



US Army Corps of Engineers

Area 1295 Remedial Action Completion and Site Closure Report

**Fort Drum Installation Restoration
Program
Fort Drum, New York**

February 2018

Contract No.: W912DR-12-D-0007
Delivery Order No.: 0003

Prepared For:

**U.S. ARMY CORPS OF ENGINEERS BALTIMORE
DISTRICT**

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Baltimore, Maryland 21201-2536

Prepared By:

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A handwritten signature in blue ink, appearing to read "AV", written over a horizontal line.

Andy Vitolins, PG
JV Project Manager

A handwritten signature in blue ink, appearing to read "Cullen M. Flanders", written over a horizontal line.

Cullen Flanders, PE
Senior Engineer

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Our Ref.:
GP14DRUM.RCSC

Date:
February 8, 2018

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Acronyms and Abbreviations

AS	Air Sparging
bgs	below ground surface
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes
COCs	Contaminants of Concern
DER	Division of Environmental Remediation
ft	feet
IRP	Installation Restoration Program
ISCO	In-Situ Chemical Oxidation
JV	The PIKA - MP JV, LLC ¹
LIF	Laser-Induced Fluorescence
LNAPL	Light Non-Aqueous Phase Liquid
MAES	Multiple Award Environmental Services
MIP	Membrane interface probe (MIP)
NYSDEC	New York State Department of Environmental Conservation
ORC	Oxygen Release Compound
Plexus	Plexus Scientific Corporation
TMB	Trimethylbenzene
µg/l	micrograms per liter
US	United States

¹ The PIKA-MP JV LLC Joint Venture is comprised of PIKA International, Inc. and its mentor Arcadis U.S. Inc.



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USACE United States Army Corps of Engineers
USEPA United States Environmental Protection Agency
UST Underground Storage Tanks
VOCs Volatile Organic Compounds



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Executive Summary

This report provides a comprehensive review of the environmental data collected at Area 1295 at Fort Drum, New York from 2014 to 2017, summarizes the remedial program's progress and current conditions at the site, and presents the required lines of evidence needed to achieve regulatory closure as outlined in the New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation (DER)-10 "Technical Guidance for Site Investigation and Remediation" (DER-10). This report is comprised of three elements that evaluate the environmental program at Area 1295:

- Historical review of the remedial program to date;
- An evaluation of groundwater concentrations and extent of contamination; and
- Time series and statistical evaluation of contaminant data trends.

Based on this evaluation, the Army has determined that the remedial program at Area 1295 has satisfied the DER-10 requirements for no further remedial action or monitoring in accordance with DER -10 subsections 6.4(c)3 and 4.



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1. Introduction

The PIKA - MP JV, LLC² (hereinafter referred to as the JV) has prepared this Remedial Action Completion and Site Closure Report to document that the requirements of DER -10 subsection 6.4(c)3 have been met at Area 1295 (FTD-030A). The work was completed as part of the Installation Restoration Program (IRP) at Fort Drum, New York. This work was conducted under United States (US) Army Corps of Engineers (USACE) Baltimore District, Multiple Award Environmental Services (MAES) contract, Award No. W912DR-12-D-0007, Delivery Order 0003.

² The PIKA-MP JV LLC Joint Venture is comprised of PIKA International, Inc. and its mentor Arcadis U.S. Inc.



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2. Site Description

Fort Drum encompasses approximately 168 square miles and is located approximately 10 miles northeast of Watertown, 80 miles north of Syracuse, and 25 miles southeast of the United States and Canadian border (Figure 2-1). Fort Drum occupies a large portion of northeastern Jefferson County, a portion of western Lewis County, and abuts the southern edge of St. Lawrence County.

Area 1295, located between Second Street East and Euphrates River Valley Road, is part of a series of sites within "Gasoline Alley", located in the old Cantonment area in the southern portion of Fort Drum (Figure 2-1). The former Area 1295 fuel dispensing site was located within the former median between Oneida and Ontario Avenues. The former five 20,000-gallon underground storage tanks (USTs) were located between the north side of Oneida Avenue and railroad tracks (Figure 2-2). The USTs dispensed gasoline until 1990, when the USTs were converted to diesel fuel. In 1994 all USTs and the associated fuel dispensers were removed, and the dispenser piping was removed in 1995.

Active railroad tracks are present on the northwestern (hydraulically down-gradient) side of the site. A power plant is located on the opposite side of the tracks. No inhabited structures are currently present at this site and there are no known human or environmental receptors. Based on discussions with Fort Drum personnel, the railroad and power plant are expected to remain active for the foreseeable future. Potential future human receptors could include utility workers conducting subsurface activities in the area.



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3. Historical Groundwater Conditions and Contaminants of Concern

Numerous groundwater investigations and data collection events have been conducted at the former Area 1295 site. Based on these activities, the geology in Area 1295 generally consists of unconsolidated deltaic sands overlying weathered limestone bedrock. The sands are typically medium to fine in texture and are mixed with silt in places. The bedrock surface is variable in depth and ranges from approximately 6.5 to 34 feet below ground surface (bgs). Soil borings indicate that a bedrock depression or trough is present in the central portion of Area 1295 (Radian, 1997).

The depth to groundwater in Area 1295 generally ranges from 8 to 13 feet bgs. The saturated thickness of the unconsolidated deposits ranges from approximately 5 to 12 feet. Based on historical groundwater elevation measurements, the hydraulic gradient at Area 1295 is approximately 0.013 feet (ft)/ft. Based on testing performed on the Area 1295 monitoring wells in 1991, hydraulic conductivity values range between 16 and 436 feet per day (EA, 1999). Groundwater flow in Area 1295 is generally to the north. Table 3-1 documents the historical groundwater analytical data.

COCs at Area 1295 were determined to be benzene, toluene, ethylbenzene and xylene (BTEX) compounds, although 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene have also been frequently detected at elevated concentrations. Initial investigations conducted after the removal of the USTs showed highest dissolved total BTEX concentration was 14,400 micrograms per liter ($\mu\text{g/L}$) in well 1295-MW30 in 2006.

Figure 3-1 illustrates the initial groundwater condition for BTEX at Area 1295 in the spring of 2015 when the JV took over remedial operations at the site. Historically, ethylbenzene and total xylenes have consistently exceeded NYSDEC screening criteria.

Light Non-Aqueous Phase Liquid (LNAPL) has not been detected in any of the Area 1295 groundwater monitoring wells.



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4. Remedial Program History

Beginning in October 2000, a remedial pilot study at Area 1295 near 1295-MWS27 was executed to determine the effectiveness of Oxygen Releasing Compound™ (ORC). The objectives of the pilot study were to remove source mass around 1295-MWS27 and to accelerate natural attenuation of dissolved groundwater hydrocarbon contaminants through the addition of ORC to the affected subsurface soils (EA 2001). The evaluation of the data determined that the application of ORC did not significantly influence the dissolved BTEX concentrations.

Wells 1295-MWS27 and 1295-MW25 were sampled annually following the ORC pilot study. Both locations displayed a reduction in total BTEX concentrations between 2004 and 2005. 1295-MWS27 decreased from 4,760 µg/L in 2004 to 1,340 µg/L in 2005, while 1295-MW25 decreased from 19.2 µg/L in 2004 to 11.0 µg/L in 2005. Only one exceedance of NYSDEC criteria was observed for any volatile organic compounds (VOC) analyzed at 1295-MW25. However, there were 11 VOC exceedances of NYSDEC criteria at 1295-MWS27.

In 2006 and 2007, in-situ chemical oxidation (ISCO) injections were conducted using Fenton's Reaction chemistry (Malcolm Pirnie, 2008). Five full-scale injections were conducted. Approximately 18,200 gallons of the oxidant mixture was injected during each full-scale event. After the first two full-scale injection events, BTEX concentrations in the samples collected from monitoring wells 1295-MWS27 and 1295-MW30 rebounded. The sampling results determine ISCO was not effective at sufficiently reducing the dissolved BTEX concentrations.

In April 2009, Plexus conducted a membrane interface probe (MIP) and laser-induced fluorescence (LIF) investigation to further delineate the extent of the potential distribution of residual contamination. The investigation determined that additional smear zone source mass was likely present (Plexus, 2009). Later in 2009, Plexus installed and operated a low-flow ozone sparging system that utilized 12 injection points. Operation of the ozone sparging system was discontinued after several years as it did not address the petroleum contamination in groundwater.

Beginning in 2015, the JV evaluated the site characterization data and past remedial efforts and determined that additional remedial activities were required to target the source mass of the dissolved phase plume in order to bring the site to closure. In June 2015, the JV installed seven air sparging (AS) wells and utilized AS technology as a means to physically remove mass as well as enhanced in-situ aerobic degradation of



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the residual mass. Select former ozone sparging wells were also connected to the AS system in December 2016. The AS system was turned off in March 29, 2017 to begin data evaluation for site closure.



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5. Current Groundwater Conditions, Data Trends and Evaluations

In accordance with the Basewide Monitoring Plan, submitted as Appendix C of the NYSDEC-approved Work Plan, Installation Restoration Program, Fort Drum, New York (PIKA-MP JV, 2015) (IRP Work Plan), the Area 1295 wells are sampled semi-annually. Additional performance monitoring sampling has been conducted as needed to evaluate remedial system performance.

Historical data from 2008 through 2014 detected total VOC concentrations in 1295-MW30 ranging from 3,600 µg/l to 16,000 µg/l with an average of approximately 9,500 µg/l. Since implementation of the air sparge system starting in 2015, a declining trend has been observed and total VOC concentrations have remained below 500 µg/l since October 2016 with the most recent data detecting only 1,2,4 trimethylbenzene (TMB) (62 µg/l), 1,3,5 TMB (15 µg/l) and total xylenes (32.6 µg/l) in excess of their respective NYSDEC Class GA standard. An absence of a VOC concentration rebound following the deactivation of the system indicates that the remedial efforts at the site have reduced source mass and effectively remediated the area of concern.

Table 5-1 documents the decreasing dissolved phase petroleum constituent concentration from April 2015 to the present. Figure 5-1 illustrates the decreasing dissolved phase constituent concentration trend observed in the groundwater samples collected from 1295-MW30. Figures 5-2 and 5-3 illustrates the most recent dissolved total BTEX plume.

As documented in Section 1.0, the active railroad and powerplant restrict the installation of monitoring wells downgradient of 1295-MW30. The distance between 1295-MW30 and the boundary of the power plant is about 100 feet. To evaluate potential 1,2,4 TMB, 1,3,5 TMB, and total xylenes concentrations at the power plant property boundary, the JV used a Quick Domenico advective transport model.³

³ www.elibrary.dep.state.pa.us/.../Get/Document-49262/Quick_Domenico.xls



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The following inputs were used for the model:

Input	Value	Source
Source concentration for 1,2,4 TMB = 1,3,5 TMB = Total Xylene =	0.150 mg/L 0.080 mg/L 0.063 mg/L	The model used the highest concentration detected for the constituents from 1295-MW30 for the April 19, June 26, and September 2017 groundwater sample analytical results. The detected September 22, 2017 concentration for 1,2,4 TMB, 1,3,5 TMB, and total xylenes is 0.062, 0.015, and 0.033 mg/L, respectively.
Longitudinal (Ax), transverse (Ay), and vertical (Az) dispersivities	Ax = 100 ft Ay = 1 ft Az = 0.001 ft	Per Quick Domenico user manual ⁴ , value of Ax = 0.1x where x is the distance to property boundary, which is about 100 ft
lambda for 1,2,4 TMB = 1,3,5 TMB = Total Xylene =	0.01233 day ⁻¹ 0.01233 day ⁻¹ 0.010 day ⁻¹	TMB lambda obtained from Pennsylvania Department of Environmental Protection reference ⁵ . Note: 1,2,4 and 1,3,5 were assumed to have similar transport degradation rates. Total Xylene lambda obtained from MacIntyre et al (1993) ⁶
Source width/thickness	Input does not affect output. Input used to adjust calibration table units	
Hydraulic conductivity	16 ft/day	EA, 1999
Hydraulic gradient	0.013 ft/ft	EA, 1999
Porosity (dec. frac.)	0.3	Assumed for porous media
Soil bulk density	1.7	Recommended assumed value
Organic carbon partitioning coefficient (K _{oc}) 1,2,4 TMB = 1,3,5 TMB = Total Xylene =	2,200 660 350	Pennsylvania Department of Environmental Protection reference ⁵ .
Fraction of organic carbon (foc)	0.001	Recommended assumed value
Time	30 years (10,950 days)	Conservative time frame

⁴ http://www.elibrary.dep.state.pa.us/dsweb/Get/Document-49256/Quick_Domenico.pdf

⁵ http://files.dep.state.pa.us/EnvironmentalCleanupBrownfields/LandRecyclingProgram/LandRecyclingProgramPortalFiles/SWHTables/NUMBER_PLEASE!2011.xls

⁶ MacIntyre, W.G., M. Boggs, C.P. Antworth, and T.B. Stauffer. 1993. Degradation kinetics of aromatic organic solutes introduced into a heterogeneous aquifer. Water Resources Research 29, no. 12: 4045-4051.



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As documented by Figures 5-4, 5-5, and 5-6, the models document that even if the dissolved phase 1,2,4 TMB, 1,3,5 TMB and total xylenes concentrations stay at the maximum detected concentrations since April 2017 of 150, 80, and 63 µg/l, respectively, none of these constituents would migrate beyond the down gradient property line, which is 100 feet downgradient of 1295-MW30. Considering that this modeling is conservative because it does not incorporate all potential degradation pathways and the constituent concentrations are continually decreasing, the dissolved phase impacts are not migrating offsite at concentrations greater than the applicable NYSDEC Class GA standards.



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6. Conclusions

The existing and foreseeable site condition is an active railroad and power plant. There are no exposure pathways for human (groundwater contact or ingestion) or environmental receptors. The analytical summary tables and figures document that the magnitude and extent of petroleum concentrations in groundwater are decreasing and conservative modeling documents that the few compounds that remain in groundwater at concentrations greater than the applicable NYSDEC Class GA standards will continue to degrade and will not migrate beyond Area 1295. The base has no foreseeable future plans to use the site for any other means than the current use. Therefore, all requirements of DER -10 subsection 6.2.2(c)4 are satisfied and Fort Drum hereby requests that the NYSDEC concur that no additional monitoring is required, all remedial structures and equipment may be removed, and that the site can be closed.



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7. References

EA, 1999. Comprehensive Contaminant Assessment Report, Volume II, Areas 1195, 1295, 1395, and 1495, Gasoline Alley, Fort Drum, New York.

NYSDEC, 2010. DER-10: Technical Guidance for Site Investigation and Remediation.

PIKA-MP JV LLC, 2015, Work Plan, Fort Drum Installation Restoration Program, Fort Drum, New York, February 2015.

Plexus Scientific, 2009, Draft Membrane Interface Probe Investigation Report, Gasoline Alley Area 1295, Fort Drum, New York.

