**	ns	ns	ns	ns
Nitrate-Nitrogen (mg/L)	10	na	ns	**3.6**	ns	<0.25	ns	ns	ns	ns	ns	<0.050	<0.050	ns	ns	ns	ns
Sulfate, as SO4 (mg/L)	500	na	ns	ns	ns	**41**	ns	ns	ns	ns	ns	**25**	**25**	ns	ns	ns	ns
Total Organic Carbon (mg/L)	na	na	ns	**7.7**	ns	**20**	ns	ns	ns	ns	ns	**17**	**17**	ns	ns	ns	ns
Carbon Dioxide (mg/L)	na	na	ns	ns	ns	**340**	ns	ns	ns	ns	ns	**390**	**420**	ns	ns	ns	ns
Volatile Fatty Acids (mg/L)																	
Acetic acid	na	na	ns	<1	ns	<1	ns	ns	ns	ns	ns	<1	<1	ns	ns	ns	ns
Butyric acid	na	na	ns	<1	ns	<1	ns	ns	ns	ns	ns	<1	<1	ns	ns	ns	ns
Lactic acid and HIBA	na	na	ns	<25	ns	<25	ns	ns	ns	ns	ns	<25	<25	ns	ns	ns	ns
Pentanoic acid	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Propionic acid	na	na	ns	<1	ns	<1	ns	ns	ns	ns	ns	<1	<1	ns	ns	ns	ns
Pyruvic acid	na	na	ns	<10	ns	<10	ns	ns	ns	ns	ns	<10	<10	ns	ns	ns	ns
MNA - Field Screening																	
pH (SU)	na	na	ns	**5.54**	ns	**5.75**	ns	ns	ns	ns	ns	**5.8**	ns	ns/ir	ns	**5.8**	ns
ORP (mV)	na	na	ns	**134.8**	ns	**64.8**	ns	ns	ns	ns	ns	**63**	ns	ns/ir	ns	**46**	ns
Specific Conductance (µS/cm)	na	na	ns	**310**	ns	**287**	ns	ns	ns	ns	ns	**367**	ns	ns/ir	ns	**470**	ns
Dissolved Oxygen (mg/L)	na	na	ns	**0.7**	ns	**0.5**	ns	ns	ns	ns	ns	**0.4**	ns	ns/ir	ns	**1.0**	ns
Turbidity (ntu)	na	na	ns	**1.4**	ns	**8.1**	ns	ns	ns	ns	ns	**6**	ns	ns/ir	ns	**82**	ns
Temperature (°C)	na	na	ns	---	ns	---	ns	ns	ns	ns	ns	**13**	ns	ns/ir	ns	**11**	ns
Ferrous Iron (mg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	**2.4 J***	**5.8 J***	ns	ns	ns	ns
Nitrate (mg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns

TABLE 3B - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES - NA PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID Geological Unit of Well Screen Sampling Event Date	NH AGQS	ROD ICL	TRY_MW-104S Overburden Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Oct-09	Jun-11	Jun-13	Nov-14	Jun-15
MNA - Laboratory															
Methane (µg/L)	na	na	ns	ns	ns	**590**	ns	**1,100**	**1,100**	ns	**2,800**	ns	ns	ns	ns
Ethane (µg/L)	na	na	ns	ns	ns	<10	ns	**0.007**	**0.049**	ns	**0.039**	ns	ns	ns	ns
Ethene (µg/L)	na	na	ns	ns	ns	<10	ns	**0.110**	**0.085**	ns	**0.170**	ns	ns	ns	ns
Alkalinity (mg/L)	na	na	ns	**270**	ns	**131**	ns	**168**	**138**	ns	**191**	**189**	ns	ns	ns
Chloride (mg/L)	na	na	ns	**2.9**	ns	**10**	ns	**8.8**	**6.3**	ns	**3.9**	<3.0	ns	ns	ns
Nitrite-Nitrogen (mg/L)	1	na	ns	<0.03	ns	<0.25	ns	ns	ns	ns	ns	ns	ns	ns	ns
Nitrate+Nitrite-Nitrogen (mg/L)	na	na	ns	ns	ns	<0.5	ns	ns	ns	ns	ns	ns	ns	ns	ns
Nitrate-Nitrogen (mg/L)	10	na	ns	**0.06**	ns	<0.25	ns	ns	ns	ns	ns	ns	ns	ns	ns
Sulfate, as SO4 (mg/L)	500	na	ns	ns	ns	**8**	ns	**1.3**	**2.3**	ns	**2.6**	**5.5**	ns	ns	ns
Total Organic Carbon (mg/L)	na	na	ns	**7.3**	ns	**17**	ns	**20**	**16**	ns	**26**	ns	ns	ns	ns
Carbon Dioxide (mg/L)	na	na	ns	ns	ns	**99**	ns	**110**	**140**	ns	**230**	ns	ns	ns	ns
Volatile Fatty Acids (mg/L)															
Acetic acid	na	na	ns	<1	ns	<1	ns	<1.0	**0.9**	ns	<1.0 UJ	ns	ns	ns	ns
Butyric acid	na	na	ns	<1	ns	<1	ns	<1.0	<1.0	ns	<1.0 UJ	ns	ns	ns	ns
Lactic acid and HIBA	na	na	ns	<25	ns	<25	ns	<25.0	<25.0	ns	<25.0 UJ	ns	ns	ns	ns
Pentanoic acid	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Propionic acid	na	na	ns	<1	ns	<1	ns	<1.0	<1.0	ns	**0.6 J**	ns	ns	ns	ns
Pyruvic acid	na	na	ns	<10	ns	<10	ns	<10.0	<10.0	ns	<10.0 UJ	ns	ns	ns	ns
MNA - Field Screening															
pH (SU)	na	na	ns	**6.3**	ns	**6.54**	ns	**6.06**	**6.4**	**6.9**	**6.4**	**6.2**	**6.3**	**6.4**	ns
ORP (mV)	na	na	ns	**161.8**	ns	**-38.3**	ns	**-97.8**	**-39**	**15**	**18**	**-18**	**-10**	**-22**	ns
Specific Conductance (µS/cm)	na	na	ns	**416**	ns	**352**	ns	**378**	**377**	**376**	**405**	**375**	**349**	**393**	ns
Dissolved Oxygen (mg/L)	na	na	ns	**0.2**	ns	**0.2**	ns	**0.18**	**0.1**	**1.1**	**0.2**	<0.5	<0.5	**0.7**	ns
Turbidity (ntu)	na	na	ns	**0.7**	ns	**6.4**	ns	**13.2**	**1**	**3**	<1	<5	<5	**12**	ns
Temperature (°C)	na	na	ns	---	ns	---	ns	**15**	**6**	**11**	**12**	**11**	**10**	**10**	ns
Ferrous Iron (mg/L)	na	na	ns	ns	ns	ns	ns	ns	**1.29**	ns	**0.86**	ns	ns	ns	ns
Nitrate (mg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	**0.4**	ns	ns	ns	ns

TABLE 3B - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES - NA PARAMETERS

Troy Mills Landfill Superfund Site

Troy, New Hampshire

Monitoring Well ID Geological Unit of Well Screen Sampling Event Date	NH AGQS	ROD ICL	TRY_MW-104D Overburden Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Oct-09	Jun-11	Jun-13	Nov-14	Jun-15
MNA - Laboratory															
Methane (µg/L)	na	na	ns	ns	ns	**10**	ns	ns	ns	ns	ns	ns	ns	ns	ns
Ethane (µg/L)	na	na	ns	ns	ns	<10	ns	ns	ns	ns	ns	ns	ns	ns	ns
Ethene (µg/L)	na	na	ns	ns	ns	<10	ns	ns	ns	ns	ns	ns	ns	ns	ns
Alkalinity (mg/L)	na	na	ns	**46**	ns	**46.9**	ns	ns	ns	ns	ns	**46.9**	ns	ns	ns
Chloride (mg/L)	na	na	ns	**0.1**	ns	<3	ns	ns	ns	ns	ns	<3.0	ns	ns	ns
Nitrite-Nitrogen (mg/L)	1	na	ns	<0.03	ns	<0.50	ns	ns	ns	ns	ns	ns	ns	ns	ns
Nitrate+Nitrite-Nitrogen (mg/L)	na	na	ns	ns	ns	<0.10	ns	ns	ns	ns	ns	ns	ns	ns	ns
Nitrate-Nitrogen (mg/L)	10	na	ns	<0.050	ns	<0.50	ns	ns	ns	ns	ns	ns	ns	ns	ns
Sulfate, as SO4 (mg/L)	500	na	ns	ns	ns	**6.0**	ns	ns	ns	ns	ns	**5.3**	ns	ns	ns
Total Organic Carbon (mg/L)	na	na	ns	**0.5**	ns	**1.3**	ns	ns	ns	ns	ns	ns	ns	ns	ns
Carbon Dioxide (mg/L)	na	na	ns	ns	ns	**2.7**	ns	ns	ns	ns	ns	ns	ns	ns	ns
Volatile Fatty Acids (mg/L)															
Acetic acid	na	na	ns	<1	ns	<1	ns	ns	ns	ns	ns	ns	ns	ns	ns
Butyric acid	na	na	ns	<1	ns	<1	ns	ns	ns	ns	ns	ns	ns	ns	ns
Lactic acid and HIBA	na	na	ns	<25	ns	<25	ns	ns	ns	ns	ns	ns	ns	ns	ns
Pentanoic acid	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Propionic acid	na	na	ns	<1	ns	<1	ns	ns	ns	ns	ns	ns	ns	ns	ns
Pyruvic acid	na	na	ns	<10	ns	<10	ns	ns	ns	ns	ns	ns	ns	ns	ns
MNA - Field Screening															
pH (SU)	na	na	ns	**7.1**	ns	**7.86**	ns	ns	ns	ns	**7.7**	ns/ir	ns/ir	ns/ir	ns
ORP (mV)	na	na	ns	**90.4**	ns	**221.2**	ns	ns	ns	ns	**-64**	ns/ir	ns/ir	ns/ir	ns
Specific Conductance (µS/cm)	na	na	ns	**181**	ns	**103**	ns	ns	ns	ns	**107**	ns/ir	ns/ir	ns/ir	ns
Dissolved Oxygen (mg/L)	na	na	ns	**0.6**	ns	**0.8**	ns	ns	ns	ns	**0.4**	ns/ir	ns/ir	ns/ir	ns
Turbidity (ntu)	na	na	ns	**1.2**	ns	**4.7**	ns	ns	ns	ns	**8**	ns/ir	ns/ir	ns/ir	ns
Temperature (°C)	na	na	ns	---	ns	---	ns	ns	ns	ns	**12**	ns/ir	ns/ir	ns/ir	ns
Ferrous Iron (mg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Nitrate (mg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns

TABLE 3B - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES - NA PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	NH	ROD	TRY_MW-105S												
Geological Unit of Well Screen	AGQS	ICL	Overburden												
Sampling Event Date			Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Oct-09	Jun-11	Jun-13	Nov-14	Jun-15
MNA - Laboratory															
Methane (µg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Ethane (µg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Ethene (µg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Alkalinity (mg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Chloride (mg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Nitrite-Nitrogen (mg/L)	1	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Nitrate+Nitrite-Nitrogen (mg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Nitrate-Nitrogen (mg/L)	10	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Sulfate, as SO4 (mg/L)	500	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Total Organic Carbon (mg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Carbon Dioxide (mg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Volatile Fatty Acids (mg/L)															
Acetic acid	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Butyric acid	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Lactic acid and HIBA	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Pentanoic acid	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Propionic acid	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Pyruvic acid	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
MNA - Field Screening															
pH (SU)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	**6.1**	**5.8**	ns	**5.9**	ns
ORP (mV)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	**161**	**233**	ns	**94**	ns
Specific Conductance (µS/cm)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	**366**	**259**	ns	**338**	ns
Dissolved Oxygen (mg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	**0.7**	<0.5	ns	<0.5	ns
Turbidity (ntu)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	<1	<5	ns	<5	ns
Temperature (°C)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	**11**	**11**	ns	**10**	ns
Ferrous Iron (mg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Nitrate (mg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns

TABLE 3B - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES - NA PARAMETERS

Troy Mills Landfill Superfund Site

Troy, New Hampshire

Monitoring Well ID Geological Unit of Well Screen Sampling Event Date	NH AGQS	ROD ICL	TRY_MW-105D Bedrock Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Oct-09	Jun-11	Jun-13	Nov-14	Jun-15
MNA - Laboratory															
Methane (µg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Ethane (µg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Ethene (µg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Alkalinity (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Chloride (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Nitrite-Nitrogen (mg/L)	1	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Nitrate+Nitrite-Nitrogen (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Nitrate-Nitrogen (mg/L)	10	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Sulfate, as SO4 (mg/L)	500	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Total Organic Carbon (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Carbon Dioxide (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Volatile Fatty Acids (mg/L)															
Acetic acid	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Butyric acid	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Lactic acid and HIBA	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Pentanoic acid	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Propionic acid	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Pyruvic acid	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
MNA - Field Screening															
pH (SU)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**6.4**	*ns/ir*	*ns*	*ns/ir*	*ns*
ORP (mV)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**-24**	*ns/ir*	*ns*	*ns/ir*	*ns*
Specific Conductance (µS/cm)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**193**	*ns/ir*	*ns*	*ns/ir*	*ns*
Dissolved Oxygen (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**1.8**	*ns/ir*	*ns*	*ns/ir*	*ns*
Turbidity (ntu)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**7**	*ns/ir*	*ns*	*ns/ir*	*ns*
Temperature (°C)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**9**	*ns/ir*	*ns*	*ns/ir*	*ns*
Ferrous Iron (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Nitrate (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*

TABLE 3B - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES - NA PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	NH	ROD	TRY_MW-201SX	TRY_MW-201M														TRY_MW-201P		
Geological Unit of Well Screen	AGQS	ICL	Overburden	Overburden														Overburden		
Sampling Event Date			Jun-15	Aug-04	Oct-05	Jun-06	Dec-06	May-07	May-07 DUP	Jun-08	Dec-08	Jun-09	Oct-09	Jun-11	Jun-13	Nov-14	Jun-11	Jun-13 [2]	Nov-14
MNA - Laboratory																				
Methane (µg/L)	na	na	*ns*	*ns*	*ns*	*ns*	**160**	**160**	**140**	**310**	**550**	**510**	**610**	**850**	*ns*	*DE*	**2,200**	*ns*	*DE*
Ethane (µg/L)	na	na	*ns*	*ns*	*ns*	*ns*	<10	<10	<10	**0.019**	**0.029**	**0.025 J**	**0.026**	**0.025 J**	*ns*	*DE*	**0.043**	*ns*	*DE*
Ethene (µg/L)	na	na	*ns*	*ns*	*ns*	*ns*	<10	<10	<10	**0.094**	**0.130**	**0.140**	**0.170**	**0.160**	*ns*	*DE*	**0.160**	*ns*	*DE*
Alkalinity (mg/L)	na	na	*ns*	*ns*	**130**	*ns*	**136**	*ns*	*ns*	**140**	**143**	**156**	**160**	**177**	*ns*	*DE*	**116**	*ns*	*DE*
Chloride (mg/L)	na	na	*ns*	*ns*	**0.83**	*ns*	<3.0	**3**	**3**	<3.0	<3.0	<3.0	<3.0	**3.5**	*ns*	*DE*	**3.4**	*ns*	*DE*
Nitrite-Nitrogen (mg/L)	1	na	*ns*	*ns*	<0.03	*ns*	<0.50	<0.050	<0.050	<0.050	<0.050	*ns*	*ns*	<0.05	*ns*	*DE*	<0.050	*ns*	*DE*
Nitrate+Nitrite-Nitrogen (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	<0.10	<0.050	<0.050	<0.050	<0.050	*ns*	*ns*	<0.05	*ns*	*DE*	<0.050 J	*ns*	*DE*
Nitrate-Nitrogen (mg/L)	10	na	*ns*	*ns*	<0.050	*ns*	<0.50	<0.050	<0.050	<0.050	<0.050	*ns*	*ns*	<0.05	*ns*	*DE*	<0.050 J	*ns*	*DE*
Sulfate, as SO4 (mg/L)	500	na	*ns*	*ns*	*ns*	*ns*	**7.0**	**7.0**	**8.0**	**6.4**	**7.2**	**6.7**	**6.2**	**6.3**	*ns*	*DE*	**5.9**	*ns*	*DE*
Total Organic Carbon (mg/L)	na	na	*ns*	*ns*	**0.9**	*ns*	**5.0**	**6.8**	**6.2**	**3.7**	**5.5**	**4.6**	**8.8**	**1.4**	*ns*	*DE*	**3.9**	*ns*	*DE*
Carbon Dioxide (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	**35**	*ns*	*ns*	**31**	**43**	**46**	**57**	**53**	*ns*	*DE*	**110**	*ns*	*DE*
Volatile Fatty Acids (mg/L)																			
Acetic acid	na	na	*ns*	*ns*	*ns*	*ns*	<1	*ns*	*ns*	<1.0	<1.0	*ns*	<1.0 UJ	*ns*	*ns*	*DE*	*ns*	*ns*	*DE*
Butyric acid	na	na	*ns*	*ns*	<1	*ns*	<1	*ns*	*ns*	<1.0	<1.0	*ns*	<1.0 UJ	*ns*	*ns*	*DE*	*ns*	*ns*	*DE*
Lactic acid and HIBA	na	na	*ns*	*ns*	<25	*ns*	<25	*ns*	*ns*	<25.0	<25.0	*ns*	**2.5 J**	*ns*	*ns*	*DE*	*ns*	*ns*	*DE*
Pentanoic acid	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*	*ns*	*ns*	*DE*
Propionic acid	na	na	*ns*	*ns*	<1	*ns*	<1	*ns*	*ns*	<1.0	<1.0	*ns*	<1.0 UJ	*ns*	*ns*	*DE*	*ns*	*ns*	*DE*
Pyruvic acid	na	na	*ns*	*ns*	<10	*ns*	<10	*ns*	*ns*	<10.0	<10.0	*ns*	<10.0 UJ	*ns*	*ns*	*DE*	*ns*	*ns*	*DE*
MNA - Field Screening																			
pH (SU)	na	na	**6.5**	*ns*	**6.93**	*ns*	**6.98**	**6.82**	*ns*	**6.69**	**6.9**	**6.9**	**7.0**	**6.8**	**6.7**	*DE*	**6.2**	*ns*	*DE*
ORP (mV)	na	na	**-55**	*ns*	**107.1**	*ns*	**-110.9**	**-96**	*ns*	**-92.4**	**-106**	**-89**	**-81**	**-86**	**-89**	*DE*	**2**	*ns*	*DE*
Specific Conductance (µS/cm)	na	na	**399**	*ns*	**502**	*ns*	**204**	**198**	*ns*	**291**	**316**	**333**	**349**	**361**	**435**	*DE*	**269**	*ns*	*DE*
Dissolved Oxygen (mg/L)	na	na	**0.4**	*ns*	**0.2**	*ns*	**0.3**	**3.5**	*ns*	**0.43**	**0.3**	**0.8**	**0.3**	<0.5	**0.6**	*DE*	**1.5**	*ns*	*DE*
Turbidity (ntu)	na	na	**6**	*ns*	**0.2**	*ns*	**0.9**	**>1100**	*ns*	**6.47**	**19**	**6**	**2**	**6**	<5	*DE*	**<5**	*ns*	*DE*
Temperature (°C)	na	na	**12**	*ns*	---	*ns*	---	---	*ns*	**14**	**9**	**11**	**10**	**10**	**11**	*DE*	**11**	*ns*	*DE*
Ferrous Iron (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**3.42**	**1.10**	**0.44**	*ns*	*ns*	*DE*	*ns*	*ns*	*DE*
Nitrate (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**0.2**	**2.3 J***	*ns*	*ns*	*DE*	*ns*	*ns*	*DE*

TABLE 3B - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES - NA PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	NH AGQS	ROD ICL	TRY_MW-202S														TRY_MW-202P			
Geological Unit of Well Screen			Overburden														Overburden			
Sampling Event Date			Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Jun-09 DUP	Oct-09	Jun-11	Jun-13	Nov-14	Jun-15	Jun-11	Jun-13	Nov-14	Jun-15
MNA - Laboratory																				
Methane (µg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	**2.2**	ns	ns	ns	ns	ns	DE	**320**	ns	ns	ns
Ethane (µg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	**0.130**	ns	ns	ns	ns	ns	DE	**0.008 J**	ns	ns	ns
Ethene (µg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	**0.076**	ns	ns	ns	ns	ns	DE	**0.039**	ns	ns	ns
Alkalinity (mg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	**129**	ns	ns	ns	ns	ns	DE	**96.7**	ns	ns	ns
Chloride (mg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	<3.0	ns	ns	ns	ns	ns	DE	<3.0	ns	ns	ns
Nitrite-Nitrogen (mg/L)	1	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	DE	<0.05	ns	ns	ns
Nitrate+Nitrite-Nitrogen (mg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	DE	<0.05	ns	ns	ns
Nitrate-Nitrogen (mg/L)	10	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	DE	<0.05	ns	ns	ns
Sulfate, as SO4 (mg/L)	500	na	ns	ns	ns	ns	ns	ns	ns	**14**	ns	ns	ns	ns	ns	DE	**8.1**	ns	ns	ns
Total Organic Carbon (mg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	**3.0**	ns	ns	ns	ns	ns	DE	**1.7**	ns	ns	ns
Carbon Dioxide (mg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	**49**	ns	ns	ns	ns	ns	DE	**42**	ns	ns	ns
Volatile Fatty Acids (mg/L)																				
Acetic acid	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	DE	ns	ns	ns	ns
Butyric acid	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	DE	ns	ns	ns	ns
Lactic acid and HIBA	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	DE	ns	ns	ns	ns
Pentanoic acid	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	DE	ns	ns	ns	ns
Propionic acid	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	DE	ns	ns	ns	ns
Pyruvic acid	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	DE	ns	ns	ns	ns
MNA - Field Screening																				
pH (SU)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	DE	ns	ns	ns/ir	ns
ORP (mV)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	DE	ns	ns	ns/ir	ns
Specific Conductance (µS/cm)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	DE	ns	ns	ns/ir	ns
Dissolved Oxygen (mg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	DE	ns	ns	ns/ir	ns
Turbidity (ntu)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	DE	ns	ns	ns/ir	ns
Temperature (°C)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	DE	ns	ns	ns/ir	ns
Ferrous Iron (mg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	**0.05**	ns	ns	ns	ns	ns	DE	ns	ns	ns	ns
Nitrate (mg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	**0.8**	ns	ns	ns	ns	ns	DE	ns	ns	ns	ns

TABLE 3B - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES - NA PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID / Geological Unit of Well Screen / Sampling Event Date	NH AGQS	ROD ICL	TRY_MW-204 Overburden Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Oct-09	Jun-11	Jun-13	Nov-14	Jun-15
MNA - Laboratory															
Methane (µg/L)	na	na	ns	ns	ns	**1,200**	**1,700**	ns	**3,600**	**2,300**	**4,100**	**2,000**	ns	ns	ns
Ethane (µg/L)	na	na	ns	ns	ns	<10	<20	ns	**0.160**	**0.055**	**0.073**	**0.024 J**	ns	ns	ns
Ethene (µg/L)	na	na	ns	ns	ns	<10	<20	ns	**0.039**	**0.033**	**0.037**	**0.07**	ns	ns	ns
Alkalinity (mg/L)	na	na	ns	**74**	ns	**74**	ns	**102**	**97.8**	**75.9**	**77.3**	**96.5**	ns	ns	ns
Chloride (mg/L)	na	na	ns	**0.90**	ns	**25**	**12**	<3.0	<3.0	<3.0	<3.0	<3.0	ns	ns	ns
Nitrite-Nitrogen (mg/L)	1	na	ns	<0.03	ns	**0.06**	<0.050	<0.050	<0.050	ns	ns	<0.05	ns	ns	ns
Nitrate+Nitrite-Nitrogen (mg/L)	na	na	ns	ns	ns	**4.3**	**0.87**	<0.050	<0.050	ns	ns	<0.05 J	ns	ns	ns
Nitrate-Nitrogen (mg/L)	10	na	ns	<0.02	ns	**4.3**	**0.84**	<0.050	<0.050	ns	ns	<0.05 J	ns	ns	ns
Sulfate, as SO4 (mg/L)	500	na	ns	ns	ns	**44**	**70**	**97**	**84**	**66**	**53**	**30**	ns	ns	ns
Total Organic Carbon (mg/L)	na	na	ns	**3.9**	ns	**16**	**23**	**22**	**11**	**33**	**15**	**5.2**	ns	ns	ns
Carbon Dioxide (mg/L)	na	na	ns	ns	ns	**320**	ns	ns	**240**	**210**	**210**	**180**	ns	ns	ns
Volatile Fatty Acids (mg/L)															
Acetic acid	na	na	ns	<1	ns	<1	ns	ns	<1.0	ns	<1.0 UJ	ns	ns	ns	ns
Butyric acid	na	na	ns	<1	ns	<1	ns	ns	<1.0	ns	<1.0 UJ	ns	ns	ns	ns
Lactic acid and HIBA	na	na	ns	<25	ns	<25	ns	ns	<25.0	ns	**2.5 J**	ns	ns	ns	ns
Pentanoic acid	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Propionic acid	na	na	ns	<1	ns	<1	ns	ns	<1.0	ns	<1.0 UJ	ns	ns	ns	ns
Pyruvic acid	na	na	ns	<10	ns	<10	ns	ns	<10.0	ns	<10.0 UJ	ns	ns	ns	ns
MNA - Field Screening															
pH (SU)	na	na	ns	**5.97**	ns	**5.74**	**5.11**	**5.70**	**5.80**	**6.3 J***	**6.1**	**5.8**	ns	**6.0**	ns
ORP (mV)	na	na	ns	**350**	ns	**119.1**	**76.4**	**172.1**	**59**	**43 J***	**4**	**56**	ns	**37**	ns
Specific Conductance (µS/cm)	na	na	ns	**234**	ns	**316**	**371**	**291**	**366**	**279**	**276**	**243**	ns	**213**	ns
Dissolved Oxygen (mg/L)	na	na	ns	**0.2**	ns	**0.2**	**3.4**	**2.3**	**0.3**	**0.3**	**0.3**	**0.5**	ns	<0.5	ns
Turbidity (ntu)	na	na	ns	**0.7**	ns	**2.0**	**31.9**	**1.4**	**2**	**3**	**2**	**<0.5**	ns	<5	ns
Temperature (°C)	na	na	ns	---	ns	---	---	**12**	**8**	**10**	**9**	**9**	ns	**8**	ns
Ferrous Iron (mg/L)	na	na	ns	ns	ns	ns	ns	ns	**2.08**	**1.15**	**0.61**	ns	ns	ns	ns
Nitrate (mg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	**0.2**	**0.0 J***	ns	ns	ns	ns

TABLE 3B - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES - NA PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID Geological Unit of Well Screen	NH AGQS	ROD ICL	TRY_MW-205 Overburden																		
Sampling Event Date			Aug-04	Oct-05	Jun-06	Dec-06	Dec-06 DUP	May-07	Jun-08	Dec-08	Dec-08 DUP	Jun-09	Jun-09 DUP	Oct-09	Oct-09 DUP	Jun-11	Jun-11 DUP	Jun-13	Jun-13 DUP	Nov-14	Jun-15
MNA - Laboratory																					
Methane (µg/L)	na	na	ns	ns	ns	1,400	1,400	2,300	5,400	5,000	4,700	5,700	5,100	8,600	8,500	3,500	3,600	ns	ns	ns	ns
Ethane (µg/L)	na	na	ns	ns	ns	<20	<20	<20	<0.025	0.018	0.026	< 0.025	< 0.025	0.041	0.040	<0.025	<0.025	ns	ns	ns	ns
Ethene (µg/L)	na	na	ns	ns	ns	<20	<20	<20	0.021	0.069	0.099	0.062	0.052	0.120	0.110	0.062	0.070	ns	ns	ns	ns
Alkalinity (mg/L)	na	na	ns	180	ns	165	180	ns	274	395	362	216	214	258	224	198	202	ns	ns	ns	ns
Chloride (mg/L)	na	na	ns	1.7	ns	13	13	13	14	10	9.1	6.9	7.0	4.6	4.7	6.1	6.0	ns	ns	ns	ns
Nitrite-Nitrogen (mg/L)	1	na	ns	<0.03	ns	<0.05	<0.05	0.070	0.0053	0.088	0.072	ns	ns	ns	ns	0.081	0.077	ns	ns	ns	ns
Nitrate+Nitrite-Nitrogen (mg/L)	na	na	ns	ns	ns	<1	<1	<0.050	<0.050	<0.050	<0.050	ns	ns	ns	ns	<0.050 J	<0.050 J	ns	ns	ns	ns
Nitrate-Nitrogen (mg/L)	10	na	ns	0.47	ns	<0.50	0.07	<0.050	<0.050	<0.050	<0.050	ns	ns	ns	ns	<0.050 J	<0.050 J	ns	ns	ns	ns
Sulfate, as SO4 (mg/L)	500	na	ns	ns	ns	10	9.9	11	7.4	1.7	1.6	2.9	2.3	<1.0	<1.0	1.2	1.2	ns	ns	ns	ns
Total Organic Carbon (mg/L)	na	na	ns	20	ns	47	64	57	67	58	63	47	38	55	56	41	42	ns	ns	ns	ns
Carbon Dioxide (mg/L)	na	na	ns	ns	ns	410	420	ns	370	330	350	350	360	300	290	330	320	ns	ns	ns	ns
Volatile Fatty Acids (mg/L)																					
Acetic acid	na	na	ns	<1	ns	<1	<1	ns	<1.0	1.4	1.8	ns	ns	<1.0 UJ	<1.0 UJ	ns	ns	ns	ns	ns	ns
Butyric acid	na	na	ns	<1	ns	<1	<1	ns	<1.0	<1.0	<1.0	ns	ns	<1.0 UJ	<1.0 UJ	ns	ns	ns	ns	ns	ns
Lactic acid and HIBA	na	na	ns	<25	ns	<25	<25	ns	<25.0	<25.0	<25.0	ns	ns	<25.0 UJ	1.8 J	ns	ns	ns	ns	ns	ns
Pentanoic acid	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Propionic acid	na	na	ns	<1	ns	<1	<1	ns	<1.0	<1.0	<1.0	ns	ns	0.5 J	<1.0 UJ	ns	ns	ns	ns	ns	ns
Pyruvic acid	na	na	ns	<10	ns	<10	<10	ns	<10.0	<10.0	<10.0	ns	ns	<10.0 UJ	<10.0 UJ	ns	ns	ns	ns	ns	ns
MNA - Field Screening																					
pH (SU)	na	na	ns	6.02	ns	6.12	ns	5.98	6.10	6.1	ns	6.3	ns	6.6	ns	6.1	ns	6.0	ns	6.3	ns
ORP (mV)	na	na	ns	7.2	ns	0.9	ns	-51.1	-55.8	-11	ns	-56	ns	-94	ns	-50	ns	-39	ns	-63	ns
Specific Conductance (µS/cm)	na	na	ns	383	ns	486	ns	613	765	787	ns	714	ns	619	ns	665	ns	474	ns	592	ns
Dissolved Oxygen (mg/L)	na	na	ns	0.5	ns	0.1	ns	2.1	4.36	0.4	ns	0.9	ns	0.3	ns	<0.5	ns	0.8	ns	<0.5	ns
Turbidity (ntu)	na	na	ns	4.2	ns	9.7	ns	501.0	5.9	5	ns	3	ns	2	ns	<5	ns	6	ns	7	ns
Temperature (°C)	na	na	ns	---	ns	---	ns	---	14	9	ns	12	ns	11	ns	14	ns	12	ns	10	ns
Ferrous Iron (mg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	2.94 J*	1.33 J*	1.11	1.20	ns	ns	ns	ns	ns	ns
Nitrate (mg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	0.1	ns	0.0 J*	0.4 J*	ns	ns	ns	ns	ns	ns

TABLE 3B - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES - NA PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	NH AGQS	ROD ICL	TRY_MW-301									TRY_MW-301X			
Geological Unit of Well Screen			Overburden									Overburden			
Sampling Event Date			Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Oct-09	Jun-11	Jun-13	Nov-14	Jun-15
MNA - Laboratory															
Methane (µg/L)	na	na	*ns*	*ns*	*ns*	**1,600**	*ns*	*ns*	**810**	**720**	**1,400**	**880**	*ns*	*ns*	*ns*
Ethane (µg/L)	na	na	*ns*	*ns*	*ns*	<20	*ns*	*ns*	**0.011**	**0.011 J**	**0.015 J**	**0.15**	*ns*	*ns*	*ns*
Ethene (µg/L)	na	na	*ns*	*ns*	*ns*	<20	*ns*	*ns*	**0.027**	**0.058**	**0.061**	**0.34**	*ns*	*ns*	*ns*
Alkalinity (mg/L)	na	na	*ns*	**190**	*ns*	**79.7**	*ns*	**144**	**133**	**116**	**124**	**91.9**	*ns*	*ns*	*ns*
Chloride (mg/L)	na	na	*ns*	**3.1**	*ns*	**12**	*ns*	<10.0	**8.3**	**6.3**	**5.1**	**4.5**	*ns*	*ns*	*ns*
Nitrite-Nitrogen (mg/L)	1	na	*ns*	<0.03	*ns*	<0.05	*ns*	<0.050	<0.050	*ns*	*ns*	<0.050	*ns*	*ns*	*ns*
Nitrate+Nitrite-Nitrogen (mg/L)	na	na	*ns*	*ns*	*ns*	<1	*ns*	<0.050	<0.050	*ns*	*ns*	<0.050 J	*ns*	*ns*	*ns*
Nitrate-Nitrogen (mg/L)	10	na	*ns*	**0.13**	*ns*	<0.50	*ns*	<0.050	<0.050	*ns*	*ns*	<0.050 J	*ns*	*ns*	*ns*
Sulfate, as SO4 (mg/L)	500	na	*ns*	*ns*	*ns*	**45**	*ns*	**39**	**42**	**37**	**35**	**18**	*ns*	*ns*	*ns*
Total Organic Carbon (mg/L)	na	na	*ns*	**16**	*ns*	**30**	*ns*	**29**	**26**	**21**	**19**	**2.9**	*ns*	*ns*	*ns*
Carbon Dioxide (mg/L)	na	na	*ns*	*ns*	*ns*	**320**	*ns*	*ns*	**420**	**370**	**400**	**250**	*ns*	*ns*	*ns*
Volatile Fatty Acids (mg/L)															
Acetic acid	na	na	*ns*	<1	*ns*	<1	*ns*	*ns*	<1.0	*ns*	<1.0 UJ	*ns*	*ns*	*ns*	*ns*
Butyric acid	na	na	*ns*	<1	*ns*	<1	*ns*	*ns*	<1.0	*ns*	<1.0 UJ	*ns*	*ns*	*ns*	*ns*
Lactic acid and HIBA	na	na	*ns*	<25	*ns*	<25	*ns*	*ns*	<25.0	*ns*	<25.0 UJ	*ns*	*ns*	*ns*	*ns*
Pentanoic acid	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Propionic acid	na	na	*ns*	<1	*ns*	<1	*ns*	*ns*	<1.0	*ns*	<1.0 UJ	*ns*	*ns*	*ns*	*ns*
Pyruvic acid	na	na	*ns*	<10	*ns*	<10	*ns*	*ns*	<10.0	*ns*	<10.0 UJ	*ns*	*ns*	*ns*	*ns*
MNA - Field Screening															
pH (SU)	na	na	*ns*	**6.05**	*ns*	**6.07**	*ns*	**5.92**	**6.0**	**6.4 J***	**6.2**	**5.7**	**5.8**	**6.5**	*ns*
ORP (mV)	na	na	*ns*	**44.5**	*ns*	**-10.7**	*ns*	**24.5**	**-32**	**21 J***	**-2**	**33**	**106**	**111**	*ns*
Specific Conductance (µS/cm)	na	na	*ns*	**447**	*ns*	**310**	*ns*	**426**	**463**	**464**	**485**	**232**	**224**	**229**	*ns*
Dissolved Oxygen (mg/L)	na	na	*ns*	**0.4**	*ns*	**0.9**	*ns*	**1.75**	**0.15**	**0.3**	**0.5**	**0.5**	**0.7**	**0.6**	*ns*
Turbidity (ntu)	na	na	*ns*	**0.7**	*ns*	*ns*	*ns*	**0.80**	<1	<1	<1	**9**	<5	<5	*ns*
Temperature (°C)	na	na	*ns*	---	*ns*	---	*ns*	**12**	**10**	**12**	**11**	**11**	**12**	**11**	*ns*
Ferrous Iron (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**0.25**	**1.21**	**1.58**	*ns*	*ns*	*ns*	*ns*
Nitrate (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**0.0**	**0.6 J***	*ns*	*ns*	*ns*	*ns*

TABLE 3B - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES - NA PARAMETERS

Troy Mills Landfill Superfund Site

Troy, New Hampshire

Monitoring Well ID	NH	ROD	TRY_MW-501													TRY_MW-501X				TRY_MW-501D
Geological Unit of Well Screen	AGQS	ICL	Overburden													Overburden				Overburden
Sampling Event Date			Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Jun-08 DUP	Dec-08	Dec-08 DUP	Jun-09	Jun-09 DUP	Oct-09	Oct-09 DUP	Jun-11	Jun-13	Nov-14	Jun-15	Jun-15
MNA - Laboratory																				
Methane (µg/L)	na	na	*ns*	*ns*	*ns*	**1,800**	**640**	**1,800**	**1,800**	**1,600**	**1,400**	**2,000**	**1,800**	**4,000**	**3,200**	*ns*	*ns*	*ns*	*ns*	*ns*
Ethane (µg/L)	na	na	*ns*	*ns*	*ns*	<20	<10	**0.024**	**0.013**	**0.039**	**0.016**	**0.018 J**	**0.022 J**	**0.021 J**	**0.018 J**	*ns*	*ns*	*ns*	*ns*	*ns*
Ethene (µg/L)	na	na	*ns*	*ns*	*ns*	<20	<10	**0.100**	**0.090**	**0.110**	**0.096**	**0.091 J**	**0.130 J**	**0.130**	**0.130**	*ns*	*ns*	*ns*	*ns*	*ns*
Alkalinity (mg/L)	na	na	*ns*	**180**	*ns*	**138**	*ns*	**181**	**180**	**150**	**152**	**152**	**150**	**150**	**173**	*ns*	*ns*	*ns*	*ns*	*ns*
Chloride (mg/L)	na	na	*ns*	**4.6**	*ns*	**11**	**6**	**7.3**	**7.4**	**6.4**	**6.3**	**5.3**	**4.9**	**3.8**	**3.8**	*ns*	*ns*	*ns*	*ns*	*ns*
Nitrite-Nitrogen (mg/L)	1	na	*ns*	<0.03	*ns*	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Nitrate+Nitrite-Nitrogen (mg/L)	na	na	*ns*	*ns*	*ns*	<0.5	<0.050	<0.050	<0.050	<0.050	<0.050	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Nitrate-Nitrogen (mg/L)	10	na	*ns*	<0.02	*ns*	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Sulfate, as SO4 (mg/L)	500	na	*ns*	*ns*	*ns*	**37**	**36**	**8.7**	**8.8**	**13**	**13**	**7.6**	**8.5**	**1.8**	**1.8**	*ns*	*ns*	*ns*	*ns*	*ns*
Total Organic Carbon (mg/L)	na	na	*ns*	**12**	*ns*	**19**	**31**	**24**	**23**	**20**	**21**	**20**	**23**	**24**	**20**	*ns*	*ns*	*ns*	*ns*	*ns*
Carbon Dioxide (mg/L)	na	na	*ns*	*ns*	*ns*	**210**	*ns*	**210**	**210**	**200**	**180**	**190**	**200**	**190**	**200**	*ns*	*ns*	*ns*	*ns*	*ns*
Volatile Fatty Acids (mg/L)																				
Acetic acid	na	na	*ns*	<1	*ns*	<1	*ns*	<1.0	<1.0	<1.0	<1.0	*ns*	*ns*	**0.8 J**	**1.6 J**	*ns*	*ns*	*ns*	*ns*	*ns*
Butyric acid	na	na	*ns*	<1	*ns*	<1	*ns*	<1.0	<1.0	<1.0	<1.0	*ns*	*ns*	<1.0 UJ	<1.0 UJ	*ns*	*ns*	*ns*	*ns*	*ns*
Lactic acid and HIBA	na	na	*ns*	<25	*ns*	<25	*ns*	<25.0	<25.0	<25.0	<25.0	*ns*	*ns*	<25.0 UJ	<25.0 UJ	*ns*	*ns*	*ns*	*ns*	*ns*
Pentanoic acid	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Propionic acid	na	na	*ns*	<1	*ns*	<1	*ns*	<1.0	<1.0	<1.0	<1.0	*ns*	*ns*	**1.0 J**	<1.0 UJ	*ns*	*ns*	*ns*	*ns*	*ns*
Pyruvic acid	na	na	*ns*	<10	*ns*	<10	*ns*	<10.0	<10.0	<10.0	<10.0	*ns*	*ns*	<10.0 UJ	<10.0 UJ	*ns*	*ns*	*ns*	*ns*	*ns*
MNA - Field Screening																				
pH (SU)	na	na	*ns*	**7.18**	*ns*	**6.44**	**8.53**	**6.08**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns/ir*	*ns/ir*	*ns/ir*	*ns*	**8.0**
ORP (mV)	na	na	*ns*	**-10.8**	*ns*	**-40.4**	**-36**	**-29.7**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns/ir*	*ns/ir*	*ns/ir*	*ns*	**-196**
Specific Conductance (µS/cm)	na	na	*ns*	**575**	*ns*	**487**	**528**	**479**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns/ir*	*ns/ir*	*ns/ir*	*ns*	**101**
Dissolved Oxygen (mg/L)	na	na	*ns*	**0.2**	*ns*	**0.3**	**8.0**	**0.44**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns/ir*	*ns/ir*	*ns/ir*	*ns*	**0.5**
Turbidity (ntu)	na	na	*ns*	**0.8**	*ns*	**9.7**	**503.0**	**0.92**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns/ir*	*ns/ir*	*ns/ir*	*ns*	**142**
Temperature (°C)	na	na	*ns*	---	*ns*	---	---	**17**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns/ir*	*ns/ir*	*ns/ir*	*ns*	**12**
Ferrous Iron (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**10.65**	*ns*	**2.09 J***	**1.21 J***	*ns*	*ns*	*ns*	*ns*	*ns*
Nitrate (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**0.0**	*ns*	**0.4 J***	**0.6 J***	*ns*	*ns*	*ns*	*ns*	*ns*

