LIMITED SITE DATA

ERDLE PERFORATING COMPANY

TOWN OF GATES, MONROE COUNTY, NEW YORK

SITE NO. 828072

These documents that follow are NOT part of the Contract Documents for the remedial work at the Erdle Perforating Company (Erdle) Site. The Department neither represents that the Site conditions will be the same as in the attached document nor considers the attached documents as being comprehensive and an actual description of the site conditions. The Contractor shall be responsible for performing the remediation work based on the existing conditions at the Site.

TABLE OF CONTENTS

Figures

Tables

Appendices

INVESTIGATION SUMMARY

The following is a summary of reports detailing historical investigations conducted at the Erdle Perforating Company between 2007 and 2012. These are provided in chronological order.

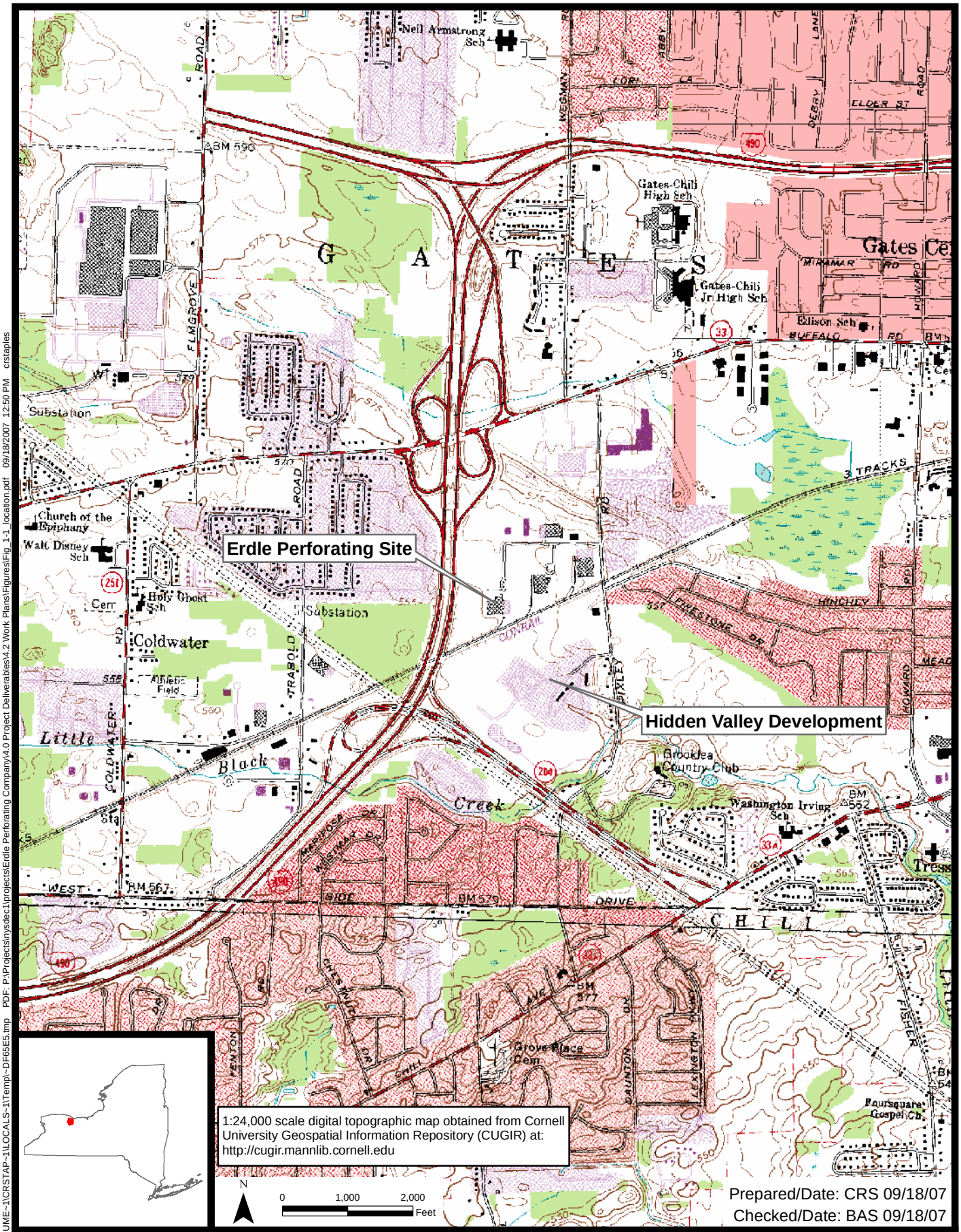
- MACTEC Engineering & Consulting, P.C. (MACTEC), 2010. Draft Final Remedial Investigation / Feasibility Study Report, Erdle Perforating Company. Site No. 828072. February 2010.
- MACTEC Engineering & Consulting, P.C. (MACTEC), 2010. Supplemental Soil Sampling Report, Erdle Perforating Company. Site No. 828072. June 2010.
- MACTEC Engineering & Consulting, P.C. (MACTEC), 2012. Remedial Design Basis Report, Erdle Perforating Company, Site No. 828072. August 2012.
- MACTEC Engineering & Consulting, P.C. (MACTEC), 2012. Remedial Design Baseline Groundwater Sampling Letter Report, Erdle Perforating Company, Site No. 828072. October 2012.