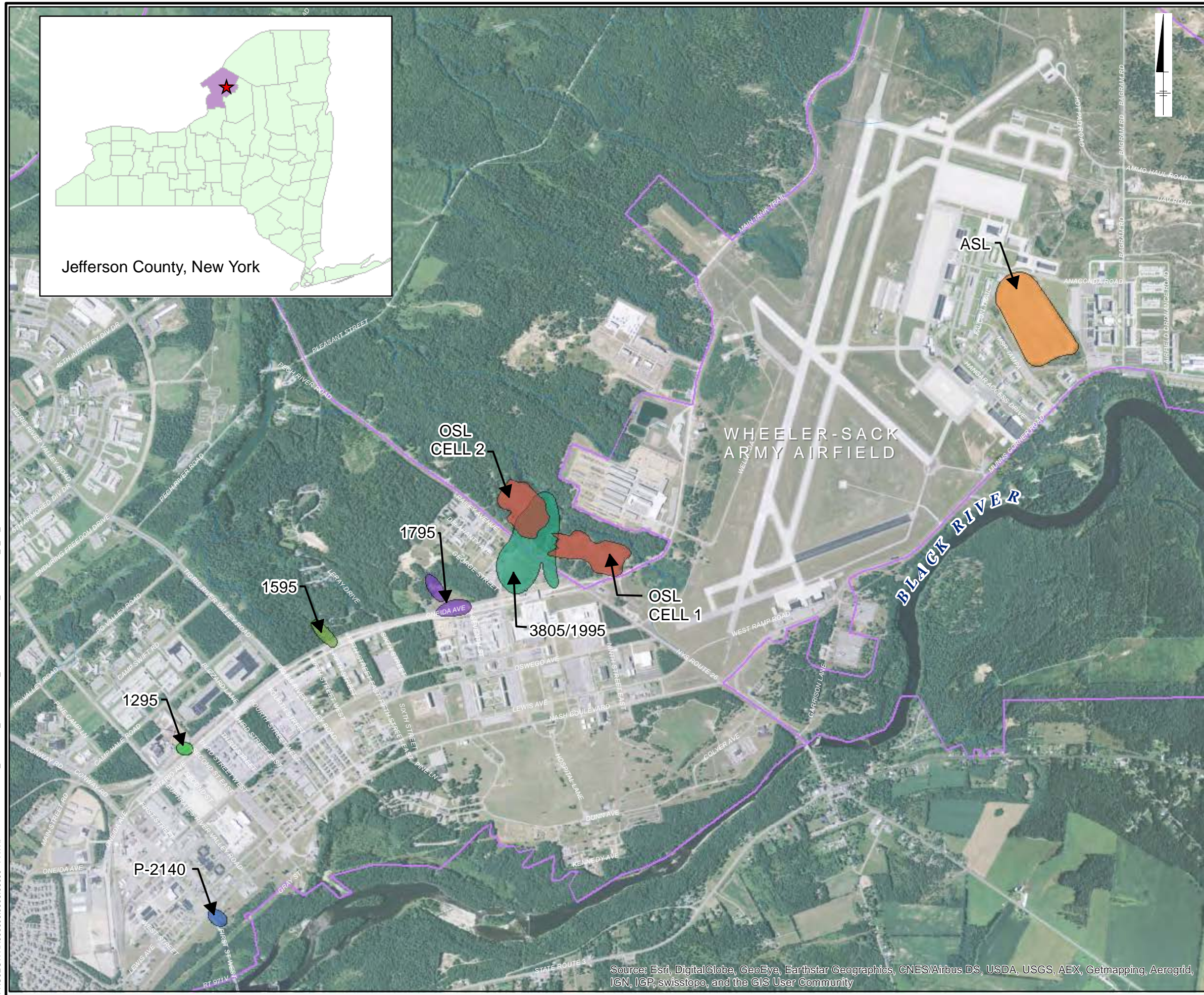
Plexus Scientific, 2013, Draft Bioaugmentation Pilot Study Remedial Action Work Plan, Area 1295, Fort Drum, New York.

Radian International, 1997. Comprehensive Site Evaluation, Area 1295 Gasoline Alley, Fort Drum, New York.



Figures

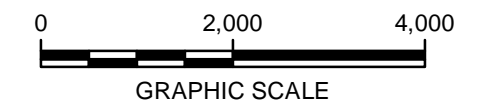
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PROJECT:XX000000.0000000000 PATH:Z:\GIS\PROJECTS\ENV\ENVY_FOR\DRUM_IRPMXDCORIF1-2_SITE_PLAN_9_29_2015.mxd



LEGEND

SITE NAME

- 1295
- 1595
- 1795
- 2140
- 3805/1995
- ASL
- OSL
- INSTALLATION AREA



FORT DRUM
FORT DRUM, NEW YORK
REMEDIAL CLOSURE REPORT

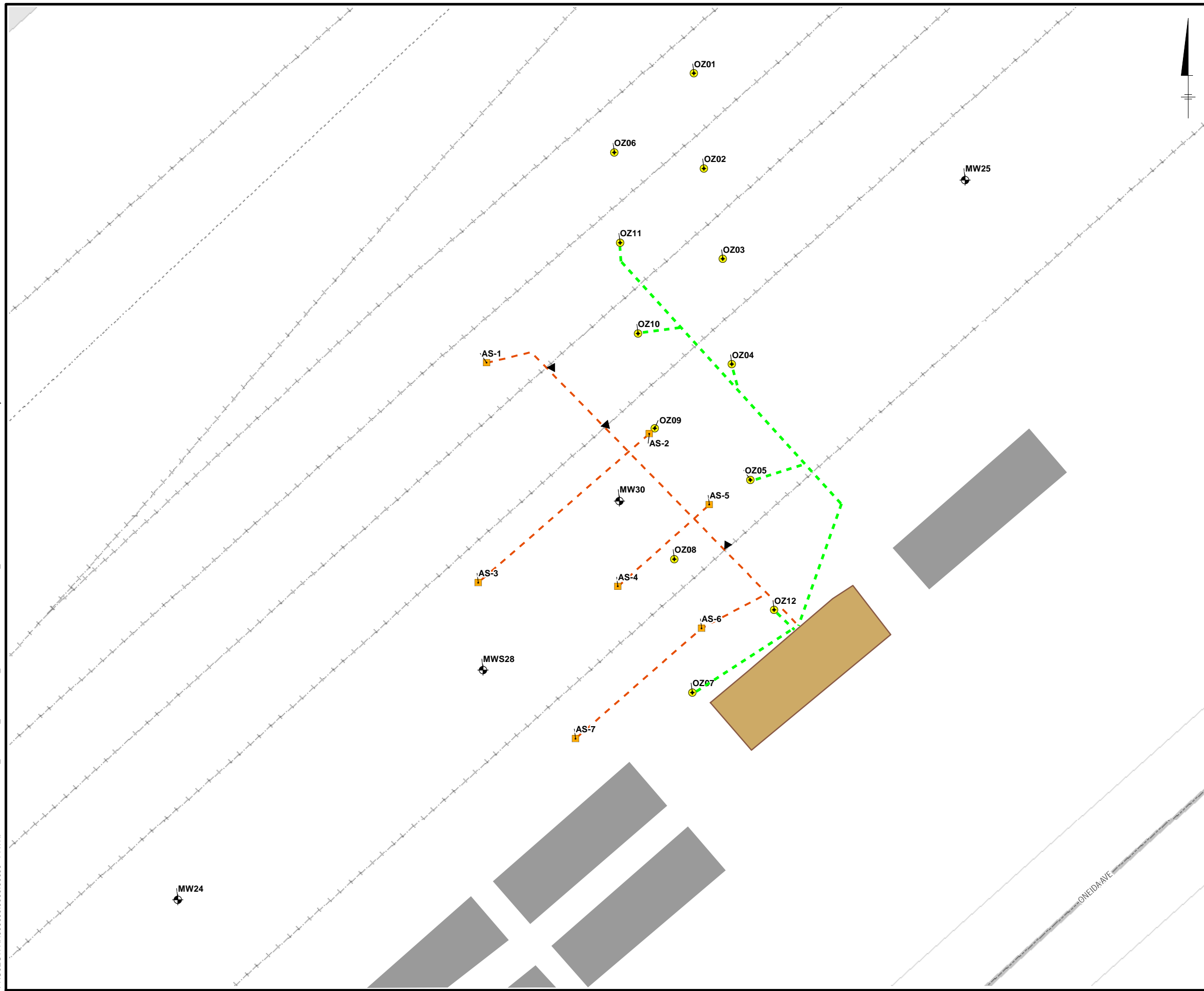
SITE LOCATION MAP



FIGURE
2-1

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

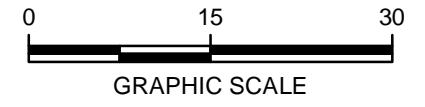
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LEGEND

- MONITORING WELL
- AIR SPARGE WELL
- OZONE PILOT INJECTION POINT
- 2015 - AIR SPARGE LINE
- 2016 AIR SPARGE LINE
- REMEDIATION SYSTEM
- FENCE LINE
- RAILROAD TRACK
- PAVED ROAD
- PAVED AREA
- FORMER UST

NOTES:
1. ALL SITE FEATURE LOCATIONS ARE APPROXIMATE.



FORT DRUM
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REMEDIAL CLOSURE REPORT

AREA 1295
AS SYSTEM LAYOUT /
EXISTING CONDITIONS



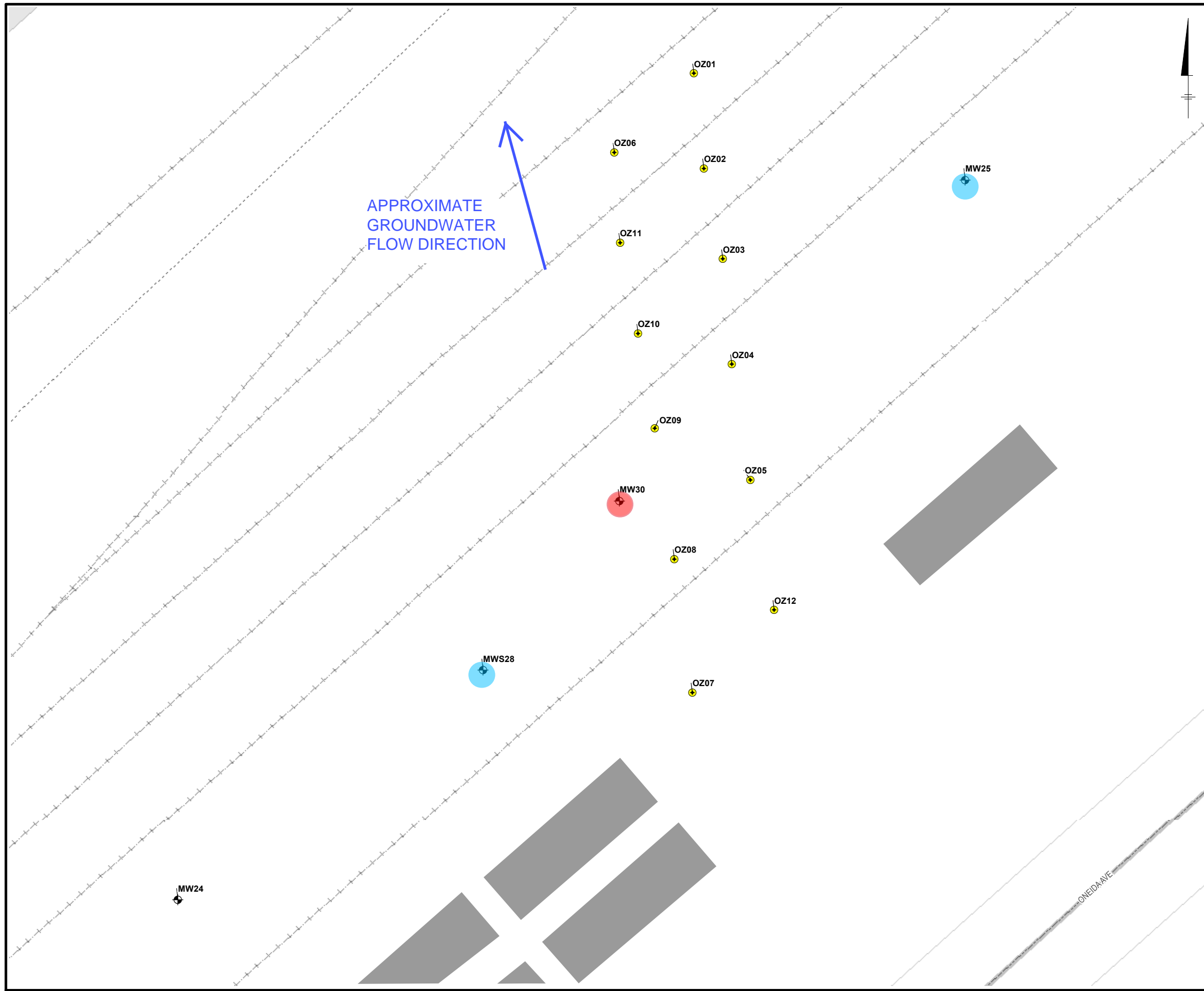
 

FIGURE
2-2

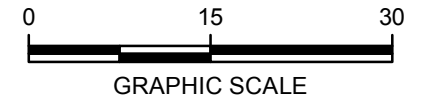


LEGEND

- MONITORING WELL
- OZONE PILOT INJECTION POINT
- LINE
- RAILROAD TRACK
- PAVED ROAD
- PAVED AREA
- FORMER UST

TOTAL VOC CONCENTRATIONS

- >6,000 ug/L
- >2,000 u/L, <6,000 ug/L
- >1,000 ug/L, <2,000 ug/L
- >150 ug/L, <1,000 ug/L
- >50 ug/L, <150 ug/L
- >10 ug/L, <50 ug/L
- >1 ug/L, <10 ug/L