TABLE 3B - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES - NA PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID Geological Unit of Well Screen Sampling Event Date	NH AGQS	ROD ICL	TRY_MW-508 Overburden Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Oct-09	TRY_MW-508X Overburden Jun-11	Jun-13	Nov-14	Jun-15
MNA - Laboratory															
Methane (µg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	**0.043 J**	**0.540**	**0.180**	ns	ns	ns
Ethane (µg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	< 0.025 UJ	<0.025	**0.04**	ns	ns	ns
Ethene (µg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	< 0.025 UJ	**0.075**	**0.027**	ns	ns	ns
Alkalinity (mg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	<1	**1.8**	<1.0	ns	ns	ns
Chloride (mg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	<3.0	<3.0	<3.0	ns	ns	ns
Nitrite-Nitrogen (mg/L)	1	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	<0.050	ns	ns	ns
Nitrate+Nitrite-Nitrogen (mg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	<0.050	ns	ns	ns
Nitrate-Nitrogen (mg/L)	10	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	<0.050	ns	ns	ns
Sulfate, as SO4 (mg/L)	500	na	ns	ns	ns	ns	ns	ns	ns	**7.8**	**8.2**	**6.8**	ns	ns	ns
Total Organic Carbon (mg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	**1.9**	**3.6**	**1.6**	ns	ns	ns
Carbon Dioxide (mg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	**25 J**	**56**	**34**	ns	ns	ns
Volatile Fatty Acids (mg/L)															
Acetic acid	na	na	ns	ns	ns	ns	ns	ns	ns	ns	<1.0 UJ	ns	ns	ns	ns
Butyric acid	na	na	ns	ns	ns	ns	ns	ns	ns	ns	<1.0 UJ	ns	ns	ns	ns
Lactic acid and HIBA	na	na	ns	ns	ns	ns	ns	ns	ns	ns	<25.0 UJ	ns	ns	ns	ns
Pentanoic acid	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Propionic acid	na	na	ns	ns	ns	ns	ns	ns	ns	ns	<1.0 UJ	ns	ns	ns	ns
Pyruvic acid	na	na	ns	ns	ns	ns	ns	ns	ns	ns	<10.0 UJ	ns	ns	ns	ns
MNA - Field Screening															
pH (SU)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	**5**	ns	**4.9**	ns
ORP (mV)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	**197**	ns	**192**	ns
Specific Conductance (µS/cm)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	**28**	ns	**24**	ns
Dissolved Oxygen (mg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	**7.3**	ns	**9.2**	ns
Turbidity (ntu)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	**11**	ns	<5	ns
Temperature (°C)	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	**14**	ns	**9**	ns
Ferrous Iron (mg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	**0.18**	**0.10**	ns	ns	ns	ns
Nitrate (mg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	**0.3**	**0.1**	ns	ns	ns	ns

TABLE 3B - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES - NA PARAMETERS

Troy Mills Landfill Superfund Site

Troy, New Hampshire

Monitoring Well ID / Geological Unit of Well Screen / Sampling Event Date	NH AGQS	ROD ICL	TRY_MW-601S Overburden Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Jun-09 DUP	Oct-09	Jun-11	Jun-13	Nov-14	Jun-15
MNA - Laboratory																
Methane (µg/L)	na	na	ns	ns	ns	**800**	**380**	**1,200**	**1,400**	**1,700**	ns	**1,700**	**1,200**	ns	ns	ns
Ethane (µg/L)	na	na	ns	ns	ns	<10	<10	**0.070**	**0.065**	**0.054**	ns	**0.045**	**0.009 J**	ns	ns	ns
Ethene (µg/L)	na	na	ns	ns	ns	<10	<10	**0.074**	**0.069**	**0.042**	ns	**0.046**	**0.021 J**	ns	ns	ns
Alkalinity (mg/L)	na	na	ns	ns	ns	**52.6**	ns	**105**	**78.0**	**75.4**	ns	**59.2**	**77.1**	ns	ns	ns
Chloride (mg/L)	na	na	ns	**1.1**	ns	**34**	**23**	**8.8**	**5.2**	<3.0	ns	<3.0	<3.0	ns	ns	ns
Nitrite-Nitrogen (mg/L)	1	na	ns	<0.03	ns	<0.050	<0.05	<0.050	<0.050	ns	ns	ns	<0.050	ns	ns	ns
Nitrate+Nitrite-Nitrogen (mg/L)	na	na	ns	ns	ns	**3.7**	**6.2**	<0.050	**0.36**	ns	ns	ns	<0.050	ns	ns	ns
Nitrate-Nitrogen (mg/L)	10	na	ns	<0.02	ns	**3.7**	**6.2**	<0.050	**0.35**	ns	ns	ns	<0.050	ns	ns	ns
Sulfate, as SO4 (mg/L)	500	na	ns	ns	ns	**5**	**8**	**29**	**64**	**71**	ns	**75**	**43**	ns	ns	ns
Total Organic Carbon (mg/L)	na	na	ns	**3.2**	ns	**10**	**16**	**11**	**19**	**12**	ns	<0.50	**4**	ns	ns	ns
Carbon Dioxide (mg/L)	na	na	ns	ns	ns	**320**	ns	**300**	**320**	**250**	ns	**260**	**230**	ns	ns	ns
Volatile Fatty Acids (mg/L)																
Acetic acid	na	na	ns	<1	ns	<1	ns	<1.0	<1.0	ns	ns	<1.0 UJ	ns	ns	ns	ns
Butyric acid	na	na	ns	<1	ns	<1	ns	<1.0	<1.0	ns	ns	<1.0 UJ	ns	ns	ns	ns
Lactic acid and HIBA	na	na	ns	<25	ns	<25	ns	<25.0	<25.0	ns	ns	<25.0 UJ	ns	ns	ns	ns
Pentanoic acid	na	na	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Propionic acid	na	na	ns	<1	ns	<1	ns	<1.0	<1.0	ns	ns	**0.6 J**	ns	ns	ns	ns
Pyruvic acid	na	na	ns	<10	ns	<10	ns	<10.0	<10.0	ns	ns	<10.0 UJ	ns	ns	ns	ns
MNA - Field Screening																
pH (SU)	na	na	ns	**5.61**	ns	**5.5**	**5.4**	**5.60**	ns	**5.8**	ns	**6.0**	**5.6**	**5.6**	**5.5**	ns
ORP (mV)	na	na	ns	**336**	ns	**208.8**	**228**	**321.6**	ns	**203**	ns	**108**	**203**	**208**	**116**	ns
Specific Conductance (µS/cm)	na	na	ns	**224**	ns	**190**	**259**	**255**	ns	**283**	ns	**279**	**224**	**199**	**163**	ns
Dissolved Oxygen (mg/L)	na	na	ns	**0.2**	ns	**0.5**	**5.2**	**2.72**	ns	**0.9**	ns	**0.3**	<0.5	<0.5	<0.5	ns
Turbidity (ntu)	na	na	ns	**0.2**	ns	**0.3**	**271.0**	**16.9**	ns	**1**	ns	<1	<5	<5	<5	ns
Temperature (°C)	na	na	ns	---	ns	---	---	**14**	ns	**10**	ns	**10**	**12**	**10**	**10**	ns
Ferrous Iron (mg/L)	na	na	ns	ns	ns	ns	ns	ns	**0.12**	**0.11**	ns	**0.07**	ns	ns	ns	ns
Nitrate (mg/L)	na	na	ns	ns	ns	ns	ns	ns	ns	**0.3**	**0.4**	**0.1 J***	ns	ns	ns	ns

TABLE 3B - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES - NA PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID / Geological Unit of Well Screen / Sampling Event Date	NH AGQS	ROD ICL	TRY_MW-601D Overburden												
			Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Oct-09	Jun-11	Jun-13	Nov-14	Jun-15
MNA - Laboratory															
Methane (µg/L)	na	na	*ns*	*ns*	*ns*	**830**	**520**	**840**	**800**	**770**	**1,300**	**1,000**	*ns*	*ns*	*ns*
Ethane (µg/L)	na	na	*ns*	*ns*	*ns*	<10	<10	**0.047**	**0.049**	**0.041**	**0.066**	**0.027**	*ns*	*ns*	*ns*
Ethene (µg/L)	na	na	*ns*	*ns*	*ns*	<10	<10	**0.700**	**0.640**	**0.890**	**1.500**	**0.740**	*ns*	*ns*	*ns*
Alkalinity (mg/L)	na	na	*ns*	**55**	*ns*	**74.5**	*ns*	**51.2**	**74.4**	**75.9**	**82.7**	**87.9**	*ns*	*ns*	*ns*
Chloride (mg/L)	na	na	*ns*	**1.9**	*ns*	<3	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	*ns*	*ns*	*ns*
Nitrite-Nitrogen (mg/L)	1	na	*ns*	<0.03	*ns*	<0.050	<0.050	<0.050	<0.050	*ns*	*ns*	<0.050	*ns*	*ns*	*ns*
Nitrate+Nitrite-Nitrogen (mg/L)	na	na	*ns*	*ns*	*ns*	<0.10	<0.050	<0.050	<0.050	*ns*	*ns*	**0.053**	*ns*	*ns*	*ns*
Nitrate-Nitrogen (mg/L)	10	na	*ns*	<0.02	*ns*	<0.050	<0.050	<0.050	<0.050	*ns*	*ns*	**0.051**	*ns*	*ns*	*ns*
Sulfate, as SO4 (mg/L)	500	na	*ns*	*ns*	*ns*	**4.0**	**4.0**	**8.9**	**4.5**	**3.4**	**2.9**	**3.5**	*ns*	*ns*	*ns*
Total Organic Carbon (mg/L)	na	na	*ns*	**1.5**	*ns*	**4.0**	**4.2**	**4.3**	**6.6**	**3.5**	**3.3**	**1.3**	*ns*	*ns*	*ns*
Carbon Dioxide (mg/L)	na	na	*ns*	*ns*	*ns*	**47**	*ns*	**14**	**30**	**29**	**32**	**26**	*ns*	*ns*	*ns*
Volatile Fatty Acids (mg/L)															
Acetic acid	na	na	*ns*	<1	*ns*	<1	*ns*	<1.0	<1.0	*ns*	<1.0 UJ	*ns*	*ns*	*ns*	*ns*
Butyric acid	na	na	*ns*	<1	*ns*	<1	*ns*	<1.0	<1.0	*ns*	<1.0 UJ	*ns*	*ns*	*ns*	*ns*
Lactic acid and HIBA	na	na	*ns*	<25	*ns*	<25	*ns*	<25.0	<25.0	*ns*	<25.0 UJ	*ns*	*ns*	*ns*	*ns*
Pentanoic acid	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Propionic acid	na	na	*ns*	<1	*ns*	<1	*ns*	<1.0	<1.0	*ns*	**0.6 J**	*ns*	*ns*	*ns*	*ns*
Pyruvic acid	na	na	*ns*	<10	*ns*	<10	*ns*	<10.0	<10.0	*ns*	<10.0 UJ	*ns*	*ns*	*ns*	*ns*
MNA - Field Screening															
pH (SU)	na	na	*ns*	**6.56**	*ns*	**6.46**	**6.78**	**6.82**	**6.7**	**6.6**	**6.8**	*ns/ir*	*ns/ir*	*ns/ir*	*ns*
ORP (mV)	na	na	*ns*	**-25.5**	*ns*	**-1.7**	**-24**	**-58.6**	**-13**	**11**	**-75**	*ns/ir*	*ns/ir*	*ns/ir*	*ns*
Specific Conductance (µS/cm)	na	na	*ns*	**170**	*ns*	**113**	**106**	**122**	**163**	**148**	**169**	*ns/ir*	*ns/ir*	*ns/ir*	*ns*
Dissolved Oxygen (mg/L)	na	na	*ns*	**0.3**	*ns*	**0.2**	**4.0**	**0.77**	**0.60**	**0.9**	**0.2**	*ns/ir*	*ns/ir*	*ns/ir*	*ns*
Turbidity (ntu)	na	na	*ns*	**0.8**	*ns*	**4.4**	**35.6**	**23.6**	**67.0**	**15**	**4**	*ns/ir*	*ns/ir*	*ns/ir*	*ns*
Temperature (°C)	na	na	*ns*	---	*ns*	---	---	**20**	**7**	**14**	**11**	*ns/ir*	*ns/ir*	*ns/ir*	*ns*
Ferrous Iron (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**1.70**	**1.19**	**0.63**	*ns*	*ns*	*ns*	*ns*
Nitrate (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**0.0**	**0.7 J***	*ns*	*ns*	*ns*	*ns*

TABLE 3B - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES - NA PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID Geological Unit of Well Screen Sampling Event Date	NH AGQS	ROD ICL	TRY_MW-602S Overburden Aug-04	Oct-05	Jun-06	Dec-06	Dec-06 DUP	May-07	Jun-08	Dec-08	Jun-09	Oct-09	Jun-11	Jun-13	Nov-14	Jun-15
MNA - Laboratory																
Methane (µg/L)	na	na	*ns*	*ns*	*ns*	**840**	**860**	**880**	**4,700**	**5,200**	**2,600**	**6,500**	**2,800**	*ns*	*ns*	*DE*
Ethane (µg/L)	na	na	*ns*	*ns*	*ns*	<10	<10	<20	**0.075**	**0.094**	**0.050**	**0.084**	**0.038**	*ns*	*ns*	*DE*
Ethene (µg/L)	na	na	*ns*	*ns*	*ns*	<10	<10	<20	**0.100**	**0.160**	**0.330**	**0.430**	**0.410**	*ns*	*ns*	*DE*
Alkalinity (mg/L)	na	na	*ns*	**52.6**	*ns*	**125**	**122**	*ns*	**256**	**233**	**138**	**170**	**196**	*ns*	*ns*	*DE*
Chloride (mg/L)	na	na	*ns*	**71**	*ns*	**18**	**18**	**11**	**8.1**	**6.9**	<3.0	**4.4**	<3.0	*ns*	*ns*	*DE*
Nitrite-Nitrogen (mg/L)	1	na	*ns*	<0.03	*ns*	<0.050	<0.050	<0.050	<0.050	**0.056**	*ns*	*ns*	<0.050	*ns*	*ns*	*DE*
Nitrate+Nitrite-Nitrogen (mg/L)	na	na	*ns*	*ns*	*ns*	**4.5**	**4.1**	**1.2**	<0.050	<0.050	*ns*	*ns*	<0.050 J	*ns*	*ns*	*DE*
Nitrate-Nitrogen (mg/L)	10	na	*ns*	**7.9**	*ns*	**4.5**	**4.1**	**1.2**	<0.050	<0.050	*ns*	*ns*	<0.050 J	*ns*	*ns*	*DE*
Sulfate, as SO4 (mg/L)	500	na	*ns*	*ns*	*ns*	**140**	**140**	**76**	**5.9**	<1.0	**18**	**2.6**	**8.1**	*ns*	*ns*	*DE*
Total Organic Carbon (mg/L)	na	na	*ns*	**11**	*ns*	**27**	**49**	**45**	**55**	**35**	**22**	**27**	**13**	*ns*	*ns*	*DE*
Carbon Dioxide (mg/L)	na	na	*ns*	*ns*	*ns*	**360**	**370**	*ns*	**240**	**210**	**170**	**170**	**60**	*ns*	*ns*	*DE*
Volatile Fatty Acids (mg/L)																
Acetic acid	na	na	*ns*	<1	*ns*	<1	<1	*ns*	<1.0	**2.4**	*ns*	<1.0 UJ	*ns*	*ns*	*ns*	*DE*
Butyric acid	na	na	*ns*	<1	*ns*	<1	<1	*ns*	<1.0	<1.0	*ns*	<1.0 UJ	*ns*	*ns*	*ns*	*DE*
Lactic acid and HIBA	na	na	*ns*	<25	*ns*	<25	<25	*ns*	<25.0	<25.0	*ns*	<25.0 UJ	*ns*	*ns*	*ns*	*DE*
Pentanoic acid	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*DE*
Propionic acid	na	na	*ns*	<1	*ns*	<1	<1	*ns*	<1.0	<1.0	*ns*	<1.0 UJ	*ns*	*ns*	*ns*	*DE*
Pyruvic acid	na	na	*ns*	<10	*ns*	<10	<10	*ns*	<10.0	<10.0	*ns*	<10.0 UJ	*ns*	*ns*	*ns*	*DE*
MNA - Field Screening																
pH (SU)	na	na	*ns*	**5.45**	*ns*	**5.87**	*ns*	**6.15**	**6.15**	**6.2**	**6.7 J***	**6.5**	*ns/ir*	*ns/ir*	*ns*	*DE*
ORP (mV)	na	na	*ns*	**149.2**	*ns*	**84.9**	*ns*	**-55.4**	**-55.4**	**-55**	**-48 J***	**-41**	*ns/ir*	*ns/ir*	*ns*	*DE*
Specific Conductance (µS/cm)	na	na	*ns*	**622**	*ns*	**690**	*ns*	**561**	**561**	**582**	**334**	**374**	*ns/ir*	*ns/ir*	*ns*	*DE*
Dissolved Oxygen (mg/L)	na	na	*ns*	**0.4**	*ns*	**0.5**	*ns*	**2.33**	**2.33**	**0.3**	**0.3**	**0.3**	*ns/ir*	*ns/ir*	*ns*	*DE*
Turbidity (ntu)	na	na	*ns*	**0.7**	*ns*	**1.3**	*ns*	**3.8**	**3.8**	**1**	**2**	<1	*ns/ir*	*ns/ir*	*ns*	*DE*
Temperature (°C)	na	na	*ns*	---	*ns*	---	*ns*	---	**13**	**8**	**10**	**10**	*ns/ir*	*ns/ir*	*ns*	*DE*
Ferrous Iron (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**1.74**	**1.01**	**0.74**	*ns*	*ns*	*ns*	*DE*
Nitrate (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**0.1**	**0.0 J***	*ns*	*ns*	*ns*	*DE*

TABLE 3B - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES - NA PARAMETERS

Troy Mills Landfill Superfund Site

Troy, New Hampshire

Monitoring Well ID			TRY_MW-602B												
Geological Unit of Well Screen	NH AGQS	ROD ICL	Bedrock												
Sampling Event Date			Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Oct-09	Jun-11	Jun-13	Nov-14	Jun-15
MNA - Laboratory															
Methane (µg/L)	na	na	*ns*	*ns*	*ns*	**1,800**	**1,000**	**2,900**	**1,500**	**2,400**	**2,400**	**4,500**	*ns*	*ns*	*ns*
Ethane (µg/L)	na	na	*ns*	*ns*	*ns*	<20	<10	**0.069**	**0.090**	**0.079**	**0.082**	**0.049**	*ns*	*ns*	*ns*
Ethene (µg/L)	na	na	*ns*	*ns*	*ns*	<20	<10	**0.056**	**0.036**	**0.049**	**0.066**	**0.088**	*ns*	*ns*	*ns*
Alkalinity (mg/L)	na	na	*ns*	**120**	*ns*	**100**	*ns*	**108**	**96.4**	**82.1**	**87.8**	**99.4**	*ns*	*ns*	*ns*
Chloride (mg/L)	na	na	*ns*	**2.5**	*ns*	**7.0**	**5.0**	**4.9**	**4.4**	**3.4**	**3.2**	<3	*ns*	*ns*	*ns*
Nitrite-Nitrogen (mg/L)	1	na	*ns*	<0.03	*ns*	<0.050	<0.050	<0.050	<0.050	*ns*	*ns*	<0.050	*ns*	*ns*	*ns*
Nitrate+Nitrite-Nitrogen (mg/L)	na	na	*ns*	*ns*	*ns*	<0.10	<0.050	<0.050	<0.050	*ns*	*ns*	<0.050 J	*ns*	*ns*	*ns*
Nitrate-Nitrogen (mg/L)	10	na	*ns*	<0.02	*ns*	<0.050	<0.050	<0.050	<0.050	*ns*	*ns*	<0.050 J	*ns*	*ns*	*ns*
Sulfate, as SO4 (mg/L)	500	na	*ns*	*ns*	*ns*	**9**	**9**	**9.0**	**13**	**11**	**11**	**8**	*ns*	*ns*	*ns*
Total Organic Carbon (mg/L)	na	na	*ns*	**3.9**	*ns*	**18**	**12**	**8.7**	**9.9**	**5.6**	**12**	**2.8**	*ns*	*ns*	*ns*
Carbon Dioxide (mg/L)	na	na	*ns*	*ns*	*ns*	**160**	*ns*	**160**	**160**	**140**	**170**	**130**	*ns*	*ns*	*ns*
Volatile Fatty Acids (mg/L)															
Acetic acid	na	na	*ns*	<1	*ns*	<1	*ns*	1.1	<1.0	*ns*	<1.0 UJ	*ns*	*ns*	*ns*	*ns*
Butyric acid	na	na	*ns*	<1	*ns*	<1	*ns*	<1.0	<1.0	*ns*	<1.0 UJ	*ns*	*ns*	*ns*	*ns*
Lactic acid and HIBA	na	na	*ns*	<25	*ns*	<25	*ns*	<25.0	<25.0	*ns*	<25.0 UJ	*ns*	*ns*	*ns*	*ns*
Pentanoic acid	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Propionic acid	na	na	*ns*	<1	*ns*	<1	*ns*	<1.0	<1.0	*ns*	<1.0 UJ	*ns*	*ns*	*ns*	*ns*
Pyruvic acid	na	na	*ns*	<10	*ns*	<10	*ns*	<10.0	<10.0	*ns*	<10.0 UJ	*ns*	*ns*	*ns*	*ns*
MNA - Field Screening															
pH (SU)	na	na	*ns*	**6.19**	*ns*	**6.2**	**7.15**	**5.73**	**6.0**	**6.1**	**6.3**	**6.0**	*ns*	**5.9**	*ns*
ORP (mV)	na	na	*ns*	**250.4**	*ns*	**-2.6**	**11.3**	**25.2**	**22**	**-1**	**2**	**29**	*ns*	**9**	*ns*
Specific Conductance (µS/cm)	na	na	*ns*	**243**	*ns*	**236**	**257**	**261**	**219**	**207**	**211**	**221**	*ns*	**206**	*ns*
Dissolved Oxygen (mg/L)	na	na	*ns*	**0.8**	*ns*	**0.2**	**6.5**	**0.50**	**0.3**	**0.7**	**0.6**	**1.9**	*ns*	<0.5	*ns*
Turbidity (ntu)	na	na	*ns*	**0.8**	*ns*	**0.5**	**37.8**	**27.8**	**5.0**	**3.0**	<1	<5	*ns*	<5	*ns*
Temperature (°C)	na	na	*ns*	---	*ns*	---	---	**12**	**8**	**10**	**11**	**9**	*ns*	**9**	*ns*
Ferrous Iron (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**0.64**	**2.23**	**0.84**	*ns*	*ns*	*ns*	*ns*
Nitrate (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**0.2**	**0.5 J***	*ns*	*ns*	*ns*	*ns*

TABLE 3B - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES - NA PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	NH	ROD	TRY_MW-701												
Geological Unit of Well Screen	AGQS	ICL	Bedrock												
Sampling Event Date			Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Oct-09	Jun-11	Jun-13	Nov-14	Jun-15
MNA - Laboratory															
Methane (µg/L)	na	na	*ns*	*ns*	*ns*	<10	<10	**0.083**	**1**	**1.2**	**0.072 J**	**0.038 J**	*ns*	*ns*	*ns*
Ethane (µg/L)	na	na	*ns*	*ns*	*ns*	<10	<10	<0.025	**0.01**	<0.025	<0.025	<0.025	*ns*	*ns*	*ns*
Ethene (µg/L)	na	na	*ns*	*ns*	*ns*	<10	<10	<0.025	**0.036**	**0.06**	**0.017 J**	**0.015 J**	*ns*	*ns*	*ns*
Alkalinity (mg/L)	na	na	*ns*	*ns*	*ns*	**8**	*ns*	**2.3**	**5.5**	**4.5**	**4.7**	**3.6**	*ns*	*ns*	*ns*
Chloride (mg/L)	na	na	*ns*	*ns*	*ns*	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	*ns*	*ns*	*ns*
Nitrite-Nitrogen (mg/L)	1	na	*ns*	*ns*	*ns*	<0.050	<0.050	<0.050	<0.050	*ns*	*ns*	<0.050	*ns*	*ns*	*ns*
Nitrate+Nitrite-Nitrogen (mg/L)	na	na	*ns*	*ns*	*ns*	**0.27**	**0.06**	**0.063**	**0.055**	*ns*	*ns*	<0.050	*ns*	*ns*	*ns*
Nitrate-Nitrogen (mg/L)	10	na	*ns*	*ns*	*ns*	**0.27**	**0.06**	**0.062**	**0.055**	*ns*	*ns*	<0.050	*ns*	*ns*	*ns*
Sulfate, as SO4 (mg/L)	500	na	*ns*	*ns*	*ns*	**11**	**9**	**7.1**	**8.3**	**7.1**	**7.8**	**7.2**	*ns*	*ns*	*ns*
Total Organic Carbon (mg/L)	na	na	*ns*	*ns*	*ns*	**1**	**1.8**	**1.3**	**3.2**	**1.5**	**1.6**	<0.050	*ns*	*ns*	*ns*
Carbon Dioxide (mg/L)	na	na	*ns*	*ns*	*ns*	**28**	*ns*	**30**	**43**	**32**	**36**	**25**	*ns*	*ns*	*ns*
Volatile Fatty Acids (mg/L)															
Acetic acid	na	na	*ns*	*ns*	*ns*	<1	*ns*	*ns*	<1.0	*ns*	<1.0 UJ	*ns*	*ns*	*ns*	*ns*
Butyric acid	na	na	*ns*	*ns*	*ns*	<1	*ns*	*ns*	<1.0	*ns*	<1.0 UJ	*ns*	*ns*	*ns*	*ns*
Lactic acid and HIBA	na	na	*ns*	*ns*	*ns*	<25	*ns*	*ns*	<25.0	*ns*	<25.0 UJ	*ns*	*ns*	*ns*	*ns*
Pentanoic acid	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Propionic acid	na	na	*ns*	*ns*	*ns*	<1	*ns*	*ns*	<1.0	*ns*	**0.5 J**	*ns*	*ns*	*ns*	*ns*
Pyruvic acid	na	na	*ns*	*ns*	*ns*	<10	*ns*	*ns*	<10.0	*ns*	<10.0 UJ	*ns*	*ns*	*ns*	*ns*
MNA - Field Screening															
pH (SU)	na	na	*ns*	*ns*	*ns*	**5.84**	**7.41**	**5.22**	**5.4**	**6.2**	**5.7**	**5.5**	**5.4**	**5.4**	*ns*
ORP (mV)	na	na	*ns*	*ns*	*ns*	**180.1**	**160**	**345.7**	**235**	**71**	**117**	**156**	**222**	**85**	*ns*
Specific Conductance (µS/cm)	na	na	*ns*	*ns*	*ns*	**32**	**33**	**32**	**38**	**36**	**37**	**32**	**32**	**34**	*ns*
Dissolved Oxygen (mg/L)	na	na	*ns*	*ns*	*ns*	**10.0**	**3.0**	**12.71**	**6.9**	**6.8**	**4.8**	**8.5**	**9.2**	**7.6**	*ns*
Turbidity (ntu)	na	na	*ns*	*ns*	*ns*	**0.6**	**20.9**	**0.47**	**5.0**	**5.0**	**20**	<5	<5	<5	*ns*
Temperature (°C)	na	na	*ns*	*ns*	*ns*	---	---	**12**	**8**	**8.0**	**10**	**10**	**9**	**9**	*ns*
Ferrous Iron (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**0.06**	**0.08**	**0.03**	*ns*	*ns*	*ns*	*ns*
Nitrate (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**0.2**	**0.4**	*ns*	*ns*	*ns*	*ns*

TABLE 3B - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES - NA PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID / Geological Unit of Well Screen / Sampling Event Date	NH AGQS	ROD ICL	TRY_MW-702S Overburden Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Oct-09	TRY_MW-702SX Overburden Jun-11	Jun-13	Nov-14	Jun-15
MNA - Laboratory															
Methane (µg/L)	na	na	*ns*	*ns*	*ns*	<10	<10	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Ethane (µg/L)	na	na	*ns*	*ns*	*ns*	<10	<10	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Ethene (µg/L)	na	na	*ns*	*ns*	*ns*	<10	<10	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Alkalinity (mg/L)	na	na	*ns*	*ns*	*ns*	**17.1**	*ns*	<1	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Chloride (mg/L)	na	na	*ns*	*ns*	*ns*	<3.0	<3.0	<3.0	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Nitrite-Nitrogen (mg/L)	1	na	*ns*	*ns*	*ns*	<0.050	<0.050	<0.050	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Nitrate+Nitrite-Nitrogen (mg/L)	na	na	*ns*	*ns*	*ns*	<0.10	<0.050	<0.050	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Nitrate-Nitrogen (mg/L)	10	na	*ns*	*ns*	*ns*	<0.050	<0.050	<0.050	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Sulfate, as SO4 (mg/L)	500	na	*ns*	*ns*	*ns*	**10**	**14**	**8.9**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Total Organic Carbon (mg/L)	na	na	*ns*	*ns*	*ns*	**2.9**	**21**	**2.4**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Carbon Dioxide (mg/L)	na	na	*ns*	*ns*	*ns*	**23**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Volatile Fatty Acids (mg/L)															
Acetic acid	na	na	*ns*	*ns*	*ns*	<1	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Butyric acid	na	na	*ns*	*ns*	*ns*	<1	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Lactic acid and HIBA	na	na	*ns*	*ns*	*ns*	<25	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Pentanoic acid	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Propionic acid	na	na	*ns*	*ns*	*ns*	<1	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Pyruvic acid	na	na	*ns*	*ns*	*ns*	<10	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
MNA - Field Screening															
pH (SU)	na	na	*ns*	*ns*	*ns*	**6.15**	**5.8**	**4.76**	*ns*	*ns*	*ns*	**5.0**	*ns*	**4.9**	**5.1**
ORP (mV)	na	na	*ns*	*ns*	*ns*	**50.5**	**99.1**	**306**	*ns*	*ns*	*ns*	**172**	*ns*	**220**	**272**
Specific Conductance (µS/cm)	na	na	*ns*	*ns*	*ns*	**47**	**48**	**28**	*ns*	*ns*	*ns*	**19**	*ns*	**25**	**17 J***
Dissolved Oxygen (mg/L)	na	na	*ns*	*ns*	*ns*	**1.3**	**5.8**	**5.36**	*ns*	*ns*	*ns*	**9.3**	*ns*	**8.2**	**8.3**
Turbidity (ntu)	na	na	*ns*	*ns*	*ns*	**2.3**	**532.0**	**8.6**	*ns*	*ns*	*ns*	<5	*ns*	<5	8
Temperature (°C)	na	na	*ns*	*ns*	*ns*	---	---	**15**	*ns*	*ns*	*ns*	**12**	*ns*	**10**	**12**
Ferrous Iron (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Nitrate (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*

TABLE 3B - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES - NA PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID / Geological Unit of Well Screen / Sampling Event Date	NH AGQS	ROD ICL	TRY_MW-702D Bedrock Aug-04	Oct-05	Jun-06	Dec-06	May-07	Jun-08	Dec-08	Jun-09	Oct-09, 25.9'	Oct-09, 35.9'	Oct-09, 44.4'	Apr-10, 25.9'	Apr-10, 25.9' DUP	Jun-11	Jun-13	Nov-14	Jun-15
MNA - Laboratory																			
Methane (µg/L)	na	na	*ns*	*ns*	*ns*	<10	<10	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Ethane (µg/L)	na	na	*ns*	*ns*	*ns*	<10	<10	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Ethene (µg/L)	na	na	*ns*	*ns*	*ns*	<10	<10	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Alkalinity (mg/L)	na	na	*ns*	*ns*	*ns*	**16.0**	*ns*	**18.6**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Chloride (mg/L)	na	na	*ns*	*ns*	*ns*	<3.0	<3.0	<3.0	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Nitrite-Nitrogen (mg/L)	1	na	*ns*	*ns*	*ns*	<0.050	<0.050	<0.050	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Nitrate+Nitrite-Nitrogen (mg/L)	na	na	*ns*	*ns*	*ns*	<0.10	**0.090**	**0.075**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Nitrate-Nitrogen (mg/L)	10	na	*ns*	*ns*	*ns*	<0.050	**0.090**	**0.073**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Sulfate, as SO4 (mg/L)	500	na	*ns*	*ns*	*ns*	**7.0**	**6.0**	**5.8**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Total Organic Carbon (mg/L)	na	na	*ns*	*ns*	*ns*	**0.81**	**1.7**	**0.87**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Carbon Dioxide (mg/L)	na	na	*ns*	*ns*	*ns*	**6.2**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Volatile Fatty Acids (mg/L)																			
Acetic acid	na	na	*ns*	*ns*	*ns*	<1	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Butyric acid	na	na	*ns*	*ns*	*ns*	<1	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Lactic acid and HIBA	na	na	*ns*	*ns*	*ns*	<25	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Pentanoic acid	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Propionic acid	na	na	*ns*	*ns*	*ns*	<1	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Pyruvic acid	na	na	*ns*	*ns*	*ns*	<10	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
MNA - Field Screening																			
pH (SU)	na	na	*ns*	*ns*	*ns*	**6.69**	**6.14**	**6.58**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**6.6**	*ns*	**6.6**	**6.7**
ORP (mV)	na	na	*ns*	*ns*	*ns*	**146**	**73**	**312**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**96**	*ns*	**180**	**189**
Specific Conductance (µS/cm)	na	na	*ns*	*ns*	*ns*	**38**	**54**	**43**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**52**	*ns*	**52**	**42**
Dissolved Oxygen (mg/L)	na	na	*ns*	*ns*	*ns*	**3.9**	**8.3**	**5.75**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**5.7**	*ns*	**6.0**	**5.2**
Turbidity (ntu)	na	na	*ns*	*ns*	*ns*	**2.6**	**990.0**	**7.3**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**50**	*ns*	**11**	**40**
Temperature (°C)	na	na	*ns*	*ns*	*ns*	---	---	**16**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**10**	*ns*	**11**	**12**
Ferrous Iron (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Nitrate (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*

TABLE 3B - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES - NA PARAMETERS

Troy Mills Landfill Superfund Site

Troy, New Hampshire

Monitoring Well ID Geological Unit of Well Screen	NH AGQS	ROD ICL	TRY_MW-801 Overburden				TRY_MW-802 Overburden				TRY_MW-803 Overburden				TRY_MW-804 Overburden						
Sampling Event Date			**Jun-11**	**Jun-13**	**Nov-14**	**Jun-15**	**Jun-11**	**Jun-13**	**Nov-14**	**Jun-15**	**Jun-11**	**Jun-13**	**Nov-14**	**Jun-15**	**Jun-11**	**Jun-11 DUP**	**Jun-13**	**Jun-13 DUP**	**Nov-14**	**Nov-14 DUP**	**Jun-15**
MNA - Laboratory																					
Methane (µg/L)	na	na	**1200**	*ns*	*ns*	*ns*	**1,400 J***	*ns*	*ns*	*ns*	**4,100**	*ns*	*ns*	*ns*	**710**	**1,800**	*ns*	*ns*	*ns*	*ns*	*ns*
Ethane (µg/L)	na	na	**0.082**	*ns*	*ns*	*ns*	**0.024 J**	*ns*	*ns*	*ns*	**0.031**	*ns*	*ns*	*ns*	**0.015 J**	**0.071**	*ns*	*ns*	*ns*	*ns*	*ns*
Ethene (µg/L)	na	na	**0.096**	*ns*	*ns*	*ns*	**0.15 J***	*ns*	*ns*	*ns*	**0.1**	*ns*	*ns*	*ns*	**0.12**	**0.1**	*ns*	*ns*	*ns*	*ns*	*ns*
Alkalinity (mg/L)	na	na	**126**	*ns*	*ns*	*ns*	**118**	*ns*	*ns*	*ns*	**255**	*ns*	*ns*	*ns*	**155**	**153**	*ns*	*ns*	*ns*	*ns*	*ns*
Chloride (mg/L)	na	na	**3.2**	*ns*	*ns*	*ns*	**3.4**	*ns*	*ns*	*ns*	**3.9**	*ns*	*ns*	*ns*	<3.0	<3.0	*ns*	*ns*	*ns*	*ns*	*ns*
Nitrite-Nitrogen (mg/L)	1	na	<0.050	*ns*	*ns*	*ns*	<0.050	*ns*	*ns*	*ns*	**0.083**	*ns*	*ns*	*ns*	**0.061**	**0.062**	*ns*	*ns*	*ns*	*ns*	*ns*
Nitrate+Nitrite-Nitrogen (mg/L)	na	na	<0.050	*ns*	*ns*	*ns*	<0.050 J	*ns*	*ns*	*ns*	<0.050 J	*ns*	*ns*	*ns*	<0.050 J	<0.050 J	*ns*	*ns*	*ns*	*ns*	*ns*
Nitrate-Nitrogen (mg/L)	10	na	<0.050	*ns*	*ns*	*ns*	<0.050 J	*ns*	*ns*	*ns*	<0.050 J	*ns*	*ns*	*ns*	<0.050 J	<0.050 J	*ns*	*ns*	*ns*	*ns*	*ns*
Sulfate, as SO4 (mg/L)	500	na	**32**	*ns*	*ns*	*ns*	**37**	*ns*	*ns*	*ns*	**3.8**	*ns*	*ns*	*ns*	**41**	**41**	*ns*	*ns*	*ns*	*ns*	*ns*
Total Organic Carbon (mg/L)	na	na	**8.9**	*ns*	*ns*	*ns*	**18**	*ns*	*ns*	*ns*	**57**	*ns*	*ns*	*ns*	**17**	**17**	*ns*	*ns*	*ns*	*ns*	*ns*
Carbon Dioxide (mg/L)	na	na	**360**	*ns*	*ns*	*ns*	**290**	*ns*	*ns*	*ns*	**260**	*ns*	*ns*	*ns*	**240**	**260**	*ns*	*ns*	*ns*	*ns*	*ns*
Volatile Fatty Acids (mg/L)																					
Acetic acid	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Butyric acid	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Lactic acid and HIBA	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Pentanoic acid	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Propionic acid	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Pyruvic acid	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
MNA - Field Screening																					
pH (SU)	na	na	**5.7**	**5.7**	**6.0**	*ns*	**5.8**	**5.8**	*ns/ir*	*ns*	**6.2**	**6.2**	*ns*	*ns/ir*	**5.7**	*ns*	**5.8**	*ns*	**6.0**	*ns*	**6.1**
ORP (mV)	na	na	**79**	**55**	**41**	*ns*	**30**	**51**	*ns/ir*	*ns*	**-71**	**-50**	*ns*	*ns/ir*	**15**	*ns*	**20**	*ns*	**-17**	*ns*	**-55**
Specific Conductance (µS/cm)	na	na	**313**	**324**	**429**	*ns*	**407**	**444**	*ns/ir*	*ns*	**729**	**701**	*ns*	*ns/ir*	**422**	*ns*	**380**	*ns*	**360**	*ns*	**287 J***
Dissolved Oxygen (mg/L)	na	na	**0.9**	**1.0**	<0.5	*ns*	<0.5	**0.8**	*ns/ir*	*ns*	<0.5	**1.0**	*ns*	*ns/ir*	<0.5	*ns*	**0.9**	*ns*	**0.6**	*ns*	**0.6**
Turbidity (ntu)	na	na	<5	<5	<5	*ns*	<5	**9**	*ns/ir*	*ns*	<5	**8**	*ns*	*ns/ir*	<5	*ns*	<5	*ns*	<5	*ns*	<5
Temperature (°C)	na	na	**14**	**12**	**10**	*ns*	**14**	**12**	*ns/ir*	*ns*	**12**	**13**	*ns*	*ns/ir*	**12**	*ns*	**11**	*ns*	**10**	*ns*	**12**
Ferrous Iron (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Nitrate (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*

TABLE 3B - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES - NA PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID			TRY_MW-805				TRY_MW-A28				TRY_MW-C6S		TRY_MW-C6D
Geological Unit of Well Screen	NH AGQS	ROD ICL	Overburden				Overburden				Overburden		Overburden
Sampling Event Date			Jun-11	Jun-13	Nov-14	Jun-15	Jun-13	Nov-14	Nov-14 DUP	Jun-15	Nov-14	Jun-15	Jun-15
MNA - Laboratory													
Methane (µg/L)	na	na	**1200**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Ethane (µg/L)	na	na	**0.011 J**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Ethene (µg/L)	na	na	**0.065**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Alkalinity (mg/L)	na	na	**224**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Chloride (mg/L)	na	na	**4.6**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Nitrite-Nitrogen (mg/L)	1	na	**0.092**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Nitrate+Nitrite-Nitrogen (mg/L)	na	na	<0.050 J	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Nitrate-Nitrogen (mg/L)	10	na	<0.050 J	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Sulfate, as SO4 (mg/L)	500	na	**4.3**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Total Organic Carbon (mg/L)	na	na	**24**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Carbon Dioxide (mg/L)	na	na	**270**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Volatile Fatty Acids (mg/L)													
Acetic acid	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Butyric acid	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Lactic acid and HIBA	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Pentanoic acid	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Propionic acid	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Pyruvic acid	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
MNA - Field Screening													
pH (SU)	na	na	**6.3**	**6.3**	**6.2**	*ns*	*ns/ir*	*ns/ir*	*ns*	*ns*	**6.1**	*ns*	**7.8**
ORP (mV)	na	na	**-23**	**-28**	**-25**	*ns*	*ns/ir*	*ns/ir*	*ns*	*ns*	**89**	*ns*	**-204**
Specific Conductance (µS/cm)	na	na	**662**	**550**	**555**	*ns*	*ns/ir*	*ns/ir*	*ns*	*ns*	**309**	*ns*	**240**
Dissolved Oxygen (mg/L)	na	na	**1.8**	<0.5	**3.9**	*ns*	*ns/ir*	*ns/ir*	*ns*	*ns*	**1.0**	*ns*	**0.7**
Turbidity (ntu)	na	na	<5	<5	**7**	*ns*	*ns/ir*	*ns/ir*	*ns*	*ns*	<5	*ns*	**70**
Temperature (˚C)	na	na	**12**	**11**	**9**	*ns*	*ns/ir*	*ns/ir*	*ns*	*ns*	**10**	*ns*	**12**
Ferrous Iron (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Nitrate (mg/L)	na	na	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*

TABLE 3B - SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES - NA PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

TABLE KEY:

AGQS = Ambient Groundwater Quality Standards included in Env-Or 600 - Contaminated Site Management (Env-Or 603.3)
ROD ICL = Record of Decision, Interim Cleanup Levels
MNA = Monitored Natural Attenuation
na = no standard applies.
ns = not sampled.
ns/ir = insufficient recharge well, field parameters were not collected
< = analyte not detected above the laboratory or field reporting limit
ORP = Oxidation Reduction Potential
µg/L = micrograms per Liter
mg/L = milligrams per Liter
SU = Standard Units
mV = milliVolts
µS/cm = micro Siemens per centimeter
ntu = Nephelometric Turbidity Units
^{o}C = degrees Celsius
J = estimated concentration qualified by the laboratory (NHDPHS, EPA, or Microseeps) or by the Environmental Data Services (third party data validation), see laboratory report for explanation
J* = estimated field measurement qualified by GZA due to end of day calibration check issues or failure of parameter to stabilize, or estimated concentration qualified by GZA due to observed field conditions
UJ = the compound was analyzed for, but not detected, the associated numerical value is the estimated sample quantitation limit. UJ is used for data qualified by Environmental Data Services.
DE = well decommissioned

GENERAL NOTES:

1. Groundwater samples collected during November 2014 were collected using bladder pumps or peristaltic pumps and dedicated tubing. Refer to **Table 2** for the sampling equipment used at each well.
2. **Bold** indicates that the concentration was detected above the laboratory reporting detection limit. Shading indicates that the concentration exceeds the AGQS.
3. The low-flow field screening parameter readings reported represent the last round of readings prior to sample collection.

SPECIFIC NOTES:

1. Well TRY_MW-101 was sampled during fall 2014 prior to being decommissioned.
2. Well TRY_MW-201P had LNAPL observed during the June 2013 groundwater level round; therefore, it was not sampled during the monitoring round.

TABLE 4 - SUMMARY OF DETECTED COMPOUNDS IN LEACHATE SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Leachate Sample Location ID	NH	NH	ROD	TRY_SW-LEACHATE											
Sampling Event Date	**AGQS**	**WQCTS [1]**	**ICL**	**Dec-06**	**May-07**	**Jul-08**	**Nov-08**	**Jun-09**	**Oct-09**	**Jun-11**	**Jun-11 DUP**	**Jun-13**	**Jun-13 DUP**	**Nov-14**	**Nov-14 DUP**
SVOCs of Concern (μg/L)															
Bis(2-ethylhexyl) phthalate	6	3 [2]	40	<10	<10	**16**	**5.2**	<5.0	<5.0	<5.0	<5.0	<5.0	**5.2**	<5.0 Z	**13 Z**
VOCs (μg/L)															
Ethylbenzene	700	32,000	na	**23.5**	**23**	**26**	**23**	**23**	**23**	**23**	**23**	**14**	**14**	**6.9**	**6.7**
n-Propylbenzene	260	na	na	**15.5**	**14.5**	**18**	**16**	**16**	**16**	**17**	**17**	**8.9**	**8.5**	<2.0	<2.0
n-Butylbenzene	260	na	na	**6.4**	**6.3**	**6.7**	**6.1**	**5.7**	**5.6**	**5.7**	**5.8**	<2.0	<2.0	<2.0	<2.0
m/p-Xylene	10,000 [3]	na	na	<2	<2	<2.0	<2.0	<2.0	**2.7**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
sec-Butylbenzene	260	na	na	**8.5**	**8.1**	**10**	**9.1**	**8.4**	**8.5**	**9.6**	**10**	**8.4**	**7.9**	**7.0**	**6.9**
cis-1,2-Dichloroethene	70	11,600	na	**21**	**16**	**16**	**14**	**8.5**	**9.6**	**5.0**	**5.0**	**2.1**	**2.0**	<2.0	<2.0
Naphthalene	20	620	na	**12.5**	**11**	**10.3**	**12**	<2.0	**9.8**	**2.8**	**3**	<2.0	<2.0	<2.0	<2.0
1,2,4-Trimethylbenzene	330	na	na	**7.4**	**36**	**9.6**	**6.0**	**2.9**	<2.0	**4.0**	**4.1**	<2.0	<2.0	<2.0	<2.0
t-Butylbenzene	260	na	na	**2.3**	**2.2**	**2.9**	**2.5**	**2.1**	**2.4**	**2.8**	**2.9**	**2.3**	**2.3**	**2.0**	**2.0**
Isopropylbenzene (cumene)	800	na	na	**10**	**12**	**13**	**11**	**11**	**12**	**12**	**12**	**8.8**	**8.4**	**7.9**	**7.7**
p-Isopropyltoluene (4-cymene)	260	na	na	**7.4**	**8.6**	**7.3**	<2.0	**12**	**3.1**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Total VOCs (μg/L)	na	na	na	**114**	**138**	**119**	**99**	**88**	**93**	**82**	**83**	**45**	**43**	**24**	**23**
Metals (mg/L)															
Arsenic	0.01	0.15	na	**0.005**	**0.0016**	**0.0013**	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<0.0010	<0.0010
Manganese	0.84	na	na	**7.92**	**7.22**	**7.60**	**7.75**	**6.12**	**6.4**	**5.73**	**5.77**	**4.47**	**4.31**	**5.09**	**5.06**
Hardness	na	na	na	*ns*	*ns*	*ns*	**112.6**	**104.8**	**102.8**	**113.5**	**112.3**	**96.63**	**95.07**	**109**	**110**

TABLE KEY:

VOCs = Volatile Organic Compounds
SVOCs = Semi-Volatile Organic Compounds
μg/L = micrograms per liter
mg/L = milligrams per liter
na = no standard applies.

AGQS = Ambient Water Quality Standards included in Env-Or 600 - Contaminated Site Management (Env-Or 603.03).
WQCTS = Water Quality Criteria for Toxic Substances
ROD ICL = Record of Decision, Interim Cleanup Levels
ns = not sampled.
Z = estimated concentration qualified by GZA, based on the RPD being outside the acceptance criteria

GENERAL NOTES:

1. The analytical test methods for each compound are as follows: VOCs by SW-846 8260B, SVOCs by Method SW-846 8270C, and Metals and Hardness by EPA 200.7.
2. **Bolding** indicates that the concentration was detected; Shading indicates that the concentration exceeds the SWQC, AGQS, and/or the ROD ICL.

SPECIFIC NOTES:

1. Water Quality Criteria for Toxic Substances (WQCTS) were obtained from the NHDES' Surface Water Quality Regulations (Env-Wq 1703.21 Water Quality Criteria for Toxic Substances) and assumes the Protection of Aquatic Life in Freshwaters with chronic criteria. If a chronic criteria standard has not been established, the Freshwater Acute Criteria was used.
2. The laboratory cannot achieve the action limit for the only leachate Contaminant of Concern, Bis (2-ethylhexyl) phthalate. As the concentrations approach the action limits, an evaluation of the need for alternative test methods that could achieve the necessary RDLs will be needed.
3. The individual xylene isomers (m/p-xylene and o-xylene) do not have separate AGQS values; the AGQS for xylene (mixed isomers) is 10,000 μg/L.

TABLE 5 - SUMMARY OF DETECTED COMPOUNDS IN WETLAND SOIL SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Wetland Soil Sample Location ID	NH SRS	TRY_WES-01				TRY_WES-02				TRY_WES-03							TRY_WES-04				
Sampling Event Date		**Dec-06**	**Nov-08**	**Oct-09**	**Nov-14**	**Dec-06**	**Nov-08**	**Oct-09**	**Nov-14**	**Dec-06**	**Nov-08**	**Nov-08 DUP**	**Oct-09**	**Oct-09 DUP**	**Nov-14**	**Nov-14 DUP**	**Dec-06**	**Dec-09 DUP**	**Nov-08**	**Oct-09**	**Nov-14**
SVOCs (mg/kg)																					
Bis(2-ethylhexyl) phthalate	72	**53,000**	<530	**6,700**	<2.0	**4,300**	**73,000**	**4,000**	<2.0	**8,400**	**1,000**	**970**	**520**	**740**	<2.0	<2.0	**6,300**	**7,000**	**470**	**960**	**1.1**
Metals of Concern (mg/kg)																					
Manganese	1,000	**77,485**	**147**	**130,810**	**242,567**	**44,620**	**2,840**	**5,070**	**33,209**	**1,140**	**2,309**	**1,979**	**451**	**504**	**4,738**	**5,452**	**1,360**	**868**	**807**	**1,163**	**8,540**
Additional Metals (mg/kg)																					
Arsenic	11	**2.45**	**0.8242**	**0.9028**	**1.78**	**2.62**	**2.13**	**0.7698**	**1.80**	**0.6863**	**0.6328**	**0.6214**	**0.5299**	**0.3695**	**4.42**	**4.50**	**0.5448**	**0.8092**	**0.8115**	**0.4167**	**0.4649**
Barium	1,000	**260**	<36.0	**375**	*ns*	**198**	**173**	**233**	*ns*	**25.6**	**90.3**	**41.3**	**56.3**	**41.1**	*ns*	*ns*	**27.6**	**27.8**	<31.5	**25.6**	*ns*
Cadmium	33	<0.033	<3.62	**1.39**	*ns*	<0.024	**7.66**	**1.20**	*ns*	<0.015	<3.09	<3.66	**0.6212**	**0.3858**	*ns*	*ns*	<0.014	<0.014	<3.15	**0.4134**	*ns*
Chromium VI	130	**14.5**	**6.49**	**9.91**	*ns*	**18.2**	**16.6**	**14.5**	*ns*	**4.23**	**7.35**	**7.24**	**6.49**	**4.44**	*ns*	*ns*	**5.82**	**5.92**	**4.73**	**5.30**	*ns*
Iron	na	**141,665**	**7,435**	**211,623**	*ns*	**94,346**	**129,516**	**160,652**	*ns*	**17,398**	**23,026**	**16,207**	**15,694 Z**	**28,952 Z**	*ns*	*ns*	**10,425**	**10,516**	**16,974**	**12,487**	*ns*
Lead	400	**15.1**	**6.81**	**8.54**	*ns*	**14.5**	**16.7**	**8.68**	*ns*	**2.38**	**3.44**	**3.50**	**3.65**	**3.27**	*ns*	*ns*	**2.87**	**2.95**	**2.83**	**2.52**	*ns*
Mercury	7	<0.1308	<0.1644	**1.34**	*ns*	<0.095	<0.2904	**30.4 E**	*ns*	<0.0619	<0.1377	<0.1486	<0.1716 Z	**0.1694 Z**	*ns*	*ns*	<0.0556	<0.0557	<0.1280	**1.25**	*ns*
Selenium	180	<0.6132	<1.81	<2.33	*ns*	**1.41**	<3.39	<2.04	*ns*	<0.3612	<1.54	<1.83	<1.11	<0.6768	*ns*	*ns*	<0.287	<0.289	<1.57	<1.65	*ns*
Silver	89	<0.033	<1.81	<2.33	*ns*	<0.024	<3.39	<2.04	*ns*	<0.015	<1.54	<1.83	<1.11	<0.6768	*ns*	*ns*	<0.014	<0.014	<1.57	<0.8268	*ns*
MNA Parameters - Laboratory (mg/kg)																					
Total Organic Carbon	na	**90,000**	**33,000**	**110,000**	**24,800**	**54,000**	**71,000**	**86,000**	**35,900**	**13,000**	**27,000**	**22,000**	**22,000 Z**	**42,000 Z**	**73,000**	**86,700**	**3,000**	**3,500**	**11,000**	**6,100**	**11,200**

TABLE KEY:
NH SRS = New Hampshire Soil Remediation Standards included in Env-Or 600 - Contaminated Site Management (Table 600-2 in Env-Or 606.19)
SVOCs = Semi-Volatile Organic Compounds
MNA = Monitored Natural Attenuation
mg/kg = milligrams per kilogram
na = no standard currently applies.
ns = not sampled.
< = analyte not detected above the laboratory reporting limit
J = estimated concentration qualified by the laboratory (NHDPHS or EAI) or by the Environmental Data Services, see laboratory report for explanation
E = Estimated value qualified by the laboratory (NHDPHS); result exceeded the upper calibration level for the parameter.
Z = estimated concentration qualified by GZA, based on the RPD being outside the acceptance criteria

GENERAL NOTES:
1. An ICL was not established for manganese in wetland soil in the 2005 ROD.
2. The analytical test methods for each compound analyzed during the 2014 monitoring round are as follows: SVOCs by 8270D; total metals (manganese and arsenic) by EPA Method 200.7/200.8; and total organic carbon by Lloyd Kahn Method.
3. Wetland soil samples collected during November 2014 were collected using dedicated stainless steel bowls and spoons.
4. **Bold** indicates that the concentration was detected above the laboratory reporting detection limit. Shading indicates that the concentration exceeds the Soil Remediation Standard.

TABLE 6 - SUMMARY OF DETECTED COMPOUNDS IN SURFACE WATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Surface Water Sample Location ID	NH WQCTS [1]	TRY_SW-1									
Sampling Event Date		Dec-06	May-07	Jun-08	Jun-08 DUP	Nov-08	Nov-08 DUP	Jun-09	Oct-09	Jun-11	Nov-14
VOCs (µg/L)		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SVOCs (µg/L)		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals (mg/L)											
Arsenic	0.15	<0.0010	<0.0010	<0.0010	<0.0010	*ns*	*ns*	*ns*	*ns*	*ns*	<0.0010
Manganese	na	**0.019**	**0.030**	**0.023**	**0.023**	**0.036**	**0.036**	**0.027**	**0.019**	**0.04**	**0.022**
Hardness	na	**5.42**	**4.743**	**5.309**	**5.237**	**6.195**	**6.189**	**4.739**	**4.677**	**5.414**	**4.79**
MNA Parameters - Field											
pH (SU)	na	*ns*	*ns*	*ns*	*ns*	**6.9**	*ns*	**6.0**	**6.8**	**5.9**	**5.0**
ORP (mV)	na	*ns*	*ns*	*ns*	*ns*	**112**	*ns*	**144**	**98**	**183**	**229**
Specific Conductance (µS/cm)	na	*ns*	*ns*	*ns*	*ns*	**34**	*ns*	**29**	**29**	**29**	**28**
Dissolved Oxygen (mg/L)	>5 [2]	*ns*	*ns*	*ns*	*ns*	**14**	*ns*	**9.1**	**8.9**	**8.1**	**9.1**
Turbidity (ntu)	na	*ns*	*ns*	*ns*	*ns*	**0.7**	*ns*	<1	<1	**1**	**1**
Temperature (°C)	na	*ns*	*ns*	*ns*	*ns*	**1**	*ns*	**20**	**15**	**21**	**8**

See last page for notes.

TABLE 6 - SUMMARY OF DETECTED COMPOUNDS IN SURFACE WATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Surface Water Sample Location ID	NH WQCTS [1]	TRY_SW-3													
Sampling Event Date		Dec-06	Dec-06 DUP	May-07	May-07 DUP	Jun-08	Nov-08	Jun-09	Jun-09 DUP	Oct-09	Oct-09 DUP	Jun-11	Jun-11 DUP	Nov-14	Nov-14 DUP
VOCs (µg/L)		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SVOCs (µg/L)		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals (mg/L)															
Arsenic	0.15	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	<0.0010	<0.0010
Manganese	na	**0.065**	**0.064**	**0.046**	**0.047**	**0.062**	**0.231**	**0.061**	**0.060**	**0.231**	**0.232**	**0.11**	**0.112**	**0.048**	**0.043**
Hardness	na	<3	<3	<3	<3	**5.857**	**7.467**	**5.576**	**5.436**	**6.879**	**6.922**	**7.527**	**7.376**	**5.32**	**5.09**
MNA Parameters - Field															
pH (SU)	na	*ns*	*ns*	*ns*	*ns*	*ns*	**7.1**	**5.9**	*ns*	**8.2**	*ns*	**6.2**	*ns*	**5.4**	*ns*
ORP (mV)	na	*ns*	*ns*	*ns*	*ns*	*ns*	**112**	**93**	*ns*	**104**	*ns*	**126**	*ns*	**203**	*ns*
Specific Conductance (µS/cm)	na	*ns*	*ns*	*ns*	*ns*	*ns*	**30**	**28**	*ns*	**32**	*ns*	**29**	*ns*	**31**	*ns*
Dissolved Oxygen (mg/L)	>5 [2]	*ns*	*ns*	*ns*	*ns*	*ns*	**13**	**8.8**	*ns*	**8**	*ns*	**9.1**	*ns*	**9.0**	*ns*
Turbidity (ntu)	na	*ns*	*ns*	*ns*	*ns*	*ns*	**0.8**	<1	*ns*	<1	*ns*	**2**	*ns*	**6**	*ns*
Temperature (°C)	na	*ns*	*ns*	*ns*	*ns*	*ns*	**2**	**17**	*ns*	**11**	*ns*	**27**	*ns*	**8**	*ns*

See last page for notes.

TABLE 6 - SUMMARY OF DETECTED COMPOUNDS IN SURFACE WATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Surface Water Sample Location ID	NH WQCTS [1]	TRY_SW-4					
Sampling Event Date		Jun-08	Nov-08	Jun-09	Oct-09	Jun-11	Nov-14
VOCs (µg/L)		ND	ND	ND	ND	ND	ND
SVOCs (µg/L)		ND	ND	ND	ND	ND	ND
Metals (mg/L)							
Arsenic	0.15	<0.0010	*ns*	*ns*	*ns*	*ns*	<0.0010
Manganese	na	**0.034**	**0.026**	**0.028**	**0.020**	**0.041**	**0.018**
Hardness	na	**5.227**	**6.76**	**4.683**	**4.951**	**5.532**	**4.78**
MNA Parameters - Field							
pH (SU)	na	*ns*	**7.0**	**6.1**	**6.9**	**5.9**	**4.9**
ORP (mV)	na	*ns*	**111**	**110**	**86**	**183**	**228**
Specific Conductance (µS/cm)	na	*ns*	**35**	**29**	**29**	**29**	**28**
Dissolved Oxygen (mg/L)	>5 [2]	*ns*	**13**	**10.1**	**8.8**	**8.1**	**9.1**
Turbidity (ntu)	na	*ns*	**1.1**	<1	<1	**1**	**2**
Temperature (°C)	na	*ns*	**1**	**20**	**13**	**20**	**8**

See last page for notes.

TABLE 6 - SUMMARY OF DETECTED COMPOUNDS IN SURFACE WATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

TABLE KEY:
NH WQCTS = New Hampshire Water Quality Criteria for Toxic Substances
VOCs = Volatile Organic Compounds
SVOCs = Semi-Volatile Organic Compounds
µg/L = micrograms per liter
mg/L = milligrams per liter
ND = no parameter within this category was detected above the laboratory reporting limit
na = no current standard available
ns = not sampled
< = analyte not detected above the laboratory or field reporting limit
MNA = Monitored Natural Attenuation
SU = Standard Units
ORP = Oxidation Reduction Potential
mV = milliVolts
µS/cm = micro Siemens per centimeter
ntu = Nephelometric Turbidity Units
^{o}C = degrees Celsius

GENERAL NOTES:
1. There are no site Contaminants of Concern or Record of Declaration Interim Cleanup Goals for Surface Water.
2. The analytical test methods for each compound as follows: VOCs by NHDHHS Lab's 8260B; SVOCs by 8270C; Metals and Hardness by EPA Method 200.7/200.8.
3. **Bold** indicates that the concentration was detected above the laboratory reporting detection limit. Shading indicates that the concentration exceeds the SWQC.

SPECIFIC NOTES:
1. Water Quality Criteria for Toxic Substances (WQCTS) were obtained from the NHDES' Surface Water Quality Regulations (Env-Wq 1703.21 Water Quality Criteria for Toxic Substances) and assumes the Protection of Aquatic Life in Freshwaters with chronic criteria. If a chronic criteria standard has not been established, the Freshwater Acute Criteria was used.
2. The standard for dissolved oxygen in surface waters is from Env-Wq 1703.07 (b) Dissolved oxygen in class B waters included in the New Hampshire Code of Administrative Rules Env-Wq 1700 Surface Water Quality Regulations

TABLE 7 - SUMMARY OF DETECTED COMPOUNDS IN SEDIMENT SAMPLES

Troy Mills Landfill Superfund Site

Troy, New Hampshire

Sediment Sample Location ID / Sampling Event Date	SQuiRT TEC [1]	TRY_SEDSW-3							
		Dec-06	**Dec-06 DUP**	**Nov-07**	**Nov-07 DUP**	**Dec-08**	**Dec-08 DUP**	**Oct-09**	**Oct-09 DUP**
VOCs (ug/kg)		ND	ND	*ns*	*ns*	ND	ND	ND	ND
SVOCs (ug/kg)									
Bis(2-ethylhexyl) phthalate	na	**1,200**	**480**	<410	<440	<400	<400	<470	<620
Metals (mg/kg)									
Arsenic	9.79	**0.4004**	**0.3977**	**1.48**	**1.22**	**0.3189**	<0.2678	**0.7665**	**0.7889**
Barium	na	**28**	**25.4**	**39.1**	**28.3**	<28.7	<26.8	**27.6**	**24.3**
Cadmium	0.99	<0.015	<0.013	<1.35	<0.8145	<2.87	<2.68	<0.5554	<0.3511
Chromium	43.4	**5.11**	**4.97**	**7.96**	**6.84**	**2.81**	**2.53**	**5.34**	**4.80**
Iron	na	**5,042**	**4,959**	**11,370**	**8,369**	**5,046**	**4,303**	**6,701**	**6,157**
Lead	35.8	**3.94**	**3.98**	**16.6**	**10.4**	**1.90**	**1.45**	**6.83**	**6.84**
Mercury	0.180	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	**26.3 E, Z**	**6.01 E, Z**
Manganese	na	**45.1**	**45.4**	**345**	**254**	**151.0**	**77.1**	**111**	**123**
Potassium	na	*ns*	*ns*	**1,955**	**1,989**	*ns*	*ns*	*ns*	*ns*
MNA Parameters (µg/g)									
Total Organic Carbon	na	**15,000**	**9,100**	**9,900**	**23,000**	**1,000**	**890**	**30,000**	**26,000**

See next page for notes.

TABLE 7 - SUMMARY OF DETECTED COMPOUNDS IN SEDIMENT SAMPLES

Troy Mills Landfill Superfund Site

Troy, New Hampshire

TABLE KEY:

DUP = Duplicate sample

VOCs = Volatile Organic Compounds

sVOCs = semi-Volatile Organic Compounds

MNA = monitored natural attenuation

na = no current standard available

ns = not sampled on specified date

ND = Not detected at the reporting limit for the sample

< = analyte not detected above the laboratory reporting limit

µg/kg = micrograms per kilogram

mg/kg = milligrams per kilogram

(µg/g) = micrograms per gram

E = Estimated concentration qualified by the laboratory due to the result exceeding the upper calibration level for the parameter

Z = estimated concentration qualified by GZA, based on the RPD being outside the acceptance criteria

GENERAL NOTES:

1. The analytical test methods for each compound are as follows: VOCs by EPA Method SW-846 8260B; SVOCs by EPA Method SW-846 8270C; Metals by EPA Method 200.7/200.8, with the exception of Mercury by SW-846 7471A; and total organic carbon by Lloyd Kahn.
2. **Bold** indicates that the concentration was detected above the laboratory reporting detection limit. Shading indicates that the concentration exceeds the SQuiRT TEC. There are no ROD Interim Cleanup Goals established for sediment.
3. A US Standard Sieve and Hydrometer analysis was performed on 10/22/2010. The results of the sample consisted of predominantly brown, fine to medium sand, with little silt, trace gravel and little organics.

SPECIFIC NOTES:

1. Buchman, M.F., 2008. NOAA Screening Quick Reference Tables, NOAA OR&R Report 08-1, Seattle WA, Office of Response and Restoration Division, National Oceanic and Atmospheric Administration. "TEC" is Threshold Effect Concentration, which is consensus-based and incorporates the Ontario Ministry of the Environment lowest-observed effect levels (LELs) (Persaud et al. 1993) as well as data from up to five other sediment quality guidelines (when available), including: threshold effects levels (TELs) (Smith et al. 1996); effects range-low (ER-L) values (Long and Morgan 1991); threshold effect levels for Hyalella azteca in 28 day tests (TEL-HA28) (U.S.EPA 1996a; Ingersoll et al. 1996); minimal effect thresholds (MET) from EC and MENVIQ (1992); and chronic equilibrium partitioning thresholds (SQAL) (Bolton et al. 1985; Zarba 1992; U.S.EPA 1997a).

TABLE 8 - SUMMARY OF HUMAN HEALTH TOXICITY VALUE CHANGES

Troy Mills Landfill Superfund Site

Troy, New Hampshire

COC	Oral Chronic Reference Dose (Rfd) (mg/kg-day)		Source [1]
	2005 ROD	Current	
1,3,5-trimethylbenzene	5.0E-02	1E-02	PPRTV Screening
cis-1,2-dichloroethene	1.0E-02	2E-03	IRIS
1,2-dichloroethane	NA	6E-03	PPRTV Screening
1,4-dichlorobenzene	NA	7E-02	ATSDR
n-butylbenzene	2.0E-03	5E-02	PPRTV
n-Propylbenzene	2.0E-03	1E-01	PPRTV
1,1,2,2-Tetrachloroethane	NA	2E-02	IRIS
Tetrachloroethene	1.0E-02	6E-03	IRIS
Toluene	2.0E-01	8E-02	IRIS
Trichloroethene	NA	5E-04	IRIS
Pentachlorophenol	3.0E-02	5E-03	IRIS
1,4-Dioxane	NA [3]	3E-02	IRIS
Manganese (drinking water)	2.4E-02	1.4E-01	IRIS
Manganese (other media)	7.0E-02	2.4E-02	IRIS [2]

COC	Inhalation Unit Risk $(ug/m^3)^{-1}$		Source [1]
	2005 ROD	Current	
1,4-Dichlorobenzene	NA	1.1E-05	CalEPA
Ethylbenzene	NA	2.5E-06	CalEPA
Trichloroethene	1.1E-04	4.1E-06	IRIS
Tetrachloroethene	5.9E-06	2.6E-07	IRIS
Vinyl Chloride	4.4E-06	4.4E-6 (adulthood) 8.8E-6 (continuous from birth)	IRIS
Benzo(a)pyrene	NA	1.1E-03	CalEPA
Bis(2-ethylhexyl)phthalate	NA	2.4E-06	CalEPA
Dibenzo(a,h)anthracene	NA	1.2E-03	CalEPA
Naphthalene	NA	3.4E-05	CalEPA
Pentachlorophenol	NA	5.1E-06	CalEPA
1,4-Dioxane	NA [3]	5E-06	IRIS
Arsenic	NA	4.3E-03	IRIS
Vanadium	NA	8.3E-03	PPRTV

COC	Oral Cancer Slope Factor $(mg/kg\text{-}day)^{-1}$		Source [1]
	2005 ROD	Current	
Ethylbenzene	NA	1.1E-02	CalEPA
Tetrachloroethene	5.4E-01	2.1E-03	IRIS
Trichloroethene	0.4	4.6E-02	IRIS
Vinyl Chloride	0.75	0.72 (adulthood) 1.4 (continuous from birth)	IRIS
1,4-Dioxane	0.011 [3]	1E-01	IRIS
Pentachlorophenol	1.2E-01	4E-01	IRIS
Chromium(VI)	NA	5E-01	New Jersey

TABLE 8 - SUMMARY OF HUMAN HEALTH TOXICITY VALUE CHANGES

Troy Mills Landfill Superfund Site

Troy, New Hampshire

COC	Chronic Inhalation Reference Concentration (ug/m3) 2005 ROD	Current	Source [1]
1,3,5-trimethylbenzene	6	NA	NA
n-Propylbenzene	NA	1000	PPRTV Screening
Tetrachloroethene	270	40	IRIS
Toluene	400	5000	IRIS
Trichloroethene	40	2	IRIS
Benzo(a)pyrene	NA	1.1E-03	CalEPA
Dibenzo(a,h)anthracene	NA	1.2E-03	CalEPA
1,4-Dioxane	NA	30	IRIS
Pentachlorophenol	NA	5.1E-06	CalEPA
Arsenic	NA	0.015	CalEPA
Cadmium	NA	1E-02	ATSDR
Manganese	NA	0.05	IRIS
Vanadium	NA	1E-01	ATSDR

TABLE KEY:

COC = Contaminant of Concern

ROD = Record of Decision

mg/kg-day = milligrams per kilograms day

ug/m^3 = micrograms per cubic meter

NA = Not available or not listed in the 2005 ROD/2005 Risk Assessment

RfD = Reference dose

PPRTV =

IRIS = Integrated Risk Information System

ATSDR = Agency for Toxic Substance and Disease Registry

CalEPA =California Environmental Protection Agency

USEPA = United States Environmental Protection Agency

SPECIFIC NOTES:

1. IRIS, PPRTV, New Jersey, ATSDR, and CalEPA values were cited from the USEPA January 2015 Regional Screening Level Summary Table. IRIS values were based on on-line database available at http://www.epa.gov/ncea/iris.
2. The IRIS RfD (0.14 mg/kg-day) for manganese includes manganese from all sources, including diet. The author of the IRIS assessment for manganese recommended that the dietary contribution from the normal U.S. diet (an upper limit of 5 mg/day) be subtracted when evaluating non-food (e.g., drinking water or soil) exposures to manganese, leading to a RfD of 0.071 mg/kg-day for non-food items. The explanatory text in IRIS further recommends using a modifying factor of 3 when calculating risks associated with non-food sources due to a number of uncertainties that are discussed in the IRIS file for manganese, leading to a RfD of 0.024 mg/kg-day.
3. Toxicity values including Oral Cancer Slope Factor (CSF), inhalation unit risk, and oral chronic RfD were not listed in Table G-4 or G-5 of the 2005 ROD for 1,4-dioxane. The values listed in this table were from the USEPA Toxicity Criteria Table, which were the values recommended by USEPA in October 2004.

TABLE 12 - GROUNDWATER LEVEL MEASUREMENTS AND ELEVATION DATA
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well Designation	Screened Geologic Unit	Measuring Point	Measuring Point Elevation (ft)	November 2006		May 2007		June 2008		November 2008		June 2009		October 2009		June 2011	
				Depth to Water (ft bmp)	Elevation (ft)	Depth to Water (ft bmp)	Elevation (ft)	Depth to Water (ft bmp)	Elevation (ft)	Depth to Water (ft bmp)	Elevation (ft)	Depth to Water (ft bmp)	Elevation (ft)	Depth to Water (ft bmp)	Elevation (ft)	Depth to Water (ft bmp)	Elevation (ft)
				Wells With Water Level Measurements Only													
TRY_M-2	Overburden	PVC	1,044.35	5.36	1,039.0	4.85	1,039.5	5.74	1,038.6	5.23	1,039.1	5.49	1,038.9	5.54	1,038.8	5.49	1,038.9
TRY_MW-108	Deep Bedrock	Casing	1082.95	36.16	1046.8	34.52	1,048.4	35.61	1,047.3	35.85	1,047.1	35.9	1,047.1	36.02	1,046.9	34.85	1,048.1
TRY_MW-202S	Overburden	PVC	1,051.64	---	---	---	---	10.97	1,040.7	10.72	1,040.9	10.79	1,040.9	11.18	1,040.5	11.15	1,040.5
TRY_MW-202D	Overburden	Casing	1,051.84	---	---	---	---	10.14	1,041.7	9.78	1,042.1	10.12	1,041.7	10.43	1,041.4	9.71	1,042.1
TRY_MW-502	Overburden	PVC	1,057.57	14.70	1,042.9	---	---	14.82	1,042.8	14.99	1,042.6	14.91	1,042.7	15.13	1,042.4	14.20	1,043.4
TRY_MW-602S	Overburden	PVC	1,091.26	26.13	1,065.1	21.09	1,070.2	21.07	1,070.2	24.26	1,067.0	21.38	1,069.9	24.22	1,067.0	18.92	1,072.3
				Wells Currently Sampled That Have Screen Lengths >10 Feet													
TRY_M-1	Overburden	PVC	1,062.24	---	---	---	---	8.34	1,053.9	7.57	1,054.7	8.14	1,054.1	8.76	1,053.5	7.71	1,054.5
TRY_M-7D	Deep Bedrock	PVC	1036.39	4.54	1031.9	4.39	1,032.0	5.58	1,030.8	4.31	1,032.1	2.89	1,033.5	4.65	1,031.7	4.12	1,032.3
TRY_MW-101	Predominantly Overburden	Casing	1,077.48	31.25	1,046.2	29.51	1,048.0	29.11	1,048.4	29.94	1,047.5	29.76	1,047.7	29.48	1,048.0	27.82	1,049.7
TRY_MW-102	Predominantly Overburden	Casing	1,093.89	24.99	1,068.9	---	---	22.07	1,071.8	23.93	1,070.0	21.95	1,071.9	23.65	1,070.2	20.56	1,073.3
TRY_MW-104S	Overburden	PVC	1,032.97	3.93	1,029.0	---	---	4.39	1,028.6	4.02	1,029.0	4.17	1,028.8	3.93	1,029.0	3.62	1,029.4
TRY_MW-104D	Overburden	PVC	1,033.08	3.93	1,029.2	---	---	4.24	1,028.8	3.89	1,029.2	4.18	1,028.9	3.94	1,029.1	3.60	1,029.5
TRY_MW-105S	Overburden	PVC	1,036.75	---	---	---	---	11.58	1,025.2	10.94	1,025.8	10.96	1,025.8	10.45	1,026.3	10.35	1,026.4
TRY_MW-105D	Deep Bedrock	PVC	1,036.62	---	---	11.45	1,025.0	12.65	1,023.8	---	---	11.52	1,025.0	10.21	1,026.3	9.99	1,026.6
TRY_MW-202P	Overburden	PVC	1,053.36	---	---	---	---	9.79	1,043.6	7.98	1,045.4	9.49	1,043.9	9.97	1,043.4	9.35	1,044.0
TRY_MW-601S	Overburden	PVC	1,077.45	21.66	1,055.8	20.53	1,056.9	21.29	1,056.2	21.67	1,055.8	20.85	1,056.6	21.57	1,055.9	20.56	1,056.9
TRY_MW-701	Deep Bedrock	PVC	1,106.28	---	---	5.65	1,100.6	9.99	1,096.3	7.71	1,098.6	8.64	1,097.6	10.70	1,095.6	8.17	1,098.1
TRY_MW-702D	Deep Bedrock	PVC	1,036.34	---	---	3.96	1,032.4	6.2	1,030.1	5.71	1,030.6	5.30	1,031.0	6.51	1,029.8	5.08	1,031.3
				Wells Currently Sampled With Screen Lengths ≤10 Feet													
TRY_M-7	Overburden	PVC	1,037.41	8.46	1,029.0	8.5	1,028.9	8.76	1,028.7	8.72	1,028.7	8.51	1,028.9	8.53	1,028.9	8.26	1,029.2
TRY_MW-A28	Overburden	PVC	1,051.06	---	---	---	---	---	---	---	---	---	---	---	---	---	---
TRY_MW-C6S	Overburden	PVC	1,043.83	---	---	---	---	---	---	---	---	---	---	---	---	---	---
TRY_MW-C6D	2-in PVC	Overburden	1,044.54	---	---	---	---	---	---	---	---	---	---	---	---	---	---
TRY_MW-101S	2-in PVC	Overburden	1,072.69	---	---	---	---	---	---	---	---	---	---	---	---	---	---
TRY_MW-101D	2-in PVC	Overburden	1,067.53	---	---	---	---	---	---	---	---	---	---	---	---	---	---
TRY_MW-201SX	2-in PVC	Overburden	1,047.33	---	---	---	---	---	---	---	---	---	---	---	---	---	---
TRY_MW-204	Overburden	PVC	1,081.80	20.38	1,061.4	18.85	1,063.0	19.53	1,062.3	20.39	1,061.4	18.93	1,062.9	20.69	1,061.1	17.67	1,064.1
TRY_MW-301	Overburden	PVC	1,080.77	35.86	1,044.9	---	---	34.14	1,046.6	34.71	1,046.1	34.56	1,046.2	34.85	1,045.9	---	---
TRY_MW-301X	Overburden	PVC	1,080.94	---	---	---	---	---	---	---	---	---	---	---	---	34.31	1,046.6
TRY_MW-501	Overburden	PVC	1,040.49	6.57	1,033.9	9.33	1,031.2	6.58	1,033.9	6.38	1,034.1	6.58	1,033.9	6.43	1,034.1	---	---
TRY_MW-501X	Overburden	PVC	1,039.98	---	---	---	---	---	---	---	---	---	---	---	---	6.38	1,033.6
TRY_MW-501D	2-in PVC	Overburden	1,040.25	---	---	---	---	---	---	---	---	---	---	---	---	---	---
TRY_MW-508	Overburden	Casing	1,079.50	---	---	---	---	11.65	1,067.9	6.19	1,073.3	7.17	1,072.3	8.58	1,070.9	---	---
TRY_MW-508X	Overburden	PVC	1,080.72	---	---	---	---	---	---	---	---	---	---	---	---	6.38	1,074.3
TRY_MW-601D	Overburden	PVC	1,077.72	23.1	1,054.6	21.66	1,056.1	22.38	1,055.3	22.76	1,055.0	21.84	1,055.9	22.81	1,054.9	22.98	1,054.7
TRY_MW-602B	Bedrock	PVC	1,091.35	21.39	1,070.0	17.82	1,073.5	18.39	1,073.0	20.34	1,071.0	18.28	1,073.1	20.61	1,070.7	16.40	1,075.0
TRY_MW-702S	Overburden	PVC	1,036.60	---	---	4.57	1,032.0	6.61	1,030.0	6.03	1,030.6	5.58	1,031.0	6.82	1,029.8	---	---
TRY_MW-702SX	Overburden	PVC	1,037.76	---	---	---	---	---	---	---	---	---	---	---	---	6.50	1,031.3
TRY_MW_801	Overburden	PVC	1,088.01	---	---	---	---	---	---	---	---	---	---	---	---	29.87	1,058.1
TRY_MW-802	Overburden	PVC	1,091.36	---	---	---	---	---	---	---	---	---	---	---	---	23.74	1,067.6
TRY_MW-803	Overburden	PVC	1,090.70	---	---	---	---	---	---	---	---	---	---	---	---	21.39	1,069.3
TRY_MW-804	Overburden	PVC	1,087.68	---	---	---	---	---	---	---	---	---	---	---	---	27.38	1,060.3
TRY_MW-805	Overburden	PVC	1,085.20	---	---	---	---	---	---	---	---	---	---	---	---	28.67	1,056.5

See last page for notes.