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1295 AREA
BASELINE SPRING 2015
TOTAL VOC CONCENTRATIONS



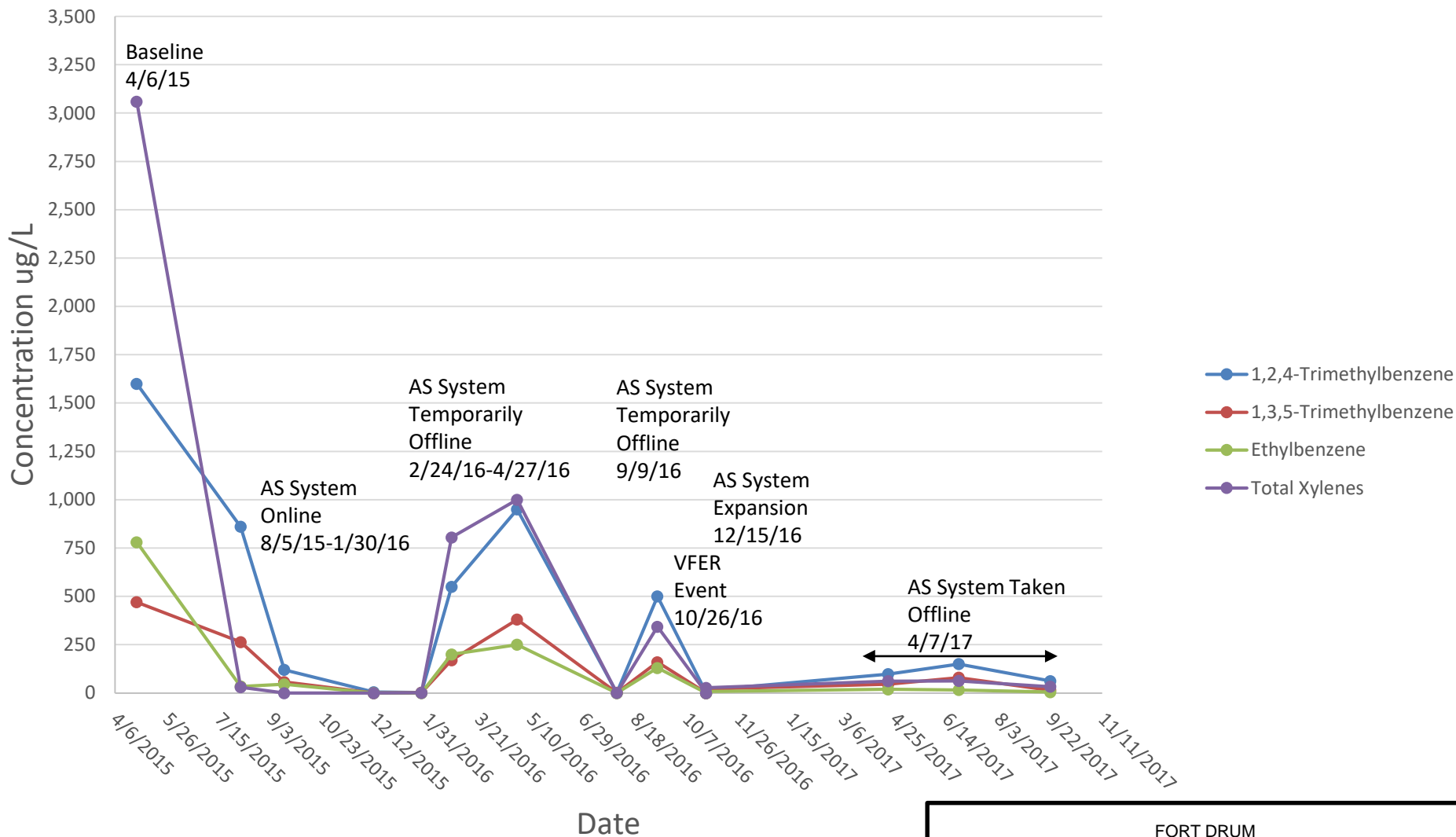



FIGURE
3-1

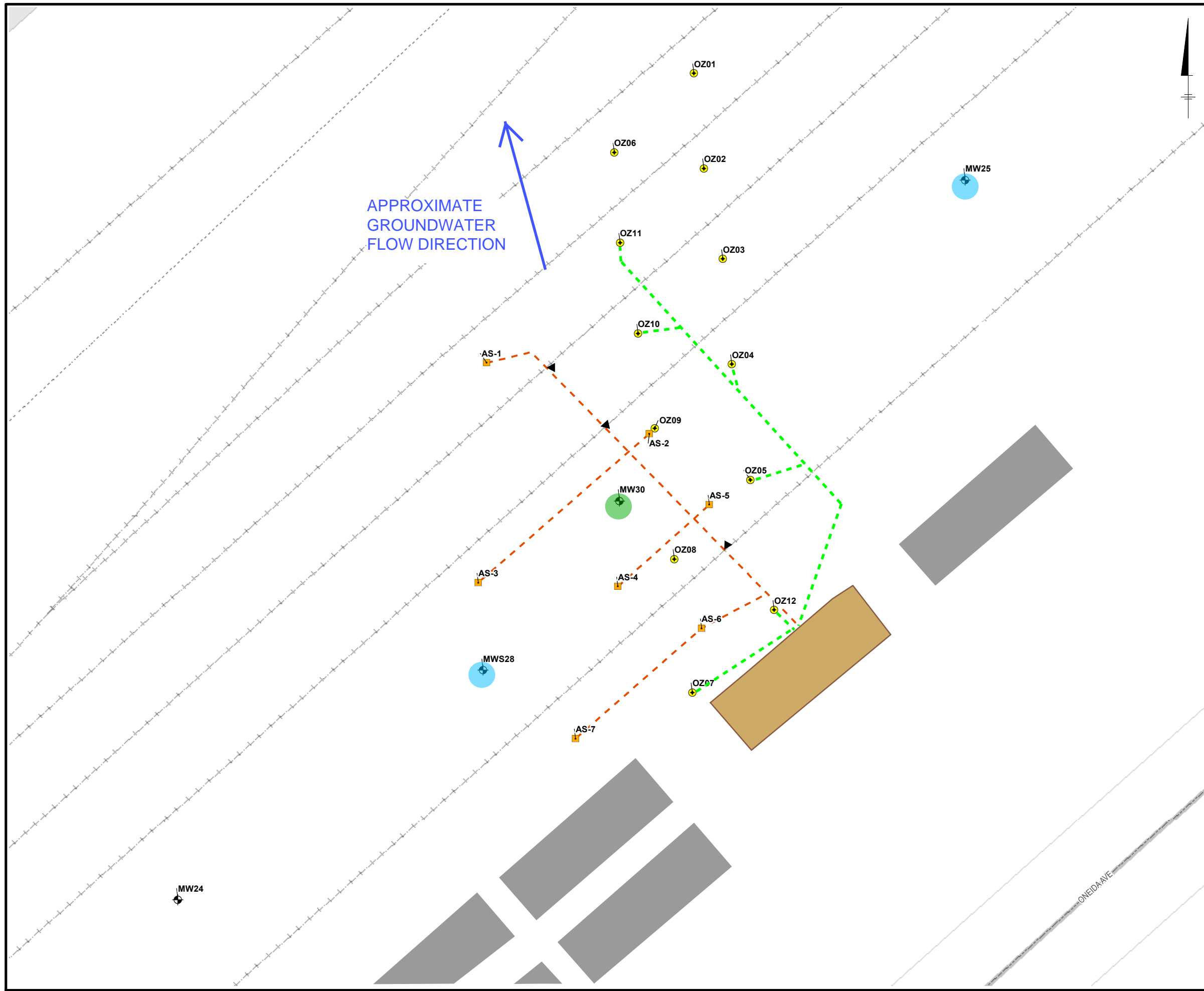


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AREA 1295
MW-30 VOC CONCENTRATION TRENDS
(2015 – 2017)



FIGURE
5-1

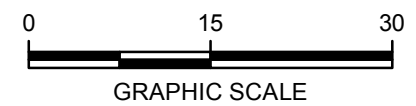


LEGEND

- MONITORING WELL
- AIR SPARGE WELL
- OZONE PILOT INJECTION POINT
- 2015 - AIR SPARGE LINE
- 2016 AIR SPARGE LINE
- REMEDIATION SYSTEM
- FENCE LINE
- RAILROAD TRACK
- PAVED ROAD
- PAVED AREA
- FORMER UST

TOTAL VOC CONCENTRATIONS

- >6,000 ug/L
- >2,000 u/L, <6,000 ug/L
- >1,000 ug/L, <2,000 ug/L
- >150 ug/L, <1,000 ug/L
- >50 ug/L, <150 ug/L
- >10 ug/L, <50 ug/L
- >1 ug/L, <10 ug/L



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**AREA 1295
FALL 2017
TOTAL VOC CONCENTRATIONS**



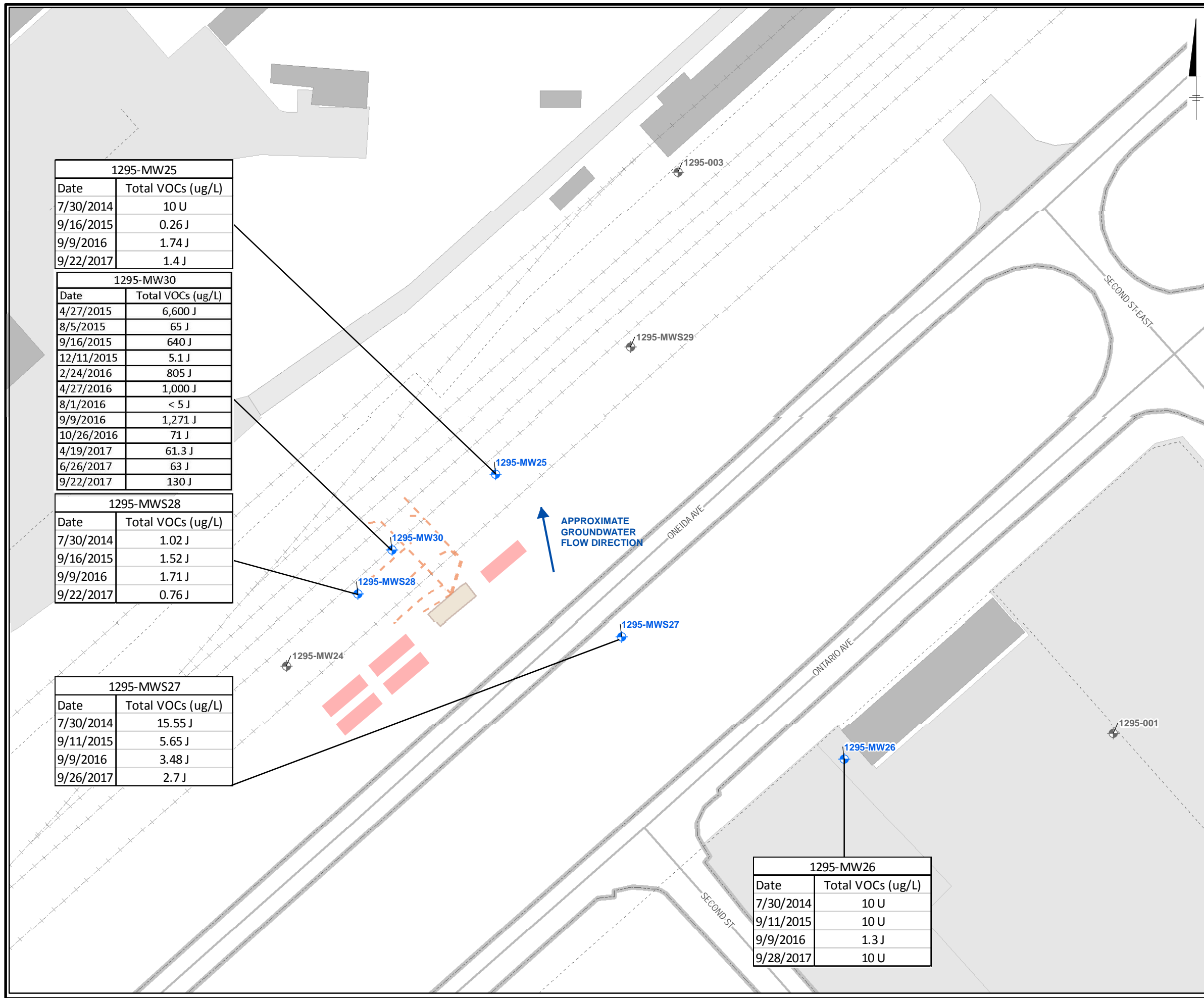



FIGURE
5-2



1295-MW25	
Date	Total VOCs (ug/L)
7/30/2014	10 U
9/16/2015	0.26 J
9/9/2016	1.74 J
9/22/2017	1.4 J

1295-MW30	
Date	Total VOCs (ug/L)
4/27/2015	6,600 J
8/5/2015	65 J
9/16/2015	640 J
12/11/2015	5.1 J
2/24/2016	805 J
4/27/2016	1,000 J
8/1/2016	< 5 J
9/9/2016	1,271 J
10/26/2016	71 J
4/19/2017	61.3 J
6/26/2017	63 J
9/22/2017	130 J

1295-MWS28	
Date	Total VOCs (ug/L)
7/30/2014	1.02 J
9/16/2015	1.52 J
9/9/2016	1.71 J
9/22/2017	0.76 J

1295-MWS27	
Date	Total VOCs (ug/L)
7/30/2014	15.55 J
9/11/2015	5.65 J
9/9/2016	3.48 J
9/26/2017	2.7 J

1295-MW26	
Date	Total VOCs (ug/L)
7/30/2014	10 U
9/11/2015	10 U
9/9/2016	1.3 J
9/28/2017	10 U

LEGEND

SAMPLING SUMMARY

- MW-SEMI-ANNUAL SAMPLING EVENT
- NOT PART OF MONITORING PLAN
- AIR SPARGE LINE
- FENCE LINE
- RAILROAD TRACK
- ROAD-PAVED
- APPROXIMATE GROUNDWATER FLOW DIRECTION
- BUILDING
- REMEDIATION SYSTEM
- DRIVEWAY
- PAVED AREA
- FORMER UST

NOTES:

- RESULTS ARE SHOWN IN MICROGRAMS PER LITER (µg/L)
- BRACKETED VALUES ARE RESULTS OF DUPLICATE SAMPLES.
- U: THE COMPOUND WAS ANALYZED FOR BUT NOT DETECTED. THE ASSOCIATED VALUE IS THE COMPOUND QUANTITATION LIMIT.
- J: THE COMPOUND WAS POSITIVELY IDENTIFIED; HOWEVER, THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED CONCENTRATION ONLY.
- J-: THE COMPOUND WAS POSITIVELY IDENTIFIED; HOWEVER THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED CONCENTRATION THAT MAY BE BIASED LOW.
- D: CONCENTRATION IS A RESULT OF A DILUTION.
- E: CONCENTRATION EXCEEDS CALIBRATION RANGE.



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AREA 1295
TOTAL VOC CONCENTRATION TRENDS

ADVECTIVE TRANSPORT WITH THREE DIMENSIONAL DISPERSION, 1ST ORDER DECAY and RETARDATION - WITH CALIBRATION TOOL

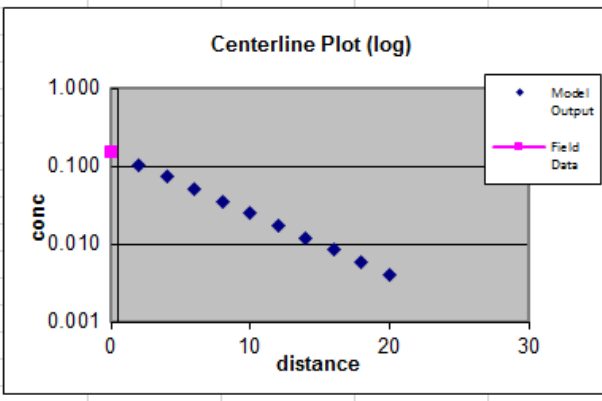
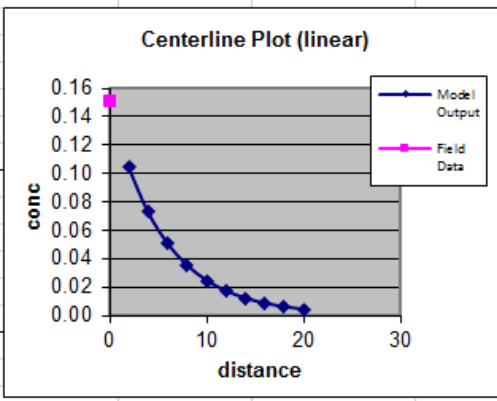
Project: 1295
 Date: 11/30/2017 Prepared by: Cullen Flanders
 Contaminant: 1,2,4-Trimethylbenzene

NEW QUICK_DOMENICO.XLS
 SPREADSHEET APPLICATION OF
 "AN ANALYTICAL MODEL FOR
 MULTIDIMENSIONAL TRANSPORT OF A
 DECAYING CONTAMINANT SPECIES"
 P.A. Domenico (1987)
 Modified to Include Retardation

SOURCE CONC (MG/L)	Ax (ft)	Ay (ft)	Az (ft)	LAMBDA	SOURCE WIDTH (ft)	SOURCE THICKNESS (ft)	Time (days)
0.15	1.00E+00	1.00E-01	1.00E-03	0.01233	60	10	10950

Hydraulic Cond (ft/day)	Hydraulic Gradient (ft/ft)	Porosity (dec. frac.)	Soil Bulk Density (g/cm ^{3j})	KOC	Frac. Org. Carb.	Retard-ation (R)	V (=K*i/n*R) (ft/day)
1.60E+01	0.013	0.3	1.5	2200	1.00E-03	12	0.057777778

Point Concentration		
x(ft)	y(ft)	z(ft)
1	100	0
Conc. At		
at	10950 days =	0.000 mg/l



AREAL MODEL		CALCULATION DOMAIN										
Length (ft)	20	Width (ft)	60									
60	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.052	0.036	0.025	0.018	0.012	0.009	0.006	0.004	0.003	0.002	0.002	0.002
0	0.104	0.073	0.051	0.035	0.025	0.017	0.012	0.008	0.006	0.004	0.004	0.004
-30	0.052	0.036	0.025	0.018	0.012	0.009	0.006	0.004	0.003	0.002	0.002	0.002
-60	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Field Data:	Centerline C Concentration			0.15								
	Distance from Source			0								

FORT DRUM
 FORT DRUM, NEW YORK
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AREA 1295
1295-MW30 Quick Domenico Advective Transport Model for 1,2,4 TMB






FIGURE
5-4

ADVECTIVE TRANSPORT WITH THREE DIMENSIONAL DISPERSION, 1ST ORDER DECAY and RETARDATION - WITH CALIBRATION TOOL

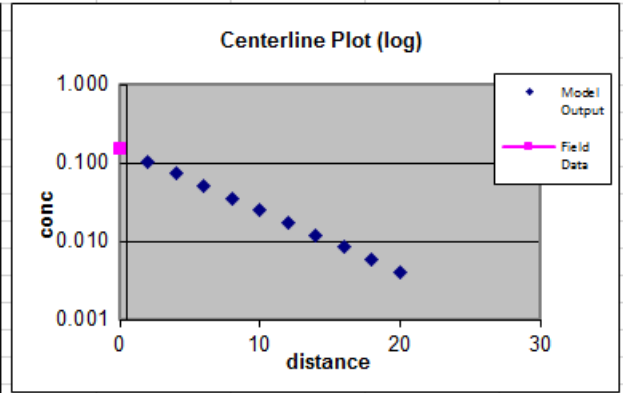
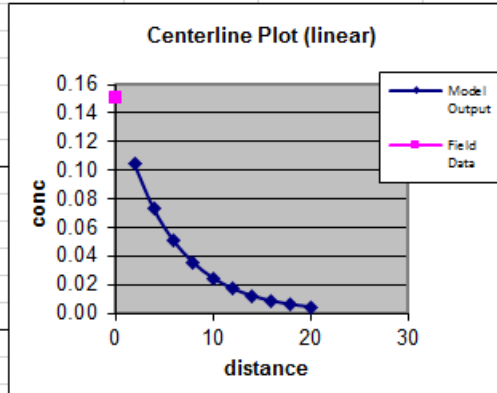
Project: 1295
 Date: 11/30/2017 Prepared by: Cullen Flanders
 Contaminant: 1,3,5-Trimethylbenzene

NEW QUICK_DOMENICO.XLS
 SPREADSHEET APPLICATION OF
 "AN ANALYTICAL MODEL FOR
 MULTIDIMENSIONAL TRANSPORT OF A
 DECAYING CONTAMINANT SPECIES"
 P.A. Domenico (1987)
 Modified to Include Retardation

SOURCE CONC (MG/L)	Ax (ft)	Ay (ft)	Az (ft)	LAMBDA	SOURCE WIDTH (ft)	SOURCE THICKNESS (ft)	Time (days) (days)
0.08	1.00E+00	1.00E-01	1.00E-03	0.01233	60	10	10950

Hydraulic Cond (ft/day)	Hydraulic Gradient (ft/ft)	Porosity (dec. frac.)	Soil Bulk Density (g/cm ³)	KOC	Frac. Org. Carb.	Retardation (R)	V (=K [*] i/n [*] R) (ft/day)
1.60E+01	0.013	0.3	1.5	660	1.00E-03	4.3	0.16124031