TABLE 12 - GROUNDWATER LEVEL MEASUREMENTS AND ELEVATION DATA

Troy Mills Landfill Superfund Site

Troy, New Hampshire

Monitoring Well Designation	Screened Geologic Unit	Measuring Point	Measuring Point Elevation (ft)	July 2012		June 2013		October 2014		June 2015	
				Depth to Water (ft bmp)	Elevation (ft)	Depth to Water (ft bmp)	Elevation (ft)	Depth to Water (ft bmp)	Elevation (ft)	Depth to Water (ft bmp)	Elevation (ft)
				Wells With Water Level Measurements Only							
TRY_M-2	Overburden	PVC	1,044.35	---	---	4.50	1,039.9	4.47	1,039.9	---	---
TRY_MW-108	Deep Bedrock	Casing	1082.95	---	---	---	---	36.48	1,046.5	---	---
TRY_MW-202S	Overburden	PVC	1,051.64	---	---	---	---	8.28	1,043.4	---	---
TRY_MW-202D	Overburden	Casing	1,051.84	---	---	---	---	9.61	1,042.2	---	---
TRY_MW-502	Overburden	PVC	1,057.57	---	---	---	---	14.86	1,042.7	---	---
TRY_MW-602S	Overburden	PVC	1,091.26	24.44	1,066.8	19.82	1,071.4	25.77	1,065.5	---	---
				Wells Currently Sampled That Have Screen Lengths >10 Feet							
TRY_M-1	Overburden	PVC	1,062.24	---	---	---	---	6.91	1,055.3	---	---
TRY_M-7D	Deep Bedrock	PVC	1036.39	---	---	---	---	4.49	1,031.9	---	---
TRY_MW-101	Predominantly Overburden	Casing	1,077.48	29.20	1,048.3	28.63	1,048.9	29.7	1,047.8	---	---
TRY_MW-102	Predominantly Overburden	Casing	1,093.89	---	---	---	---	25.31	1,068.6	---	---
TRY_MW-104S	Overburden	PVC	1,032.97	---	---	3.68	1,029.3	3.73	1,029.2	---	---
TRY_MW-104D	Overburden	PVC	1,033.08	---	---	3.61	1,029.5	3.73	1,029.4	---	---
TRY_MW-105S	Overburden	PVC	1,036.75	---	---	---	---	10.30	1,026.5	---	---
TRY_MW-105D	Deep Bedrock	PVC	1,036.62	---	---	---	---	10.86	1,025.8	---	---
TRY_MW-202P	Overburden	PVC	1,053.36	---	---	---	---	8.93	1,044.4	---	---
TRY_MW-601S	Overburden	PVC	1,077.45	21.80	1,055.7	20.36	1,057.1	21.57	1,055.9	---	---
TRY_MW-701	Deep Bedrock	PVC	1,106.28	---	---	6.11	1,100.2	8.85	1,097.4	---	---
TRY_MW-702D	Deep Bedrock	PVC	1,036.34	---	---	---	---	6.55	1,029.8	5.36	1,031.0
				Wells Currently Sampled With Screen Lengths ≤10 Feet							
TRY_M-7	Overburden	PVC	1,037.41	---	---	---	---	8.34	1,029.1	---	---
TRY_MW-A28	Overburden	PVC	1,051.06	---	---	9.12	1,041.9	8.91	1,042.2	---	---
TRY_MW-C6S	Overburden	PVC	1,043.83	---	---	---	---	6.14	1,037.7	---	---
TRY_MW-C6D	2-in PVC	Overburden	1,044.54	---	---	---	---	---	---	7.18	1,037.4
TRY_MW-101S	2-in PVC	Overburden	1,072.69	---	---	---	---	---	---	21.30	1,051.4
TRY_MW-101D	2-in PVC	Overburden	1,067.53	---	---	---	---	---	---	18.86	1,048.7
TRY_MW-201SX	2-in PVC	Overburden	1,047.33	---	---	---	---	---	---	7.54	1,039.8
TRY_MW-204	Overburden	PVC	1,081.80	---	---	---	---	21.52	1,060.3	---	---
TRY_MW-301	Overburden	PVC	1,080.77	---	---	---	---	---	---	---	---
TRY_MW-301X	Overburden	PVC	1,080.94	---	---	35.25	1,045.7	35.55	1,045.4	---	---
TRY_MW-501	Overburden	PVC	1,040.49	---	---	---	---	---	---	---	---
TRY_MW-501X	Overburden	PVC	1,039.98	---	---	6.39	1,033.6	6.31	1,033.7	---	---
TRY_MW-501D	2-in PVC	Overburden	1,040.25	---	---	---	---	---	---	6.22	1,034.0
TRY_MW-508	Overburden	Casing	1,079.50	---	---	---	---	---	---	---	---
TRY_MW-508X	Overburden	PVC	1,080.72	---	---	---	---	6.12	1,074.6	---	---
TRY_MW-601D	Overburden	PVC	1,077.72	---	---	21.56	1,056.2	22.89	1,054.8	---	---
TRY_MW-602B	Bedrock	PVC	1,091.35	---	---	---	---	21.76	1,069.6	---	---
TRY_MW-702S	Overburden	PVC	1,036.60	---	---	---	---	---	---	---	---
TRY_MW-702SX	Overburden	PVC	1,037.76	---	---	---	---	7.95	1,029.8	6.81	1,031.0
TRY_MW_801	Overburden	PVC	1,088.01	32.45	1,055.6	31.94	1,056.1	33.46	1,054.6	---	---
TRY_MW-802	Overburden	PVC	1,091.36	27.82	1,063.5	26.58	1,064.8	29.18	1,062.2	---	---
TRY_MW-803	Overburden	PVC	1,090.70	27.46	1,063.2	25.45	1,065.3	29.12	1,061.6	26.92	1,063.8
TRY_MW-804	Overburden	PVC	1,087.68	30.52	1,057.2	29.28	1,058.4	31.71	1,056.0	30.17	1,057.5
TRY_MW-805	Overburden	PVC	1,085.20	30.68	1,054.5	29.91	1,055.3	31.41	1,053.8	---	---

See last page for notes.

TABLE 12 - GROUNDWATER LEVEL MEASUREMENTS AND ELEVATION DATA
Troy Mills Landfill Superfund Site
Troy, New Hampshire

TABLE KEY:
ft = feet
ft bmp = feet below measuring point
PVC = polyvinyl chloride riser
"---" = data is not readily available or groundwater level was not collected

GENERAL NOTES:
1. Depth to groundwater measurements are referenced to top of polyvinyl chloride (PVC) risers or top of casing at groundwater monitoring wells as indicated.
2. Depth to groundwater measurements from 2006 through the present were collected by GZA field personnel.
3. A survey of the site wells was conducted during February 2005 by Conklin & Soroka of Cheshire, Connecticut. The benchmark point used for this survey was monitoring well TRY_M-3; its elevation was established as 1037.65 (PVC) according to the plan titled "Topographic Survey Depicting Monitoring Well Locations, Land of Troy Mills Landfill." The 700-series wells were drilled in November 2006 by NH Boring, the x-series replacement wells were drilled during November 2010 by Expedition Drilling, and the 800-series wells were drilled during May 2011 by Boart Longyear. The elevations of these wells were surveyed by GZA personnel using already existing on-site wells as reference points. The horizontal datum used to identify site monitoring wells is NAD83/96 per NHDOT Base Station, following the NH State Plane projection, in units of US Survey feet.

TABLE 14 - WELL CONSTRUCTION INFORMATION
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well Designation	Well Type (2-in, 1.5-in etc.)	Screened Geologic Unit	Depth to Well Bottom [1] (ft, referenced to measuring point)	2014 and 2015 Depth to Well Bottom [7] (ft, referenced to measuring point)	Screen Interval (ft, referenced to measuring point)	Screen Length (ft)	Reference Measuring Point	Height of Stickup of Measuring Point (ft)	Bladder Pump Model	Bladder Length in feet (L) / Diameter in inches (D) / & Capacity in mL (C)	Sampling Method	Historic Low Water Level [2] (ft, referenced to measuring point)	Recommended Depth of Bladder Pump Intake (ft, referenced to measuring point)	Pump Intake Distance from Top of Screen (ft, referenced to measuring point)	Distance Between Pump Intake and Bottom of Well [3] (ft, referenced to measuring point)
Wells Decommissioned During November 2014 - Some With Water Level Measurements During 2014 [7]															
TRY_M-2 [8]	1 1/2-in PVC	Overburden	43.9	---	7.5-43.9	36.4	PVC	0.75	QED T1300	3.8-ft L, 1-in D, 220-mL C	N / A	5.74	16.5	9.0	27.4
TRY_M-3	1 1/2-in PVC	Overburden	31.4	---	7.5-31.4	23.9	PVC	0.95	---	---	N / A	6.10	14.5	7.0	16.9
TRY_M-5	1 1/2-in PVC	Bedrock	22.4	---	---	---	PVC	2.25	---	---	N / A	15.29	---	---	---
TRY_M-6	2-in PVC	Overburden	17.33	---	---	---	Casing	1.99	---	---	N / A	9.81	---	---	---
TRY_P-1	2-in PVC	Overburden	16.82	---	---	---	PVC	1.74	---	---	N / A	11.77	---	---	---
TRY_MW-106 [9]	1 1/2-in PVC?	---	43.9	---	---	---	---	---	---	---	N / A	---	---	---	---
TRY_MW-108 [8]	1 1/2-in PVC	Bedrock	142.35	141.88	84.3-134.3 [4]	50	Casing	3.25	---	---	N / A	36.48	Obstruction in Well	---	---
TRY_MW-109	1 1/2-in PVC?	---	90.3	---	---	---	---	---	---	---	N / A	---	---	---	---
TRY_MW-202S [8]	2-in PVC	Overburden	14.13	13.80	6.6 to 13.6	7	PVC	1.64	---	---	N / A	11.18	---	---	---
TRY_MW-202D [8]	2-in PVC	Overburden	65.23	65.00	---	---	Casing	1.84	---	---	N / A	10.43	---	---	---
TRY_MW-502 [8]	2-in PVC	Overburden	18.6	---	---	---	PVC	2.47	---	---	N / A	15.13	---	---	---
TRY_MW-504	2-in PVC	Overburden	11.85	---	---	---	PVC	2.50	---	---	N / A	7.51	---	---	---
TRY_MW-505	2-in PVC	Overburden	16.78	---	6.6-16.6 [4]	10	PVC	2.56	---	---	N / A	7.81	---	---	---
TRY_MW-506	2-in PVC	Overburden	17.32	---	---	---	PVC	3.19	---	---	N / A	13.24	---	---	---
TRY_MW-507	2-in PVC	Overburden	13.04	---	8-13 [4]	5	PVC	2.74	---	---	N / A	9.15	---	---	---
TRY_MW-602S [8]	2-in PVC	Overburden	36	---	21-36	15	PVC	2.30	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	N / A	26.13	34.4	13.4	1.6
TRY_MW-603	2-in PVC	Bedrock	15.7	---	5.2-15.2 [4]	10	PVC	2.16	---	---	N / A	9.22	---	---	---
Decommissioned Wells Previously Located Proximate to the LNAPL Interceptor Trenches															
TRY_MW-C1S	Decommissioned during December 2013 in association with the LNAPL trench decommissioning and removal. Refer to GZA's "Completion Report - Trench Decommissioning" dated July 2014 for more information.														
TRY_MW-C2S															
TRY_MW-C3S															
TRY_MW-C4S															
TRY_MW-C5S															
TRY_MW-C7S															
TRY_MW-C8S															
TRY_MW-201D															
TRY_MW-201M															
TRY_MW-201P															
TRY_MW-201S															
Groundwater Wells That Have Screen Lengths Greater than 10 feet															
TRY_M-1	1 1/2-in PVC	Overburden	67.3 [4]	63.40	8.3-67.3 [4]	59	PVC	0.64	QED T1300	3.8-ft L, 1-in D, 220-mL C	Low Flow	8.76	55.0	46.7	12.3
TRY_M-7D	1 1/2-in PVC	Bedrock	81.36	81.50	50.8-80.8	30	PVC	1.49	N / A [6]	N / A [6]	Low Flow [10]	5.58	74.0 [6]	23.2 [6]	6.8 [6]
TRY_MW-101 [11]	1 1/2-in PVC	Predominantly Overburden	82	---	32-82	50	PVC	1.18	Geotech Geo.85SS24	2.1-ft L, 0.58-in D, 59.6 mL C	Low Flow	31.25	50.0	18.0	32.0
TRY_MW-102	2-in PVC	Predominantly Overburden	36.2 [4]	35.80	21.2-36.2 [4]	15	Casing	2.89	QED Sample Pro	1.2-ft L, 1.75 in D, 100-mL C	Low Flow	25.31	34.0	13.0	2.2
TRY_MW-104S	2-in PVC	Overburden	17.7 [4,5]	17.3	5-17 [4,5]	12	PVC	2.17	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	Low Flow	4.39	15.5	10.5	1.5
TRY_MW-104D	2-in PVC	Overburden	52.1 [4]	52.4	37.1-52.1 [4]	15	PVC	2.48	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	No Purge/IR	4.24	48.0	10.9	4.1
TRY_MW-105S	2-in PVC	Overburden	21.08	---	6.5-19.5 [4]	13	PVC	---	QED T1250	1.2-ft L, 1.75 in D, 100-mL C	Low Flow	11.58	17.5	11.0	3.6
TRY_MW-105D	2-in PVC	Bedrock	87.92	87.70	48.5-88.2 [4]	39.7	PVC	1.89	QED Sample Pro	1.2-ft L, 1.75 in D, 100-mL C	No Purge/IR	12.65	68.0	19.5	20.2
TRY_MW-202P	4-in PVC	Overburden	61.55	61.35	4.9-59.9 [4]	55	PVC	1.96	QED Sample Pro	1.2-ft L, 1.75 in D, 100-mL C	No Purge/IR	9.97	52.5	47.6	7.4
TRY_MW-601S	2-in PVC	Overburden	29.3	---	14.3-29.3	5	PVC	2.69	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	Low Flow	21.80	27.8	13.5	1.5
TRY_MW-701	2-in PVC	Bedrock	78.3	---	18.3-78.3	60	PVC	3.18	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	Low Flow	10.70	48.3	30.0	30.0
TRY_MW-702D	2-in PVC	Bedrock	46.4 [4,5]	46.70	19.4-46.4 [4,5]	27	PVC	2.44	QED Sample Pro	1.2-ft L, 1.75 in D, 100-mL C	Low Flow	6.55	33.0	13.6	13.4

TABLE 14 - WELL CONSTRUCTION INFORMATION
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well Designation	Well Type (2-in, 1.5-in etc.)	Screened Geologic Unit	Depth to Well Bottom [1] (ft, referenced to measuring point)	2014 and 2015 Depth to Well Bottom [7] (ft, referenced to measuring point)	Screen Interval (ft, referenced to measuring point)	Screen Length (ft)	Reference Measuring Point	Height of Stickup of Measuring Point (ft)	Bladder Pump Model	Bladder Length in feet (L) / Diameter in inches (D) / & Capacity in mL (C)	Sampling Method	Historic Low Water Level [2] (ft, referenced to measuring point)	Recommended Depth of Bladder Pump Intake (ft, referenced to measuring point)	Pump Intake Distance from Top of Screen (ft, referenced to measuring point)	Distance Between Pump Intake and Bottom of Well [3] (ft, referenced to measuring point)
Groundwater Wells With Screen Lengths Equal to or Less than 10 feet															
TRY_M-7	1 1/2-in PVC	Overburden	17.3	---	7.8-17.3	9.5	PVC	1.61	QED T1300	3.8-ft L, 1-in D, 220-mL C	Low Flow	8.76	15.8	8.0	1.5
TRY_MW-A28	1 1/2-in PVC	Overburden	13.03	13.0	8.03	5	PVC	3.03	N / A [6]	N / A [6]	No Purge/IR	9.12	11.1 [6]	3.1 [6]	1.9 [6]
TRY_MW-C6S	2-in PVC	Overburden	15.2	15.00	5.2-15.2	10	PVC	1.79	N / A [6]	N / A [6]	Low Flow	6.80	10.2 [6,13]	5.0 [6]	5.0 [6]
TRY_MW-C6D	2-in PVC	Overburden	37.97	37.97	28.0-38.0	10	PVC	2.50	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	Low Flow [10]	7.18	33.0	5.0	5.0
TRY_MW-101S	2-in PVC	Overburden	29.40	29.4	19.4-29.4	10	PVC	1.71	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	Low Flow	21.30	24.4	5.0	5.0
TRY_MW-101D	2-in PVC	Overburden	67.12	67.1	57.1-67.1	10	PVC	2.50	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	Low Flow	18.86	62.1	5.0	5.0
TRY_MW-201SX	2-in PVC	Overburden	17.23	17.2	7.2-17.2	10	PVC	1.69	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	Low Flow	7.54	12.2	5.0	5.0
TRY_MW-204	2-in PVC	Overburden	32.8	---	22.8-32.8	10	PVC	2.6	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	Low Flow	21.52	31.3	8.5	1.5
TRY_MW-205	2-in PVC	Overburden	39.1	---	29.1-39.1	10	PVC	2.07	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	Low Flow	33.42	37.6	8.5	1.5
TRY_MW-301X	2-in PVC	Overburden	52.5	52.50	42.5-52.5	10	PVC	2.42	QED Sample Pro	1.2-ft L, 1.75 in D, 100-mL C	Low Flow	35.55	47.5	5.0	5.0
TRY_MW-501X	2-in PVC	Overburden	14.04	14.00	2.0-12.0	10	PVC	2.02	QED Sample Pro	1.2-ft L, 1.75 in D, 100-mL C	No Purge/IR	6.39	9.2	5.0	5.0
TRY_MW-501D	2-in PVC	Overburden	31.85	31.85	21.9-31.9	10	PVC	2.17	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	Low Flow [10]	6.22	26.9	5.0	5.0
TRY_MW-508X	2-in PVC	Overburden	9.7	10.0	4.7-9.7	5	PVC	2.9	QED Sample Pro	1.2-ft L, 1.75 in D, 100-mL C	Low Flow	6.38	7.2	2.5	2.5
TRY_MW-601D	2-in PVC	Overburden	62.1	---	52.1-62.1	10	PVC	2.23	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	No Purge/IR	23.10	57.1	5.0	5.0
TRY_MW-602B	2-in PVC	Bedrock	47.5	---	37.5-47.5	10	PVC	2.12	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	Low Flow	21.76	42.5	5.0	5.0
TRY_MW-702SX	2-in PVC	Overburden	15.4	14.60	5.4-15.4	10	PVC	3.9	QED Sample Pro	1.2-ft L, 1.75 in D, 100-mL C	Low Flow	7.95	10.4	5.0	5.0
TRY_MW-801	2-in PVC	Overburden	46.4	46.50	36.4-46.4	10	PVC	2.25	QED Sample Pro	1.2-ft L, 1.75 in D, 100-mL C	Low Flow	33.46	41.4	5.0	5.0
TRY_MW-802	2-in PVC	Overburden	35.6	35.70	25.6-35.6	10	PVC	2.1	QED Sample Pro	1.2-ft L, 1.75 in D, 100-mL C	Low Flow [10]	29.18	32.4 [12]	5.0	5.0
TRY_MW-803	2-in PVC	Overburden	32.3	32.20	22.3-32.3	10	PVC	2.15	QED Sample Pro	1.2-ft L, 1.75 in D, 100-mL C	Low Flow [10]	29.12	30.3 [12]	5.0	5.0
TRY_MW-804	2-in PVC	Overburden	36.0	36.10	26.0-36.0	10	PVC	2.32	QED Sample Pro	1.2-ft L, 1.75 in D, 100-mL C	Low Flow	31.71	33.9 [12]	5.0	5.0
TRY_MW-805	2-in PVC	Overburden	42.4	42.50	32.4-42.4	10	PVC	2.37	QED Sample Pro	1.2-ft L, 1.75 in D, 100-mL C	Low Flow	31.41	37.4	5.0	5.0

9.5

TABLE KEY:

in = Inch
ft = Feet
PVC = Polyvinyl chloride
LNAPL = Light Non-aqueous Phase Liquid
L = Length
D = Diameter
C = Capacity
mL = milliliters
"---" = No data available
N / A = Not applicable
No Purge/IR = No purge due to insufficient recharge

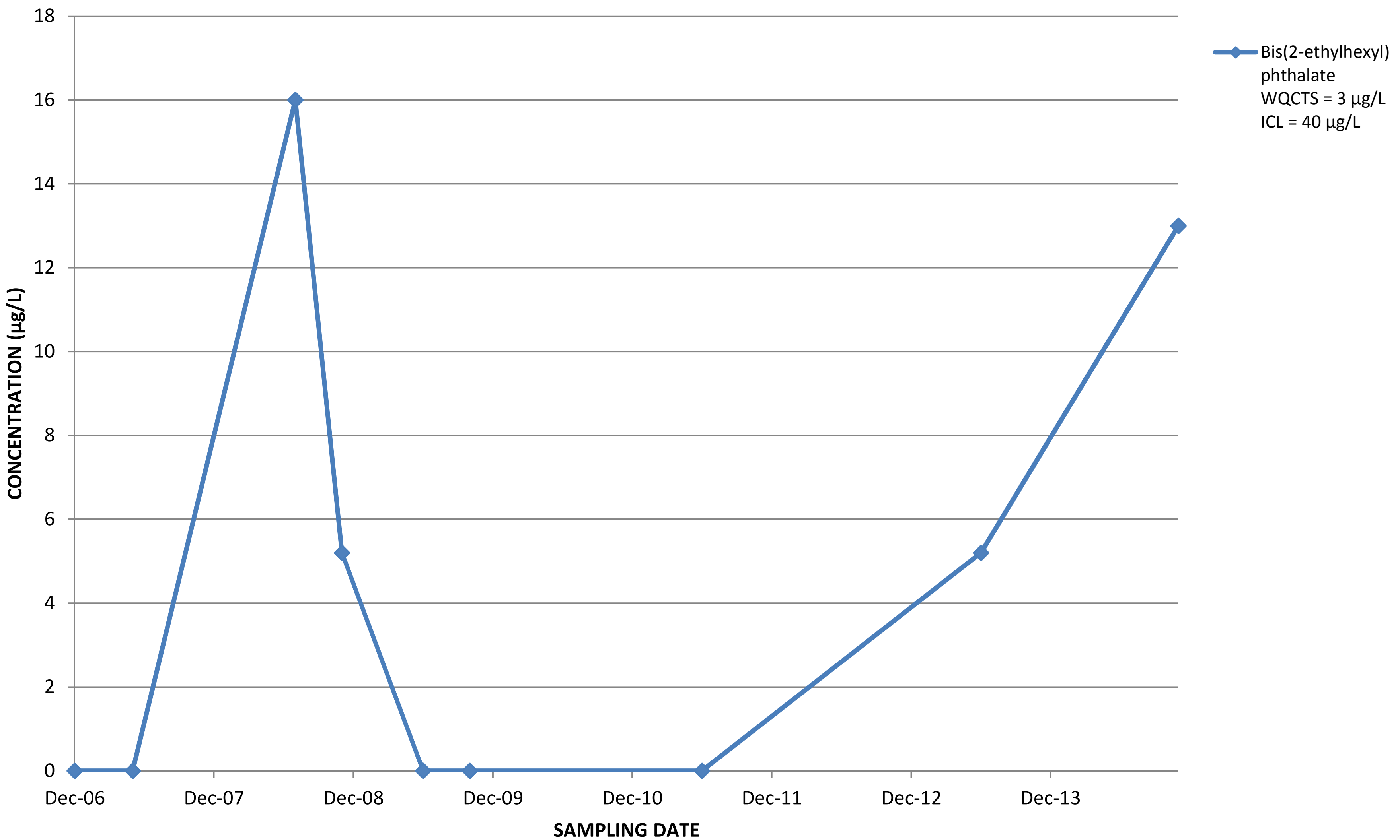
SPECIFIC NOTES:

1. Depth to Well Bottom are field measured unless otherwise noted.
2. Historic low water levels are compiled from water level measurements taken from 2006 to the present. This data is checked yearly and updated as necessary. Refer to Table 3 - Groundwater Level Measurements and Elevation Data for historical groundwater levels and elevations. The historic low water level for well TRY_MW-C6S was taken from the 11/19/12 measurement included on Table 4 - Summary of LNAPL Well Observations of the June 2013 Monitoring Report.
3. The distance between pump intake and bottom of the well is calculated using the Depth to Well Bottom information.
4. Downhole information was not verified during the October 8, 2008 camera survey.
5. GZA notes that there appears to be a minor discrepancy between the historical information regarding the bottom of screen/well and that which was measured in July 2008 by GZA in two wells (TRY_MW-702D & TRY_MW-104S).
6. Wells TRY_MW-A28 and TRY_M-7D have a 1.5-inch diameter, which is too small to accommodate a SamplePro Bladder pump; therefore, a peristaltic pump and dedicated poly tubing is used to sample these wells. The last three columns of the table (Recommended Depth of Bladder Pump Intake, etc.) refer to the intake depth of the poly tubing used for sampling. Well TRY_MW-C6S was also be sampled with a peristaltic pump during the November 2014 sampling round.
7. Wells without 2014/2015 well bottom information contained dedicated sampling equipment preventing a well bottom measurement.
8. These wells had water levels collected during the 2014 Comprehensive Water Level Round prior to decommissioning.
9. Well TRY_MW-106 was listed to be decommissioned in the SAP; however, the well could not be found during decommissioning activities, and is presumed to have already been decommissioned.
10. These wells had insufficient recharge for low flow sampling during fall 2014 or spring 2015; a grab sample (where possible) was collected instead.
11. A water level measurement and groundwater sample using low flow methods were collected from well TRY_MW-101 prior to the well being decommissioned during November 2014 in accordance with the SAP.
12. The depth of the bladder pump intake at these wells was adjusted in the field during fall 2014 to accommodate the deeper water level measurement and maintain the intake in the center of the saturated screen.
13. The depth of the pump intake at TRY_MW-C6S should be adjusted to 11.0 feet during the next sampling round based on the historic low water level measurement.
14. The depth of the pump intake at wells TRY_MW-101S and TRY_MW-201SX should be adjusted following the next synoptic water level round and prior to the sampling round.

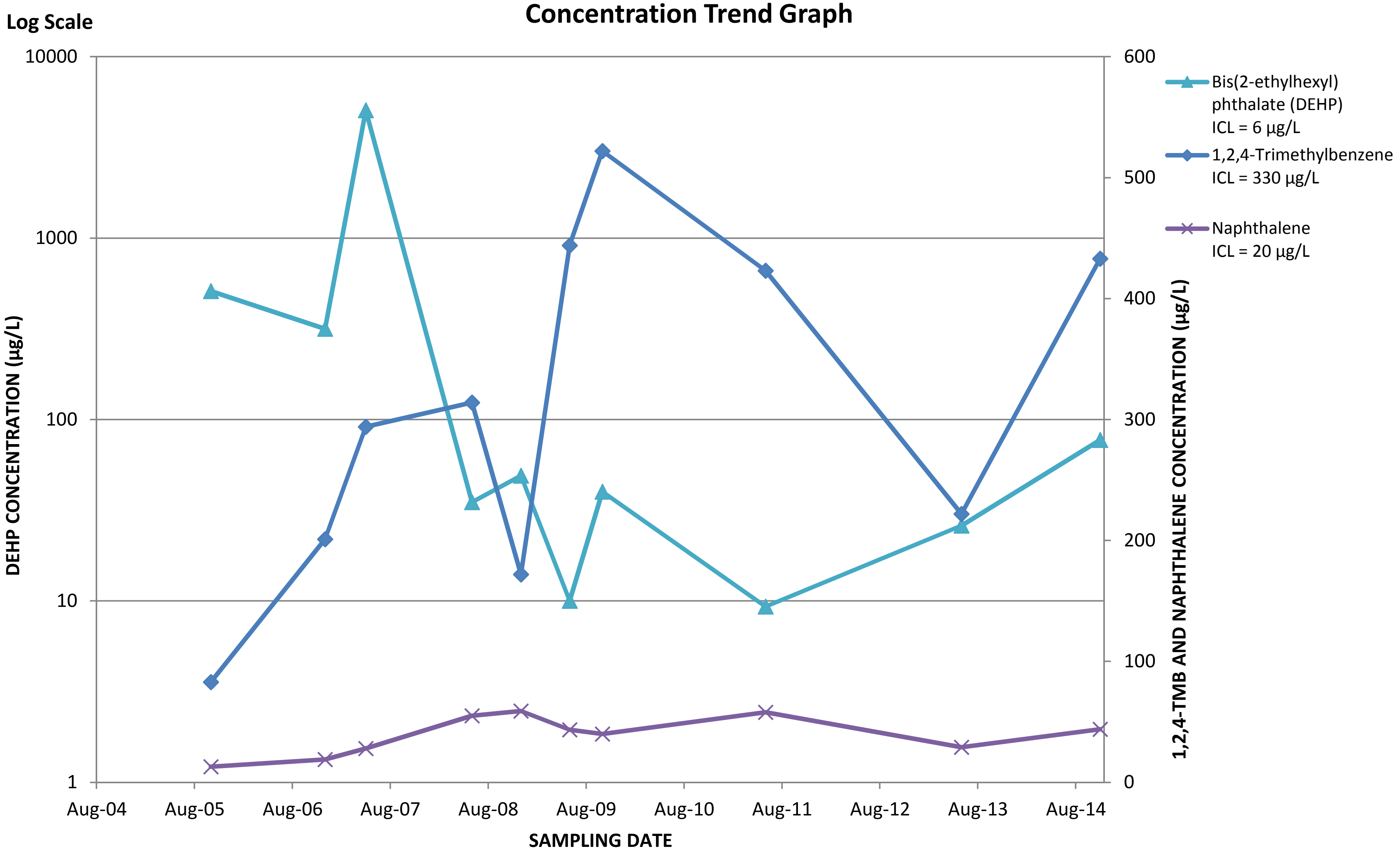
APPENDIX E

TEMPORAL CONCENTRATION TREND GRAPHS

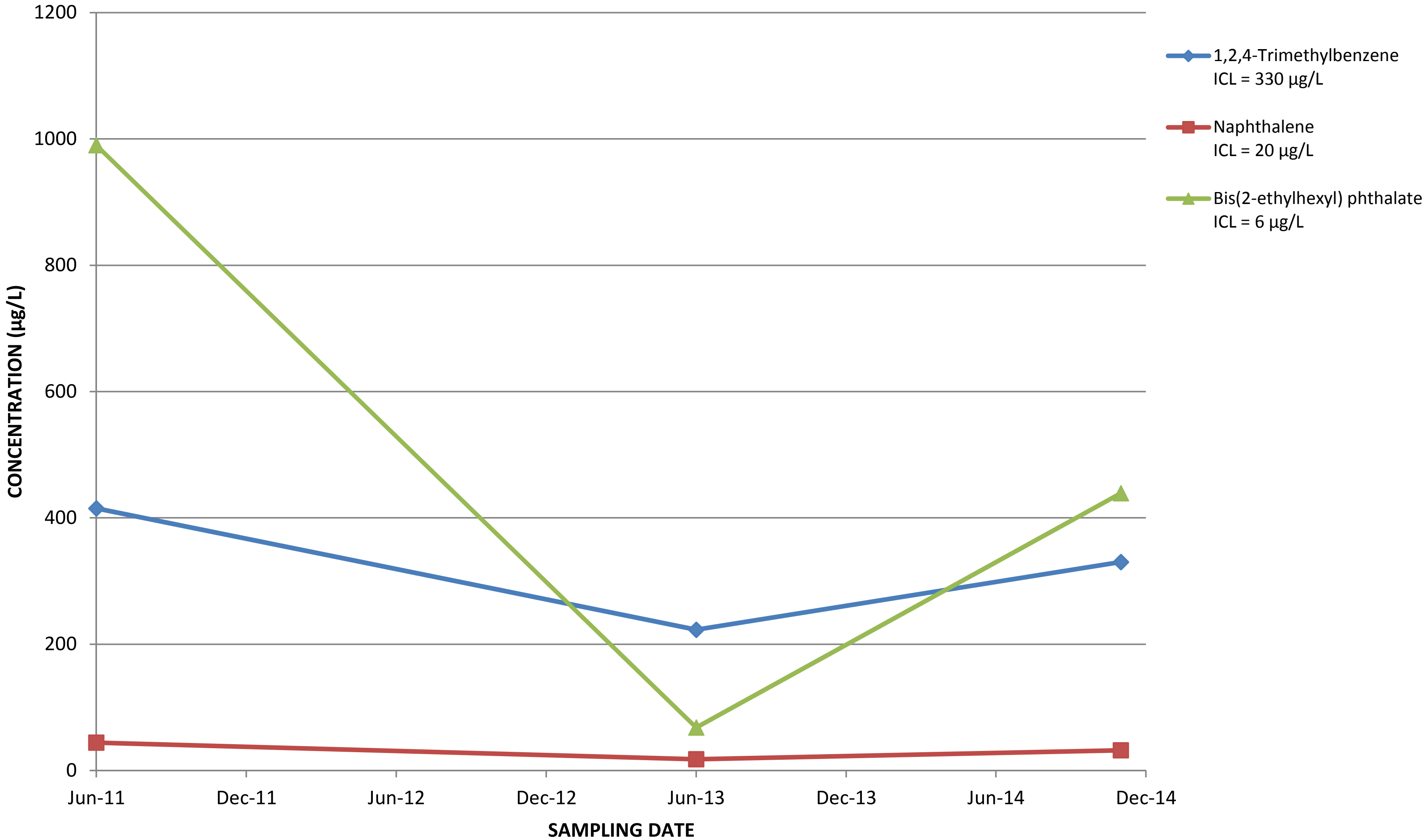
Graph 1
Water Quality Criteria for Toxic Substances Exceedances at TRY_SW-LEACHATE
Troy Mills Landfill Superfund Site
Concentration Trend Graph



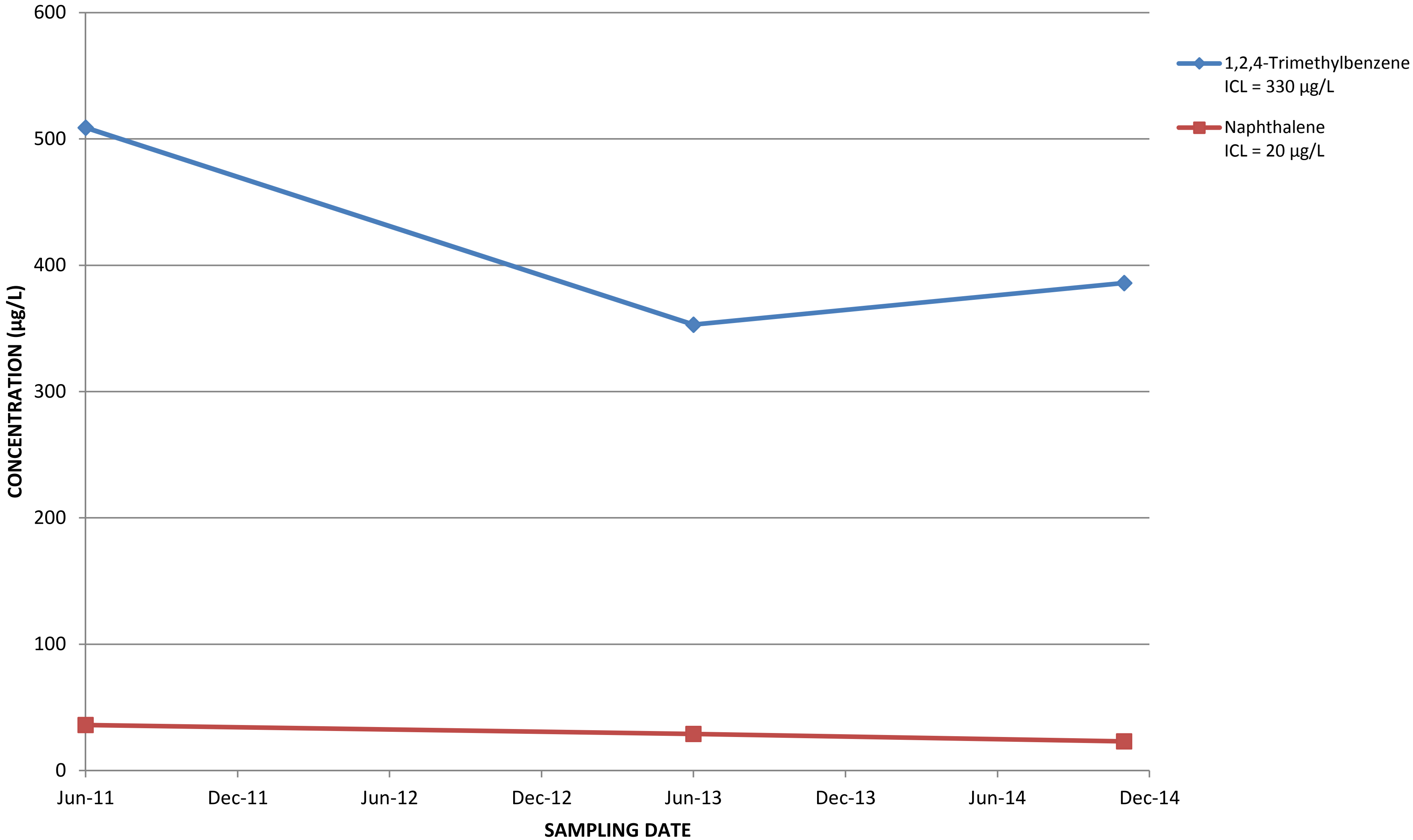
Graph 2
SVOC and VOC Interim Cleanup Level (ICL) Exceedances at TRY_MW-205
Troy Mills Landfill Superfund Site
Concentration Trend Graph



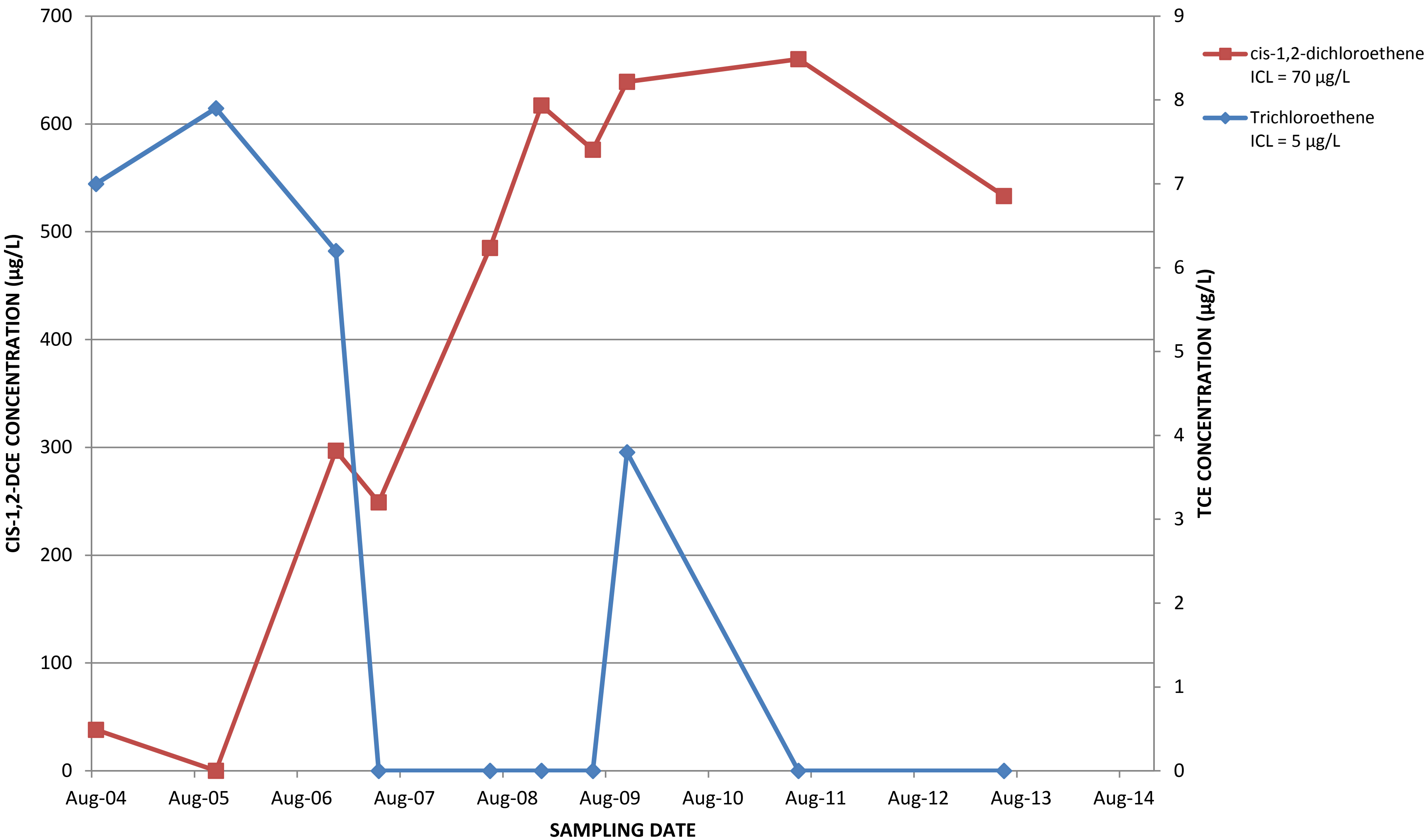
Graph 3
SVOC and VOC Interim Cleanup Level (ICL) Exceedances at TRY_MW-804
Troy Mills Landfill Superfund Site
Concentration Trend Graph



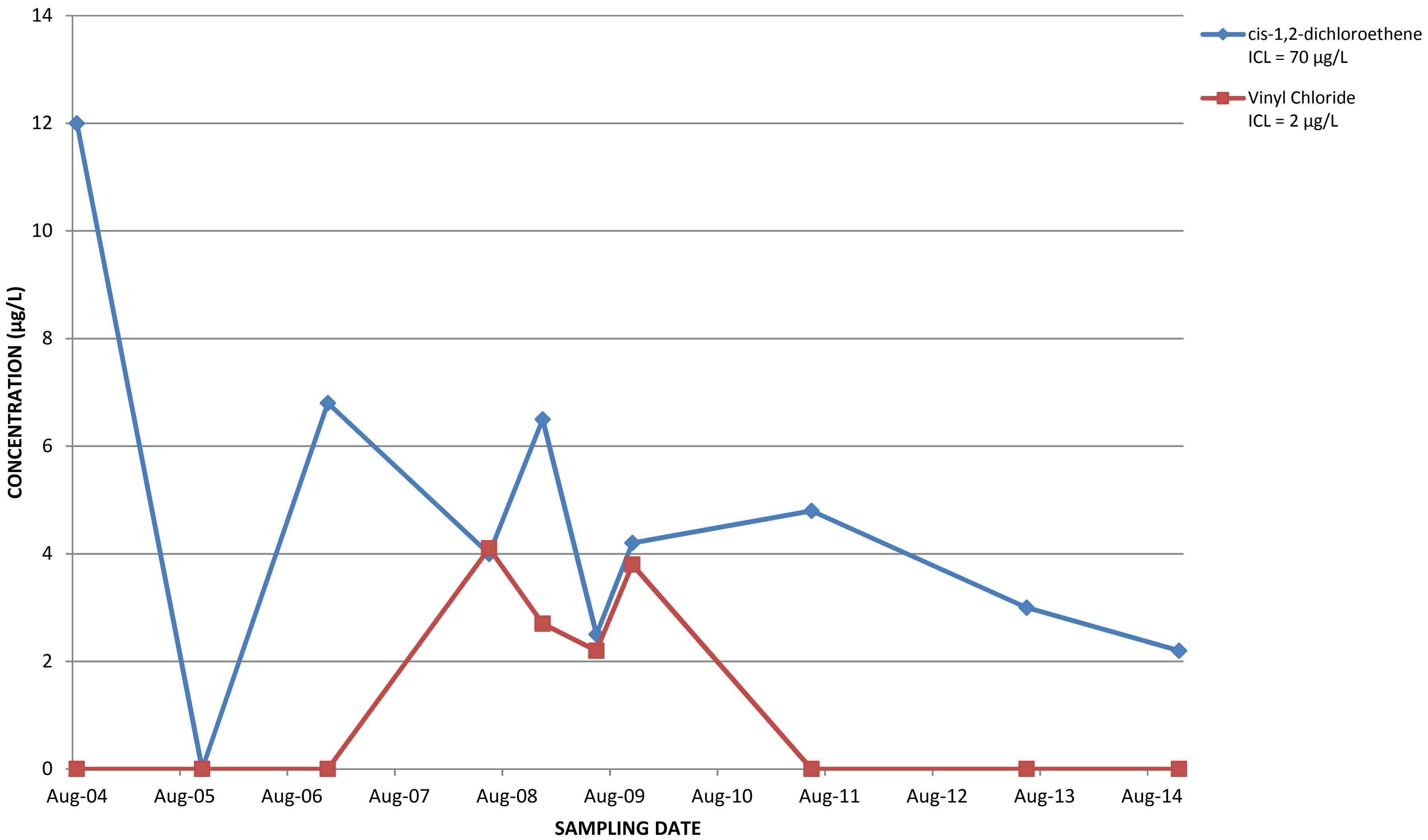
Graph 4
VOC Interim Cleanup Level (ICL) Exceedances at TRY_MW-805
Troy Mills Landfill Superfund Site
Concentration Trend Graph



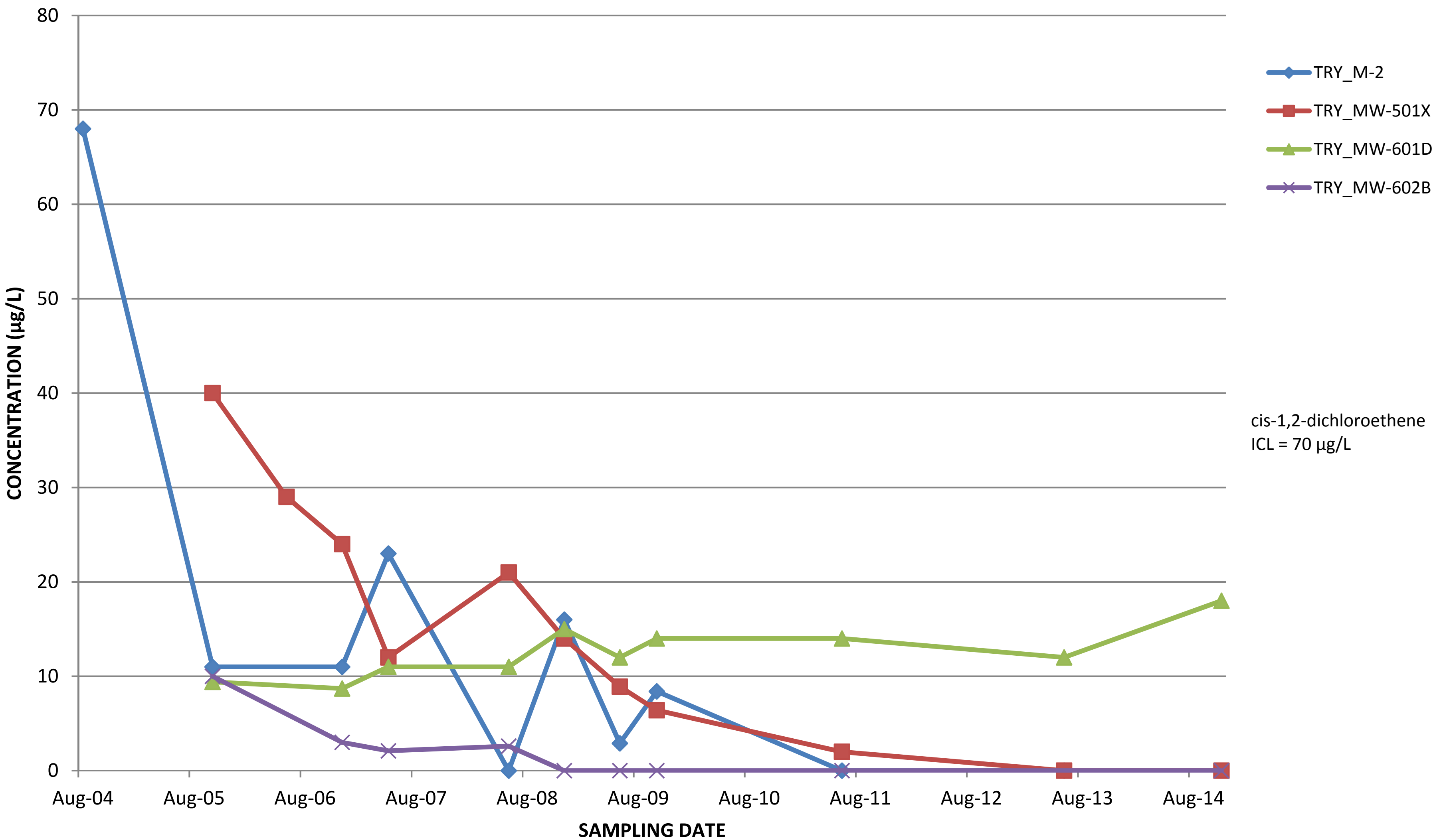
Graph 5
Chlorinated VOC Interim Cleanup Level (ICL) Exceedances at TRY_MW-201M
Troy Mills Landfill Superfund Site
Concentration Trend Graph



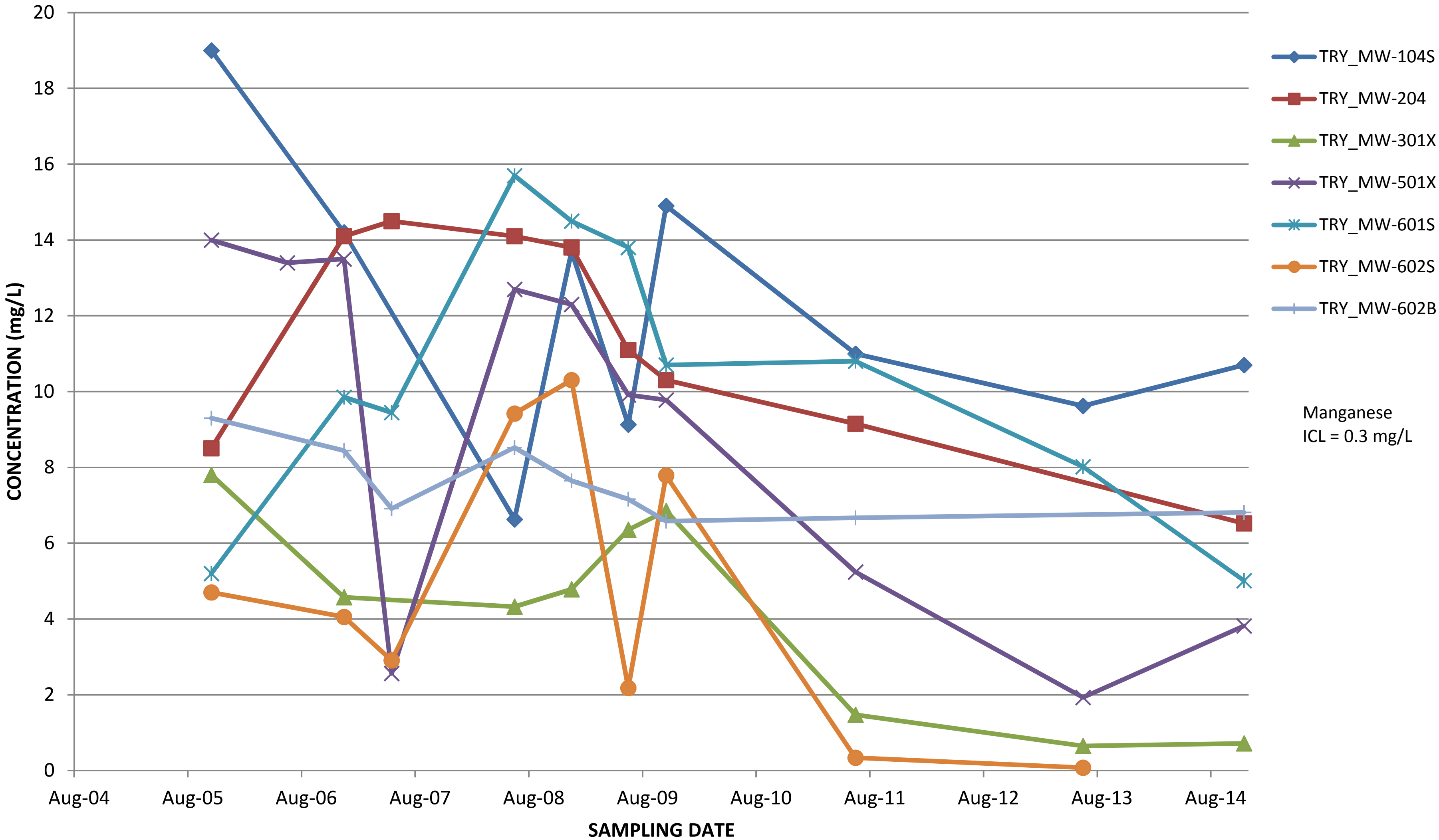
Graph 6
Chlorinated VOC Concentrations at TRY_MW-104S
Troy Mills Landfill Superfund Site
Concentration Trend Graph



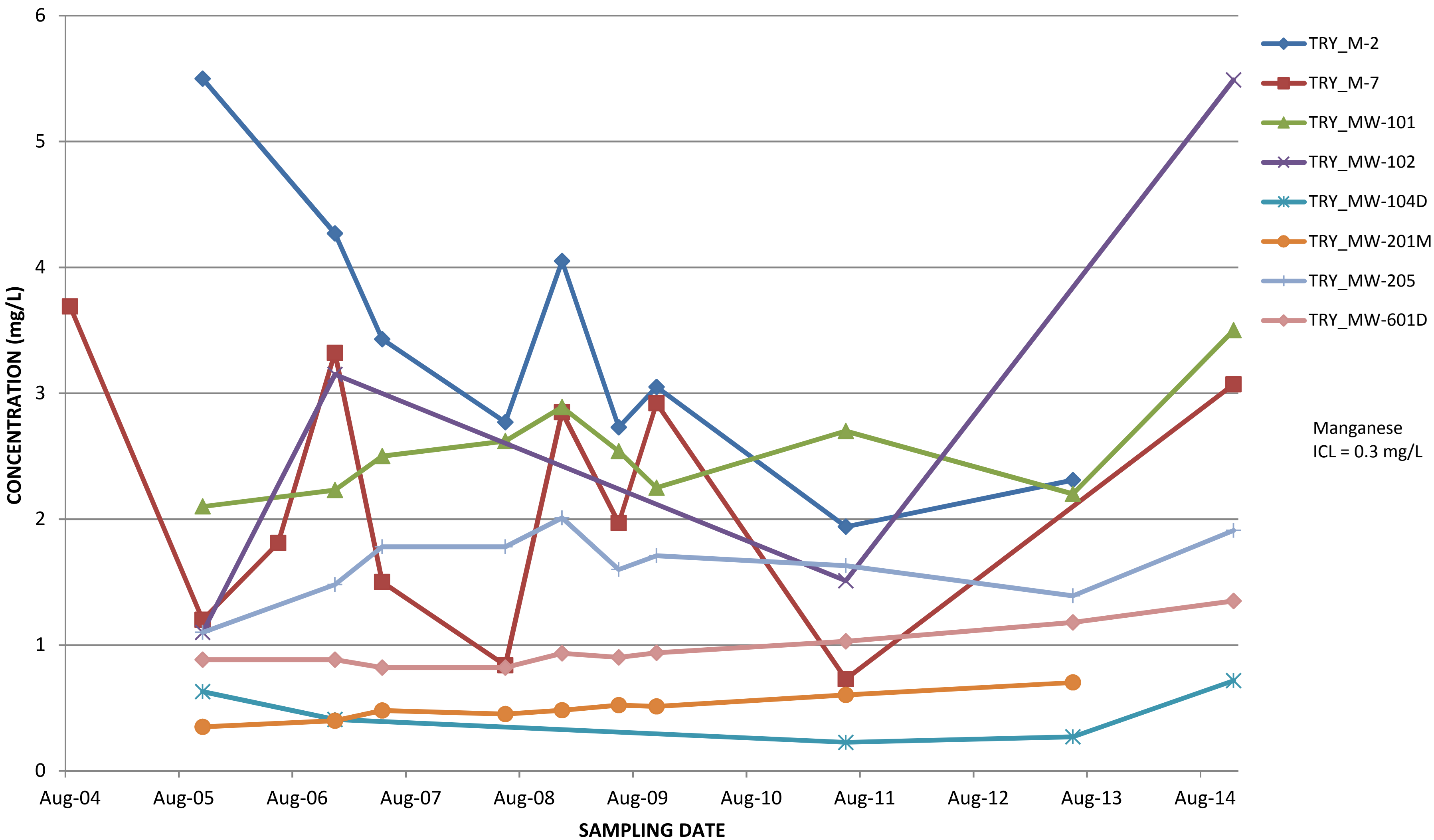
Graph 7
Cis-1,2-Dichloroethene Concentrations at Site Wells
Troy Mills Landfill Superfund Site
Concentration Trend Graph



Graph 8A
Interim Cleanup Level (ICL) Exceedances of Manganese Exceeding 5 mg/L
Troy Mills Landfill Superfund Site
Concentration Trend Graph



Graph 8B
Interim Cleanup Level (ICL) Exceedances of Manganese Below 5 mg/L
Troy Mills Landfill Superfund Site
Concentration Trend Graph



APPENDIX F

INTERVIEW FORMS

Troy Mills Landfill Superfund Site 5-Year Review Interview

Interviewee: Mr. Craig Chamberlain, H.C. Haynes, Inc.

Background: H.C. Haynes, Inc. owns land to the south of the Site through which EPA, NHDES and its contractors gain access. Mr. Chamberlain is the H.C. Haynes, Inc. representative responsible for this land and is the point of contact for EPA, NHDES and its contractors. Mr. Chamberlain was involved in developing an agreement for accessing the Site through H.C. Haynes, Inc. property and is notified when access is required.

Interview: Conducted via telephone by Skip Hull, EPA Remedial Project Manager, on Monday, June 8, 2015.

Because of Mr. Chamberlain's limited involvement with the Site, the community or other abutters to the Site, the interview was limited to his experience with respect to accessing the Site.

Mr. Chamberlain indicated that activity on the land owned by H.C. Haynes, Inc. includes timber harvesting. According to Mr. Chamberlain, timber has been historically harvested from the property, but there is no additional harvesting planned until approximately 7-8 years from now.

The H.C. Haynes, Inc. property includes a dirt and gravel road that EPA, NHDES and its contractors use to access the Site. Mr. Chamberlain indicated that the road is currently in good condition and that it is normally maintained through grading approximately once per year, but that additional maintenance activity may be necessary in the future depending on the level of activity and traffic on the road.

Mr. Chamberlain indicated that he hasn't had any issues with EPA, NHDES or its contractors using the road for access to the Site. He would like to continue to be notified in advance of when access is required.

With respect to the future use of the H.C. Haynes, Inc. property, Mr. Chamberlain indicated that it could possibly be marketed in the future for resale, but there is currently no definite plan or scheduling for doing this.

Mr. Chamberlain did not have any further comments, suggestions, concerns or recommendations regarding the Site.

Troy Mills Landfill Superfund Site 5-Year Review Interview

Interviewee: Mr. Tom Matson, Chairman, Board of Selectmen
Town of Troy, New Hampshire

Background: Mr. Matson is Chairman of the Board of Selectmen in the Town of Troy, New Hampshire. He is a 30-year resident of Troy and is familiar with the Troy Mills Landfill Superfund Site as well as the historic presence of Troy Mills in the Town. Mr. Matson previously participated in an informational meeting with EPA and NHDES, along with members of the Troy Conservation Commission, on April 17, 2015, to discuss the Site relative to a proposed natural gas pipeline to be located adjacent to the Site.

Interview: Conducted via telephone by Skip Hull, EPA Remedial Project Manager, and Michael Summerlin, NHDES, on Thursday, June 11, 2015.

When asked about his overall impression of the Site and ongoing remediation, Mr. Matson said that his impression was that the Site was being “managed well” and that “it has been a good neighbor for the past 5 years.” Mr. Matson did indicate that there is public interest and that some inquiries regarding the Site are from people who are interested in the property or just want to know what’s going on. He wasn’t aware that anybody has expressed a concern with the Site.

Mr. Matson indicated that the Town is pleased that groundwater at the Site continues to be monitored as an element of the remediation. According to Mr. Matson, Town officials, including members of the Board of Selectmen and the Conservation Commission, are concerned with the proposed installation of a natural gas pipeline near the Site. The Site is surrounded by protected properties and from the Town perspective, the pipeline may be a detriment to the Site. Mr. Matson said that from the Selectmen’s perspective, the Site is a managed risk and the fear is that the pipeline may upset that.

Mr. Matson was not aware of the Town being involved with any Site activity, although there certainly is renewed interest from the Conservation Commission relative to the proposed pipeline. He was also not familiar with any significant changes to property or land surrounding the Site, other than the proposed pipeline.

Regarding the issue of trespassing or vandalism at the Site, Mr. Matson wasn’t personally aware of any issues or complaints that had been reported to the Town. Mr. Matson did indicate that the issue of trespassing at the Site could be coordinated better with both the towns of Troy and Fitzwilliam as they both have all-terrain vehicles (ATVs) for patrolling the Site, if necessary.

When asked if he felt that he and the Town were well informed about Site activities and progress, Mr. Matson indicated that he was pleased to see the level of responsiveness by both EPA and NHDES relative to recent inquiries from the Conservation Commission.

Troy Mills Landfill Superfund Site 5-Year Review Interview

Interviewee: Mr. David Ellis, Jr., Police Chief
Town of Troy, New Hampshire

Background: Chief Ellis has been with the Town of Troy Police Department for approximately 12 years, and has served as Chief for the past two years. His is familiar with the Troy Mills Landfill Superfund Site (Site).

Interview: Conducted via telephone by Michael Summerlin, NHDES, on Wednesday, July 8, 2015.

The focus of the interview was on whether there had been any calls or complaints regarding the Site, or trespassing issues requiring a police response to the Site.

Chief Ellis said that there were no complaints on record and that there were occasionally concerns with respect to four-wheelers using the sand pit to the west of the Site.

Chief Ellis explained that the Troy Police and the NH Fish and Game occasionally patrol the area using their four-wheelers. The focus of patrols is on the sand pit to the west, and they access it through the northerly Site gate at the NHDOT Rail Trail and through another access point further north on the Rail Trail. He added that there is another access point to the sand pit from the west, off of Prospect Street.

In response to whether there have been any changes in the Site or surrounding area in the last five years, Chief Ellis explained that he believed there has been an increase in hunting for turkey and deer. He believed that hunting occurs primarily in the area of the sand pit and that it is accessed via the Rail Trail. Additionally, he believes there are no complaints about the way the site looks.

When asked what effects Site operations have had on the surrounding community, Chief Ellis responded that he did not know of any; the Site is “out of sight, out of mind,” he stated.

WASTE MANAGEMENT DIVISION

Record of Telephone Conversation

Date of Conversation: 6/12/2015 **Time:** 1:35-1:45 PM

Bureau Staff: Michael Summerlin **Title:** Proj. Mgr., Federal Sites

Other Party's Name: Tom Matson **Telephone #:** 866-442-8329

Affiliation/Company: Town of Troy, Selectboard Chair

Site: Troy Mills Landfill Superfund Site

SUMMARY OF CONVERSATION

I reached out to Mr. Matson in follow-up to the interview conference call held yesterday with him by Skip Hull (USEPA) and myself. The purpose was to elaborate on a couple of points that were discussed relative to restricting site access; specifically: 1) Further explain our concerns about past vandalism to the wells that included removal of pump apparatus from the wells and had the potential to cause exposure to groundwater, and 2) Explain that the plume does “daylight” on the hillside near the fork on the access road, that there is potential for exposure associated with this groundwater seepage, and that a key visual indicator of the potential for exposure is the orange-stained areas.

Mr. Matson was appreciative of the additional information.

1. What is your overall impression of the project and Site over the last 5 years?

The superfund site has been a concern since its inception. It was and remains a complex clean-up and monitoring challenge, given the amount of contaminants found at the site and the flammability of the liquid waste, thousands of buried drums full of flammable liquid waste left at the site that were leaking into the soil and groundwater

2. What is your opinion of the Site remedy?

The monitored natural attenuation process appears adequate at this time. The wetlands area needs to be re-examined in terms of long-term effects on the environment concerning manganese. Will this area be contaminated forever? Or, could the leachate-wetlands soil be removed?

3. Do you have any concerns with the Site or Site remedy?

A. It is our understanding interceptor trenches have a certain time span of usefulness. The trenches were no longer working or capturing liquid, therefore they were decommissioned.

B. Given the contaminated groundwater plume is still expanding and moving towards Rockwood Brook, the plume of contaminated groundwater is a concern since the plume containing Alkylbenzenes, chlorinated solvents, phthalates, and toluene.

We continue to urge regular testing for public safety issues of surface water and sediment in Rockwood Brook and Sand Dam Pond. The expansion of monitoring wells is good to figure out the size and spread of the plume. It is good to have clarified that some monitoring wells have been replaced, along with five new, better located wells of varying depths established for monitoring. It is our understanding the five new wells are targeting layers currently not addressed by existing wells. We urge continued monitoring and that perhaps once a year is not sufficient, given New Hampshire weather variation.

C. There is a large area, one acre or so in size, of orange colored iron flock (contaminants) in the wetlands area of the site. There is water running over the top of this, which runs directly into Rockwood Brook, which then flows into Sand Dam Troy, which is a public swimming and boating area. There is a public safety concern for Sand Dam Pond. Is the water tested for contaminants from the Troy Mills Superfund Site? We continue to urge regular testing for public safety issues of the Sand Dam and Rockwood Brook.

D. There is a broken culvert off the north end of the site that leads to a sand pit. On April 19, 2015, off-road vehicles were personally observed crossing Rockwood Brook (which causes sedimentation) and going around the broken culvert. This is a popular area—using the gravel access road to the sand pit to then engage in off-road zooming around.

The repair-replacement of the broken culvert is important to maintain the ecological integrity of Rockwood Brook. Signage is needed at the wetlands site to warn trespassers of its chemical dangers. Further studies are needed to create a space for off-road vehicles, while restricting access to critical areas.

We urge continued discussion between the EPA and Troy officials of specific ways to reduce trespassing and vandalism. It might be useful to see what other areas have done around Superfund sites to reduce trespassing.

E. It is our understanding that in this five-year review the EPA examines abutting land parcels and land use restrictions surrounding the site. We remain concerned about the 8 acre solid waste landfill, which is adjacent to the site. Located there are buried waste fabric scraps that could, potentially, burn and emit toxic gases if there was an explosion or fire from the nearby pipeline creating an extremely hazardous environment for firefighters and nearby residents.

F. Chlorinated solvents remain a concern because they sink to the bottom of the groundwater table, which results in a complex dispersal and plume pattern. What is the remediation plan for this
contaminant?

Five wells were installed to monitor contaminants in the bottom, middle and top of the water table.

G. It is our understanding that the EPA told us they are not going to remove leachate, but wait for the chemicals to degrade naturally. The contaminants manganese and bis(2-ethylhexyl)phthalates found in leachate remain a concern.

H. In particular, addressing long-term ramifications of manganese in the leachate-wetlands area remains a major concern since manganese does not break down in the environment.

Also, Rockwood Brook should always be tested for contaminants downstream of the site to make sure no contaminants enter Sand Dam Pond, which is a public swimming and recreation area.

4. Was your previous impression different? Why is it different?

After reading the different EPA and GZA reports, there are more issues of concern. Visiting the site also yielded more issues of concern.

5. Are you aware of any issues the 5-year review should focus on?
The expansion of the monitoring wells is good to see, more testing is encouraged. Five new wells have been installed and additional expansion should be addressed until the plume has stabilized.

The broken culvert remains of concern, along with the overall ecological integrity of Rockwood Brook and sedimentation issues.

Testing of Rockwood Brook's surface water and sediment for contaminants on the site needs to continue.

Given the flow potential of contaminants ultimately to Sand Dam, the water area there should be tested more often than once a year.

6. Who should we speak to in the community to solicit local input?

Jim Dicey—Highway /Road manager and was close to the Superfund remediation project
Already talking to Tom Matson, Selectman
Mark Huntoon Troy Fire Chief
Dave Ellis , Troy Police Chief

7. Is the town actively involved with any Site activity or should it be?

Troy CC members have been reviewing the history and remedies of the site, given its less than 500-foot location from the proposed Kinder Morgan-Northeast District natural gas pipeline proposal.

8. Have there been any changes in the Site or surrounding area in the last five years?

Interceptor trenches removed/decommissioned.
Unclear on orange colored iron flock or beaver dam developments over the last five years.

Five years ago, the plume expansion would have and remains a concern.

Increase in off-the-road vehicle traffic, lack of access needs to be established.

9. Are there any land-use or zoning changes at the Site or surrounding area?

Current easements and covenants appear to be in place.
Institutional Controls have been placed on the Site (DES).

10. Are any changes planned in the surrounding area?

The proposed Kinder Morgan Northeast District natural gas pipeline within 500-feet of the superfund site remains a paramount concern and worry for several reasons.

A. A pipeline explosion, leak or rupture could wreak devastating consequences on the site.

B. The adjacent landfill to the site with its flammable contents presents another catastrophic scenario.

C. The fact Kinder Morgan itself identifies an incineration zone as one being 1,000 feet from an incident point puts the Superfund site and utility corridor at ground zero in the event of a pipeline explosion.

D. Also, explosion of a 36-inch diameter pipe under high pressure, such as the one being proposed by Kinder Morgan could cause radiant heat to ignite secondary fires within and beyond a 1,000-foot radius.

E. Given the chain of locations – the pipeline – the Superfund site and the Landfill that contains volatile items, the potential for catastrophe is there.

F. Impact of such an event on covenants and easements and possible financial repercussions on the town of Troy are of utmost concern.

G. With NHDES having a permanent easement and institutional controls on the site, the responsibility for addressing the site in the event of a pipeline event presents multiple concerns.

H. Current Kinder Morgan plans include establishing compressor stations in Northfield, Mass. and New Ipswich, N.H. Troy is approximately halfway between these sites and the likelihood of blowdowns, metering stations, shut-down valves and “pigging”, all, or a portion, being located on Troy’s pipeline route and within 500-feet of the Superfund Site stations is quite likely. Numerous of these activities vent natural gas directly into the air as a means of reducing pressure (a process referred to as “blow down”). This not only allows methane to escape into the atmosphere, but also the chemicals left over from the drilling or fracking process of the natural gas. These carcinogens and other toxins have been found in air sample tests near compressors and other “blow-down” facilities.

The possible interfacing of these various chemicals with contaminants such as toluene, phthalates and alkylbenzenes in the site are of concern, along with carbon dioxide, methane/ethane/ethane as well.

11. Have any developers shown interest in the Site?

Not that we know of.

12. What effects have site operations had on the surrounding community?

Currently, there is just anecdotal data that suggests residents are pleased with the clean-up, but generally uninformed and therefore, unaware of health or environmental issues or concerns.

13. Are you aware of any community concerns regarding the site or its operation and administration? If so, please give details.

A. Troy is an extremely economically depressed area with a high foreclosure rate, low incomes, etc. Of utmost concern is that something would happen to the Site that town residents would be financially responsible for. This is perception, not necessarily fact.

B. Given Kinder Morgan's proposed natural gas pipeline will come within 500-feet of the Site, the Superfund site has been specified as a town concern in:

- Unanimous passage of six pipeline opposition warrant articles at Town meeting, including one for the Superfund site.

- Unanimous votes by the Troy Board of Selectmen and the Troy Conservation Commission to approve a nine-point resolution against the pipeline, which includes lengthy mention of the Site as a concern.

  We would be happy to provide copies of any of the above-mentioned documents.

14. Are you aware of any events, incidents, or activities at the site such as vandalism, trespassing, or emergency responses from local authorities? If so, please give details.

Regarding vandalism and emergency responses, you would need to contact Dave Ellis, Troy Police Chief, Mark Huntoon, Troy Fire Chief and Jim Dicey from the Highway Department.

On April 19, 2015, it was observed one four wheeler, one three-wheeler ad two mini bikes trespassing on the site. We can only infer the level of traffic during prime spring, summer and fall outdoor recreation times.

15. Do you feel well informed about the site's activities and progress?

A. Not particularly. The documents are difficult to read and interpret – it should not have been located in a small footnote that the groundwater plume is of concern, site problems being encountered etc.

B. Residents should be able to receive timely info in a clear and concise summary to receive info—a summary made available.

16. Do you have any comments, suggestions, or recommendations regarding the site's management or operation?

A. Installation of a Beaver box would lessen the potential by maintaining a lower water level.

B. Repairing the culvert or adding a bridge would allow access to the adjacent sand pit and eliminate traffic crossing into Rockwood Brook directly and improve the local community's relationship with the site.

C. The issue of Trespassing could be eliminated by allowing off-road vehicle use in certain areas only.

D. We encourage inclusion of GZA's testing results in the fall be in the Five-Year Review.

E. From what has been indicated by the EPA. Monitoring will continue as long as there are items to monitor that present issues. That is good news. Contaminants in the groundwater, leachate, along with elevated Manganese levels remain a public health and safety concern.

F. Given the likelihood Kinder Morgan's Northeast District pipeline request will be approved by the Federal Energy Regulatory Commission (FERC), we need leadership and information from the EPA regarding:

> 1. EPA protocols for assessing the environmental impact of a natural gas pipeline within 500-feet of a Superfund site.
>
> 2. EPA's role and place in notification and reporting systems regarding a natural gas pipeline, leak, rupture or explosion.
>
> 3. EPA's concerns or issues regarding natural gas pipeline construction near a Superfund site and specifically, the Troy Mills Superfund Site.

While we understand that items 1-3 above are better addressed through NEPA—which we will do—we strongly urge communication and co-ordination of information regarding the impact of the proposed NED pipeline's proximity to the Superfund site. Also, we remain concerned about the possible impact of pipeline blasting and construction near the site, along with impact of Rockwood Brook.

G. According to the June 16, 2004 Public Health Assessment conducted by the NH Bureau of Environmental and Occupational Health, p. 4: "Area residents are only likely to have been exposed to chemical contamination associated with the TML if they came into contact with contaminated surface water and sediments in the wetlands area immediately adjacent to the site." What would be the current exposure possibilities? Signage of the wetland areas is a good idea.

H. . According to the Nov. 17, 2004 Public Health Assessment conducted on the Troy Mills Landfill by the Agency for Toxic Substances and Disease Registry, p. 11: potential air exposure pathways exist from the landfill wastes being transported into soil vapors and ambient air. Concerns regarding the proposed natural gas pipeline's proximity to the Site prompts concerns about the dangers if these items are mixed with a possible pipeline leak, rupture, explosion , blow downs or valve releases. Specific information regarding these possible scenarios is requested.

I. Appendix B of that same report identifies various contaminants of EPA concern and to us: Trichloroethene, Methyl ethyl ketone, Cresol (benzyl alcohol) Butylbenzyl phthalate, Di (2-thylhexyl) phthalate, Cadmium, Chromium, Manganese, Bis(2-ethylhexyl) phthalate, Di-n-octyl phthalate. We would like to know the 2015 recorded levels on these items and have those results be included in the Second Five Year Review.

We support the idea of fact sheets to distribute publically that would include a chemical chart showing how chemicals have declined at the site over the last 10 years.

Thank you for your help in clarifying various aspects for this final comment paper.

Sheila Ames, member Troy Conservation Commission
Marianne Salcetti, Ph.D., Chair- Troy Conservation Commission

APPENDIX G

MANN-KENDALL ANALYSIS

MAROS Mann-Kendall Statistics Summary

Project: Troy Mills Landfill **User Name:** Tanya Justham

Location: Troy **State:** New Hampshire

Time Period: 8/1/2004 **to** 11/1/2014
Consolidation Period: No Time Consolidation
Consolidation Type: Maximum
Duplicate Consolidation: Maximum
ND Values: 1/2 Detection Limit
J Flag Values : Actual Value

Well	Source/ Tail	Number of Samples	Number of Detects	Coefficient of Variation	Mann-Kendall Statistic	Confidence in Trend	All Samples "ND" ?	Concentration Trend
1,2,4-TRIMETHYLBENZENE								
TRY_M-1	T	2	0	0.00	0	0.0%	Yes	ND
TRY_M-2	T	10	2	2.50	-17	92.2%	No	PD
TRY_M-7	T	9	0	0.18	6	69.4%	Yes	ND
TRY_M-7D	T	1	0	0.00	0	0.0%	Yes	ND
TRY_MW-101	S	11	11	0.67	-5	61.9%	No	S
TRY_MW-102	T	5	0	0.25	4	75.8%	Yes	ND
TRY_MW-104D	T	5	0	0.25	4	75.8%	Yes	ND
TRY_MW-104S	T	10	0	0.17	7	70.0%	Yes	ND
TRY_MW-105D	T	3	0	0.00	0	0.0%	Yes	ND
TRY_MW-105S	T	3	0	0.00	0	0.0%	Yes	ND
TRY_MW-201M	S	10	0	0.86	22	97.1%	Yes	ND
TRY_MW-201P	S	1	0	0.00	0	0.0%	Yes	ND
TRY_MW-202P	T	2	0	0.00	0	0.0%	Yes	ND
TRY_MW-204	T	9	0	0.18	8	76.2%	Yes	ND
TRY_MW-205	S	10	10	0.46	21	96.4%	No	I
TRY_MW-301X	T	9	1	0.03	-8	76.2%	No	S
TRY_MW-501X	T	11	1	0.30	-10	75.3%	No	S
TRY_MW-508X	T	4	0	0.00	0	37.5%	Yes	ND
TRY_MW-601D	T	10	0	0.17	9	75.8%	Yes	ND
TRY_MW-601S	T	10	0	0.17	9	75.8%	Yes	ND
TRY_MW-602B	S	9	6	1.29	-11	84.6%	No	NT
TRY_MW-602S	S	9	7	1.58	-7	72.8%	No	NT
TRY_MW-701	T	8	0	0.00	0	45.2%	Yes	ND
TRY_MW-702D	T	5	0	0.00	0	40.8%	Yes	ND
TRY_MW-702SX	T	5	0	0.00	0	40.8%	Yes	ND
TRY_MW-801	T	3	0	0.00	0	0.0%	Yes	ND

MAROS Mann-Kendall Statistics Summary

Project: Troy Mills Landfill **User Name:** Tanya Justham

Location: Troy **State:** New Hampshire

Well	Source/ Tail	Number of Samples	Number of Detects	Coefficient of Variation	Mann-Kendall Statistic	Confidence in Trend	All Samples "ND" ?	Concentration Trend
1,2,4-TRIMETHYLBENZENE								
TRY_MW-802	T	3	2	0.00	0	0.0%	No	N/A
TRY_MW-803	S	2	2	0.00	0	0.0%	No	N/A
TRY_MW-804	S	3	3	0.00	0	0.0%	No	N/A
TRY_MW-805	S	3	3	0.00	0	0.0%	No	N/A
TRY_MW-A28	T	2	2	0.00	0	0.0%	No	N/A
TRY_MW-C6S	T	1	0	0.00	0	0.0%	Yes	ND
bis(2-ETHYLHEXYL) PHTHALATE								
TRY_M-1	T	2	0	0.00	0	0.0%	Yes	ND
TRY_M-2	T	10	2	1.23	-17	92.2%	No	PD
TRY_M-7	T	9	0	0.36	-12	87.0%	Yes	ND
TRY_M-7D	T	1	0	0.00	0	0.0%	Yes	ND
TRY_MW-101	S	11	1	0.40	-29	98.7%	No	D
TRY_MW-102	T	5	1	0.68	-1	50.0%	No	S
TRY_MW-104D	T	5	0	0.37	-2	59.2%	Yes	ND
TRY_MW-104S	T	10	0	0.35	-14	87.3%	Yes	ND
TRY_MW-105D	T	3	0	0.00	0	0.0%	Yes	ND
TRY_MW-105S	T	3	0	0.00	0	0.0%	Yes	ND
TRY_MW-201M	S	10	1	2.97	-15	89.2%	No	NT
TRY_MW-201P	S	1	1	0.00	0	0.0%	No	N/A
TRY_MW-202P	T	2	0	0.00	0	0.0%	Yes	ND
TRY_MW-204	T	9	1	1.42	-4	61.9%	No	NT
TRY_MW-205	S	10	10	2.56	-19	94.6%	No	PD
TRY_MW-301X	T	9	1	0.89	-6	69.4%	No	S
TRY_MW-501X	T	10	1	0.65	-23	97.7%	No	D
TRY_MW-508X	T	4	0	0.00	0	37.5%	Yes	ND
TRY_MW-601D	T	10	0	0.35	-12	83.2%	Yes	ND
TRY_MW-601S	T	10	1	0.75	-11	81.0%	No	S
TRY_MW-602B	S	9	0	0.36	-10	82.1%	Yes	ND
TRY_MW-602S	S	9	3	2.40	-10	82.1%	No	NT
TRY_MW-701	T	8	0	0.31	-7	76.4%	Yes	ND
TRY_MW-702D	T	6	2	1.01	2	57.0%	No	NT
TRY_MW-702SX	T	5	1	1.03	1	50.0%	No	NT
TRY_MW-801	T	3	0	0.00	0	0.0%	Yes	ND

MAROS Mann-Kendall Statistics Summary

Project: Troy Mills Landfill **User Name:** Tanya Justham

Location: Troy **State:** New Hampshire

bis(2-ETHYLHEXYL) PHTHALATE

Well	Source/ Tail	Number of Samples	Number of Detects	Coefficient of Variation	Mann-Kendall Statistic	Confidence in Trend	All Samples "ND" ?	Concentration Trend
TRY_MW-802	T	3	0	0.00	0	0.0%	Yes	ND
TRY_MW-803	S	2	1	0.00	0	0.0%	No	N/A
TRY_MW-804	S	3	3	0.00	0	0.0%	No	N/A
TRY_MW-805	S	3	0	0.00	0	0.0%	Yes	ND
TRY_MW-A28	T	2	2	0.00	0	0.0%	No	N/A
TRY_MW-C6S	T	1	0	0.00	0	0.0%	Yes	ND

cis-1,2-DICHLOROETHYLENE

Well	Source/ Tail	Number of Samples	Number of Detects	Coefficient of Variation	Mann-Kendall Statistic	Confidence in Trend	All Samples "ND" ?	Concentration Trend
TRY_M-1	T	2	0	0.00	0	0.0%	Yes	ND
TRY_M-2	T	10	7	1.41	-25	98.6%	No	D
TRY_M-7	T	9	0	0.18	6	69.4%	Yes	ND
TRY_M-7D	T	1	0	0.00	0	0.0%	Yes	ND
TRY_MW-101	S	11	9	0.67	-20	92.9%	No	PD
TRY_MW-102	T	5	0	1.09	1	50.0%	Yes	ND
TRY_MW-104D	T	5	0	0.25	4	75.8%	Yes	ND
TRY_MW-104S	T	10	9	0.69	-15	89.2%	No	S
TRY_MW-105D	T	3	0	0.00	0	0.0%	Yes	ND
TRY_MW-105S	T	3	0	0.00	0	0.0%	Yes	ND
TRY_MW-201M	S	10	9	0.60	31	99.8%	No	I
TRY_MW-201P	S	1	1	0.00	0	0.0%	No	N/A
TRY_MW-202P	T	2	1	0.00	0	0.0%	No	N/A
TRY_MW-204	T	9	0	0.18	8	76.2%	Yes	ND
TRY_MW-205	S	10	0	0.80	25	98.6%	Yes	ND
TRY_MW-301X	T	9	5	0.49	5	65.7%	No	NT
TRY_MW-501X	T	11	9	0.88	-50	100.0%	No	D
TRY_MW-508X	T	4	0	0.00	0	37.5%	Yes	ND
TRY_MW-601D	T	10	10	0.22	28	99.4%	No	I
TRY_MW-601S	T	10	2	0.54	-13	85.4%	No	S
TRY_MW-602B	S	9	4	1.16	-24	99.4%	No	D
TRY_MW-602S	S	9	5	1.05	-3	58.0%	No	NT
TRY_MW-701	T	8	0	0.00	0	45.2%	Yes	ND
TRY_MW-702D	T	5	0	0.00	0	40.8%	Yes	ND
TRY_MW-702SX	T	5	0	0.00	0	40.8%	Yes	ND
TRY_MW-801	T	3	0	0.00	0	0.0%	Yes	ND

MAROS Mann-Kendall Statistics Summary

Project: Troy Mills Landfill **User Name:** Tanya Justham

Location: Troy **State:** New Hampshire

Well	Source/ Tail	Number of Samples	Number of Detects	Coefficient of Variation	Mann-Kendall Statistic	Confidence in Trend	All Samples "ND" ?	Concentration Trend
cis-1,2-DICHLOROETHYLENE								
TRY_MW-802	T	3	0	0.00	0	0.0%	Yes	ND
TRY_MW-803	S	2	0	0.00	0	0.0%	Yes	ND
TRY_MW-804	S	3	0	0.00	0	0.0%	Yes	ND
TRY_MW-805	S	3	0	0.00	0	0.0%	Yes	ND
TRY_MW-A28	T	2	0	0.00	0	0.0%	Yes	ND
TRY_MW-C6S	T	1	1	0.00	0	0.0%	No	N/A
NAPHTHALENE								
TRY_M-1	T	2	2	0.00	0	0.0%	No	N/A
TRY_M-2	T	10	2	1.97	-17	92.2%	No	PD
TRY_M-7	T	9	0	0.18	6	69.4%	Yes	ND
TRY_M-7D	T	1	0	0.00	0	0.0%	Yes	ND
TRY_MW-101	S	11	11	0.51	5	61.9%	No	NT
TRY_MW-102	T	5	0	0.25	4	75.8%	Yes	ND
TRY_MW-104D	T	5	0	0.25	4	75.8%	Yes	ND
TRY_MW-104S	T	10	0	0.17	7	70.0%	Yes	ND
TRY_MW-105D	T	3	0	0.00	0	0.0%	Yes	ND
TRY_MW-105S	T	3	0	0.00	0	0.0%	Yes	ND
TRY_MW-201M	S	10	1	0.77	28	99.4%	No	I
TRY_MW-201P	S	1	0	0.00	0	0.0%	Yes	ND
TRY_MW-202P	T	2	0	0.00	0	0.0%	Yes	ND
TRY_MW-204	T	9	0	0.18	8	76.2%	Yes	ND
TRY_MW-205	S	10	10	0.43	18	93.4%	No	PI
TRY_MW-301X	T	9	0	0.18	8	76.2%	Yes	ND
TRY_MW-501X	T	11	0	0.16	10	75.3%	Yes	ND
TRY_MW-508X	T	4	0	0.00	0	37.5%	Yes	ND
TRY_MW-601D	T	10	1	0.76	11	81.0%	No	NT
TRY_MW-601S	T	10	0	0.17	9	75.8%	Yes	ND
TRY_MW-602B	S	9	5	1.03	-26	99.7%	No	D
TRY_MW-602S	S	9	5	1.58	-4	61.9%	No	NT
TRY_MW-701	T	8	0	0.00	0	45.2%	Yes	ND
TRY_MW-702D	T	5	0	0.00	0	40.8%	Yes	ND
TRY_MW-702SX	T	5	0	0.00	0	40.8%	Yes	ND
TRY_MW-801	T	3	0	0.00	0	0.0%	Yes	ND

MAROS Mann-Kendall Statistics Summary

Project: Troy Mills Landfill **User Name:** Tanya Justham

Location: Troy **State:** New Hampshire

Well	Source/ Tail	Number of Samples	Number of Detects	Coefficient of Variation	Mann-Kendall Statistic	Confidence in Trend	All Samples "ND" ?	Concentration Trend
NAPHTHALENE								
TRY_MW-802	T	3	2	0.00	0	0.0%	No	N/A
TRY_MW-803	S	2	2	0.00	0	0.0%	No	N/A
TRY_MW-804	S	3	3	0.00	0	0.0%	No	N/A
TRY_MW-805	S	3	3	0.00	0	0.0%	No	N/A
TRY_MW-A28	T	2	1	0.00	0	0.0%	No	N/A
TRY_MW-C6S	T	1	0	0.00	0	0.0%	Yes	ND
TRICHLOROETHYLENE (TCE)								
TRY_M-1	T	2	0	0.00	0	0.0%	Yes	ND
TRY_M-2	T	10	2	0.62	2	53.5%	No	NT
TRY_M-7	T	9	0	0.18	6	69.4%	Yes	ND
TRY_M-7D	T	1	0	0.00	0	0.0%	Yes	ND
TRY_MW-101	S	11	0	0.40	-4	59.0%	Yes	ND
TRY_MW-102	T	5	0	0.25	4	75.8%	Yes	ND
TRY_MW-104D	T	5	0	0.25	4	75.8%	Yes	ND
TRY_MW-104S	T	10	0	0.17	7	70.0%	Yes	ND
TRY_MW-105D	T	3	0	0.00	0	0.0%	Yes	ND
TRY_MW-105S	T	3	0	0.00	0	0.0%	Yes	ND
TRY_MW-201M	S	10	4	0.55	-11	81.0%	No	S
TRY_MW-201P	S	1	0	0.00	0	0.0%	Yes	ND
TRY_MW-202P	T	2	0	0.00	0	0.0%	Yes	ND
TRY_MW-204	T	9	0	0.18	8	76.2%	Yes	ND
TRY_MW-205	S	10	0	0.80	25	98.6%	Yes	ND
TRY_MW-301X	T	9	0	0.18	8	76.2%	Yes	ND
TRY_MW-501X	T	11	0	0.16	10	75.3%	Yes	ND
TRY_MW-508X	T	4	0	0.00	0	37.5%	Yes	ND
TRY_MW-601D	T	10	2	0.38	1	50.0%	No	NT
TRY_MW-601S	T	10	0	0.17	9	75.8%	Yes	ND
TRY_MW-602B	S	9	0	0.18	8	76.2%	Yes	ND
TRY_MW-602S	S	9	0	0.18	8	76.2%	Yes	ND
TRY_MW-701	T	8	0	0.00	0	45.2%	Yes	ND
TRY_MW-702D	T	5	0	0.00	0	40.8%	Yes	ND
TRY_MW-702SX	T	5	0	0.00	0	40.8%	Yes	ND
TRY_MW-801	T	3	0	0.00	0	0.0%	Yes	ND

MAROS Mann-Kendall Statistics Summary

Project: Troy Mills Landfill **User Name:** Tanya Justham

Location: Troy **State:** New Hampshire

TRICHLOROETHYLENE (TCE)

Well	Source/ Tail	Number of Samples	Number of Detects	Coefficient of Variation	Mann-Kendall Statistic	Confidence in Trend	All Samples "ND" ?	Concentration Trend
TRY_MW-802	T	3	0	0.00	0	0.0%	Yes	ND
TRY_MW-803	S	2	0	0.00	0	0.0%	Yes	ND
TRY_MW-804	S	3	0	0.00	0	0.0%	Yes	ND
TRY_MW-805	S	3	0	0.00	0	0.0%	Yes	ND
TRY_MW-A28	T	2	0	0.00	0	0.0%	Yes	ND
TRY_MW-C6S	T	1	0	0.00	0	0.0%	Yes	ND

Note: Increasing (I); Probably Increasing (PI); Stable (S); Probably Decreasing (PD); Decreasing (D); No Trend (NT); Not Applicable (N/A)-Due to insufficient Data (< 4 sampling events); Source/Tail (S/T)

The Number of Samples and Number of Detects shown above are post-consolidation values.