Point Concentration			
x(ft)	y(ft)	z(ft)	
1	100	0	
Conc. At		x(ft)	y(ft)
at		10950	days =
		0.000	
		mg/l	



	AREAL MODEL		CALCULATION DOMAIN									
	Length (ft)	Width (ft)	5	10	15	20	25	30	35	40	45	50
60	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.028	0.020	0.014	0.010	0.007	0.005	0.003	0.002	0.002	0.002	0.001	0.001
0	0.056	0.039	0.027	0.019	0.013	0.009	0.007	0.005	0.003	0.002	0.002	0.001
-30	0.028	0.020	0.014	0.010	0.007	0.005	0.003	0.002	0.002	0.002	0.001	0.001
-60	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Field Data:	Centerline C Concentration		0.08									
	Distance from Source		0									

FORT DRUM
 FORT DRUM, NEW YORK
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AREA 1295
1295-MW30 Quick Domenico Advective Transport Model for 1,3,5 TMB




FIGURE
5-5

ADVECTIVE TRANSPORT WITH THREE DIMENSIONAL DISPERSION, 1ST ORDER DECAY and RETARDATION - WITH CALIBRATION TOOL

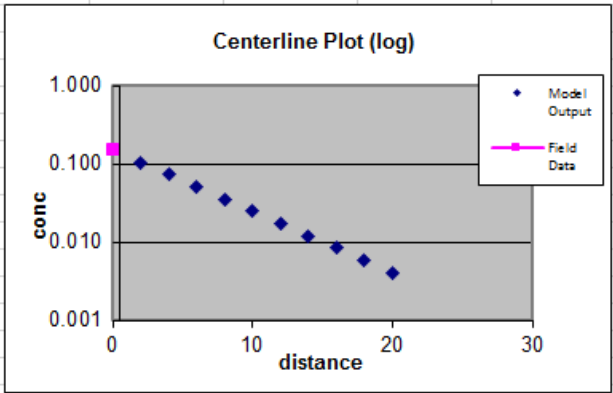
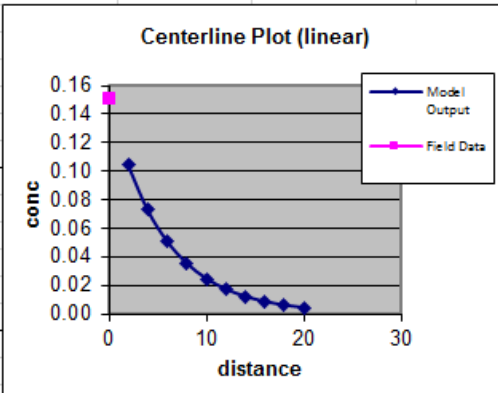
Project: 1295
 Date: 11/30/2017 Prepared by: Cullen Flanders
 Contaminant: Total xylenes

NEW QUICK_DOMENICO.XLS
 SPREADSHEET APPLICATION OF
 "AN ANALYTICAL MODEL FOR
 MULTIDIMENSIONAL TRANSPORT OF A
 DECAYING CONTAMINANT SPECIES"
 P.A. Domenico (1987)
 Modified to Include Retardation

SOURCE CONC (MG/L)	Ax (ft)	Ay (ft)	Az (ft)	LAMBDA	SOURCE WIDTH (ft)	SOURCE THICKNESS (ft)	Time (days)
0.063	1.00E+00	1.00E-01	1.00E-03	0.01	60	10	10950

Hydraulic Cond (ft/day)	Hydraulic Gradient (ft/ft)	Porosity (dec. frac.)	Soil Bulk Density (g/cm ³)	KOC	Frac. Org. Carb.	Retardation (R)	V (=K*i/n*R) (ft/day)
1.60E+01	0.013	0.3	1.5	350	1.00E-03	2.75	0.252121212

Point Concentration			
x(ft)	y(ft)	z(ft)	
1	100	0	
Conc. At		x(ft)	y(ft)
at		10950	days =
			0.000
			mg/l



	AREAL MODEL		CALCULATION DOMAIN												
	Length (ft)	Width (ft)													
	80	60													
	8	16	24	32	40	48	56	64	72	80					
60	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.023	0.017	0.013	0.009	0.007	0.005	0.004	0.003	0.002	0.001					
0	0.046	0.034	0.025	0.019	0.014	0.010	0.007	0.005	0.004	0.003	0.002	0.001			
-30	0.023	0.017	0.013	0.009	0.007	0.005	0.004	0.003	0.002	0.001					
-60	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000					
Field Data:	Centerline C Concentration				0.063										
	Distance from Source				0										

FORT DRUM
 FORT DRUM, NEW YORK
REMEDIAL CLOSURE REPORT

AREA 1295
1295-MW30 Quick Domenico Advective Transport Model for Xylenes





Tables

Table 3-1
Summary of Sample Analytical Results (All Constituents)

Location ID: Date Collected: Sample Name:	CAS Number	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	1295-0Z6 07/30/14 1295-0Z6 (07-30-2014)	1295-MW25 04/16/14 1295-MW25 (04-16-2014)	1295-MW25 07/30/14 1295-MW25 (07-30-2014)	1295-MW25 04/27/15 1295-MW25-042715	1295-MW25 09/16/15 1295-MW25-091615
Volatile Organics								
1,1,1,2-Tetrachloroethane	630-20-6	--	ug/L	25 U	5 U	5 U	5.0 U	5.0 U
1,1,1-Trichloroethane	71-55-6	5	ug/L	5 U	1 U	1 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/L	5 U	1 U	1 U	5.0 U	5.0 U
1,1,2-Trichloroethane	79-00-5	1	ug/L	5 U	1 U	1 U	5.0 U	5.0 U
1,1-Dichloroethane	75-34-3	5	ug/L	5 U	1 U	1 U	5.0 U	5.0 U
1,1-Dichloroethene	75-35-4	5	ug/L	5 U	1 U	1 U	5.0 U	5.0 U
1,1-Dichloropropene	563-58-6	--	ug/L	25 U	5 U	5 U	5.0 U	5.0 U
1,2,3-Trichlorobenzene	87-61-6	--	ug/L	25 U	5 U	5 U	5.0 U	5.0 U
1,2,3-Trichloropropane	96-18-4	--	ug/L	25 U	5 U	5 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/L	25 U	5 U	5 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/L	1,880	1 J	2 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane	96-12-8	0.04	ug/L	50 U	10 U	10 U	5.0 U	5.0 U
1,2-Dibromoethane	106-93-4	0.0006	ug/L	10 U	2 U	2 U	5.0 U	5.0 U
1,2-Dichlorobenzene	95-50-1	3	ug/L	5 U	1 U	1 U	5.0 U	5.0 U
1,2-Dichloroethane	107-06-2	0.6	ug/L	5 U	1 U	1 U	5.0 U	5.0 U
1,2-Dichloroethene, Total	540-59-0	--	ug/L	5 U	1 U	1 U	NA	NA
1,2-Dichloropropane	78-87-5	1	ug/L	5 U	1 U	1 U	5.0 U	5.0 U
1,3,5-Trimethylbenzene	108-67-8	5	ug/L	438	2 U	2 U	5.0 U	5.0 U
1,3-Dichlorobenzene	541-73-1	3	ug/L	5 U	1 U	1 U	5.0 U	5.0 U
1,3-Dichloropropane	142-28-9	--	ug/L	25 U	5 U	5 U	5.0 U	5.0 U
1,4-Dichlorobenzene	106-46-7	3	ug/L	5 U	1 U	1 U	5.0 U	5.0 U
2,2-Dichloropropane	594-20-7	--	ug/L	25 U	5 U	5 U	5.0 U	5.0 U
2-Butanone (MEK)	78-93-3	50	ug/L	50 U	10 U	10 U	10 U	10 U
2-Chlorotoluene	95-49-8	--	ug/L	25 U	5 U	5 U	5.0 U	5.0 U
4-Chlorotoluene	106-43-4	--	ug/L	25 U	5 U	5 U	5.0 U	5.0 U
4-Methyl-2-Pentanone	108-10-1	--	ug/L	25 U	5 U	5 U	10 U	10 U
Acetone	67-64-1	50	ug/L	50 U	10 U	10 U	1.6 J	10 U
Benzene	71-43-2	1	ug/L	5 U	1 U	1 U	5.0 U	5.0 U
Bromobenzene	108-86-1	--	ug/L	25 U	5 U	5 U	5.0 U	5.0 U
Bromochloromethane	74-97-5	--	ug/L	25 U	5 U	5 U	5.0 U	5.0 U
Bromodichloromethane	75-27-4	50	ug/L	5 U	1 U	1 U	5.0 U	5.0 U
Bromoform	75-25-2	50	ug/L	20 U	4 U	4 U	5.0 U	5.0 U
Bromomethane	74-83-9	5	ug/L	10 U	2 U	2 U	5.0 U	5.0 U
Carbon Disulfide	75-15-0	60	ug/L	10 U	2 U	2 U	10 U	10 U
Carbon Tetrachloride	56-23-5	5	ug/L	5 U	1 U	1 U	5.0 U	5.0 U
CFC-11	75-69-4	5	ug/L	25 U	5 U	5 U	5.0 U	5.0 U
CFC-12	75-71-8	5	ug/L	25 U	5 U	5 U	5.0 U	5.0 U
Chlorobenzene	108-90-7	5	ug/L	5 U	1 U	1 U	5.0 U	5.0 U
Chlorodibromomethane	124-48-1	50	ug/L	5 U	1 U	1 U	5.0 U	5.0 U
Chloroethane	75-00-3	5	ug/L	5 U	1 U	1 U	5.0 U	5.0 U
Chloroform	67-66-3	7	ug/L	5 U	1 U	1 U	5.0 U	5.0 U
Chloromethane	74-87-3	5	ug/L	5 U	1 U	1 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	156-59-2	5	ug/L	5 U	1 U	1 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	10061-01-5	0.4	ug/L	5 U	1 U	1 U	5.0 U	5.0 U
Cymene (p-Isopropyltoluene)	99-87-6	5	ug/L	20.1 J	5 U	5 U	5.0 U	5.0 U
Dibromomethane	74-95-3	--	ug/L	25 U	5 U	5 U	5.0 U	5.0 U
Dichloromethane	75-09-2	5	ug/L	10 U	2 U	2 U	5.0 U	5.0 U
Diethyl ether	60-29-7	--	ug/L	25 U	5 U	5 U	NA	NA
Ethylbenzene	100-41-4	5	ug/L	527	0.31 J	1 U	5.0 U	5.0 U
Hexachloro-1,3-butadiene	87-68-3	0.5	ug/L	25 U	5 U	5 U	5.0 U	5.0 U
Isopropylbenzene	98-82-8	5	ug/L	124	2 U	2 U	5.0 U	5.0 U
m&p-Xylenes	ARC-mpXyl	--	ug/L	2,220	1.7	1 U	5.0 U	5.0 U
Methyl N-Butyl Ketone (2-Hexanone)	591-78-6	50	ug/L	25 U	5 U	5 U	10 U	10 U
Methyl-tert-butylether	1634-04-4	10	ug/L	NA	NA	NA	5.0 U	5.0 U
Naphthalene	91-20-3	10	ug/L	272	0.31 J	5 U	5.0 U	5.0 U
N-Butylbenzene	104-51-8	5	ug/L	16.7 J	5 U	5 U	5.0 U	5.0 U
N-Propylbenzene	103-65-1	5	ug/L	212	5 U	5 U	5.0 U	5.0 U
o-Xylene	95-47-6	--	ug/L	44.9	0.46 J	1 U	5.0 U	5.0 U
sec-Butylbenzene	135-98-8	5	ug/L	11.2 J	5 U	5 U	5.0 U	5.0 U
Styrene (Monomer)	100-42-5	5	ug/L	25 U	5 U	5 U	5.0 U	5.0 U
tert-Butylbenzene	98-06-6	5	ug/L	25 U	5 U	5 U	5.0 U	5.0 U
Tetrachloroethene	127-18-4	5	ug/L	5 U	1 U	1 U	5.0 U	5.0 U
Tetrahydrofuran	109-99-9	--	ug/L	50 U	10 U	10 U	NA	NA
Toluene	108-88-3	5	ug/L	5 U	0.82 J	1 U	5.0 U	5.0 U
Total Xylenes	1330-20-7	5	ug/L	2,264.9	2.16 J	1 U	5 U	5 U
trans-1,2-Dichloroethene	156-60-5	5	ug/L	5 U	1 U	1 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	10061-02-6	0.4	ug/L	5 U	1 U	1 U	5.0 U	5.0 U
Trichloroethene	79-01-6	5	ug/L	5 U	1 U	1 U	5.0 U	0.26 J
Vinyl acetate	108-05-4	--	ug/L	50 U	10 U	10 U	NA	NA
Vinyl chloride	75-01-4	2	ug/L	5 U	1 U	1 U	5.0 U	5.0 U
Total VOCs	ARC-TVOC	--	ug/L	5,765.9 J	4.6 J	10 U	NA	0.26 J

Notes:
ug/L - micrograms per liter
NA - Not Analyzed
U - The compound was not detected, the compound quantitation limit is reported.
J - Indicates an estimated value
D - Compound quantitated using a secondary dilution
B - Analyte was found in the associated blank, as well as in the sample

Table 3-1
Summary of Sample Analytical Results (All Constituents)

Location ID: Date Collected: Sample Name:	CAS Number	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	1295-MW25 04/27/16 1295-MW25-042716	1295-MW25 09/09/16 1295-MW25-090916	1295-MW25 04/19/17 1295-MW25-041917	1295-MW25 09/22/17 1295-MW25-092217
Volatile Organics							
1,1,1,2-Tetrachloroethane	630-20-6	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	71-55-6	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	79-00-5	1	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	75-34-3	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	75-35-4	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloropropene	563-58-6	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2,3-Trichlorobenzene	87-61-6	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2,3-Trichloropropane	96-18-4	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane	96-12-8	0.04	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromoethane	106-93-4	0.0006	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	95-50-1	3	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	107-06-2	0.6	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethene, Total	540-59-0	--	ug/L	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	1	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,3,5-Trimethylbenzene	108-67-8	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	541-73-1	3	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichloropropane	142-28-9	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	106-46-7	3	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2,2-Dichloropropane	594-20-7	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (MEK)	78-93-3	50	ug/L	10 U	10 U	10 U	10 U
2-Chlorotoluene	95-49-8	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Chlorotoluene	106-43-4	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-Pentanone	108-10-1	--	ug/L	10 U	10 U	10 U	10 U
Acetone	67-64-1	50	ug/L	10 U	1.5 J	10 U	1.4 J
Benzene	71-43-2	1	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromobenzene	108-86-1	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromochloromethane	74-97-5	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	75-27-4	50	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	75-25-2	50	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane	74-83-9	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Disulfide	75-15-0	60	ug/L	10 U	10 U	10 U	10 U
Carbon Tetrachloride	56-23-5	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
CFC-11	75-69-4	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
CFC-12	75-71-8	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	108-90-7	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Chlorodibromomethane	124-48-1	50	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	75-00-3	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform	67-66-3	7	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane	74-87-3	5	ug/L	5.0 U	5.0 U	0.26 BJ	5.0 U
cis-1,2-Dichloroethene	156-59-2	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	10061-01-5	0.4	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Cymene (p-Isopropyltoluene)	99-87-6	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Dibromomethane	74-95-3	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Dichloromethane	75-09-2	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Diethyl ether	60-29-7	--	ug/L	NA	NA	NA	NA
Ethylbenzene	100-41-4	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Hexachloro-1,3-butadiene	87-68-3	0.5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	98-82-8	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
m&p-Xylenes	ARC-mpXyl	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Methyl N-Butyl Ketone (2-Hexanone)	591-78-6	50	ug/L	10 U	10 U	10 U	10 U
Methyl-tert-butylether	1634-04-4	10	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	91-20-3	10	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
N-Butylbenzene	104-51-8	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
N-Propylbenzene	103-65-1	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
o-Xylene	95-47-6	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
sec-Butylbenzene	135-98-8	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Styrene (Monomer)	100-42-5	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
tert-Butylbenzene	98-06-6	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	127-18-4	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Tetrahydrofuran	109-99-9	--	ug/L	NA	NA	NA	NA
Toluene	108-88-3	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Total Xylenes	1330-20-7	5	ug/L	5 U	5 U	5 U	5 U
trans-1,2-Dichloroethene	156-60-5	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	10061-02-6	0.4	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	79-01-6	5	ug/L	5.0 U	0.24 J	5.0 U	5.0 U
Vinyl acetate	108-05-4	--	ug/L	NA	NA	NA	NA
Vinyl chloride	75-01-4	2	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Total VOCs	ARC-TVOC	--	ug/L	NA	1.74 J	0.26 J	1.4 J