MAROS Mann-Kendall Statistics Summary

Project: Troy Mills Landfill   **User Name:** Tanya Justham

Location: Troy   **State:** New Hampshire

Time Period: 8/1/2004 **to** 11/1/2014
Consolidation Period: No Time Consolidation
Consolidation Type: Maximum
Duplicate Consolidation: Maximum
ND Values: 1/2 Detection Limit
J Flag Values : Actual Value

Well	Source/ Tail	Number of Samples	Number of Detects	Coefficient of Variation	Mann-Kendall Statistic	Confidence in Trend	All Samples "ND" ?	Concentration Trend
MANGANESE								
TRY_M-1	T	2	2	0.00	0	0.0%	No	N/A
TRY_M-2	T	9	9	0.33	-26	99.7%	No	D
TRY_M-7	T	11	11	0.48	-3	56.0%	No	S
TRY_M-7D	T	1	1	0.00	0	0.0%	No	N/A
TRY_MW-101	S	10	10	0.16	17	92.2%	No	PI
TRY_MW-102	T	5	5	0.59	6	88.3%	No	NT
TRY_MW-104D	T	5	5	0.48	0	40.8%	No	S
TRY_MW-104S	T	9	9	0.31	-10	82.1%	No	S
TRY_MW-105D	T	3	3	0.00	0	0.0%	No	N/A
TRY_MW-105S	T	3	3	0.00	0	0.0%	No	N/A
TRY_MW-201M	S	9	9	0.21	32	100.0%	No	I
TRY_MW-201P	S	1	1	0.00	0	0.0%	No	N/A
TRY_MW-202P	T	2	2	0.00	0	0.0%	No	N/A
TRY_MW-204	T	9	9	0.26	-19	97.0%	No	D
TRY_MW-205	S	10	10	0.16	8	72.9%	No	NT
TRY_MW-301X	T	9	9	0.64	-16	94.0%	No	PD
TRY_MW-501X	T	11	11	0.52	-39	99.9%	No	D
TRY_MW-508X	T	4	4	1.27	0	37.5%	No	NT
TRY_MW-601D	T	10	10	0.17	33	99.9%	No	I
TRY_MW-601S	T	10	10	0.35	-7	70.0%	No	S
TRY_MW-602B	S	9	9	0.13	-22	98.8%	No	D
TRY_MW-602S	S	9	9	0.81	-14	91.0%	No	PD
TRY_MW-701	T	9	9	0.29	-20	97.8%	No	D
TRY_MW-702D	T	6	2	2.04	3	64.0%	No	NT
TRY_MW-702SX	T	6	6	1.29	-15	99.9%	No	D
TRY_MW-801	T	3	3	0.00	0	0.0%	No	N/A

MAROS Mann-Kendall Statistics Summary

Project: Troy Mills Landfill

User Name: Tanya Justham

Location: Troy

State: New Hampshire

MANGANESE

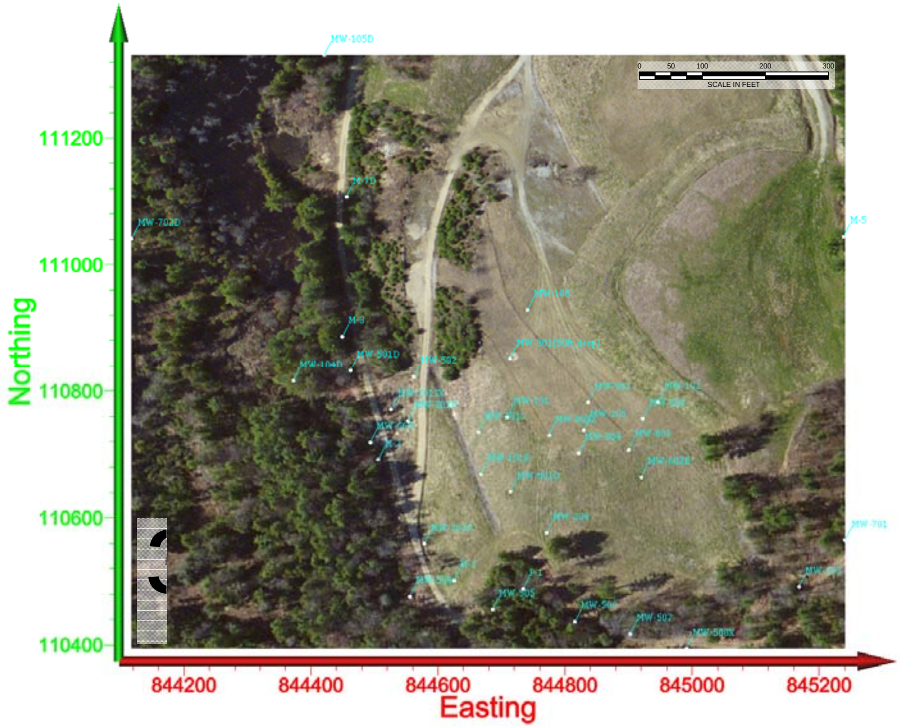
Well	Source/ Tail	Number of Samples	Number of Detects	Coefficient of Variation	Mann-Kendall Statistic	Confidence in Trend	All Samples "ND" ?	Concentration Trend
TRY_MW-802	T	3	3	0.00	0	0.0%	No	N/A
TRY_MW-803	S	2	2	0.00	0	0.0%	No	N/A
TRY_MW-804	S	3	3	0.00	0	0.0%	No	N/A
TRY_MW-805	S	3	3	0.00	0	0.0%	No	N/A
TRY_MW-A28	T	2	2	0.00	0	0.0%	No	N/A
TRY_MW-C6S	T	1	1	0.00	0	0.0%	No	N/A

Note: Increasing (I); Probably Increasing (PI); Stable (S); Probably Decreasing (PD); Decreasing (D); No Trend (NT); Not Applicable (N/A)-Due to insufficient Data (< 4 sampling events); Source/Tail (S/T)

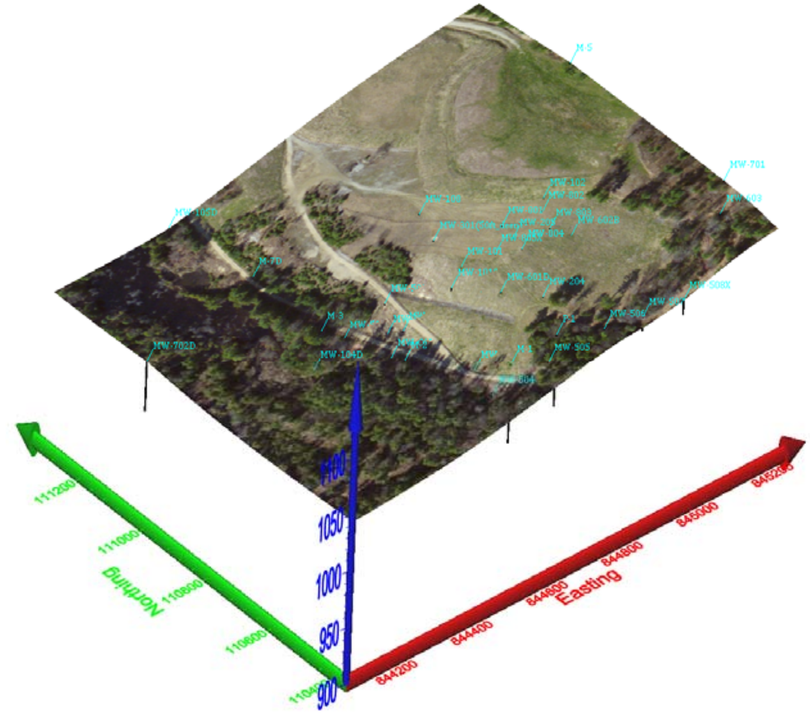
The Number of Samples and Number of Detects shown above are post-consolidation values.

APPENDIX H

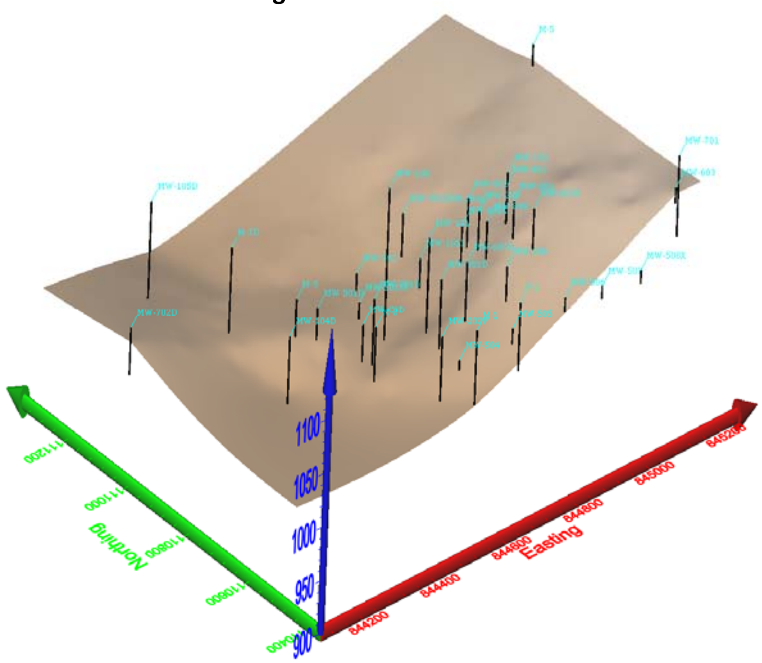
NATURAL ATTENUATION CONDITIONS



Monitoring Well Locations – Plan View



Monitoring Well Locations – Oblique View



Monitoring Well Locations and Bedrock Surface – Plan View

Notes Applicable to Appendix H Figures:

1) THE FIGURES PROVIDED IN THIS APPENDIX CONTAIN INFORMATION DERIVED FROM THE ESRI ArcGIS ONLINE WORLD IMAGERY SERVICE, PUBLISHED DECEMBER 12, 2009 BY ESRI ARCIMS SERVICES AND UPDATED OFTEN. THIS SERVICE USES UNIFORM NATIONALLY RECOGNIZED DATUM AND CARTOGRAPHY STANDARDS AND A VARIETY OF AVAILABLE SOURCES FROM SEVERAL DATA PROVIDERS. esri

2) THE PROVIDED SCALE IS APPROXIMATE. NORTHING AND EASTING COORDINATES INDICATED ON AXES ARE PROVIDED IN UNITS OF FEET BASED ON THE NEW HAMPSHIRE STATE PLANE COORDINATE SYSTEM REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD83). VERTICAL COORDINATES ARE PROVIDED IN UNITS OF FEET REFERENCED TO THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD29).

3) THE LOCATION AND ELEVATIONS OF THE BORINGS, CORINGS, TEST PITS, SAMPLING LOCATIONS, SELECTED SITE FEATURES, EXPLORATIONS WERE APPROXIMATELY DETERMINED BY SURVEY, GPS, TAPE MEASUREMENTS, LINE OF SIGHT, PACING, LEVEL SURVEY FROM EXISTING TOPOGRAPHIC AND MAN-MADE FEATURES. THIS DATA SHOULD BE CONSIDERED ACCURATE ONLY TO THE DEGREE IMPLIED BY THE METHOD USED.

4) ISOSURFACES SHOWN IN THIS APPENDIX WERE GENERATED FROM THREE-DIMENSIONAL MATRICES CALCULATED USING AN ANISOTROPIC INVERSE DISTANCE INTERPOLATION SCHEME. THE ISOSURFACES BOUND, IN THREE DIMENSIONS, ZONES INTERPRETED TO BE ABOVE OR BELOW (AS INDICATED) A SPECIFIED THRESHOLD VALUE (i.e., SPECIFIED AQUEOUS CONCENTRATION, ORP, etc.). INPUT PARAMETERS, INCLUDING DEFINITIONS OF ANISTROPY FACTORS, MAY VARY BY COMPOUND AND SAMPLING DATE. EXACT AGREEMENT BETWEEN ISOVOLUME BOUNDS AND SPECIFIC OBSERVATIONS

5) CONCENTRATION THRESHOLDS USED TO GENERATE ISOSURFACES ARE NOT REFLECTIVE OF REGULATORY THRESHOLDS (i.e., ROD ICL or AGQS CONCENTRATIONS) AND DO NOT REFLECT ASSUMPTIONS WITH RESPECT TO HAZARD LEVELS. THRESHOLDS VARY BY COC/INDICATOR COMPOUND AND SAMPLING DATE AND ARE APPLIED FOR DATA DEMONSTRATION PURPOSES ONLY.

Figure H-1: Geospatial Data Model Overview and Summary of Notes Applicable to Appendix H Figures

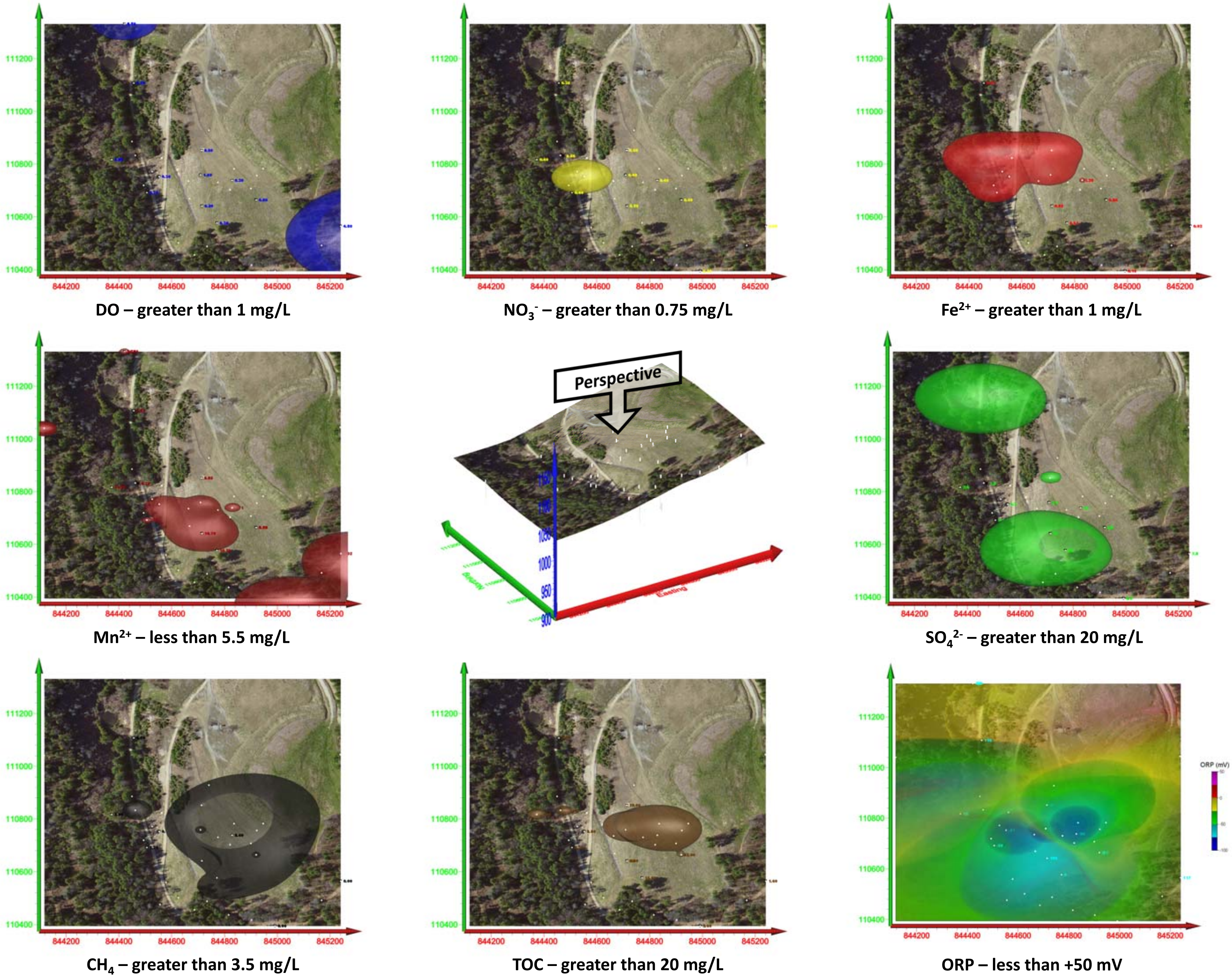
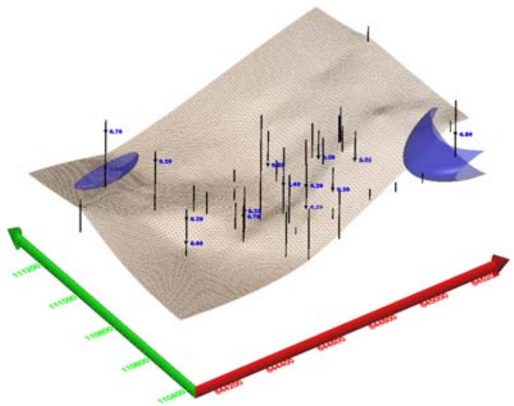
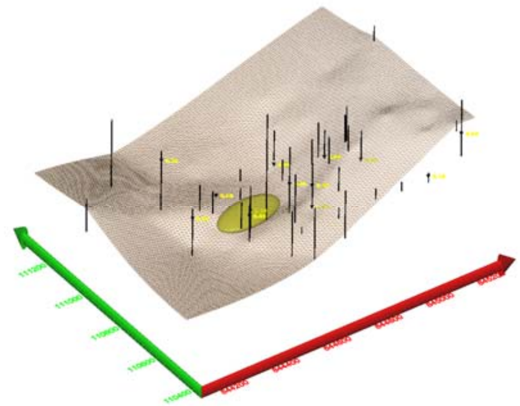


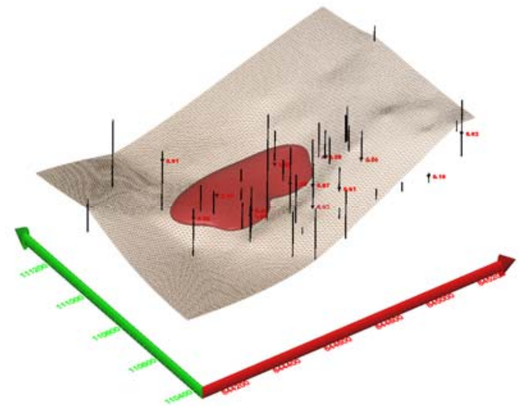
Figure H-2: MNA Indicator Parameters in Plan View – October 2009 (Refer to Figure H-1 for Applicable Notes)



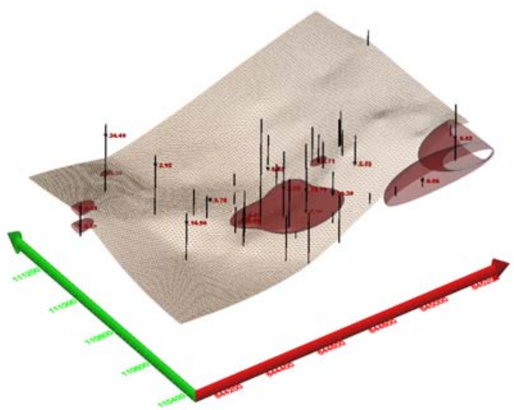
DO – greater than 1 mg/L



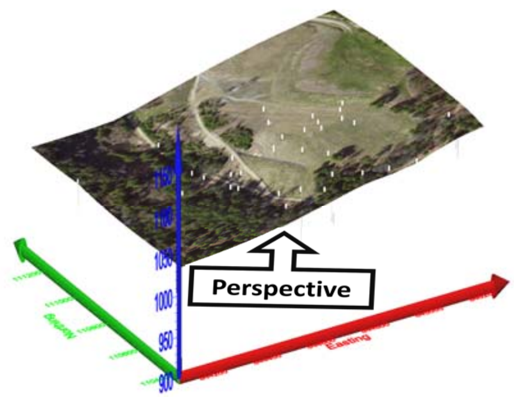
NO_3^- – greater than 0.75 mg/L

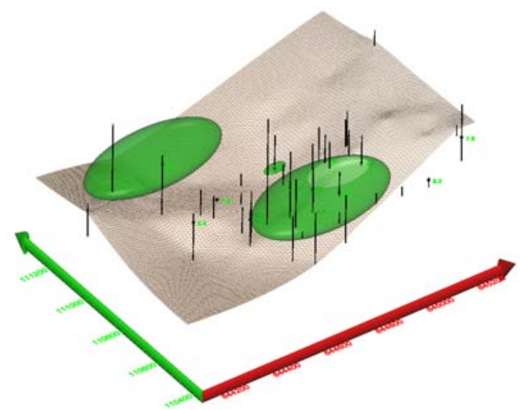


Fe^{2+} – greater than 1 mg/L

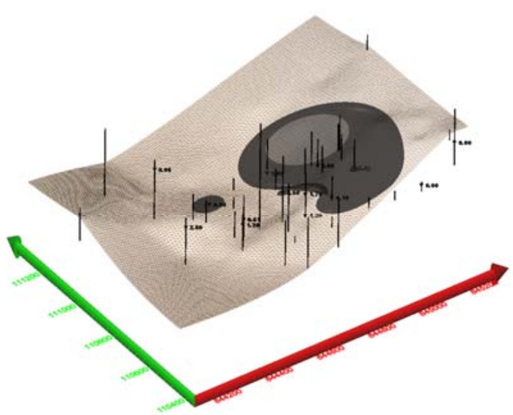


Mn^{2+} – less than 5.5 mg/L

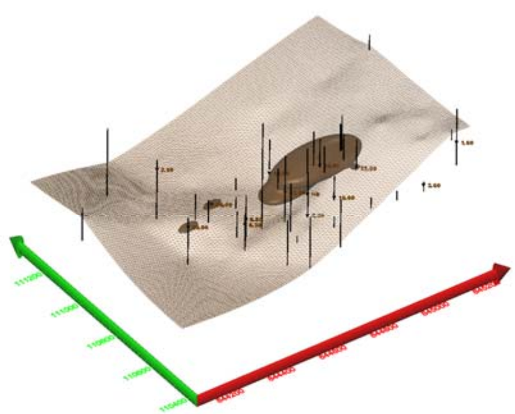




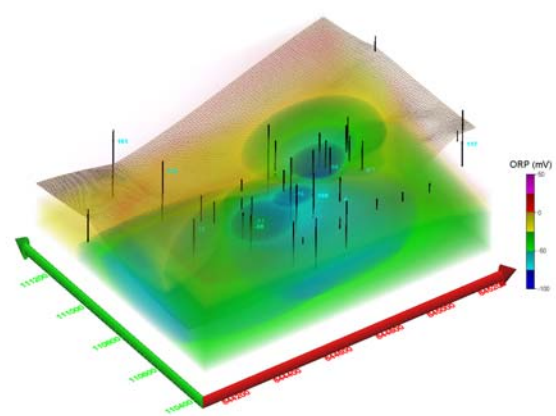
SO_4^{2-} – greater than 20 mg/L



CH_4 – greater than 3.5 mg/L



TOC – greater than 20 mg/L



ORP – less than +50 mV

Figure H-3: MNA Indicator Parameters in Oblique View – October 2009 (Refer to Figure H-1 for Applicable Notes)

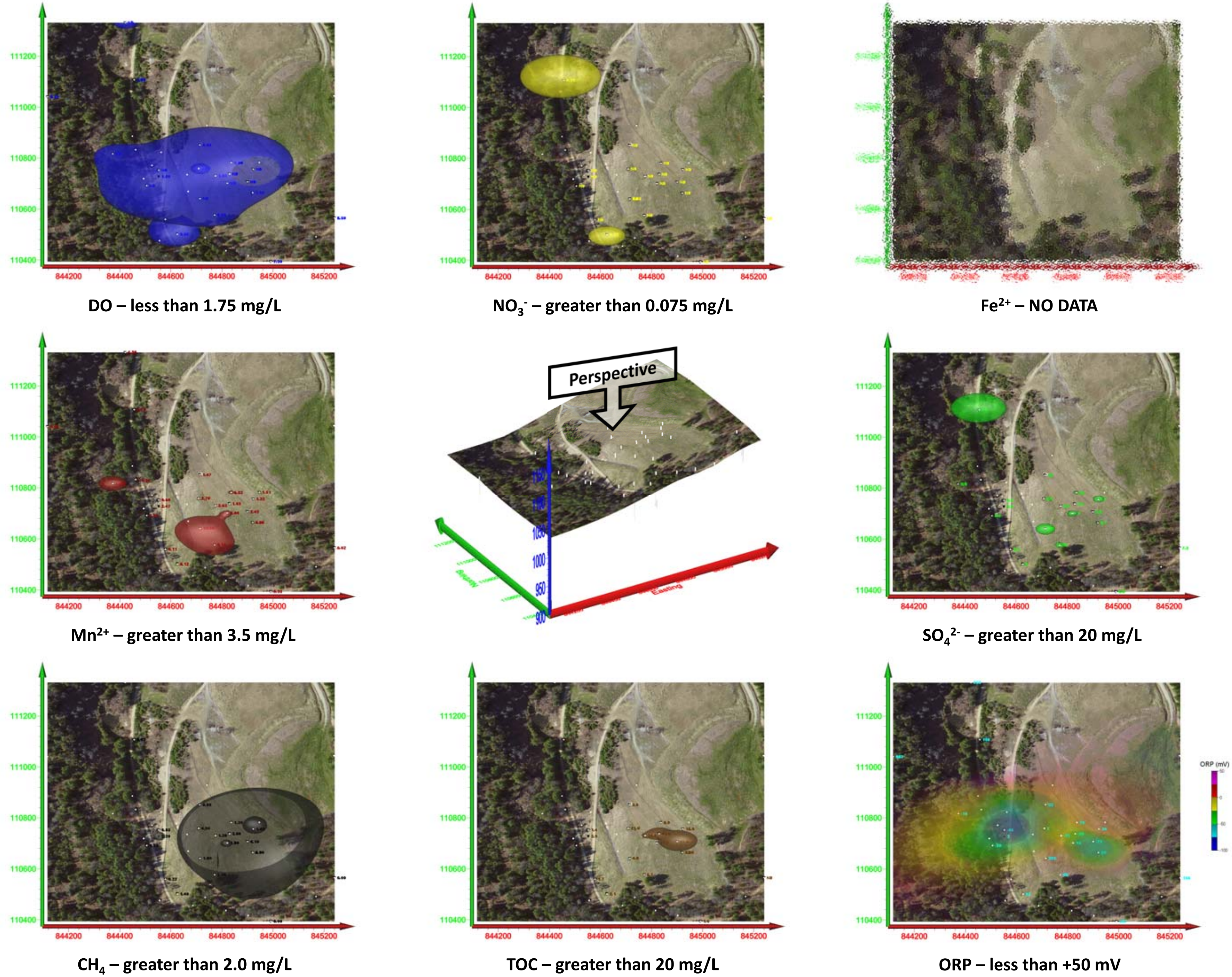


Figure H-4: MNA Indicator Parameters in Plan View – June 2011 (Refer to Figure H-1 for Applicable Notes)

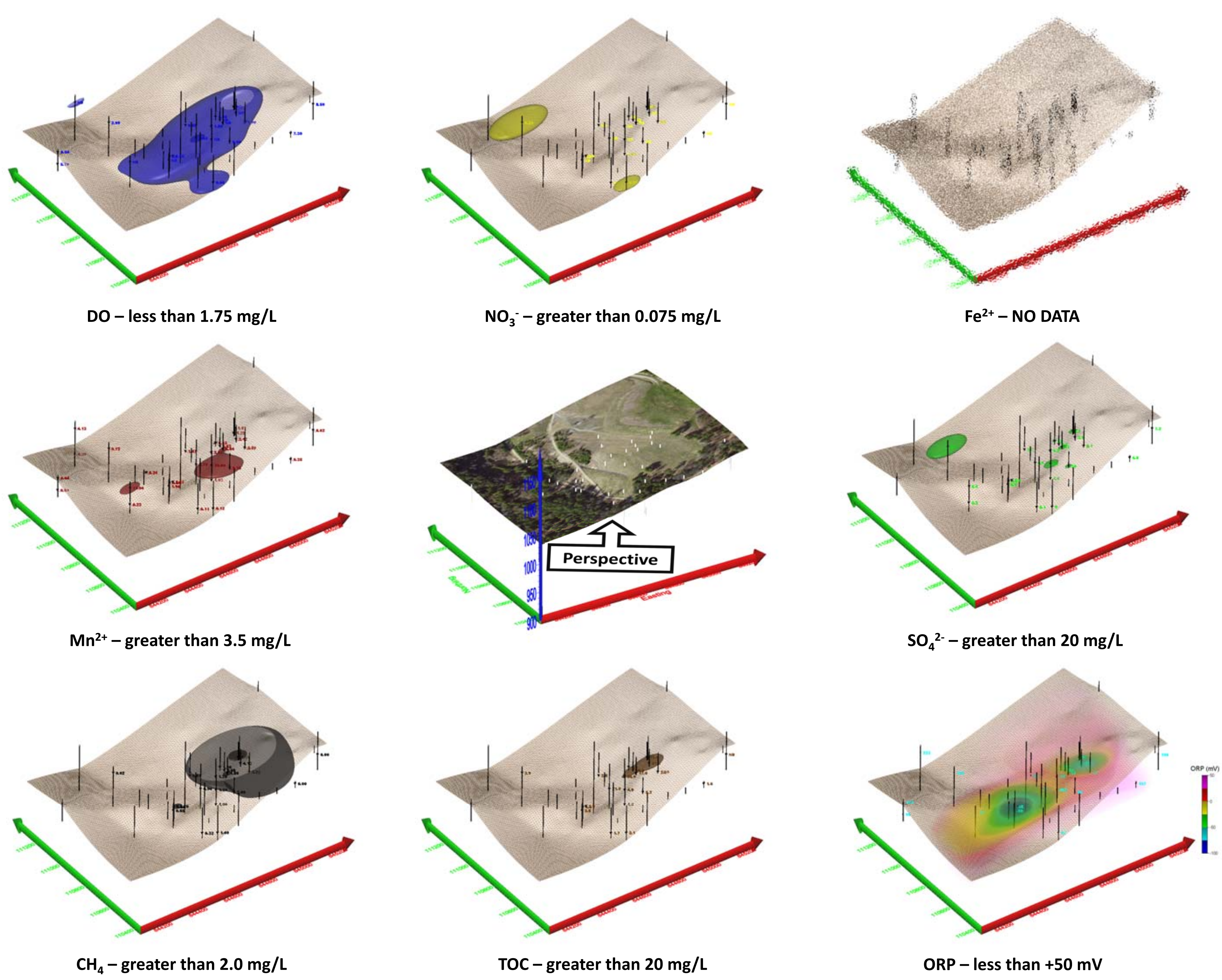


Figure H-5: MNA Indicator Parameters in Oblique View – June 2011 (Refer to Figure H-1 for Applicable Notes)

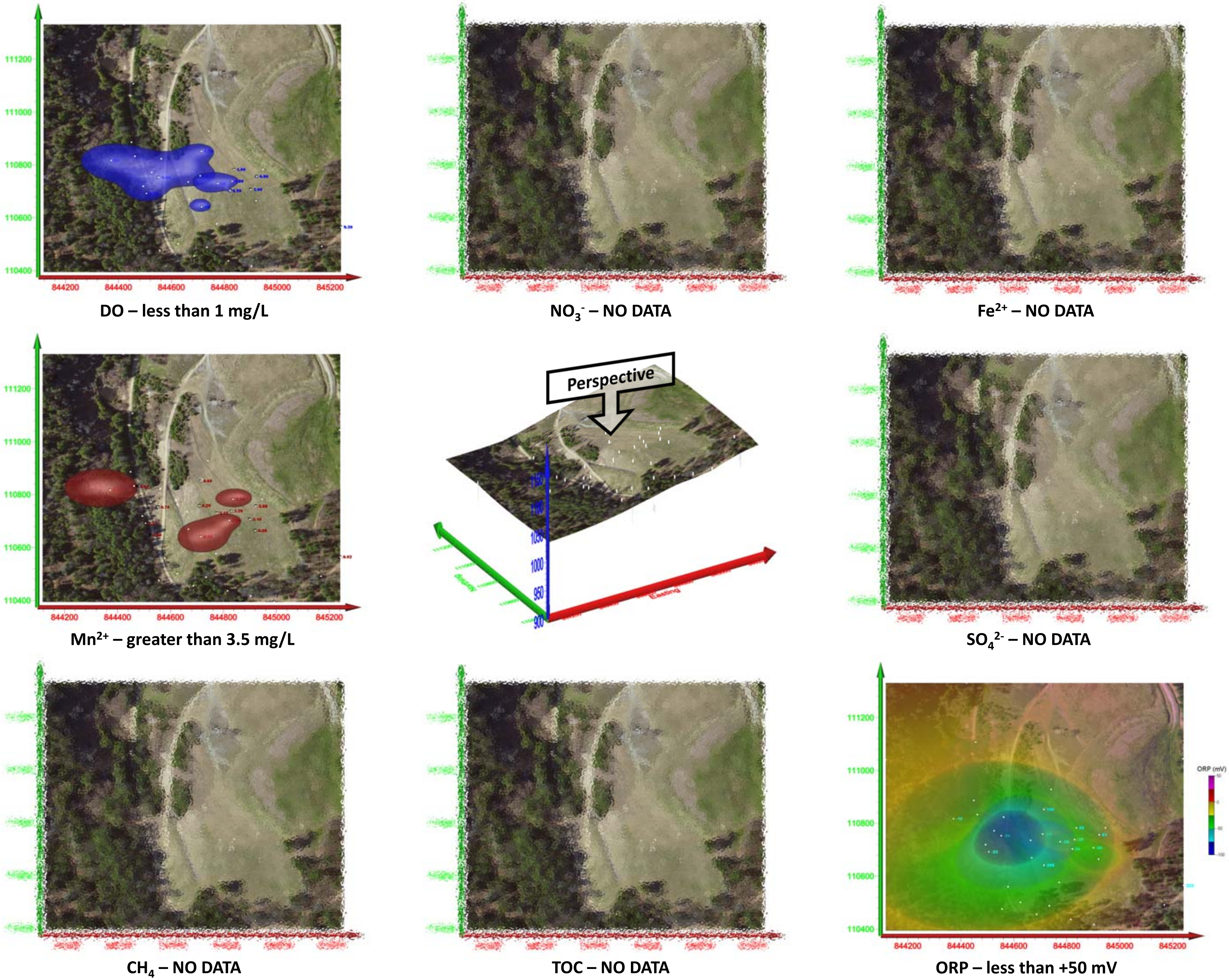
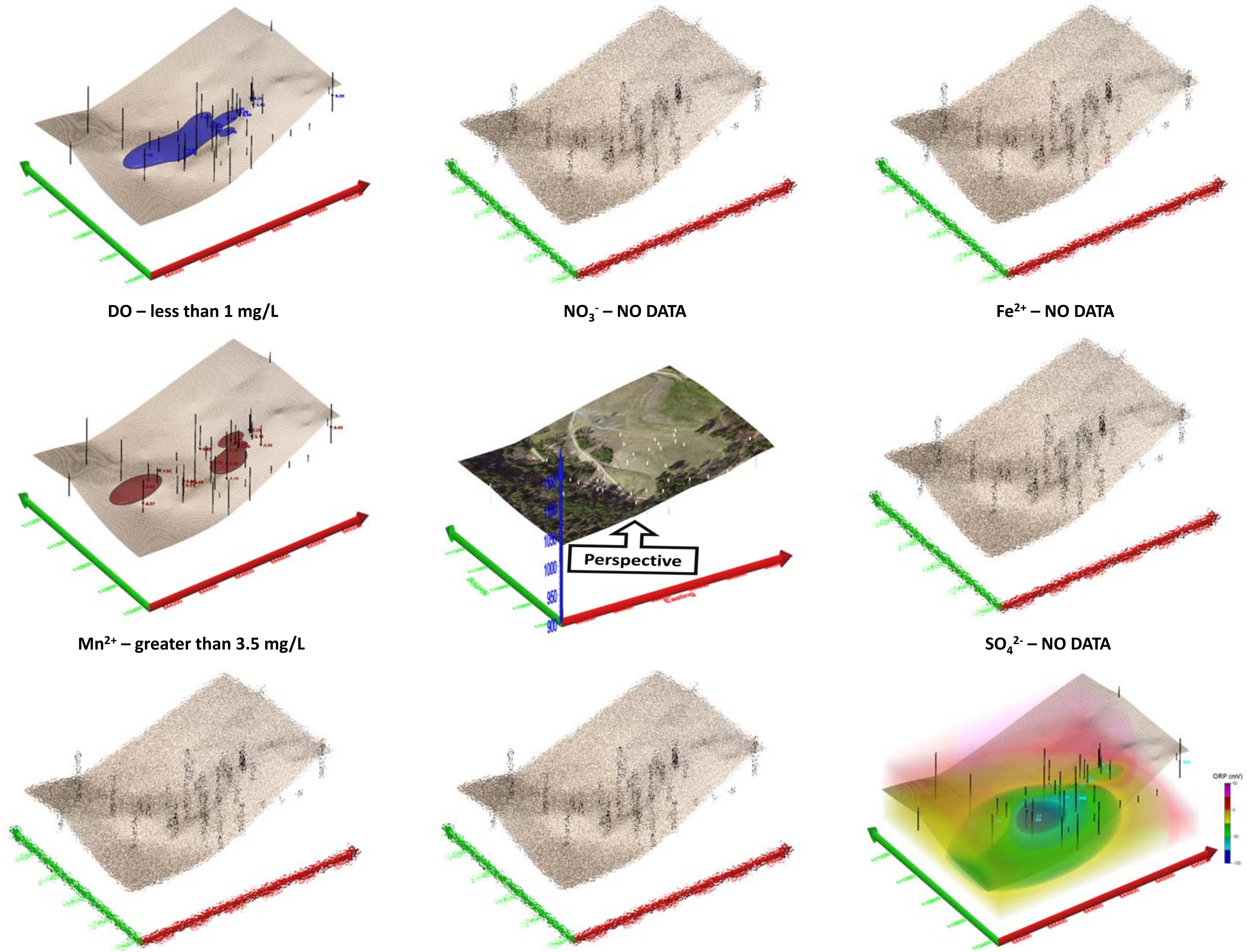


Figure H-6: MNA Indicator Parameters in Plan View – June 2013 (Refer to Figure H-1 for Applicable Notes)



DO – less than 1 mg/L

NO_3^- – NO DATA

Fe^{2+} – NO DATA

Mn^{2+} – greater than 3.5 mg/L

SO_4^{2-} – NO DATA

CH_4 – NO DATA

TOC – NO DATA

ORP – less than +50 mV

Figure H-7: MNA Indicator Parameters in Oblique View – June 2013 (Refer to Figure H-1 for Applicable Notes)

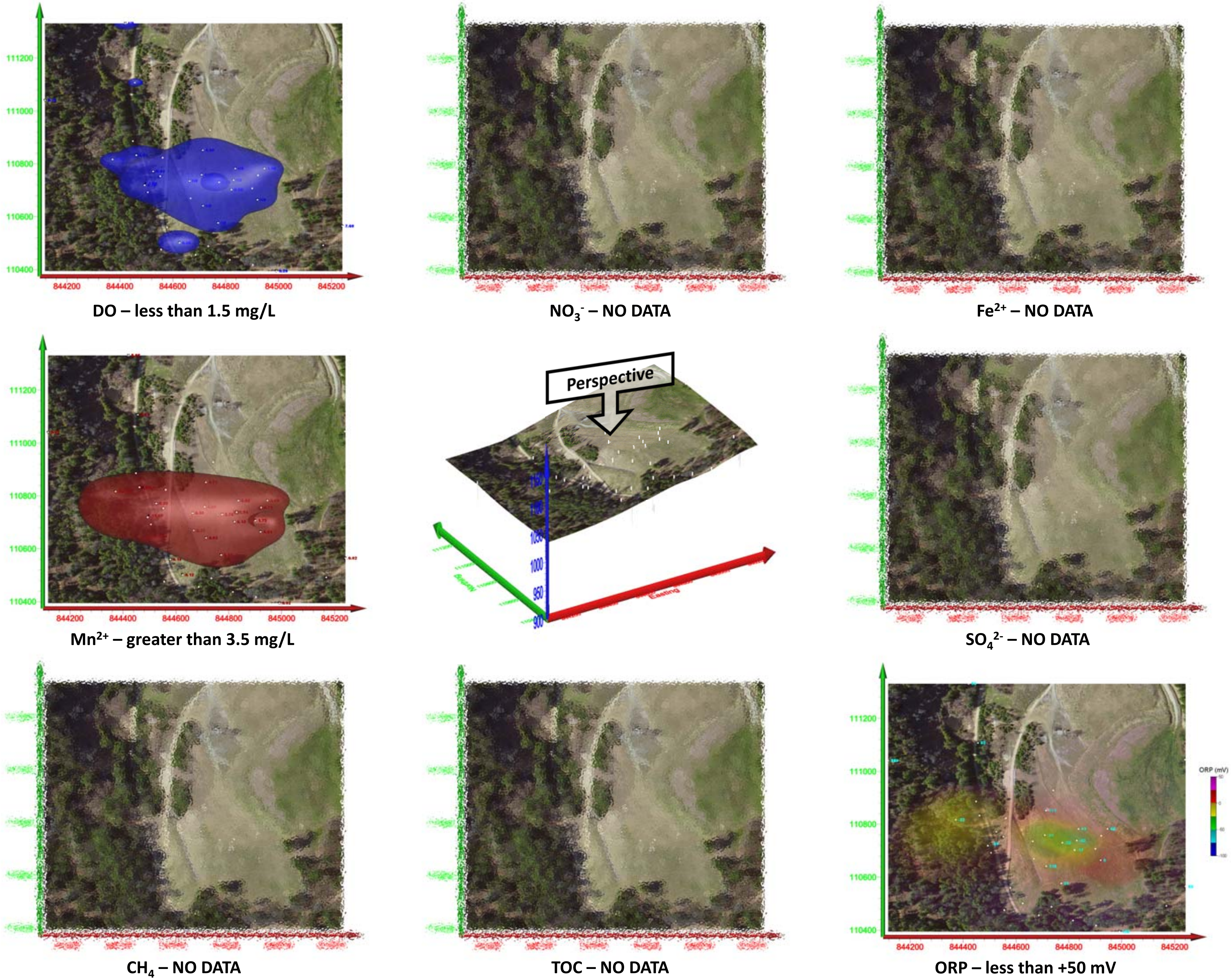


Figure H-8: MNA Indicator Parameters in Plan View – November 2014 and June 2015 (Refer to Figure H-1 for Applicable Notes)

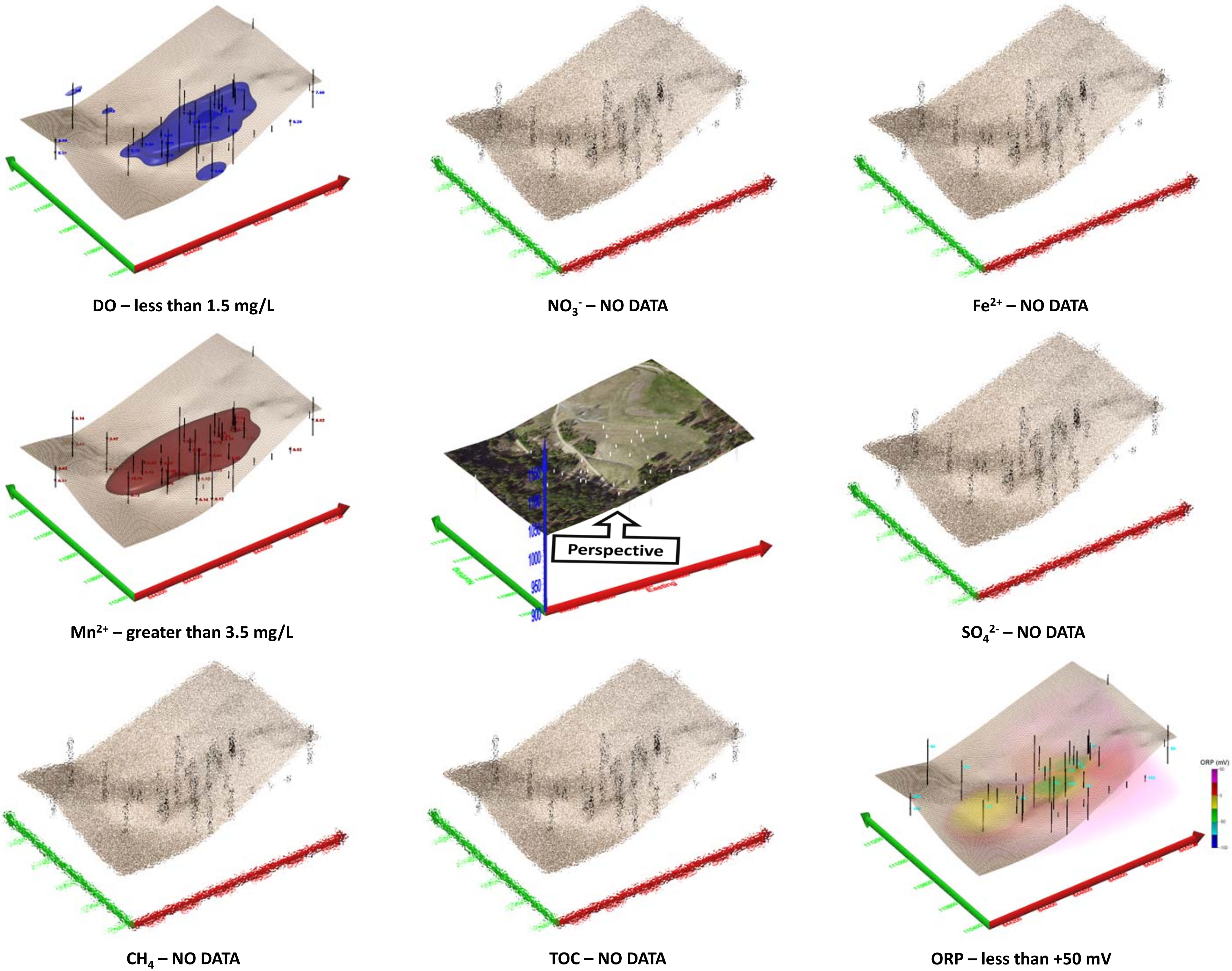
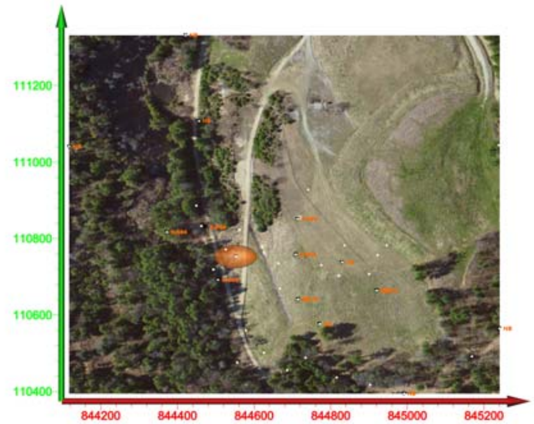


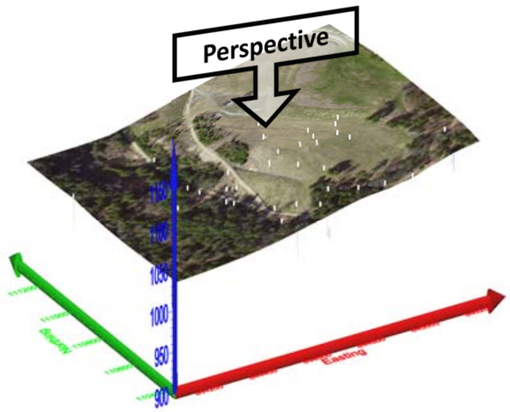
Figure H-9: MNA Indicator Parameters in Oblique View – November 2014 and June 2015 (Refer to Figure H-1 for Applicable Notes)

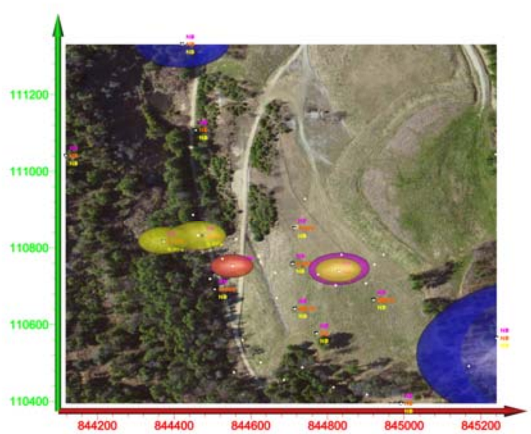
TCE – greater than 2.5 µg/L



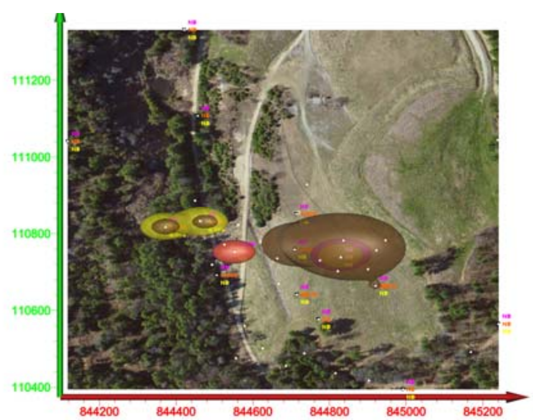
Cis-DCE – greater than 70 µg/L

VC – greater than 2.0 µg/L

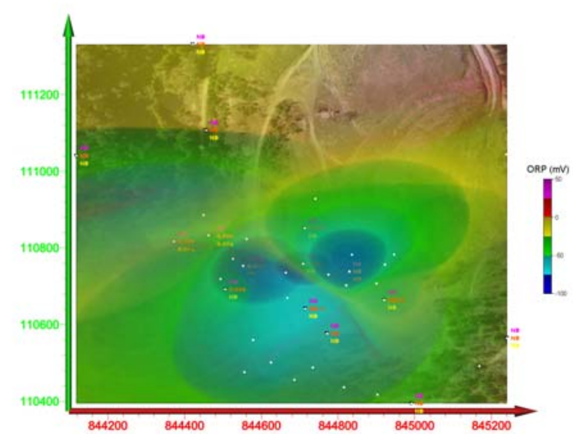




cVOCs and DO – greater than 1 mg/L

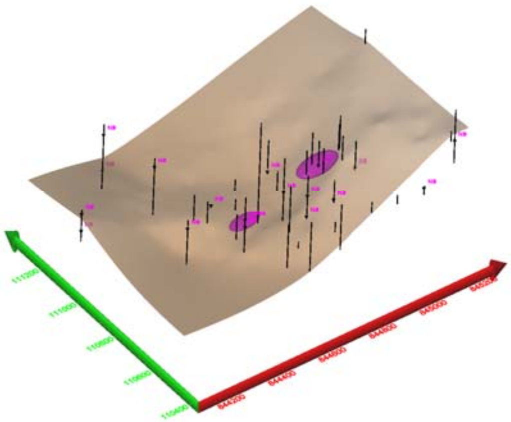


cVOCs and TOC – greater than 20 mg/L

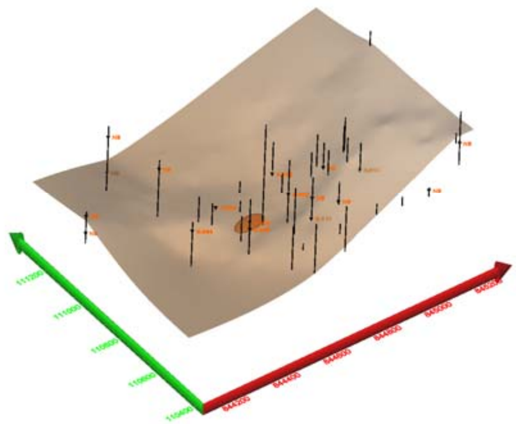


cVOCs and ORP – less than +50 mV

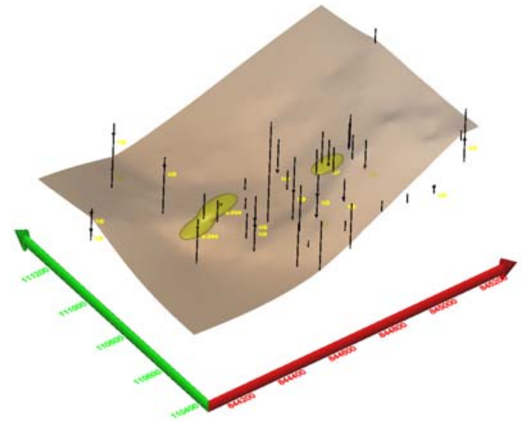
Figure H-10: CVOCs in Plan View – October 2009 (Refer to Figure H-1 for Applicable Notes)



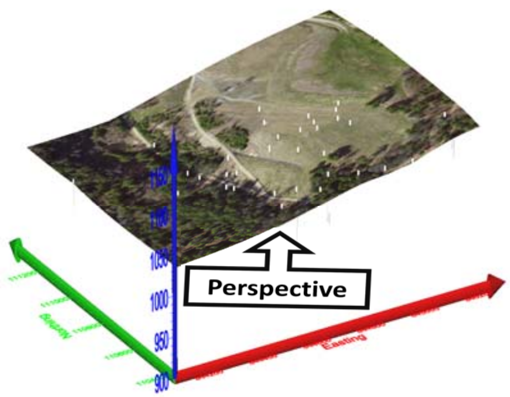
TCE – greater than 2.5 µg/L

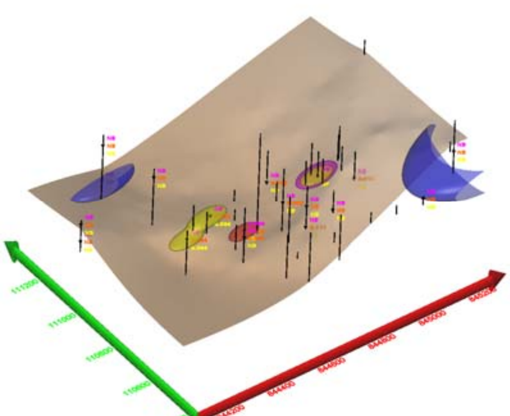


Cis-DCE – greater than 70 µg/L

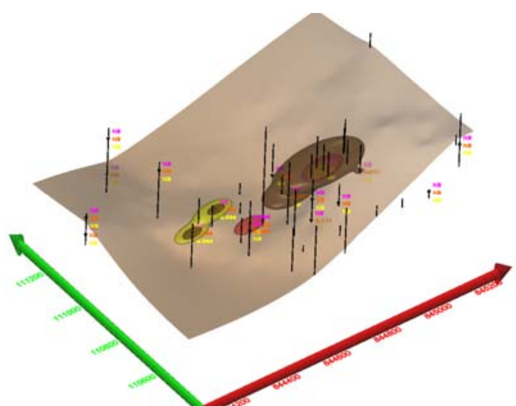


VC – greater than 2.0 µg/L

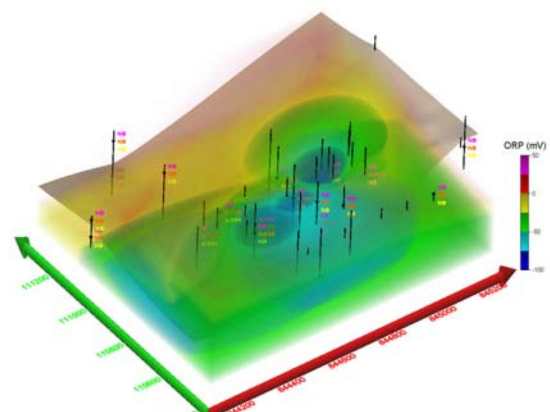




cVOCs and DO – greater than 1 mg/L



cVOCs and TOC – greater than 20 mg/L



cVOCs and ORP – less than +50 mV

Figure H-11: CVOCs in Oblique View – October 2009 (Refer to Figure H-1 for Applicable Notes)

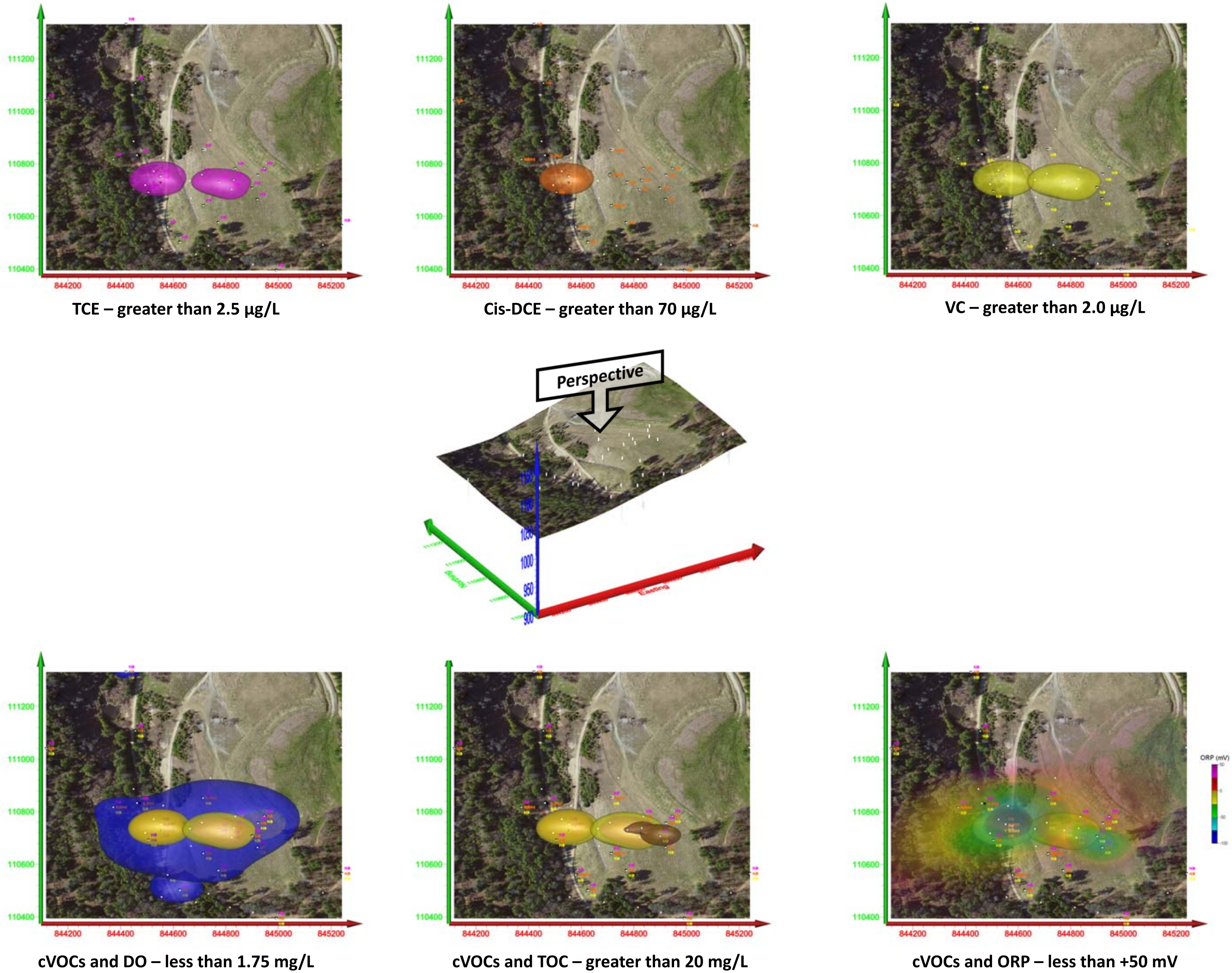
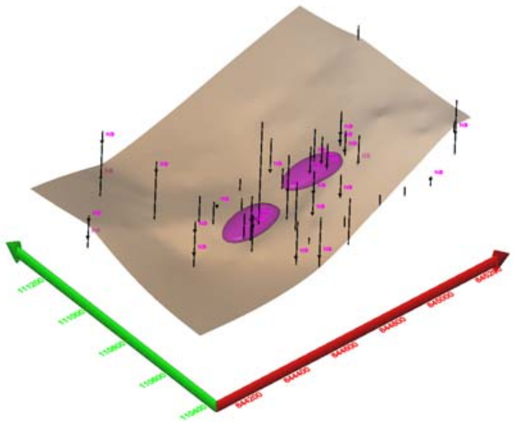
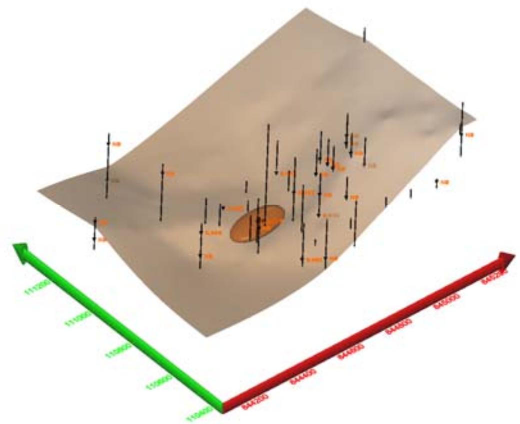


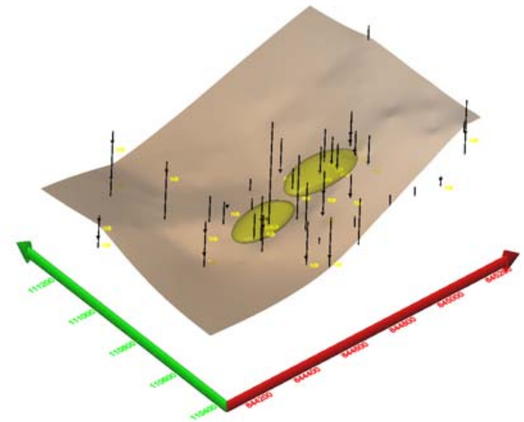
Figure H-12: CVOCs in Plan View – June 2011 (Refer to Figure H-1 for Applicable Notes)



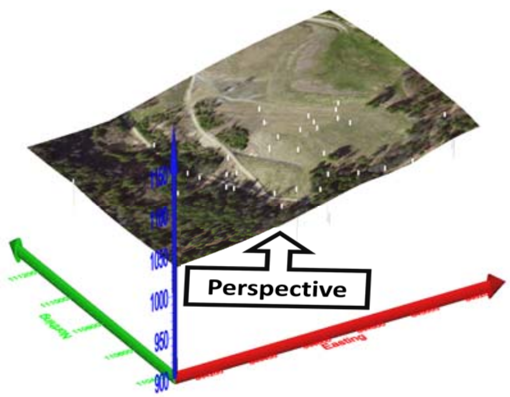
TCE – greater than 2.5 µg/L

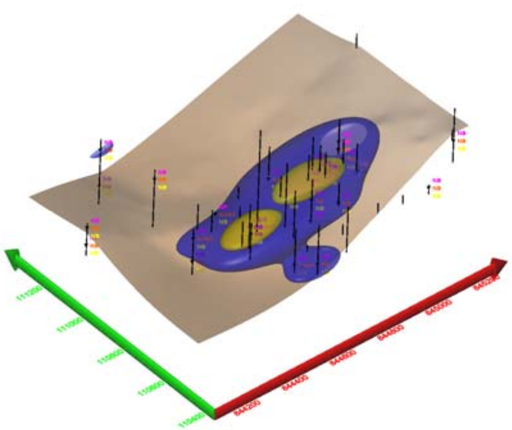


Cis-DCE – greater than 70 µg/L

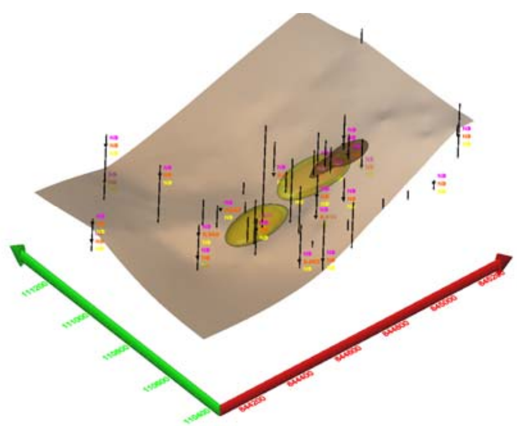


VC – greater than 2.0 µg/L

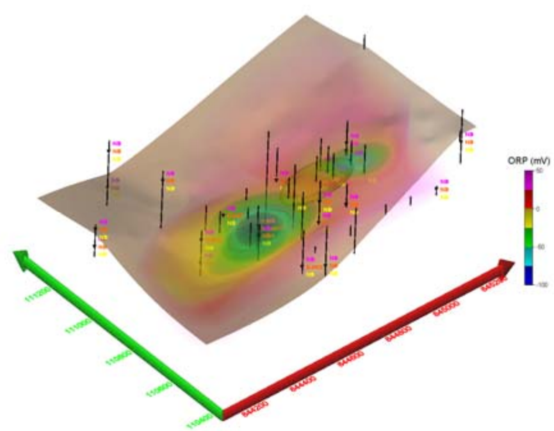




cVOCs and DO – less than 1.75 mg/L

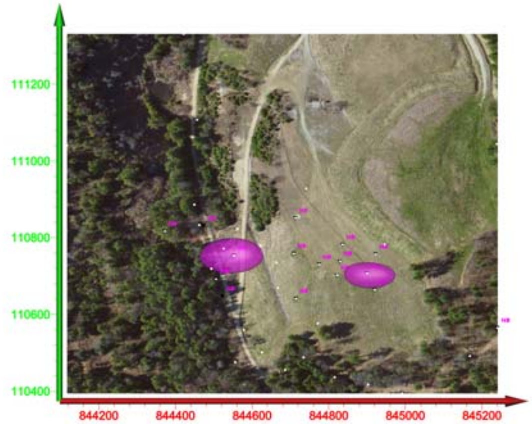


cVOCs and TOC – greater than 20 mg/L



cVOCs and ORP – less than +50 mV

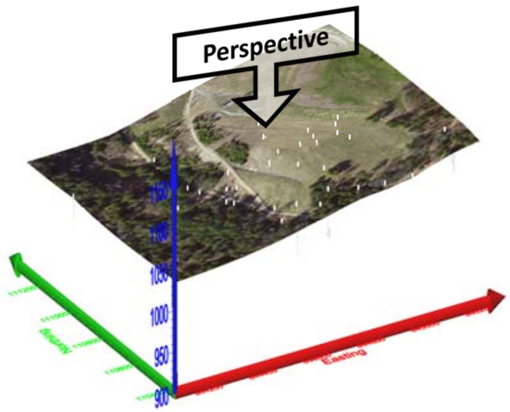
Figure H-13: CVOCs in Oblique View – June 2011 (Refer to Figure H-1 for Applicable Notes)

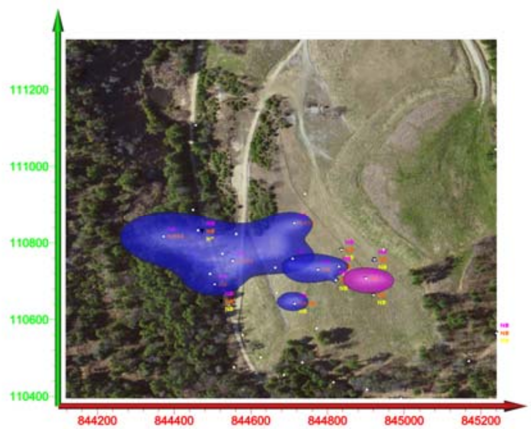


TCE – greater than 2.5 µg/L

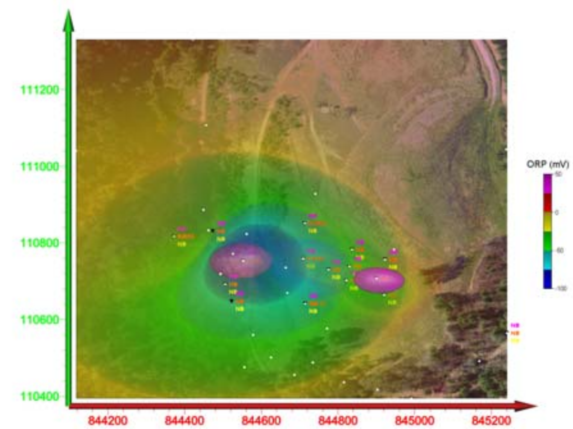
Cis-DCE – greater than 70 µg/L

VC – greater than 2.0 µg/L



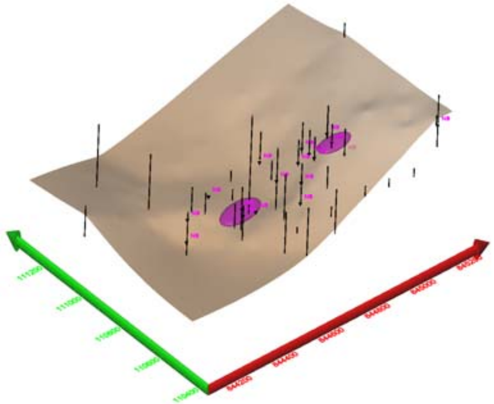


cVOCs and DO – less than 1 mg/L

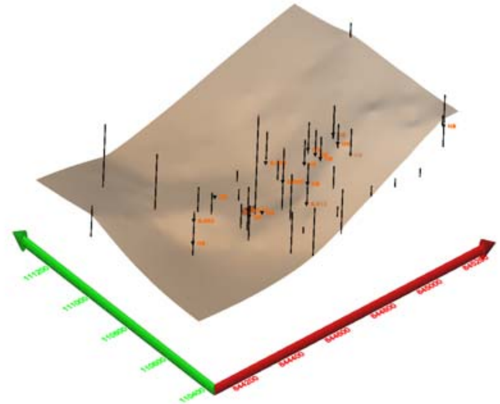


cVOCs and ORP – less than +50 mV

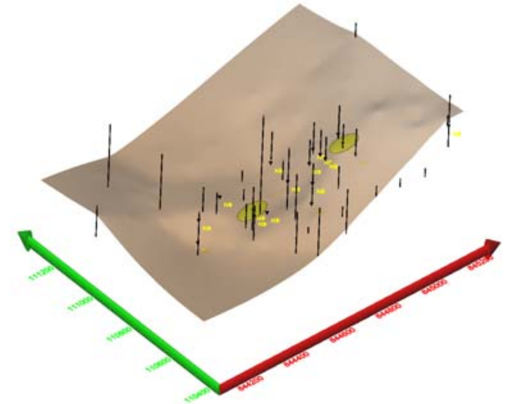
Figure H-14: CVOCs in Plan View – June 2013 (Refer to Figure H-1 for Applicable Notes)



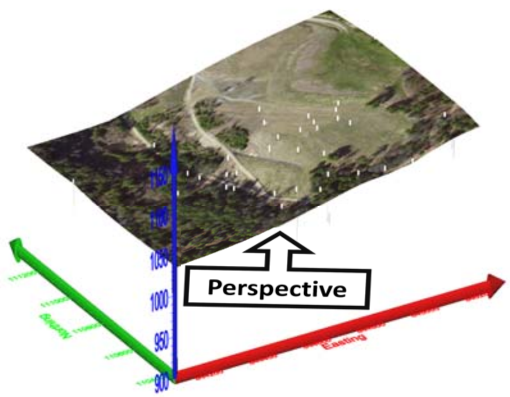
TCE – greater than 2.5 µg/L

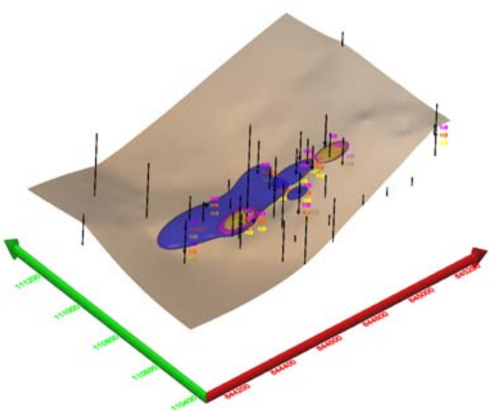


Cis-DCE – greater than 70 µg/L

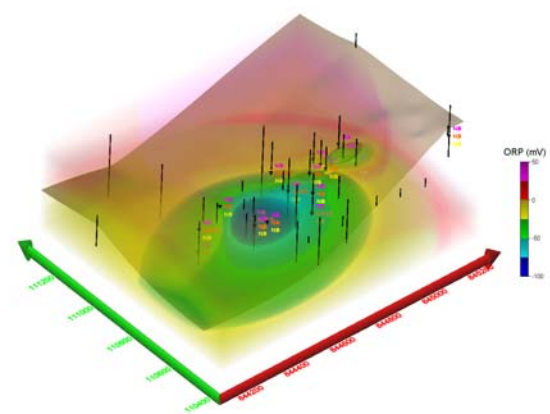


VC – greater than 2.0 µg/L



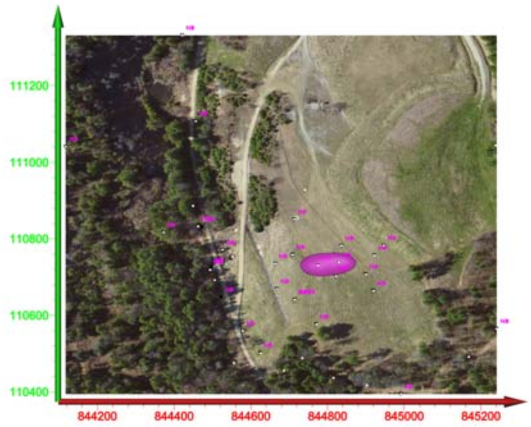


cVOCs and DO – less than 1 mg/L



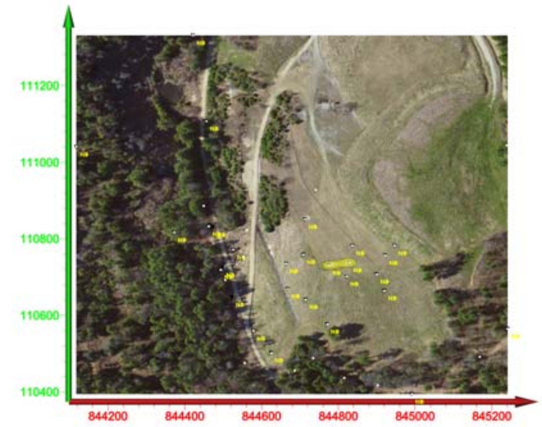
cVOCs and ORP – less than +50 mV

Figure H-15: CVOCs in Oblique View – June 2013 (Refer to Figure H-1 for Applicable Notes)

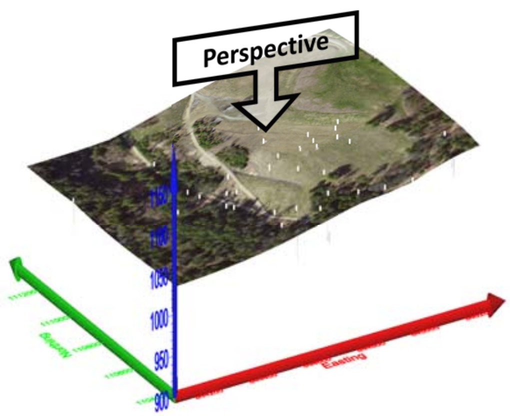


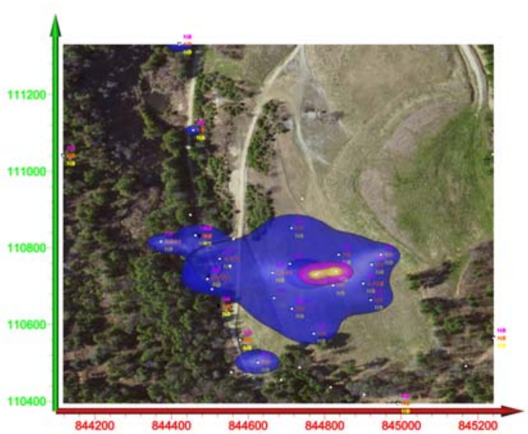
TCE – greater than 2.5 µg/L

Cis-DCE – greater than 70 µg/L



VC – greater than 2.0 µg/L

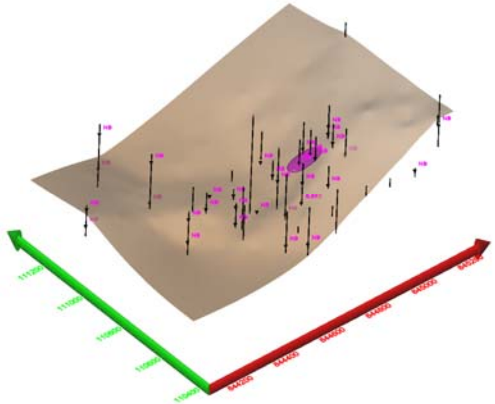




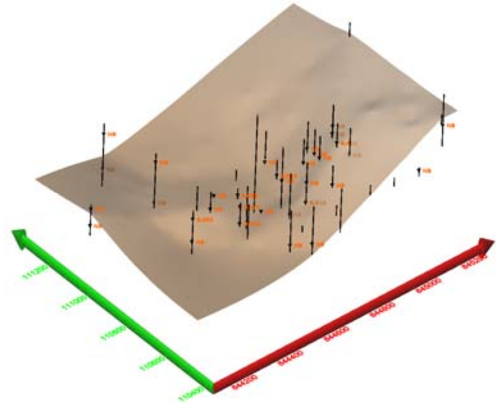
cVOCs and DO – less than 1.5 mg/L

cVOCs and ORP – less than +50 mV

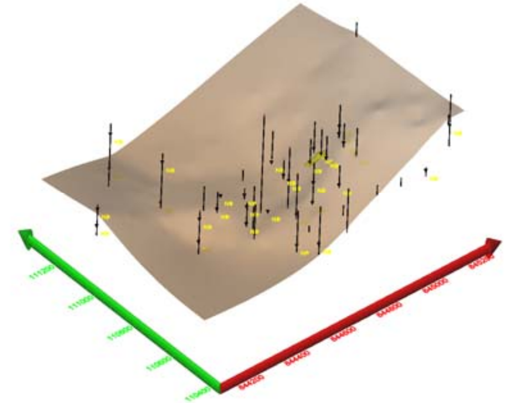
Figure H-16: CVOCs in Plan View – November 2014 and June 2015 (Refer to Figure H-1 for Applicable Notes)