Notes:
ug/L - micrograms per liter
NA - Not Analyzed
U - The compound was not detected, the compound quantitation limit is reported.
J - Indicates an estimated value
D - Compound quantitated using a secondary dilution
B - Analyte was found in the associated blank, as well as in the sample

Table 3-1
Summary of Sample Analytical Results (All Constituents)

Location ID: Date Collected: Sample Name:	CAS Number	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	1295-MW26 07/30/14 1295-MW26 (07-30-2014)	1295-MW26 04/28/15 1295-MW26-042815	1295-MW26 09/11/15 1295-MW26-091115	1295-MW26 04/27/16 1295-MW26-042716
Volatile Organics							
1,1,1,2-Tetrachloroethane	630-20-6	--	ug/L	5 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	71-55-6	5	ug/L	1 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/L	1 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	79-00-5	1	ug/L	1 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	75-34-3	5	ug/L	1 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	75-35-4	5	ug/L	1 U	5.0 U	5.0 U	5.0 U
1,1-Dichloropropene	563-58-6	--	ug/L	5 U	5.0 U	5.0 U	5.0 U
1,2,3-Trichlorobenzene	87-61-6	--	ug/L	5 U	5.0 U	5.0 U	5.0 U
1,2,3-Trichloropropane	96-18-4	--	ug/L	5 U	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/L	5 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/L	2 U	5.0 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane	96-12-8	0.04	ug/L	10 U	5.0 U	5.0 U	5.0 U
1,2-Dibromoethane	106-93-4	0.0006	ug/L	2 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	95-50-1	3	ug/L	1 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	107-06-2	0.6	ug/L	1 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethene, Total	540-59-0	--	ug/L	1 U	NA	NA	NA
1,2-Dichloropropane	78-87-5	1	ug/L	1 U	5.0 U	5.0 U	5.0 U
1,3,5-Trimethylbenzene	108-67-8	5	ug/L	2 U	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	541-73-1	3	ug/L	1 U	5.0 U	5.0 U	5.0 U
1,3-Dichloropropane	142-28-9	--	ug/L	5 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	106-46-7	3	ug/L	1 U	5.0 U	5.0 U	5.0 U
2,2-Dichloropropane	594-20-7	--	ug/L	5 U	5.0 U	5.0 U	5.0 U
2-Butanone (MEK)	78-93-3	50	ug/L	10 U	10 U	10 U	10 U
2-Chlorotoluene	95-49-8	--	ug/L	5 U	5.0 U	5.0 U	5.0 U
4-Chlorotoluene	106-43-4	--	ug/L	5 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-Pentanone	108-10-1	--	ug/L	5 U	10 U	10 U	10 U
Acetone	67-64-1	50	ug/L	10 U	10 U	10 U	10 U
Benzene	71-43-2	1	ug/L	1 U	5.0 U	5.0 U	5.0 U
Bromobenzene	108-86-1	--	ug/L	5 U	5.0 U	5.0 U	5.0 U
Bromochloromethane	74-97-5	--	ug/L	5 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	75-27-4	50	ug/L	1 U	5.0 U	5.0 U	5.0 U
Bromoform	75-25-2	50	ug/L	4 U	5.0 U	5.0 U	5.0 U
Bromomethane	74-83-9	5	ug/L	2 U	5.0 U	5.0 U	5.0 U
Carbon Disulfide	75-15-0	60	ug/L	2 U	10 U	10 U	10 U
Carbon Tetrachloride	56-23-5	5	ug/L	1 U	5.0 U	5.0 U	5.0 U
CFC-11	75-69-4	5	ug/L	5 U	5.0 U	5.0 U	5.0 U
CFC-12	75-71-8	5	ug/L	5 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	108-90-7	5	ug/L	1 U	5.0 U	5.0 U	5.0 U
Chlorodibromomethane	124-48-1	50	ug/L	1 U	5.0 U	5.0 U	5.0 U
Chloroethane	75-00-3	5	ug/L	1 U	5.0 U	5.0 U	5.0 U
Chloroform	67-66-3	7	ug/L	1 U	5.0 U	5.0 U	5.0 U
Chloromethane	74-87-3	5	ug/L	1 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	156-59-2	5	ug/L	1 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	10061-01-5	0.4	ug/L	1 U	5.0 U	5.0 U	5.0 U
Cymene (p-Isopropyltoluene)	99-87-6	5	ug/L	5 U	5.0 U	5.0 U	5.0 U
Dibromomethane	74-95-3	--	ug/L	5 U	5.0 U	5.0 U	5.0 U
Dichloromethane	75-09-2	5	ug/L	2 U	5.0 U	5.0 U	5.0 U
Diethyl ether	60-29-7	--	ug/L	5 U	NA	NA	NA
Ethylbenzene	100-41-4	5	ug/L	1 U	5.0 U	5.0 U	5.0 U
Hexachloro-1,3-butadiene	87-68-3	0.5	ug/L	5 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	98-82-8	5	ug/L	2 U	5.0 U	5.0 U	5.0 U
m&p-Xylenes	ARC-mpXyl	--	ug/L	1 U	5.0 U	5.0 U	5.0 U
Methyl N-Butyl Ketone (2-Hexanone)	591-78-6	50	ug/L	5 U	10 U	10 U	10 U
Methyl-tert-butylether	1634-04-4	10	ug/L	NA	5.0 U	5.0 U	5.0 U
Naphthalene	91-20-3	10	ug/L	5 U	0.22 U	5.0 U	5.0 U
N-Butylbenzene	104-51-8	5	ug/L	5 U	5.0 U	5.0 U	5.0 U
N-Propylbenzene	103-65-1	5	ug/L	5 U	5.0 U	5.0 U	5.0 U
o-Xylene	95-47-6	--	ug/L	1 U	5.0 U	5.0 U	5.0 U
sec-Butylbenzene	135-98-8	5	ug/L	5 U	5.0 U	5.0 U	5.0 U
Styrene (Monomer)	100-42-5	5	ug/L	5 U	5.0 U	5.0 U	5.0 U
tert-Butylbenzene	98-06-6	5	ug/L	5 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	127-18-4	5	ug/L	1 U	5.0 U	5.0 U	5.0 U
Tetrahydrofuran	109-99-9	--	ug/L	10 U	NA	NA	NA
Toluene	108-88-3	5	ug/L	1 U	5.0 U	5.0 U	5.0 U
Total Xylenes	1330-20-7	5	ug/L	1 U	5 U	5 U	5 U
trans-1,2-Dichloroethene	156-60-5	5	ug/L	1 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	10061-02-6	0.4	ug/L	1 U	5.0 U	5.0 U	5.0 U
Trichloroethene	79-01-6	5	ug/L	1 U	5.0 U	5.0 U	5.0 U
Vinyl acetate	108-05-4	--	ug/L	10 U	NA	NA	NA
Vinyl chloride	75-01-4	2	ug/L	1 U	5.0 U	5.0 U	5.0 U
Total VOCs	ARC-TVOC	--	ug/L	10 U	NA	10 U	NA

Notes:

ug/L - micrograms per liter

NA - Not Analyzed

U - The compound was not detected, the compound quantitation limit is reported.

J - Indicates an estimated value

D - Compound quantitated using a secondary dilution

B - Analyte was found in the associated blank, as well as in the sample

Table 3-1
Summary of Sample Analytical Results (All Constituents)

Location ID: Date Collected: Sample Name:	CAS Number	NYSDEC TOGS 1.1-1 Water Guidance Values	Units	1295-MW26 09/09/16 1295-MW26-090916	1295-MW26 04/19/17 1295-MW26-041917	1295-MW26 09/28/17 1295-MW26-092817
Volatile Organics						
1,1,1,2-Tetrachloroethane	630-20-6	--	ug/L	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	71-55-6	5	ug/L	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/L	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	79-00-5	1	ug/L	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	75-34-3	5	ug/L	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	75-35-4	5	ug/L	5.0 U	5.0 U	5.0 U
1,1-Dichloropropene	563-58-6	--	ug/L	5.0 U	5.0 U	5.0 U
1,2,3-Trichlorobenzene	87-61-6	--	ug/L	5.0 U	5.0 U	5.0 U
1,2,3-Trichloropropane	96-18-4	--	ug/L	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/L	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/L	5.0 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane	96-12-8	0.04	ug/L	5.0 U	5.0 U	5.0 U
1,2-Dibromoethane	106-93-4	0.0006	ug/L	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	95-50-1	3	ug/L	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	107-06-2	0.6	ug/L	5.0 U	5.0 U	5.0 U
1,2-Dichloroethene, Total	540-59-0	--	ug/L	NA	NA	NA
1,2-Dichloropropane	78-87-5	1	ug/L	5.0 U	5.0 U	5.0 U
1,3,5-Trimethylbenzene	108-67-8	5	ug/L	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	541-73-1	3	ug/L	5.0 U	5.0 U	5.0 U
1,3-Dichloropropane	142-28-9	--	ug/L	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	106-46-7	3	ug/L	5.0 U	5.0 U	5.0 U
2,2-Dichloropropane	594-20-7	--	ug/L	5.0 U	5.0 U	5.0 U
2-Butanone (MEK)	78-93-3	50	ug/L	10 U	10 U	10 U
2-Chlorotoluene	95-49-8	--	ug/L	5.0 U	5.0 U	5.0 U
4-Chlorotoluene	106-43-4	--	ug/L	5.0 U	5.0 U	5.0 U
4-Methyl-2-Pentanone	108-10-1	--	ug/L	10 U	10 U	10 U
Acetone	67-64-1	50	ug/L	1.3 J	10 U	10 U
Benzene	71-43-2	1	ug/L	5.0 U	5.0 U	5.0 U
Bromobenzene	108-86-1	--	ug/L	5.0 U	5.0 U	5.0 U
Bromochloromethane	74-97-5	--	ug/L	5.0 U	5.0 U	5.0 U
Bromodichloromethane	75-27-4	50	ug/L	5.0 U	5.0 U	5.0 U
Bromoform	75-25-2	50	ug/L	5.0 U	5.0 U	5.0 U
Bromomethane	74-83-9	5	ug/L	5.0 U	5.0 U	5.0 U
Carbon Disulfide	75-15-0	60	ug/L	10 U	10 U	10 U
Carbon Tetrachloride	56-23-5	5	ug/L	5.0 U	5.0 U	5.0 U
CFC-11	75-69-4	5	ug/L	5.0 U	5.0 U	5.0 U
CFC-12	75-71-8	5	ug/L	5.0 U	5.0 U	5.0 U
Chlorobenzene	108-90-7	5	ug/L	5.0 U	5.0 U	5.0 U
Chlorodibromomethane	124-48-1	50	ug/L	5.0 U	5.0 U	5.0 U
Chloroethane	75-00-3	5	ug/L	5.0 U	5.0 U	5.0 U
Chloroform	67-66-3	7	ug/L	5.0 U	5.0 U	5.0 U
Chloromethane	74-87-3	5	ug/L	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	156-59-2	5	ug/L	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	10061-01-5	0.4	ug/L	5.0 U	5.0 U	5.0 U
Cymene (p-Isopropyltoluene)	99-87-6	5	ug/L	5.0 U	5.0 U	5.0 U
Dibromomethane	74-95-3	--	ug/L	5.0 U	5.0 U	5.0 U
Dichloromethane	75-09-2	5	ug/L	5.0 U	5.0 U	5.0 U
Diethyl ether	60-29-7	--	ug/L	NA	NA	NA
Ethylbenzene	100-41-4	5	ug/L	5.0 U	5.0 U	5.0 U
Hexachloro-1,3-butadiene	87-68-3	0.5	ug/L	5.0 U	5.0 U	5.0 U
Isopropylbenzene	98-82-8	5	ug/L	5.0 U	5.0 U	5.0 U
m&p-Xylenes	ARC-mpXyl	--	ug/L	5.0 U	5.0 U	5.0 U
Methyl N-Butyl Ketone (2-Hexanone)	591-78-6	50	ug/L	10 U	10 U	10 U
Methyl-tert-butylether	1634-04-4	10	ug/L	5.0 U	5.0 U	5.0 U
Naphthalene	91-20-3	10	ug/L	5.0 U	5.0 U	5.0 U
N-Butylbenzene	104-51-8	5	ug/L	5.0 U	5.0 U	5.0 U
N-Propylbenzene	103-65-1	5	ug/L	5.0 U	5.0 U	5.0 U
o-Xylene	95-47-6	--	ug/L	5.0 U	5.0 U	5.0 U
sec-Butylbenzene	135-98-8	5	ug/L	5.0 U	5.0 U	5.0 U
Styrene (Monomer)	100-42-5	5	ug/L	5.0 U	5.0 U	5.0 U
tert-Butylbenzene	98-06-6	5	ug/L	5.0 U	5.0 U	5.0 U
Tetrachloroethene	127-18-4	5	ug/L	5.0 U	5.0 U	5.0 U
Tetrahydrofuran	109-99-9	--	ug/L	NA	NA	NA
Toluene	108-88-3	5	ug/L	5.0 U	5.0 U	5.0 U
Total Xylenes	1330-20-7	5	ug/L	5 U	5 U	5 U
trans-1,2-Dichloroethene	156-60-5	5	ug/L	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	10061-02-6	0.4	ug/L	5.0 U	5.0 U	5.0 U
Trichloroethene	79-01-6	5	ug/L	5.0 U	5.0 U	5.0 U
Vinyl acetate	108-05-4	--	ug/L	NA	NA	NA
Vinyl chloride	75-01-4	2	ug/L	5.0 U	5.0 U	5.0 U
Total VOCs	ARC-TVOC	--	ug/L	1.3 J	10 U	NA

Notes:
ug/L - micrograms per liter
NA - Not Analyzed
U - The compound was not detected, the compound quantitation limit is reported.
J - Indicates an estimated value
D - Compound quantitated using a secondary dilution
B - Analyte was found in the associated blank, as well as in the sample

Table 3-1
Summary of Sample Analytical Results (All Constituents)

Location ID: Date Collected: Sample Name:	CAS Number	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	1295-MW30	1295-MW30	1295-MW30	1295-MW30	1295-MW30
				04/16/14	07/30/14	04/27/15	08/05/15	09/16/15
				1295-MW30 (04-16-2014)	1295-MW30 (07-30-2014)	1295-MW30-042715	1295-MW30-080515	1295-MW30-091615
Volatile Organics								
1,1,1,2-Tetrachloroethane	630-20-6	--	ug/L	25 U	25 U	50 U	NA	13 U
1,1,1-Trichloroethane	71-55-6	5	ug/L	5 U	5 U	50 U	NA	13 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/L	5 U	5 U	50 U	NA	13 U
1,1,2-Trichloroethane	79-00-5	1	ug/L	5 U	5 U	50 U	NA	13 U
1,1-Dichloroethane	75-34-3	5	ug/L	5 U	5 U	50 U	NA	13 U
1,1-Dichloroethene	75-35-4	5	ug/L	5 U	5 U	50 U	NA	13 U
1,1-Dichloropropene	563-58-6	--	ug/L	25 U	25 U	50 U	NA	13 U
1,2,3-Trichlorobenzene	87-61-6	--	ug/L	25 U	25 U	50 U	NA	13 U
1,2,3-Trichloropropane	96-18-4	--	ug/L	25 U	25 U	50 U	NA	13 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/L	25 U	25 U	50 U	NA	13 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/L	931	859	1,600	NA	120
1,2-Dibromo-3-chloropropane	96-12-8	0.04	ug/L	50 U	50 U	50 U	NA	13 U
1,2-Dibromoethane	106-93-4	0.0006	ug/L	10 U	10 U	50 U	NA	13 U
1,2-Dichlorobenzene	95-50-1	3	ug/L	5 U	5 U	50 U	NA	13 U
1,2-Dichloroethane	107-06-2	0.6	ug/L	5 U	5 U	50 U	NA	13 U
1,2-Dichloroethene, Total	540-59-0	--	ug/L	5 U	5 U	NA	NA	NA
1,2-Dichloropropane	78-87-5	1	ug/L	5 U	5 U	50 U	NA	13 U
1,3,5-Trimethylbenzene	108-67-8	5	ug/L	261	216	470	NA	57
1,3-Dichlorobenzene	541-73-1	3	ug/L	5 U	5 U	50 U	NA	13 U
1,3-Dichloropropane	142-28-9	--	ug/L	25 U	25 U	50 U	NA	13 U
1,4-Dichlorobenzene	106-46-7	3	ug/L	5 U	5 U	50 U	NA	13 U
2,2-Dichloropropane	594-20-7	--	ug/L	25 U	25 U	50 U	NA	13 U
2-Butanone (MEK)	78-93-3	50	ug/L	50 U	50 U	100 U	NA	7.6 J
2-Chlorotoluene	95-49-8	--	ug/L	25 U	25 U	50 U	NA	13 U
4-Chlorotoluene	106-43-4	--	ug/L	25 U	25 U	50 U	NA	13 U
4-Methyl-2-Pentanone	108-10-1	--	ug/L	25 U	25 U	100 U	NA	2.4 J
Acetone	67-64-1	50	ug/L	50 U	19.8 J	100 UJ	NA	18 J
Benzene	71-43-2	1	ug/L	5 U	5 U	50 U	13 U	13 U
Bromobenzene	108-86-1	--	ug/L	25 U	25 U	50 U	NA	13 U
Bromochloromethane	74-97-5	--	ug/L	25 U	25 U	50 U	NA	13 U
Bromodichloromethane	75-27-4	50	ug/L	5 U	5 U	50 U	NA	13 U
Bromoform	75-25-2	50	ug/L	20 U	20 U	50 U	NA	13 U
Bromomethane	74-83-9	5	ug/L	10 U	10 U	50 UJ	NA	13 UJ
Carbon Disulfide	75-15-0	60	ug/L	10 U	10 U	100 U	NA	25 U
Carbon Tetrachloride	56-23-5	5	ug/L	5 U	5 U	50 U	NA	13 U
CFC-11	75-69-4	5	ug/L	25 U	25 U	50 U	NA	13 U
CFC-12	75-71-8	5	ug/L	25 U	25 U	50 U	NA	13 U
Chlorobenzene	108-90-7	5	ug/L	5 U	5 U	50 U	NA	13 U
Chlorodibromomethane	124-48-1	50	ug/L	5 U	5 U	50 U	NA	13 U
Chloroethane	75-00-3	5	ug/L	5 U	5 U	50 U	NA	13 U
Chloroform	67-66-3	7	ug/L	5 U	5 U	50 U	NA	13 U
Chloromethane	74-87-3	5	ug/L	5 U	5 U	50 U	NA	13 U
cis-1,2-Dichloroethene	156-59-2	5	ug/L	5 U	5 U	50 U	NA	13 U
cis-1,3-Dichloropropene	10061-01-5	0.4	ug/L	5 U	5 U	50 U	NA	13 U
Cymene (p-Isopropyltoluene)	99-87-6	5	ug/L	7 J	6.5 J	14 J	NA	1.2 J
Dibromomethane	74-95-3	--	ug/L	25 U	25 U	50 U	NA	13 U
Dichloromethane	75-09-2	5	ug/L	10 U	10 U	50 U	NA	13 U
Diethyl ether	60-29-7	--	ug/L	25 U	25 U	NA	NA	NA
Ethylbenzene	100-41-4	5	ug/L	562	533	780	34	45
Hexachloro-1,3-butadiene	87-68-3	0.5	ug/L	25 U	25 U	50 U	NA	13 U
Isopropylbenzene	98-82-8	5	ug/L	52.8	46.8	81	NA	3.6 J
m&p-Xylenes	ARC-mpXyl	--	ug/L	1,510	1,710	3,000	590	340
Methyl N-Butyl Ketone (2-Hexanone)	591-78-6	50	ug/L	25 U	25 U	100 U	NA	5.6 J
Methyl-tert-butylether	1634-04-4	10	ug/L	NA	NA	50 UJ	NA	13 U
Naphthalene	91-20-3	10	ug/L	167	172	380	NA	22
N-Butylbenzene	104-51-8	5	ug/L	8 J	4.7 J	50 U	NA	13 U
N-Propylbenzene	103-85-1	5	ug/L	116	101	200	NA	5.7 J
o-Xylene	95-47-6	--	ug/L	45.9	64.1	59	30	12 J
sec-Butylbenzene	135-98-8	5	ug/L	5.8 J	4.5 J	11 J	NA	13 U
Styrene (Monomer)	100-42-5	5	ug/L	25 U	25 U	50 U	NA	13 U
tert-Butylbenzene	98-06-6	5	ug/L	25 U	25 U	50 U	NA	13 U
Tetrachloroethene	127-18-4	5	ug/L	5 U	5 U	50 U	NA	13 U
Tetrahydrofuran	109-99-9	--	ug/L	50 U	50 U	NA	NA	NA
Toluene	108-88-3	5	ug/L	5.5	6.5	3.3 J	0.68 J	0.80 J
Total Xylenes	1330-20-7	5	ug/L	1,555.9	1,774.1	3,059	620	352 J
trans-1,2-Dichloroethene	156-60-5	5	ug/L	5 U	5 U	50 U	NA	13 U
trans-1,3-Dichloropropene	10061-02-6	0.4	ug/L	5 U	5 U	50 U	NA	13 U
Trichloroethene	79-01-6	5	ug/L	5 U	5 U	50 U	NA	13 U
Vinyl acetate	108-05-4	--	ug/L	50 U	50 U	NA	NA	NA
Vinyl chloride	75-01-4	2	ug/L	5 U	5 U	50 U	NA	13 U
Total VOCs	ARC-TVOC	--	ug/L	3,672 J	3,743.9 J	NA	NA	640.9 J

Notes:
ug/L - micrograms per liter
NA - Not Analyzed
U - The compound was not detected, the compound quantitation limit is reported.
J - Indicates an estimated value
D - Compound quantitated using a secondary dilution
B - Analyte was found in the associated blank, as well as in the sample

Table 3-1
Summary of Sample Analytical Results (All Constituents)

Location ID: Date Collected: Sample Name:	CAS Number	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	1295-MW30 12/11/15 1295-MW30-121115	1295-MW30 01/26/16 1295-MW30-012616	1295-MW30 02/24/16 1295-MW30-022416	1295-MW30 04/27/16 1295-MW30-042716	1295-MW30 08/01/16 1295-MW-30-080116	1295-MW30 09/09/16 1295-MW30-090916
Volatile Organics									
1,1,1,2-Tetrachloroethane	630-20-6	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
1,1,1-Trichloroethane	71-55-6	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
1,1,2-Trichloroethane	79-00-5	1	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
1,1-Dichloroethane	75-34-3	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
1,1-Dichloroethene	75-35-4	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
1,1-Dichloropropene	563-58-6	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
1,2,3-Trichlorobenzene	87-61-6	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
1,2,3-Trichloropropane	96-18-4	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/L	5.1	2.1 J	550 D	950 D	0.76 J	500
1,2-Dibromo-3-chloropropane	96-12-8	0.04	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
1,2-Dibromoethane	106-93-4	0.0006	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
1,2-Dichlorobenzene	95-50-1	3	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
1,2-Dichloroethane	107-06-2	0.6	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
1,2-Dichloroethene, Total	540-59-0	--	ug/L	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	1	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
1,3,5-Trimethylbenzene	108-67-8	5	ug/L	2.9 J	1.5 J	170 D	380 D	1.8 J	160
1,3-Dichlorobenzene	541-73-1	3	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
1,3-Dichloropropane	142-28-9	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
1,4-Dichlorobenzene	106-46-7	3	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
2,2-Dichloropropane	594-20-7	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
2-Butanone (MEK)	78-93-3	50	ug/L	10 U	10 U	26	2.8 J	10 U	50 U
2-Chlorotoluene	95-49-8	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
4-Chlorotoluene	106-43-4	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
4-Methyl-2-Pentanone	108-10-1	--	ug/L	10 U	10 U	0.72 J	10 U	10 U	50 U
Acetone	67-64-1	50	ug/L	3.4 J	3.4 J	64	6.6 J	1.6 J	23 J
Benzene	71-43-2	1	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
Bromobenzene	108-86-1	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
Bromochloromethane	74-97-5	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
Bromodichloromethane	75-27-4	50	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
Bromoform	75-25-2	50	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
Bromomethane	74-83-9	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
Carbon Disulfide	75-15-0	60	ug/L	0.35 J	10 U	1.3 J	0.95 J	10 U	50 U
Carbon Tetrachloride	56-23-5	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
CFC-11	75-69-4	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
CFC-12	75-71-8	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
Chlorobenzene	108-90-7	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
Chlorodibromomethane	124-48-1	50	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
Chloroethane	75-00-3	5	ug/L	0.97 J	2.9 J	0.84 J	5.0 U	5.0 U	25 U
Chloroform	67-66-3	7	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
Chloromethane	74-87-3	5	ug/L	0.32 J	0.40 J	0.46 J	0.24 J	5.0 U	25 U
cis-1,2-Dichloroethene	156-59-2	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
cis-1,3-Dichloropropene	10061-01-5	0.4	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
Cymene (p-Isopropyltoluene)	99-87-6	5	ug/L	5.0 U	0.23 J	10	13	5.0 U	6.2 J
Dibromomethane	74-95-3	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
Dichloromethane	75-09-2	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
Diethyl ether	60-29-7	--	ug/L	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	5	ug/L	0.46 J	5.0 U	200	250 D	5.0 U	130
Hexachloro-1,3-butadiene	87-68-3	0.5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
Isopropylbenzene	98-82-8	5	ug/L	5.0 U	5.0 U	30	41	5.0 U	21 J
m&p-Xylenes	ARC-mpXyl	--	ug/L	4.7 J	1.2 J	770 D	1,000 D	0.42 J	330
Methyl N-Butyl Ketone (2-Hexanone)	591-78-6	50	ug/L	10 U	10 U	1.7 J	10 U	10 U	50 U
Methyl-tert-butylether	1634-04-4	10	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
Naphthalene	91-20-3	10	ug/L	1.0 BJ	5.0 U	78	97	5.0 U	43
N-Butylbenzene	104-51-8	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	4.5 J
N-Propylbenzene	103-65-1	5	ug/L	0.25 J	0.20 J	57	77	5.0 U	35
o-Xylene	95-47-6	--	ug/L	0.30 J	5.0 U	35	39	5.0 U	13 J
sec-Butylbenzene	135-98-8	5	ug/L	5.0 U	5.0 U	4.9 J	5.6	5.0 U	4.0 J
Styrene (Monomer)	100-42-5	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.6 J
tert-Butylbenzene	98-06-6	5	ug/L	5.0 U	5.0 U	0.91 J	1.1 J	5.0 U	25 U
Tetrachloroethene	127-18-4	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
Tetrahydrofuran	109-99-9	--	ug/L	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	5	ug/L	5.0 U	5.0 U	1.3 J	1.2 J	5.0 U	25 U
Total Xylenes	1330-20-7	5	ug/L	5 J	1.2 J	805	1,039	0.42 J	343 J
trans-1,2-Dichloroethene	156-60-5	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
trans-1,3-Dichloropropene	10061-02-6	0.4	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
Trichloroethene	79-01-6	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
Vinyl acetate	108-05-4	--	ug/L	NA	NA	NA	NA	NA	NA
Vinyl chloride	75-01-4	2	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
Total VOCs	ARC-TVOC	--	ug/L	NA	NA	NA	NA	NA	1,271.3 J

Notes:
ug/L - micrograms per liter
NA - Not Analyzed
U - The compound was not detected, the compound quantitation limit is reported.
J - Indicates an estimated value
D - Compound quantitated using a secondary dilution
B - Analyte was found in the associated blank, as well as in the sample

Table 3-1
Summary of Sample Analytical Results (All Constituents)

Location ID: Date Collected: Sample Name:	CAS Number	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	1295-MW30	1295-MW30	1295-MW30	1295-MW30	1295-MW30
				10/26/16	10/26/16	04/19/17	06/26/17	09/22/17
				1295MW30-POSTVAC 10262016	1295MW30-PREVAC 10262016	1295-MW30-041917	1295-MW30-062617	1295-MW30-092217
Volatile Organics								
1,1,1,2-Tetrachloroethane	630-20-6	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	71-55-6	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	79-00-5	1	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	75-34-3	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	75-35-4	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloropropene	563-58-6	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,3-Trichlorobenzene	87-61-6	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,3-Trichloropropane	96-18-4	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/L	14	5.0 U	98	150	62
1,2-Dibromo-3-chloropropane	96-12-8	0.04	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromoethane	106-93-4	0.0006	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	95-50-1	3	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	107-06-2	0.6	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethene, Total	540-59-0	--	ug/L	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	1	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,3,5-Trimethylbenzene	108-67-8	5	ug/L	21	5.0 U	45	80	15
1,3-Dichlorobenzene	541-73-1	3	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichloropropane	142-28-9	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	106-46-7	3	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,2-Dichloropropane	594-20-7	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (MEK)	78-93-3	50	ug/L	4.8 J	3.3 J	1.1 J	10 U	1.9 J
2-Chlorotoluene	95-49-8	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chlorotoluene	106-43-4	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-Pentanone	108-10-1	--	ug/L	10 U	10 U	10 U	10 U	10 U
Acetone	67-64-1	50	ug/L	20	90	3.5 J	4.4 J	3.8 J
Benzene	71-43-2	1	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromobenzene	108-86-1	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromochloromethane	74-97-5	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	75-27-4	50	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	75-25-2	50	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane	74-83-9	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Disulfide	75-15-0	60	ug/L	10 U	10 U	10 U	0.35 BJ	10 U
Carbon Tetrachloride	56-23-5	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
CFC-11	75-69-4	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
CFC-12	75-71-8	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	108-90-7	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorodibromomethane	124-48-1	50	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	75-00-3	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform	67-66-3	7	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane	74-87-3	5	ug/L	5.0 U	0.50 J	0.25 BJ	5.0 U	5.0 U
cis-1,2-Dichloroethene	156-59-2	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	10061-01-5	0.4	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cymene (p-Isopropyltoluene)	99-87-6	5	ug/L	0.96 J	5.0 U	3.1 J	4.3 J	1.7 J
Dibromomethane	74-95-3	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dichloromethane	75-09-2	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diethyl ether	60-29-7	--	ug/L	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	5	ug/L	7.5	5.0 U	19	16	5.0 J
Hexachloro-1,3-butadiene	87-68-3	0.5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	98-82-8	5	ug/L	1.2 J	5.0 U	4.2 J	4.8 J	2.1 J
m&p-Xylenes	ARC-mpXyl	--	ug/L	26	5.0 U	58	59	30
Methyl N-Butyl Ketone (2-Hexanone)	591-78-6	50	ug/L	1.8 J	10 U	10 U	10 U	10 U
Methyl-tert-butylether	1634-04-4	10	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	91-20-3	10	ug/L	5.0 U	5.0 U	6.7	8.3	3.0 J
N-Butylbenzene	104-51-8	5	ug/L	5.0 U	5.0 U	6.2	5.0 U	5.0 U
N-Propylbenzene	103-65-1	5	ug/L	1.8 J	5.0 U	8.1	7.5	2.9 J
o-Xylene	95-47-6	--	ug/L	1.2 J	5.0 U	3.3 J	4.0 J	2.6 J
sec-Butylbenzene	135-98-8	5	ug/L	0.37 J	5.0 U	1.4 J	1.8 J	0.71 J
Styrene (Monomer)	100-42-5	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
tert-Butylbenzene	98-06-6	5	ug/L	5.0 U	5.0 U	0.24 J	0.36 J	5.0 U
Tetrachloroethene	127-18-4	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrahydrofuran	109-99-9	--	ug/L	NA	NA	NA	NA	NA
Toluene	108-88-3	5	ug/L	5.0 U	5.0 U	0.23 J	5.0 U	5.0 U
Total Xylenes	1330-20-7	5	ug/L	27.2 J	5 U	61.3 J	63 J	32.6 J
trans-1,2-Dichloroethene	156-60-5	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	10061-02-6	0.4	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	79-01-6	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl acetate	108-05-4	--	ug/L	NA	NA	NA	NA	NA
Vinyl chloride	75-01-4	2	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Total VOCs	ARC-TVOC	--	ug/L	100.63 J	93.8 J	258.32 J	NA	130.71 J

Notes:
ug/L - micrograms per liter
NA - Not Analyzed
U - The compound was not detected, the compound quantitation limit is reported.
J - Indicates an estimated value
D - Compound quantitated using a secondary dilution
B - Analyte was found in the associated blank, as well as in the sample

Table 3-1
Summary of Sample Analytical Results (All Constituents)