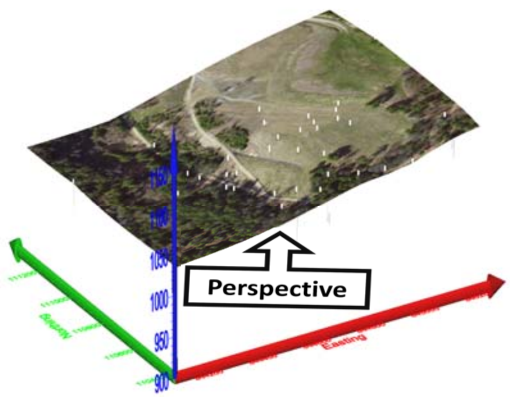
TCE – greater than 2.5 µg/L

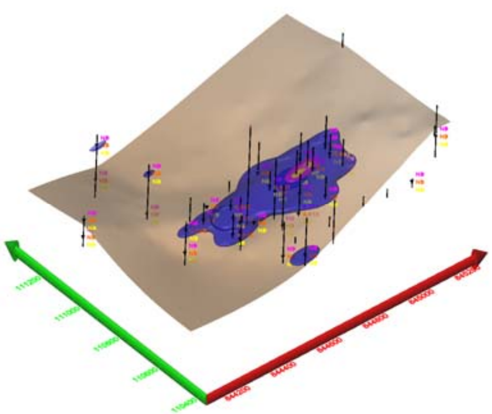


Cis-DCE – greater than 70 µg/L

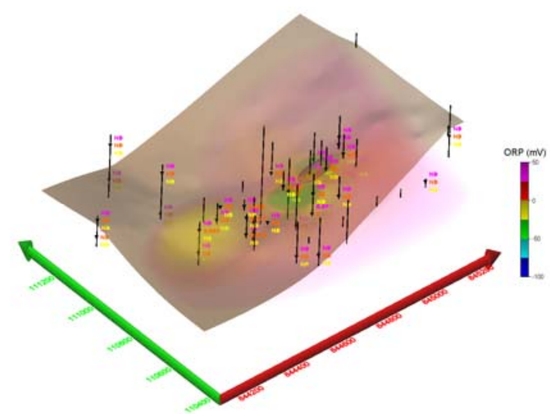


VC – greater than 2.0 µg/L





cVOCs and DO – less than 1.5 mg/L



cVOCs and ORP – less than +50 mV

Figure H-17: CVOCs in Oblique View – November 2014 and June 2015 (Refer to Figure H-1 for Applicable Notes)

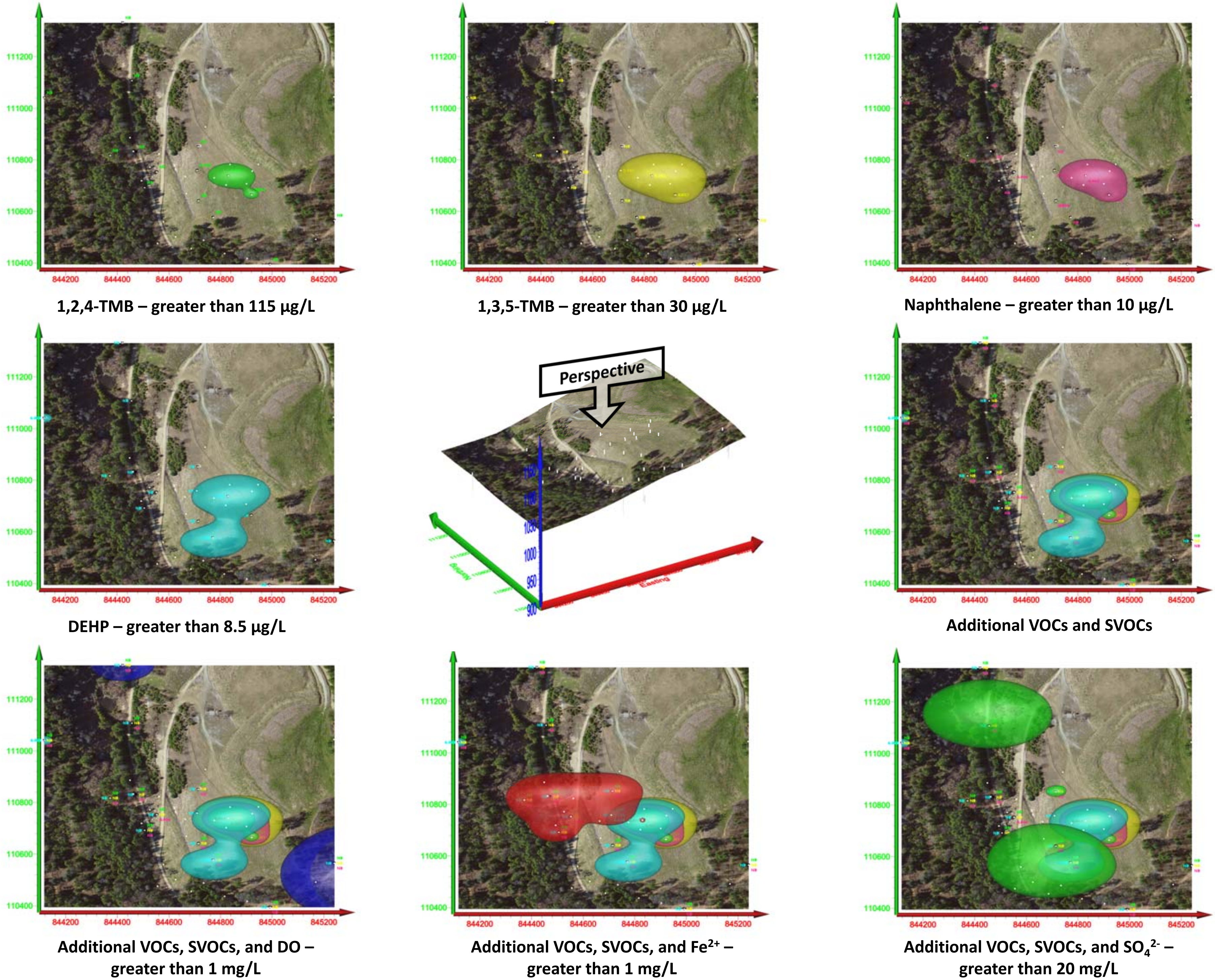
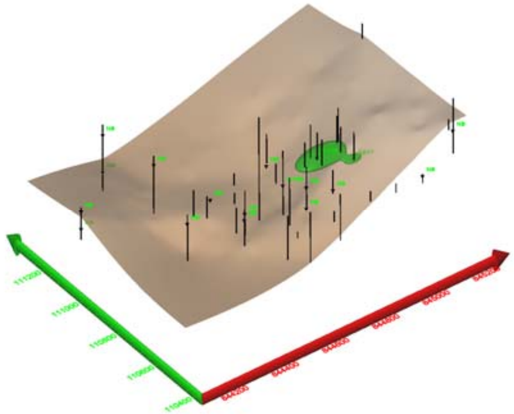
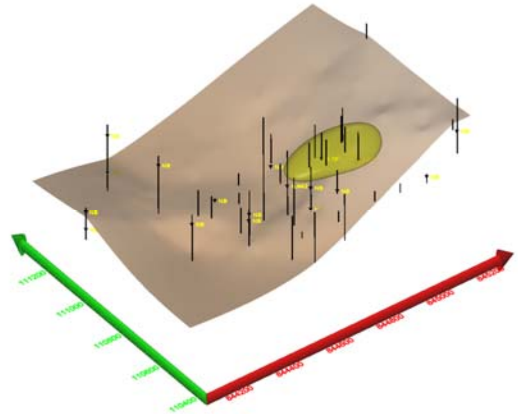


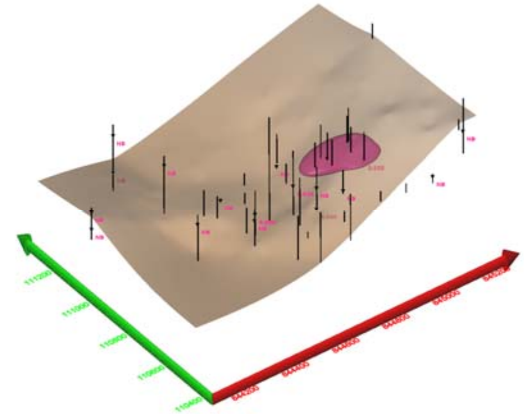
Figure H-18: Additional VOCs and SVOCs in Plan View – October 2009 (Refer to Figure H-1 for Applicable Notes)



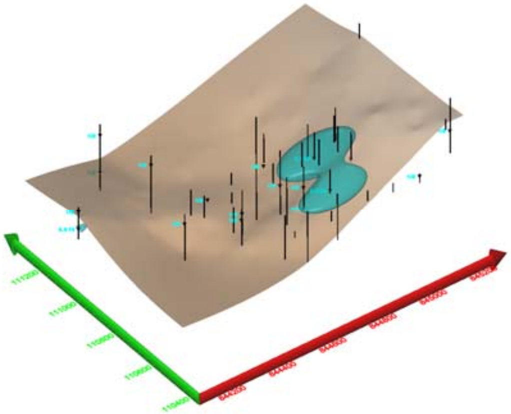
1,2,4-TMB – greater than 115 µg/L



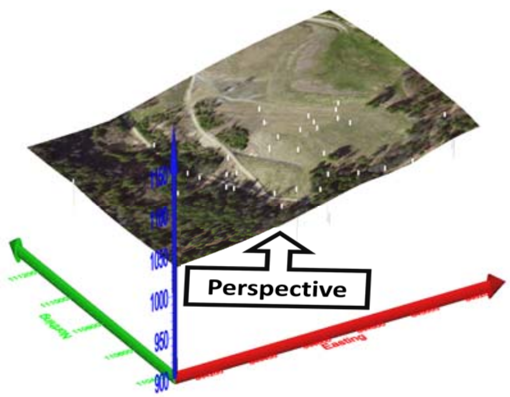
1,3,5-TMB – greater than 30 µg/L

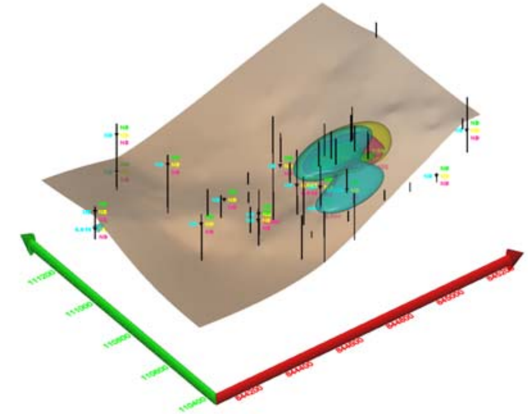


Naphthalene – greater than 10 µg/L

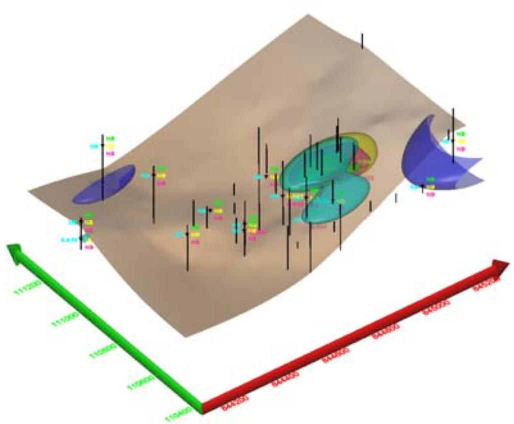


DEHP – greater than 8.5 µg/L

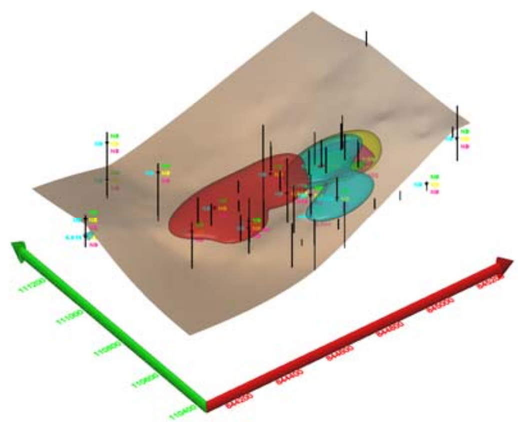




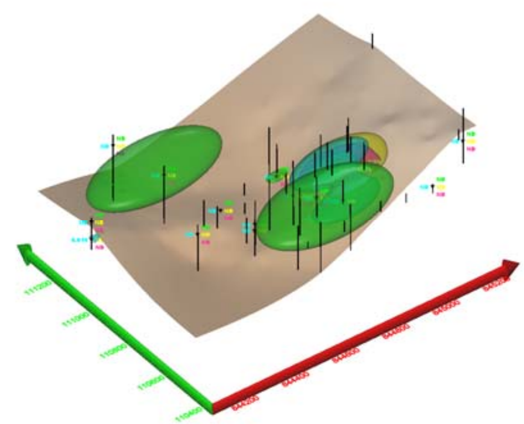
Additional VOCs and SVOCs



Additional VOCs, SVOCs, and DO – greater than 1 mg/L



Additional VOCs, SVOCs, and Fe^{2+} – greater than 1 mg/L



Additional VOCs, SVOCs, and SO_4^{2-} – greater than 20 mg/L

Figure H-19: Additional VOCs and SVOCs in Oblique View – October 2009 (Refer to Figure H-1 for Applicable Notes)

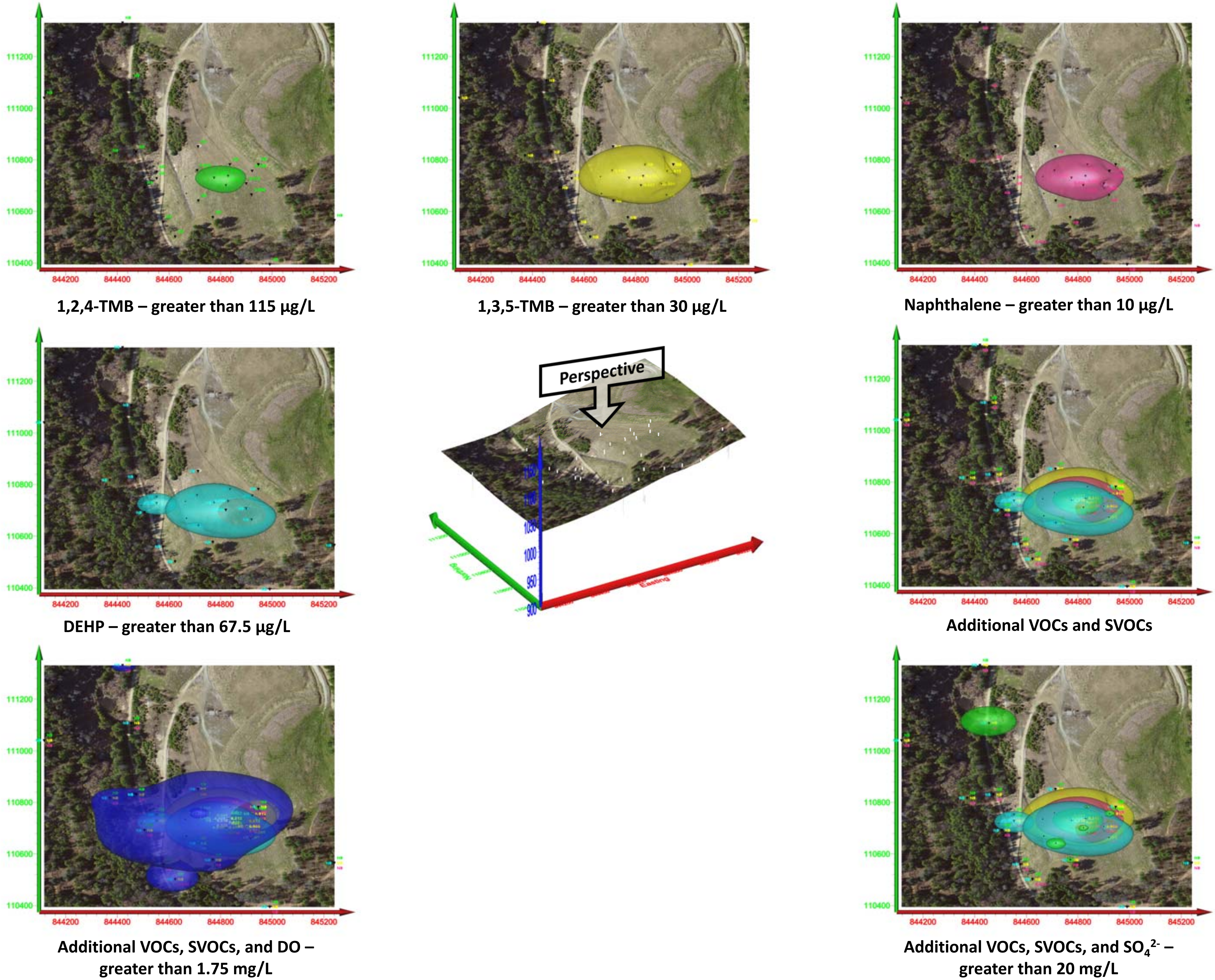
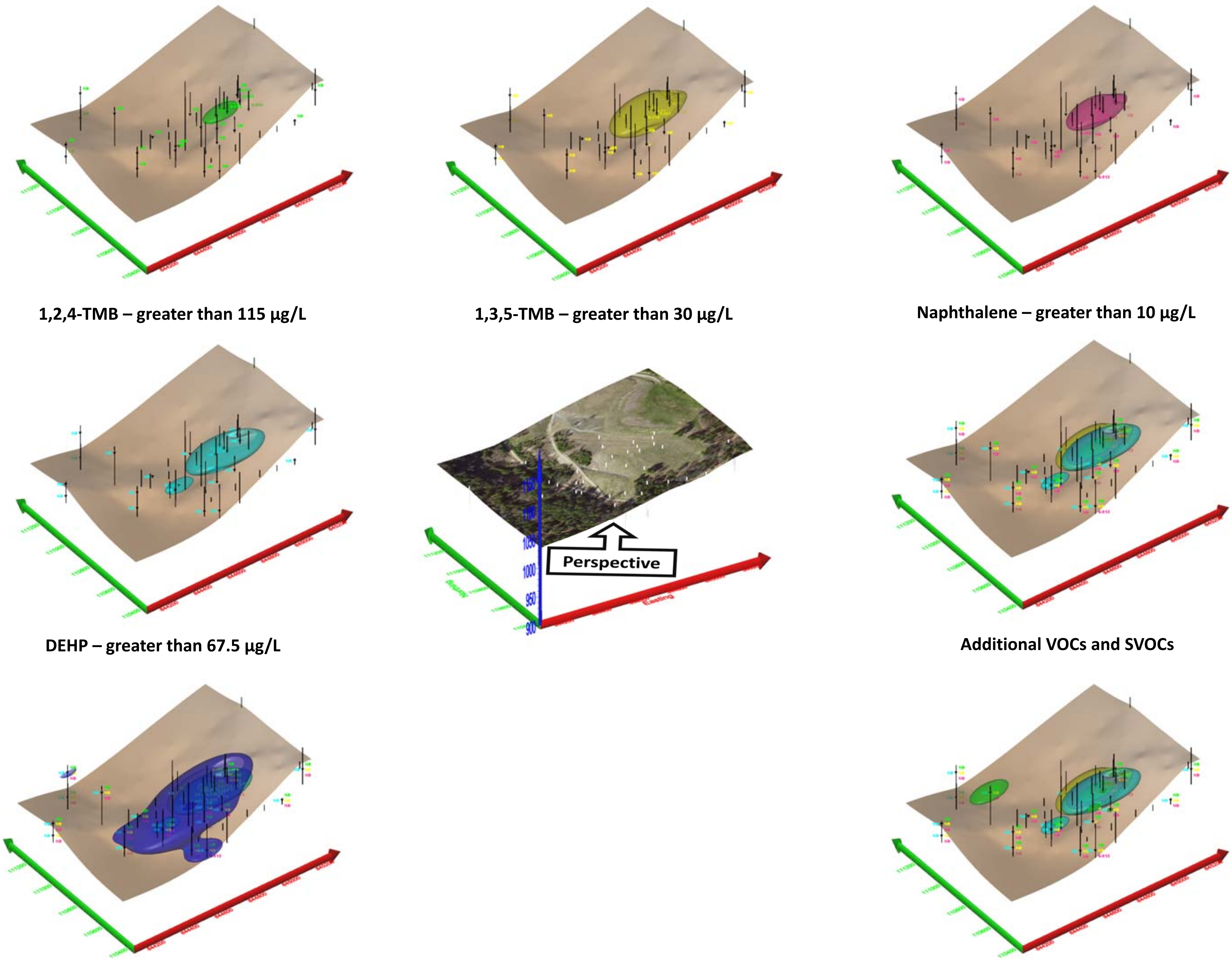


Figure H-20: Additional VOCs and SVOCs in Plan View – June 2011 (Refer to Figure H-1 for Applicable Notes)



1,2,4-TMB – greater than 115 µg/L

1,3,5-TMB – greater than 30 µg/L

Naphthalene – greater than 10 µg/L

DEHP – greater than 67.5 µg/L

Additional VOCs and SVOCs

Additional VOCs, SVOCs, and DO – greater than 1.75 mg/L

Additional VOCs, SVOCs, and SO_4^{2-} – greater than 20 mg/L

Figure H-21: Additional VOCs and SVOCs in Oblique View – June 2011 (Refer to Figure H-1 for Applicable Notes)

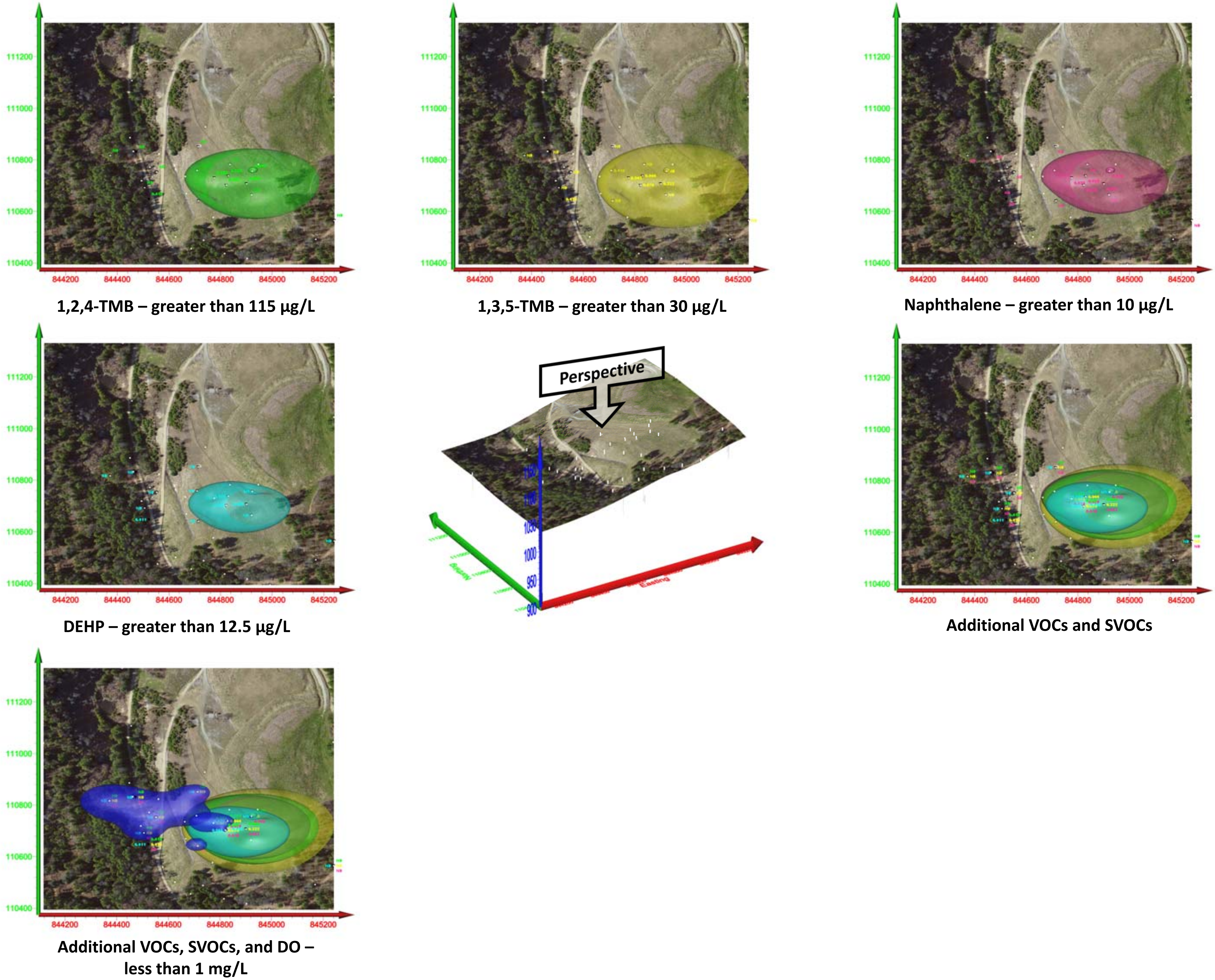


Figure H-22: Additional VOCs and SVOCs in Plan View – June 2013 (Refer to Figure H-1 for Applicable Notes)

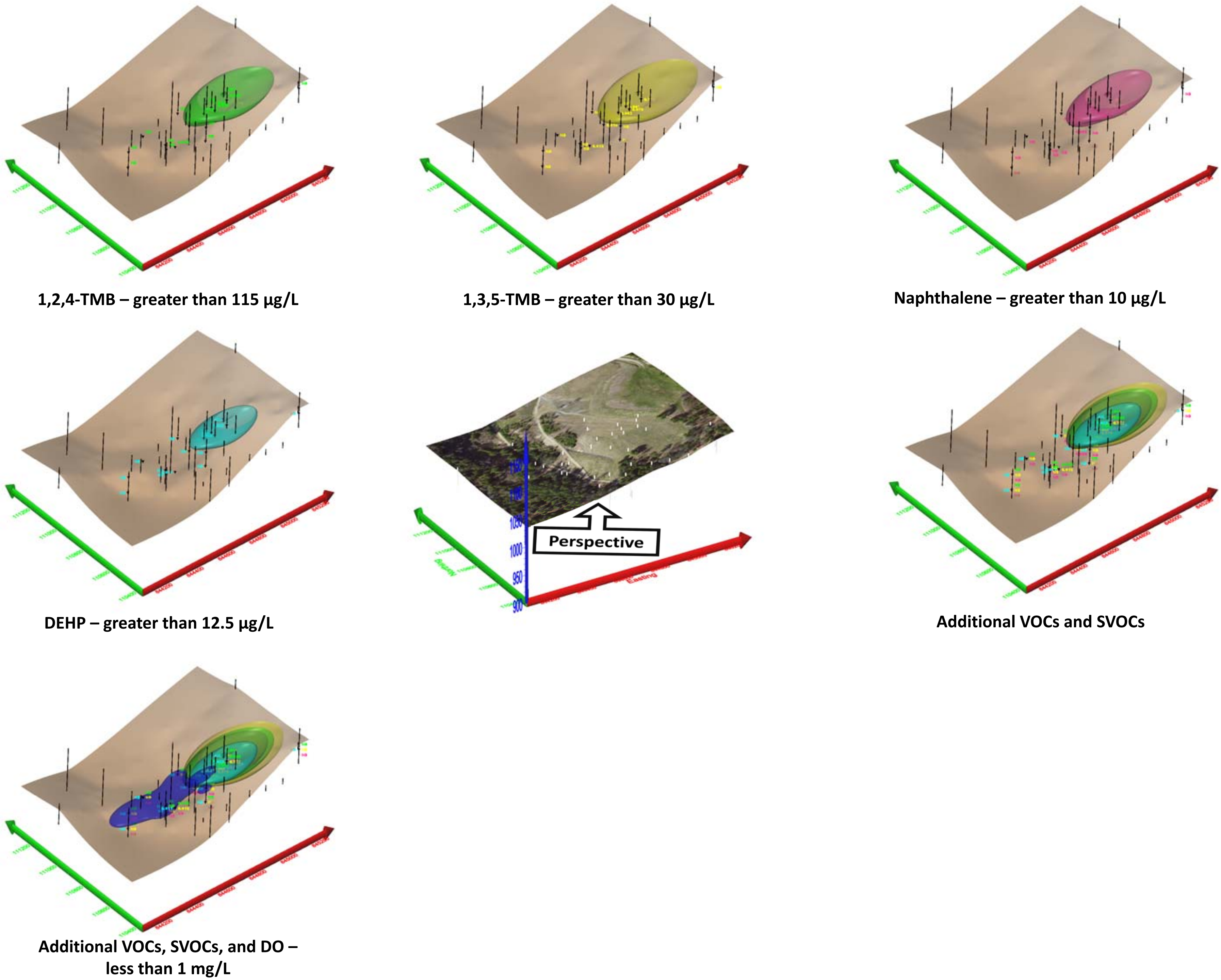


Figure H-23: Additional VOCs and SVOCs in Oblique View – June 2013 (Refer to Figure H-1 for Applicable Notes)

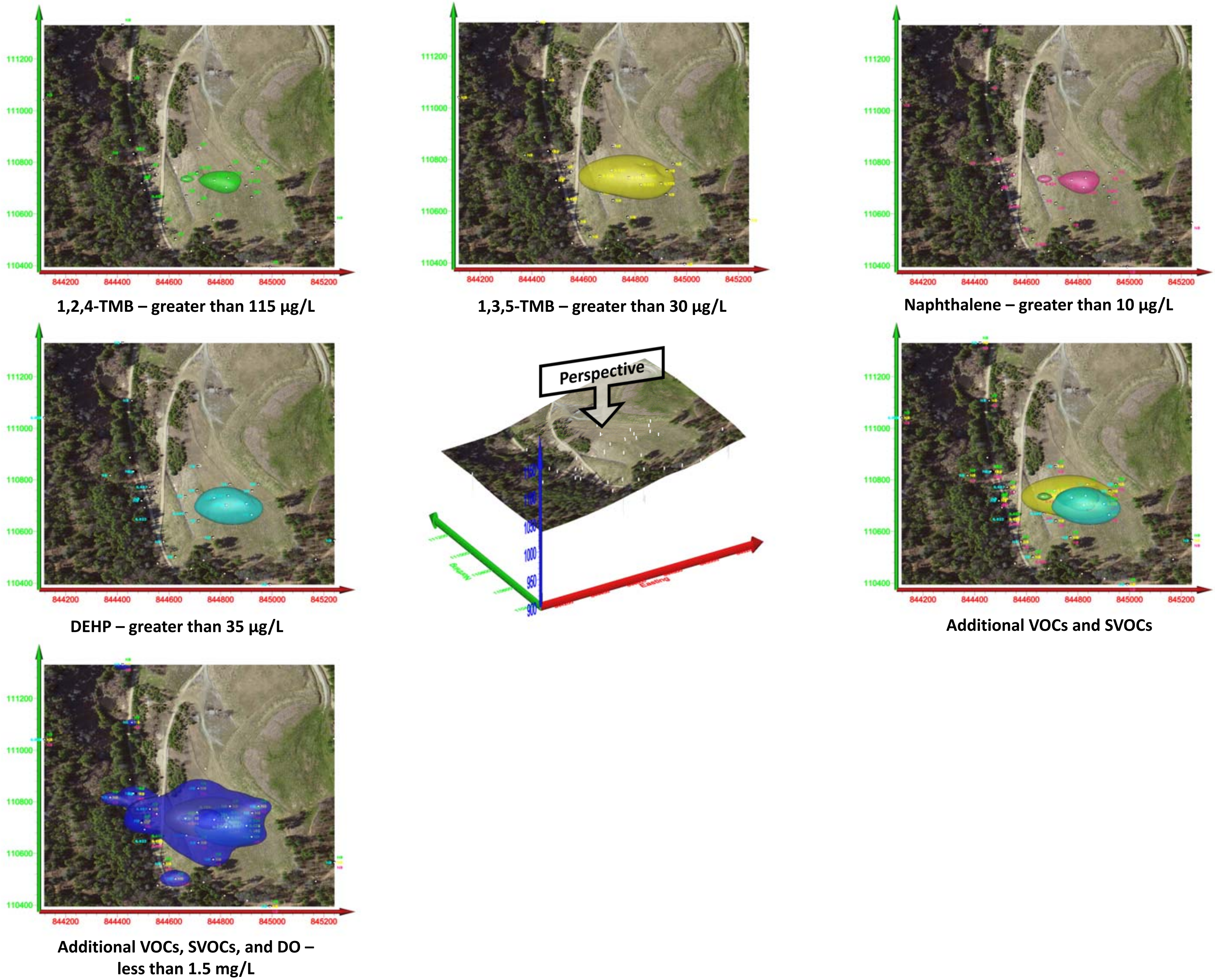
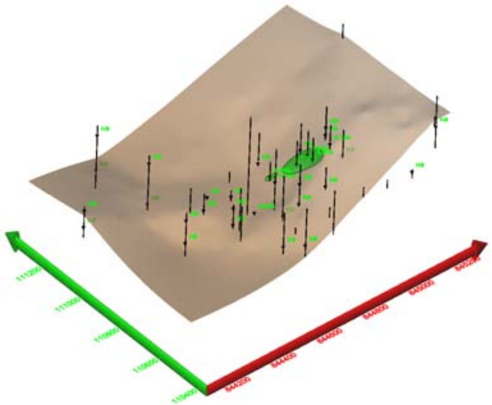
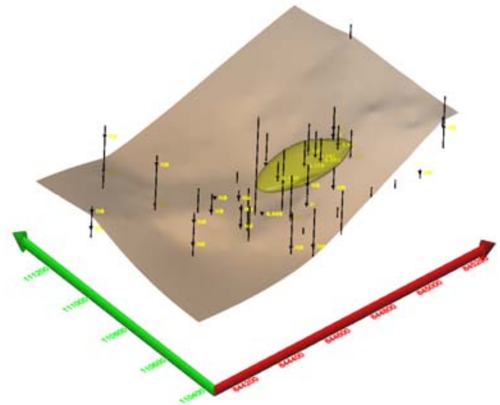


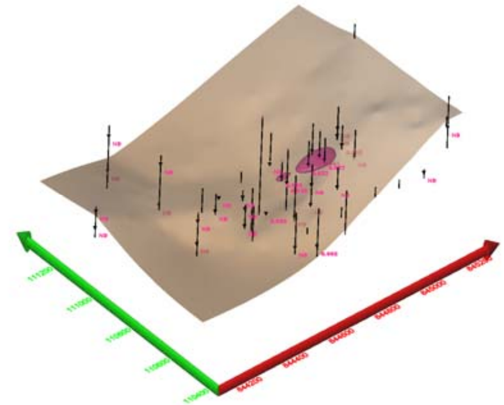
Figure H-24: Additional VOCs and SVOCs in Plan View – November 2014 and June 2015 (Refer to Figure H-1 for Applicable Notes)



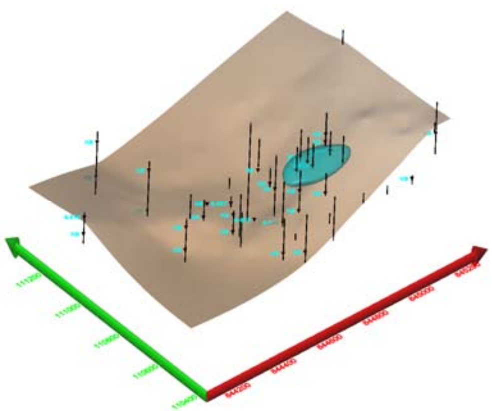
1,2,4-TMB – greater than 115 µg/L



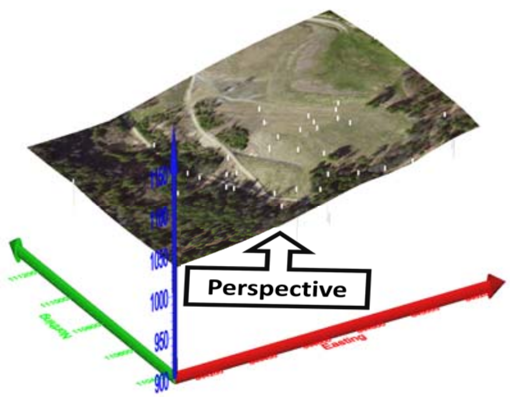
1,3,5-TMB – greater than 30 µg/L

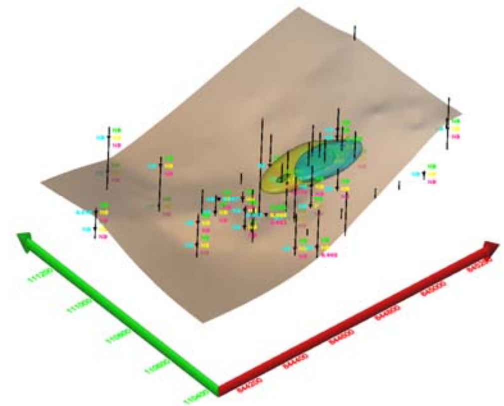


Naphthalene – greater than 10 µg/L

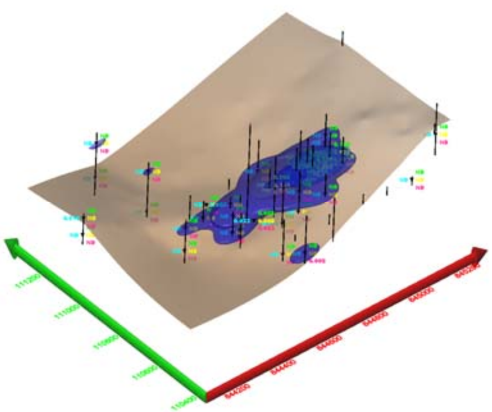


DEHP – greater than 35 µg/L



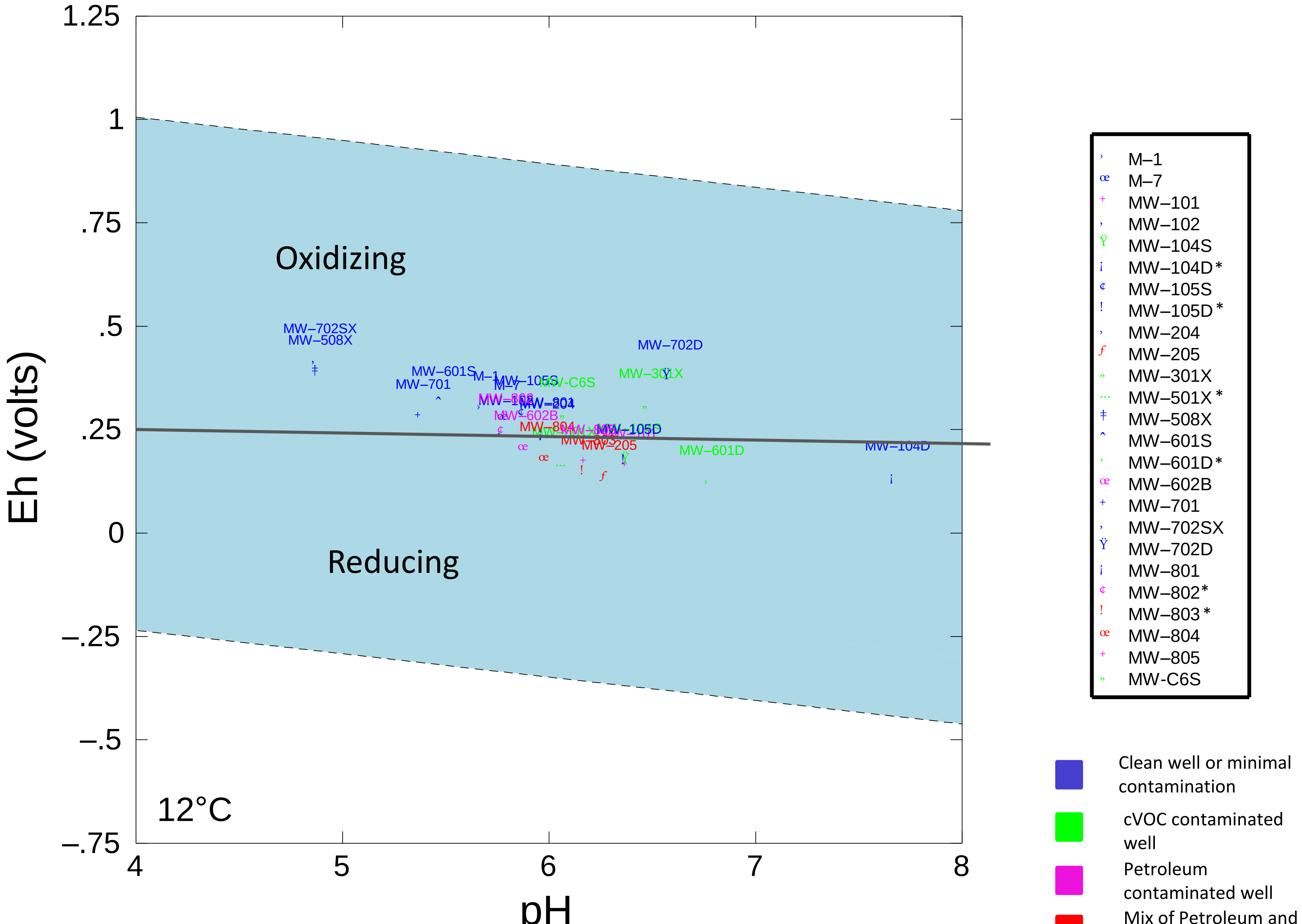


Additional VOCs and SVOCs



Additional VOCs, SVOCs, and DO – less than 1.5 mg/L

Figure H-25: Additional VOCs and SVOCs in Oblique View – November 2014 and June 2015 (Refer to Figure H-1 for Applicable Notes)



Note: Eh and pH data were compiled from the November 2014 sampling event where available. Wells marked with an asterisk (*) did not have field parameter data for 2014; therefore, data from the most recent sampling event with field parameters was used.

Figure H-26: Manganese Stability Diagram