Location ID: Date Collected: Sample Name:	CAS Number	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	1295-MWS27 04/16/14 1295-MWS27 (04-16-2014)	1295-MWS27 07/30/14 1295-MWS27 (07-30-2014)	1295-MWS27 04/27/15 1295-MWS27-042715	1295-MWS27 09/11/15 1295-MWS27-091115
Volatile Organics							
1,1,1,2-Tetrachloroethane	630-20-6	--	ug/L	5 U	5 U	5.0 U	5.0 U
1,1,1-Trichloroethane	71-55-6	5	ug/L	1 U	1 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/L	1 U	1 U	5.0 U	5.0 U
1,1,2-Trichloroethane	79-00-5	1	ug/L	1 U	1 U	5.0 U	5.0 U
1,1-Dichloroethane	75-34-3	5	ug/L	1 U	1 U	5.0 U	5.0 U
1,1-Dichloroethene	75-35-4	5	ug/L	1 U	1 U	5.0 U	5.0 U
1,1-Dichloropropene	563-58-6	--	ug/L	5 U	5 U	5.0 U	5.0 U
1,2,3-Trichlorobenzene	87-61-6	--	ug/L	5 U	5 U	5.0 U	5.0 U
1,2,3-Trichloropropane	98-18-4	--	ug/L	5 U	5 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/L	5 U	5 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/L	88.7	2.1	8.4	0.67 J
1,2-Dibromo-3-chloropropane	96-12-8	0.04	ug/L	10 U	10 U	5.0 U	5.0 U
1,2-Dibromoethane	106-93-4	0.0006	ug/L	2 U	2 U	5.0 U	5.0 U
1,2-Dichlorobenzene	95-50-1	3	ug/L	1 U	1 U	5.0 U	5.0 U
1,2-Dichloroethane	107-06-2	0.6	ug/L	1 U	1 U	5.0 U	5.0 U
1,2-Dichloroethene, Total	540-59-0	--	ug/L	1 U	1 U	NA	NA
1,2-Dichloropropane	78-87-5	1	ug/L	1 U	1 U	5.0 U	5.0 U
1,3,5-Trimethylbenzene	108-67-8	5	ug/L	23.2	0.3 J	1.5 J	0.20 J
1,3-Dichlorobenzene	541-73-1	3	ug/L	1 U	1 U	5.0 U	5.0 U
1,3-Dichloropropane	142-28-9	--	ug/L	5 U	5 U	5.0 U	5.0 U
1,4-Dichlorobenzene	106-46-7	3	ug/L	1 U	1 U	5.0 U	5.0 U
2,2-Dichloropropane	594-20-7	--	ug/L	5 U	5 U	5.0 U	5.0 U
2-Butanone (MEK)	78-93-3	50	ug/L	10 U	10 U	10 U	10 U
2-Chlorotoluene	95-49-8	--	ug/L	5 U	5 U	5.0 U	5.0 U
4-Chlorotoluene	106-43-4	--	ug/L	5 U	5 U	5.0 U	5.0 U
4-Methyl-2-Pentanone	108-10-1	--	ug/L	5 U	5 U	10 U	10 U
Acetone	67-64-1	50	ug/L	10 U	10 U	10 U	10 U
Benzene	71-43-2	1	ug/L	0.32 J	1 U	5.0 U	5.0 U
Bromobenzene	108-86-1	--	ug/L	5 U	5 U	5.0 U	5.0 U
Bromochloromethane	74-97-5	--	ug/L	5 U	5 U	5.0 U	5.0 U
Bromodichloromethane	75-27-4	50	ug/L	1 U	1 U	5.0 U	5.0 U
Bromoform	75-25-2	50	ug/L	4 U	4 U	5.0 U	5.0 U
Bromomethane	74-83-9	5	ug/L	2 U	2 U	5.0 U J	5.0 U
Carbon Disulfide	75-15-0	60	ug/L	2 U	2 U	10 U	10 U
Carbon Tetrachloride	56-23-5	5	ug/L	1 U	1 U	5.0 U	5.0 U
CFC-11	75-69-4	5	ug/L	5 U	5 U	5.0 U	5.0 U
CFC-12	75-71-8	5	ug/L	5 U	5 U	5.0 U	5.0 U
Chlorobenzene	108-90-7	5	ug/L	1 U	1 U	5.0 U	5.0 U
Chlorodibromomethane	124-48-1	50	ug/L	1 U	1 U	5.0 U	5.0 U
Chloroethane	75-00-3	5	ug/L	1 U	1 U	5.0 U	5.0 U
Chloroform	67-66-3	7	ug/L	1 U	0.38 J	5.0 U	0.26 J
Chloromethane	74-87-3	5	ug/L	1 U	1 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	156-59-2	5	ug/L	1 U	1 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	10061-01-5	0.4	ug/L	1 U	1 U	5.0 U	5.0 U
Cymene (p-Isopropyltoluene)	99-87-6	5	ug/L	5 U	5 U	5.0 U	5.0 U
Dibromomethane	74-95-3	--	ug/L	5 U	5 U	5.0 U	5.0 U
Dichloromethane	75-09-2	5	ug/L	2 U	2 U	5.0 U	5.0 U
Diethyl ether	60-29-7	--	ug/L	5 U	5 U	NA	NA
Ethylbenzene	100-41-4	5	ug/L	31.3	2	5.0 U	2.9 J
Hexachloro-1,3-butadiene	87-68-3	0.5	ug/L	5 U	5 U	5.0 U	5.0 U
Isopropylbenzene	98-82-8	5	ug/L	4.2	2 U	0.70 J	0.26 J
m&p-Xylenes	ARC-mpXyl	--	ug/L	131	4.1	5.0 U	5.0 U
Methyl N-Butyl Ketone (2-Hexanone)	591-78-6	50	ug/L	5 U	5 U	10 U	10 U
Methyl-tert-butylether	1634-04-4	10	ug/L	NA	NA	5.0 U	5.0 U
Naphthalene	91-20-3	10	ug/L	6.1	1.1 J	0.63 U	0.39 J
N-Butylbenzene	104-51-8	5	ug/L	5 U	5 U	0.38 J	5.0 U
N-Propylbenzene	103-65-1	5	ug/L	12	5 U	2.5 J	0.35 J
o-Xylene	95-47-6	--	ug/L	21.9	4.9	5.0 U	0.35 J
sec-Butylbenzene	135-98-8	5	ug/L	5 U	5 U	5.0 U	5.0 U
Styrene (Monomer)	100-42-5	5	ug/L	5 U	5 U	5.0 U	5.0 U
tert-Butylbenzene	98-06-6	5	ug/L	5 U	5 U	5.0 U	5.0 U
Tetrachloroethene	127-18-4	5	ug/L	1 U	1 U	5.0 U	5.0 U
Tetrahydrofuran	109-99-9	--	ug/L	10 U	10 U	NA	NA
Toluene	108-88-3	5	ug/L	30.6	0.67 J	5.0 U	5.0 U
Total Xylenes	1330-20-7	5	ug/L	152.9	9	5 U	0.35 J
trans-1,2-Dichloroethene	156-60-5	5	ug/L	1 U	1 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	10061-02-6	0.4	ug/L	1 U	1 U	5.0 U	5.0 U
Trichloroethene	79-01-6	5	ug/L	1 U	1 U	0.23 J	0.27 J
Vinyl acetate	108-05-4	--	ug/L	10 U	10 U	NA	NA
Vinyl chloride	75-01-4	2	ug/L	1 U	1 U	5.0 U	5.0 U
Total VOCs	ARC-TVOC	--	ug/L	349.32 J	15.55 J	NA	5.65 J

Notes:
ug/L - micrograms per liter
NA - Not Analyzed
U - The compound was not detected, the compound quantitation limit is reported.
J - Indicates an estimated value
D - Compound quantitated using a secondary dilution
B - Analyte was found in the associated blank, as well as in the sample

Table 3-1
Summary of Sample Analytical Results (All Constituents)

Location ID: Date Collected: Sample Name:	CAS Number	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	1295-MWS27 04/27/16 1295-MWS27-042716	1295-MWS27 09/09/16 1295-MWS27-090916	1295-MWS27 04/19/17 1295-MWS27-041917	1295-MWS27 09/26/17 1295-MWS27-092617
Volatile Organics							
1,1,1,2-Tetrachloroethane	630-20-6	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	71-55-6	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	79-00-5	1	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	75-34-3	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	75-35-4	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloropropene	563-58-6	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2,3-Trichlorobenzene	87-61-6	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2,3-Trichloropropane	96-18-4	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/L	2.6 J	1.2 J	3.1 J	5.0 U
1,2-Dibromo-3-chloropropane	96-12-8	0.04	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromoethane	106-93-4	0.0006	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	95-50-1	3	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	107-06-2	0.6	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethene, Total	540-59-0	--	ug/L	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	1	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,3,5-Trimethylbenzene	108-67-8	5	ug/L	0.72 J	5.0 U	1.2 J	5.0 U
1,3-Dichlorobenzene	541-73-1	3	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichloropropane	142-28-9	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	106-46-7	3	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2,2-Dichloropropane	594-20-7	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (MEK)	78-93-3	50	ug/L	10 U	10 U	10 U	10 U
2-Chlorotoluene	95-49-8	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Chlorotoluene	106-43-4	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-Pentanone	108-10-1	--	ug/L	10 U	10 U	10 U	10 U
Acetone	67-64-1	50	ug/L	10 U	1.6 J	1.4 J	10 U
Benzene	71-43-2	1	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromobenzene	108-86-1	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromochloromethane	74-97-5	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	75-27-4	50	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	75-25-2	50	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane	74-83-9	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Disulfide	75-15-0	60	ug/L	10 U	10 U	10 U	10 U
Carbon Tetrachloride	56-23-5	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
CFC-11	75-69-4	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
CFC-12	75-71-8	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	108-90-7	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Chlorodibromomethane	124-48-1	50	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	75-00-3	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform	67-66-3	7	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane	74-87-3	5	ug/L	5.0 U	5.0 U	0.27 BJ	5.0 U
cis-1,2-Dichloroethene	156-59-2	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	10061-01-5	0.4	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Cymene (p-Isopropyltoluene)	99-87-6	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Dibromomethane	74-95-3	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Dichloromethane	75-09-2	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Diethyl ether	60-29-7	--	ug/L	NA	NA	NA	NA
Ethylbenzene	100-41-4	5	ug/L	4.5 J	5.0 U	10	0.33 J
Hexachloro-1,3-butadiene	87-68-3	0.5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	98-82-8	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
m&p-Xylenes	ARC-mpXyl	--	ug/L	23	5.0 U	35	0.92 J
Methyl N-Butyl Ketone (2-Hexanone)	591-78-6	50	ug/L	10 U	10 U	10 U	10 U
Methyl-tert-butylether	1634-04-4	10	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	91-20-3	10	ug/L	5.0 U	5.0 U	0.72 J	5.0 U
N-Butylbenzene	104-51-8	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
N-Propylbenzene	103-65-1	5	ug/L	0.26 J	0.38 J	0.30 J	5.0 U
o-Xylene	95-47-6	--	ug/L	13	5.0 U	22	0.57 J
sec-Butylbenzene	135-98-8	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Styrene (Monomer)	100-42-5	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
tert-Butylbenzene	98-06-6	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	127-18-4	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Tetrahydrofuran	109-99-9	--	ug/L	NA	NA	NA	NA
Toluene	108-88-3	5	ug/L	15	5.0 U	28	0.45 J
Total Xylenes	1330-20-7	5	ug/L	36	5 U	57	1.49 J
trans-1,2-Dichloroethene	156-60-5	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	10061-02-6	0.4	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	79-01-6	5	ug/L	0.24 J	0.30 J	0.28 J	0.43 J
Vinyl acetate	108-05-4	--	ug/L	NA	NA	NA	NA
Vinyl chloride	75-01-4	2	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Total VOCs	ARC-TVOC	--	ug/L	NA	3.48 J	102.27 J	2.7 J

Notes:
ug/L - micrograms per liter
NA - Not Analyzed
U - The compound was not detected, the compound quantitation limit is reported.
J - Indicates an estimated value
D - Compound quantitated using a secondary dilution
B - Analyte was found in the associated blank, as well as in the sample

Table 3-1
Summary of Sample Analytical Results (All Constituents)

Location ID: Date Collected: Sample Name:	CAS Number	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	1295-MWS28 04/16/14 1295-MWS28 (04-16-2014)	1295-MWS28 07/30/14 1295-MWS28 (07-30-2014)	1295-MWS28 04/27/15 1295-MWS28-042715	1295-MWS28 09/16/15 1295-MWS28-091615
Volatiles Organics							
1,1,1,2-Tetrachloroethane	630-20-6	--	ug/L	5 U	5 U	5.0 U	5.0 U
1,1,1-Trichloroethane	71-55-6	5	ug/L	1 U	1 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/L	1 U	1 U	5.0 U	5.0 U
1,1,2-Trichloroethane	79-00-5	1	ug/L	1 U	1 U	5.0 U	5.0 U
1,1-Dichloroethane	75-34-3	5	ug/L	1 U	1 U	5.0 U	5.0 U
1,1-Dichloroethene	75-35-4	5	ug/L	1 U	1 U	5.0 U	5.0 U
1,1-Dichloropropene	563-58-6	--	ug/L	5 U	5 U	5.0 U	5.0 U
1,2,3-Trichlorobenzene	87-61-6	--	ug/L	5 U	5 U	5.0 U	5.0 U
1,2,3-Trichloropropane	98-18-4	--	ug/L	5 U	5 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/L	5 U	5 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/L	0.49 J	2 U	5.0 U	0.27 J
1,2-Dibromo-3-chloropropane	96-12-8	0.04	ug/L	10 U	10 U	5.0 U	5.0 U
1,2-Dibromoethane	106-93-4	0.0006	ug/L	2 U	2 U	5.0 U	5.0 U
1,2-Dichlorobenzene	95-50-1	3	ug/L	1 U	1 U	5.0 U	5.0 U
1,2-Dichloroethane	107-06-2	0.6	ug/L	1 U	1 U	5.0 U	5.0 U
1,2-Dichloroethene, Total	540-59-0	--	ug/L	1 U	1 U	NA	NA
1,2-Dichloropropane	78-87-5	1	ug/L	1 U	1 U	5.0 U	5.0 U
1,3,5-Trimethylbenzene	108-67-8	5	ug/L	2 U	2 U	5.0 U	5.0 U
1,3-Dichlorobenzene	541-73-1	3	ug/L	1 U	1 U	5.0 U	5.0 U
1,3-Dichloropropane	142-28-9	--	ug/L	5 U	5 U	5.0 U	5.0 U
1,4-Dichlorobenzene	106-46-7	3	ug/L	1 U	1 U	5.0 U	5.0 U
2,2-Dichloropropane	594-20-7	--	ug/L	5 U	5 U	5.0 U	5.0 U
2-Butanone (MEK)	78-93-3	50	ug/L	10 U	10 U	10 U	10 U
2-Chlorotoluene	95-49-8	--	ug/L	5 U	5 U	5.0 U	5.0 U
4-Chlorotoluene	106-43-4	--	ug/L	5 U	5 U	5.0 U	5.0 U
4-Methyl-2-Pentanone	108-10-1	--	ug/L	5 U	5 U	10 U	10 U
Acetone	67-64-1	50	ug/L	10 U	10 U	10 U	10 U
Benzene	71-43-2	1	ug/L	1 U	1 U	5.0 U	5.0 U
Bromobenzene	108-86-1	--	ug/L	5 U	5 U	5.0 U	5.0 U
Bromochloromethane	74-97-5	--	ug/L	5 U	5 U	5.0 U	5.0 U
Bromodichloromethane	75-27-4	50	ug/L	1 U	1 U	5.0 U	5.0 U
Bromoform	75-25-2	50	ug/L	4 U	4 U	5.0 U	5.0 U
Bromomethane	74-83-9	5	ug/L	2 U	2 U	5.0 U	5.0 U
Carbon Disulfide	75-15-0	60	ug/L	2 U	2 U	10 U	10 U
Carbon Tetrachloride	56-23-5	5	ug/L	1 U	1 U	5.0 U	5.0 U
CFC-11	75-69-4	5	ug/L	5 U	5 U	5.0 U	5.0 U
CFC-12	75-71-8	5	ug/L	5 U	5 U	5.0 U	5.0 U
Chlorobenzene	108-90-7	5	ug/L	1 U	1 U	5.0 U	5.0 U
Chlorodibromomethane	124-48-1	50	ug/L	1 U	1 U	5.0 U	5.0 U
Chloroethane	75-00-3	5	ug/L	1 U	1 U	5.0 U	5.0 U
Chloroform	67-66-3	7	ug/L	1 U	1 U	5.0 U	5.0 U
Chloromethane	74-87-3	5	ug/L	1 U	1 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	156-59-2	5	ug/L	1 U	1 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	10061-01-5	0.4	ug/L	1 U	1 U	5.0 U	5.0 U
Cymene (p-Isopropyltoluene)	99-87-6	5	ug/L	5 U	5 U	5.0 U	5.0 U
Dibromomethane	74-95-3	--	ug/L	5 U	5 U	5.0 U	5.0 U
Dichloromethane	75-00-2	5	ug/L	2 U	2 U	5.0 U	5.0 U
Diethyl ether	60-29-7	--	ug/L	5 U	5 U	NA	NA
Ethylbenzene	100-41-4	5	ug/L	1 U	1 U	5.0 U	5.0 U
Hexachloro-1,3-butadiene	87-68-3	0.5	ug/L	5 U	5 U	5.0 U	5.0 U
Isopropylbenzene	98-82-8	5	ug/L	2 U	2 U	5.0 U	5.0 U
m&p-Xylenes	ARC-mpXyl	--	ug/L	1.3	0.38 J	5.0 U	0.39 J
Methyl N-Butyl Ketone (2-Hexanone)	591-78-6	50	ug/L	5 U	5 U	10 U	10 U
Methyl-tert-butylether	1634-04-4	10	ug/L	NA	NA	5.0 U	5.0 U
Naphthalene	91-20-3	10	ug/L	5 U	5 U	5.0 U	0.47 U
N-Butylbenzene	104-51-8	5	ug/L	5 U	5 U	5.0 U	5.0 U
N-Propylbenzene	103-65-1	5	ug/L	5 U	5 U	5.0 U	5.0 U
o-Xylene	95-47-6	--	ug/L	0.65 J	1 U	5.0 U	0.23 J
sec-Butylbenzene	135-98-8	5	ug/L	5 U	5 U	5.0 U	5.0 U
Styrene (Monomer)	100-42-5	5	ug/L	5 U	5 U	5.0 U	5.0 U
tert-Butylbenzene	98-06-6	5	ug/L	5 U	5 U	5.0 U	5.0 U
Tetrachloroethene	127-18-4	5	ug/L	1 U	1 U	5.0 U	5.0 U
Tetrahydrofuran	109-99-9	--	ug/L	10 U	10 U	NA	NA
Toluene	108-88-3	5	ug/L	1.1	1 U	5.0 U	5.0 U
Total Xylenes	1330-20-7	5	ug/L	1.95 J	0.38 J	5 U	0.62 J
trans-1,2-Dichloroethene	156-60-5	5	ug/L	1 U	1 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	10061-02-6	0.4	ug/L	1 U	1 U	5.0 U	5.0 U
Trichloroethene	79-01-6	5	ug/L	1 U	0.64 J	0.58 J	0.63 J
Vinyl acetate	108-05-4	--	ug/L	10 U	10 U	NA	NA
Vinyl chloride	75-01-4	2	ug/L	1 U	1 U	5.0 U	5.0 U
Total VOCs	ARC-TVOC	--	ug/L	3.54 J	1.02 J	NA	1.52 J

Notes:
ug/L - micrograms per liter
NA - Not Analyzed
U - The compound was not detected, the compound quantitation limit is reported.
J - Indicates an estimated value
D - Compound quantitated using a secondary dilution
B - Analyte was found in the associated blank, as well as in the sample

Table 3-1
Summary of Sample Analytical Results (All Constituents)

Location ID: Date Collected: Sample Name:	CAS Number	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	1295-MWS28 04/27/16 1295-MWS28-042716	1295-MWS28 09/09/16 1295-MWS28-090916	1295-MWS28 04/19/17 1295-MWS28-041917	1295-MWS28 09/22/17 1295-MWS28-092217
Volatile Organics							
1,1,1,2-Tetrachloroethane	630-20-6	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	71-55-6	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	79-00-5	1	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	75-34-3	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	75-35-4	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloropropene	563-58-6	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2,3-Trichlorobenzene	87-61-6	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2,3-Trichloropropane	96-18-4	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/L	5.0 U	5.0 U	0.30 J	5.0 U
1,2-Dibromo-3-chloropropane	96-12-8	0.04	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromoethane	106-93-4	0.0006	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	95-50-1	3	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	107-06-2	0.6	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethene, Total	540-59-0	--	ug/L	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	1	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,3,5-Trimethylbenzene	108-67-8	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	541-73-1	3	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichloropropane	142-28-9	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	106-46-7	3	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2,2-Dichloropropane	594-20-7	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (MEK)	78-93-3	50	ug/L	10 U	1.1 J	10 U	10 U
2-Chlorotoluene	95-49-8	--	ug/L	5.0 U	5.0 U	5.0 U	0.24 BJ
4-Chlorotoluene	106-43-4	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-Pentanone	108-10-1	--	ug/L	10 U	10 U	10 U	10 U
Acetone	67-64-1	50	ug/L	10 U	10 U	1.4 J	10 U
Benzene	71-43-2	1	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromobenzene	108-86-1	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromochloromethane	74-97-5	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	75-27-4	50	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	75-25-2	50	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane	74-83-9	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Disulfide	75-15-0	60	ug/L	10 U	10 U	10 U	10 U
Carbon Tetrachloride	56-23-5	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
CFC-11	75-69-4	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
CFC-12	75-71-8	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	108-90-7	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Chlorodibromomethane	124-48-1	50	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	75-00-3	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform	67-66-3	7	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane	74-87-3	5	ug/L	5.0 U	5.0 U	0.31 BJ	0.22 J
cis-1,2-Dichloroethene	156-59-2	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	10061-01-5	0.4	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Cymene (p-Isopropyltoluene)	99-87-6	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Dibromomethane	74-95-3	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Dichloromethane	75-09-2	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Diethyl ether	60-29-7	--	ug/L	NA	NA	NA	NA
Ethylbenzene	100-41-4	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Hexachloro-1,3-butadiene	87-68-3	0.5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	98-82-8	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
m&p-Xylenes	ARC-mpXyl	--	ug/L	5.0 U	5.0 U	0.33 J	5.0 U
Methyl N-Butyl Ketone (2-Hexanone)	591-78-6	50	ug/L	10 U	10 U	10 U	10 U
Methyl-tert-butylether	1634-04-4	10	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	91-20-3	10	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
N-Butylbenzene	104-51-8	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
N-Propylbenzene	103-65-1	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
o-Xylene	95-47-6	--	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
sec-Butylbenzene	135-98-8	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Styrene (Monomer)	100-42-5	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
tert-Butylbenzene	98-06-6	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	127-18-4	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Tetrahydrofuran	109-99-9	--	ug/L	NA	NA	NA	NA
Toluene	108-88-3	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Total Xylenes	1330-20-7	5	ug/L	5 U	5 U	0.33 J	5 U
trans-1,2-Dichloroethene	156-60-5	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	10061-02-6	0.4	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	79-01-6	5	ug/L	0.53 J	0.61 J	0.47 J	0.30 J
Vinyl acetate	108-05-4	--	ug/L	NA	NA	NA	NA
Vinyl chloride	75-01-4	2	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Total VOCs	ARC-TVOC	--	ug/L	NA	1.71 J	2.81 J	0.76 J

Notes:
ug/L - micrograms per liter
NA - Not Analyzed
U - The compound was not detected, the compound quantitation limit is reported.
J - Indicates an estimated value
D - Compound quantitated using a secondary dilution
B - Analyte was found in the associated blank, as well as in the sample

**Table 5-1
Summary of Sample Analytical Results (Petroleum Constituents)**

Hydrocarbons Date Collected: Sample Name:	CAS Number	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	1295-MW25 04/16/14 1295-MW25 (04-16-2014)	1295-MW25 07/30/14 1295-MW25 (07-30-2014)	1295-MW25 04/27/15 1295-MW25-042715	1295-MW25 09/16/15 1295-MW25-091615	1295-MW25 04/27/16 1295-MW25-042716	1295-MW25 09/09/16 1295-MW25-090916	1295-MW25 04/19/17 1295-MW25-041917	1295-MW25 09/22/17 1295-MW25-092217
Volatile Organics											
1,2,4-Trimethylbenzene	95-63-6	5	ug/L	1 J	2 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,3,5-Trimethylbenzene	108-67-8	5	ug/L	2 U	2 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	71-43-2	1	ug/L	1 U	1 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	100-41-4	5	ug/L	0.31 J	1 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	91-20-3	10	ug/L	0.31 J	5 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	108-88-3	5	ug/L	0.82 J	1 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Total Xylenes	1330-20-7	5	ug/L	2.16 J	1 U	5 U	5 U	5 U	5 U	5 U	5 U

Notes:
 ug/L - micrograms per liter
 NA - Not Analyzed
 U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
 J - Indicates an estimated value
 D - Compound quantitated using a secondary dilution
 B - Analyte was found in the associated blank, as well as in the sample

**Table 5-1
Summary of Sample Analytical Results (Petroleum Constituents)**

Hydrocarbons Date Collected: Sample Name:	CAS Number	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	1295-MW26 07/30/14 1295-MW26 (07-30-2014)	1295-MW26 04/28/15 1295-MW26-042815	1295-MW26 09/11/15 1295-MW26-091115	1295-MW26 04/27/16 1295-MW26-042716	1295-MW26 09/09/16 1295-MW26-090916	1295-MW26 04/19/17 1295-MW26-041917	1295-MW26 09/28/17 1295-MW26-092817
Volatile Organics										
1,2,4-Trimethylbenzene	95-63-6	5	ug/L	2 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,3,5-Trimethylbenzene	108-67-8	5	ug/L	2 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	71-43-2	1	ug/L	1 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	100-41-4	5	ug/L	1 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	91-20-3	10	ug/L	5 U	0.22 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	108-88-3	5	ug/L	1 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Total Xylenes	1330-20-7	5	ug/L	1 U	5 U	5 U	5 U	5 U	5 U	5 U

Notes:

ug/L - micrograms per liter

NA - Not Analyzed

U - The compound was analyzed for but not detected. The associated value is the con

J - Indicates an estimated value

D - Compound quantitated using a secondary dilution

B - Analyte was found in the associated blank, as well as in the sample

**Table 5-1
Summary of Sample Analytical Results (Petroleum Constituents)**

Hydrocarbons Date Collected: Sample Name:	CAS Number	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	1295-MW30 04/16/14 1295-MW30 (04-16-2014)	1295-MW30 07/30/14 1295-MW30 (07-30-2014)	1295-MW30 04/27/15 1295-MW30-042715	1295-MW30 08/05/15 1295-MW30-080515	1295-MW30 09/16/15 1295-MW30-091615	1295-MW30 12/11/15 1295-MW30-121115	1295-MW30 01/26/16 1295-MW30-012616	1295-MW30 02/24/16 1295-MW30-022416	1295-MW30 04/27/16 1295-MW30-042716
Volatile Organics												
1,2,4-Trimethylbenzene	95-63-6	5	ug/L	931	859	1,600	NA	120	5.1	2.1 J	550 D	950 D
1,3,5-Trimethylbenzene	108-67-8	5	ug/L	261	216	470	NA	57	2.9 J	1.5 J	170 D	380 D
Benzene	71-43-2	1	ug/L	5 U	5 U	50 U	13 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	100-41-4	5	ug/L	562	533	780	34	45	0.46 J	5.0 U	200	250 D
Naphthalene	91-20-3	10	ug/L	167	172	380	NA	22	1.0 BJ	5.0 U	78	97
Toluene	108-88-3	5	ug/L	5.5	6.5	3.3 J	0.68 J	0.80 J	5.0 U	5.0 U	1.3 J	1.2 J
Total Xylenes	1330-20-7	5	ug/L	1,555.9	1,774.1	3,059	620	352 J	5 J	1.2 J	805	1,039

Notes:
 ug/L - micrograms per liter
 NA - Not Analyzed
 U - The compound was analyzed for but not detected. The associated value is the corr
 J - Indicates an estimated value
 D - Compound quantitated using a secondary dilution
 B - Analyte was found in the associated blank, as well as in the sample

**Table 5-1
Summary of Sample Analytical Results (Petroleum Constituents)**

Hydrocarbons Date Collected: Sample Name:	CAS Number	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	1295-MW30 08/01/16 1295-MW-30-080116	1295-MW30 09/09/16 1295-MW30-090916	1295-MW30 10/26/16 1295MW30-POSTVAC 10262016	1295-MW30 10/26/16 1295MW30-PREVAC 10262016	1295-MW30 04/19/17 1295-MW30-041917	1295-MW30 06/26/17 1295-MW30-062617	1295-MW30 09/22/17 1295-MW30-092217
Volatile Organics										
1,2,4-Trimethylbenzene	95-63-6	5	ug/L	0.76 J	500	14	5.0 U	98	150	62
1,3,5-Trimethylbenzene	108-67-8	5	ug/L	1.8 J	160	21	5.0 U	45	80	15
Benzene	71-43-2	1	ug/L	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	100-41-4	5	ug/L	5.0 U	130	7.5	5.0 U	19	16	5.0 J
Naphthalene	91-20-3	10	ug/L	5.0 U	43	5.0 U	5.0 U	6.7	8.3	3.0 J
Toluene	108-88-3	5	ug/L	5.0 U	25 U	5.0 U	5.0 U	0.23 J	5.0 U	5.0 U
Total Xylenes	1330-20-7	5	ug/L	0.42 J	343 J	27.2 J	5 U	61.3 J	63 J	32.6 J

Notes:

ug/L - micrograms per liter

NA - Not Analyzed

U - The compound was analyzed for but not detected. The associated value is the com

J - Indicates an estimated value

D - Compound quantitated using a secondary dilution

B - Analyte was found in the associated blank, as well as in the sample

**Table 5-1
Summary of Sample Analytical Results (Petroleum Constituents)**

Hydrocarbons Date Collected: Sample Name:	CAS Number	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	1295-MWS27 04/16/14 1295-MWS27 (04-16-2014)	1295-MWS27 07/30/14 1295-MWS27 (07-30-2014)	1295-MWS27 04/27/15 1295-MWS27-042715	1295-MWS27 09/11/15 1295-MWS27-091115	1295-MWS27 04/27/16 1295-MWS27-042716	1295-MWS27 09/09/16 1295-MWS27-090916	1295-MWS27 04/19/17 1295-MWS27-041917	1295-MWS27 09/26/17 1295-MWS27-092617
Volatile Organics											
1,2,4-Trimethylbenzene	95-63-6	5	ug/L	88.7	2.1	8.4	0.67 J	2.6 J	1.2 J	3.1 J	5.0 U
1,3,5-Trimethylbenzene	108-67-8	5	ug/L	23.2	0.3 J	1.5 J	0.20 J	0.72 J	5.0 U	1.2 J	5.0 U
Benzene	71-43-2	1	ug/L	0.32 J	1 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	100-41-4	5	ug/L	31.3	2	5.0 U	2.9 J	4.5 J	5.0 U	10	0.33 J
Naphthalene	91-20-3	10	ug/L	6.1	1.1 J	0.63 U	0.39 J	5.0 U	5.0 U	0.72 J	5.0 U
Toluene	108-88-3	5	ug/L	30.6	0.67 J	5.0 U	5.0 U	15	5.0 U	28	0.45 J
Total Xylenes	1330-20-7	5	ug/L	152.9	9	5 U	0.35 J	36	5 U	57	1.49 J

Notes:
 ug/L - micrograms per liter
 NA - Not Analyzed
 U - The compound was analyzed for but not detected. The associated value is the corr
 J - Indicates an estimated value
 D - Compound quantitated using a secondary dilution
 B - Analyte was found in the associated blank, as well as in the sample

**Table 5-1
Summary of Sample Analytical Results (Petroleum Constituents)**

Hydrocarbons Date Collected: Sample Name:	CAS Number	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	1295-MWS28 04/16/14 1295-MWS28 (04-16-2014)	1295-MWS28 07/30/14 1295-MWS28 (07-30-2014)	1295-MWS28 04/27/15 1295-MWS28-042715	1295-MWS28 09/16/15 1295-MWS28-091615	1295-MWS28 04/27/16 1295-MWS28-042716	1295-MWS28 09/09/16 1295-MWS28-090916	1295-MWS28 04/19/17 1295-MWS28-041917	1295-MWS28 09/22/17 1295-MWS28-092217
Volatile Organics											
1,2,4-Trimethylbenzene	95-63-6	5	ug/L	0.49 J	2 U	5.0 U	0.27 J	5.0 U	5.0 U	0.30 J	5.0 U
1,3,5-Trimethylbenzene	108-67-8	5	ug/L	2 U	2 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	71-43-2	1	ug/L	1 U	1 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	100-41-4	5	ug/L	1 U	1 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	91-20-3	10	ug/L	5 U	5 U	5.0 U	0.47 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	108-88-3	5	ug/L	1.1	1 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Total Xylenes	1330-20-7	5	ug/L	1.95 J	0.38 J	5 U	0.62 J	5 U	5 U	0.33 J	5 U

Notes:
 ug/L - micrograms per liter
 NA - Not Analyzed
 U - The compound was analyzed for but not detected. The associated value is the corr
 J - Indicates an estimated value
 D - Compound quantitated using a secondary dilution
 B - Analyte was found in the associated blank, as well as in the sample