This information is being offered for consideration when planning the remedial work. Electronic copies of these reports can be provided upon request.

FIGURES

SITE MAPS/SITE FEATURES

The enclosed figures are taken from historical Erdle Perforating Company Site investigation reports. In general, the figures depict onsite and nearby area conditions observed at various times between 2007 and 2012. The intent of each figure is to illustrate site conditions as they were known to have existed at the time the figure was generated. This information is being offered for consideration when planning the remedial work.

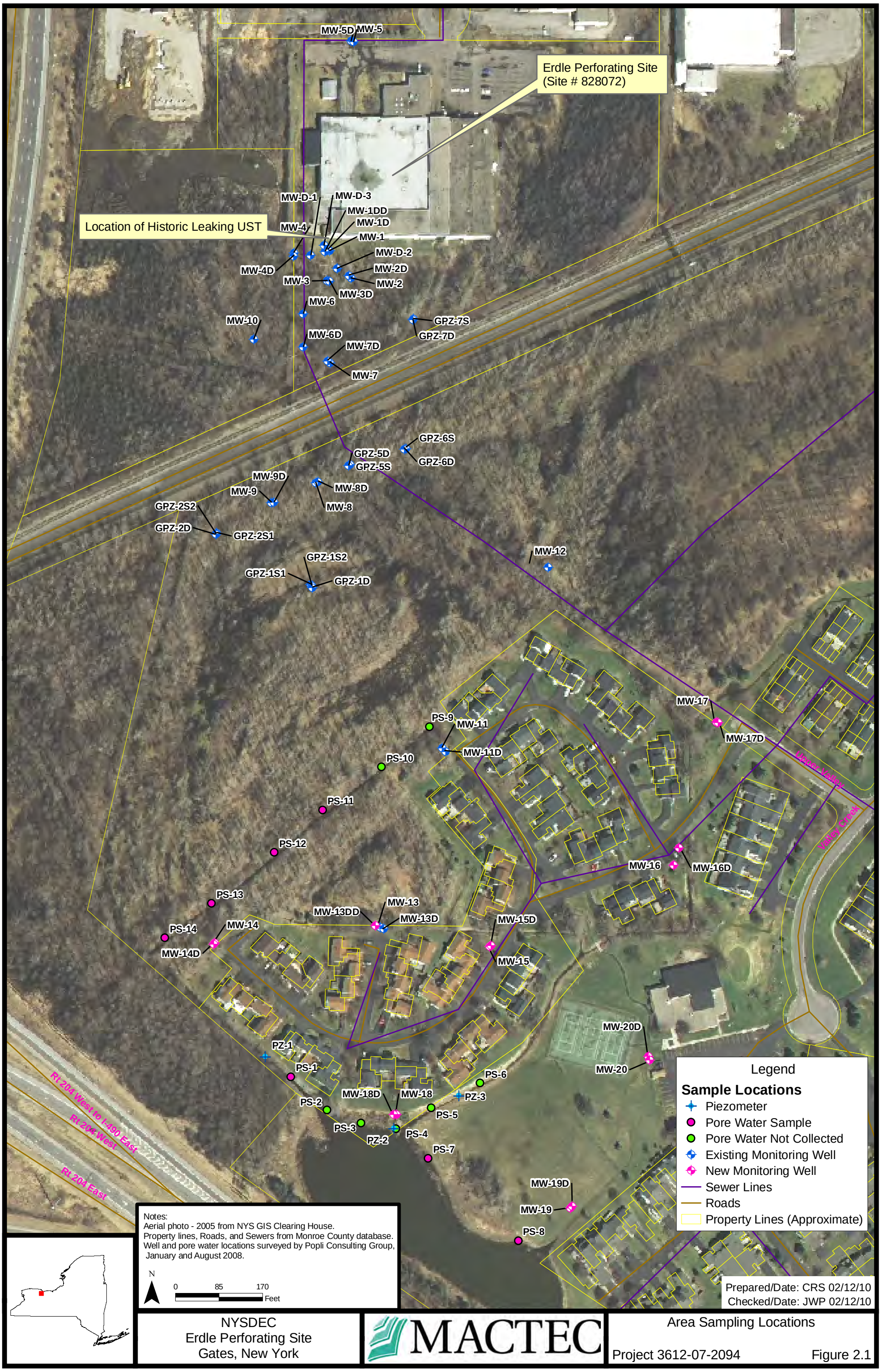


NYSDEC
Erdle Perforating Company
Gates, New York

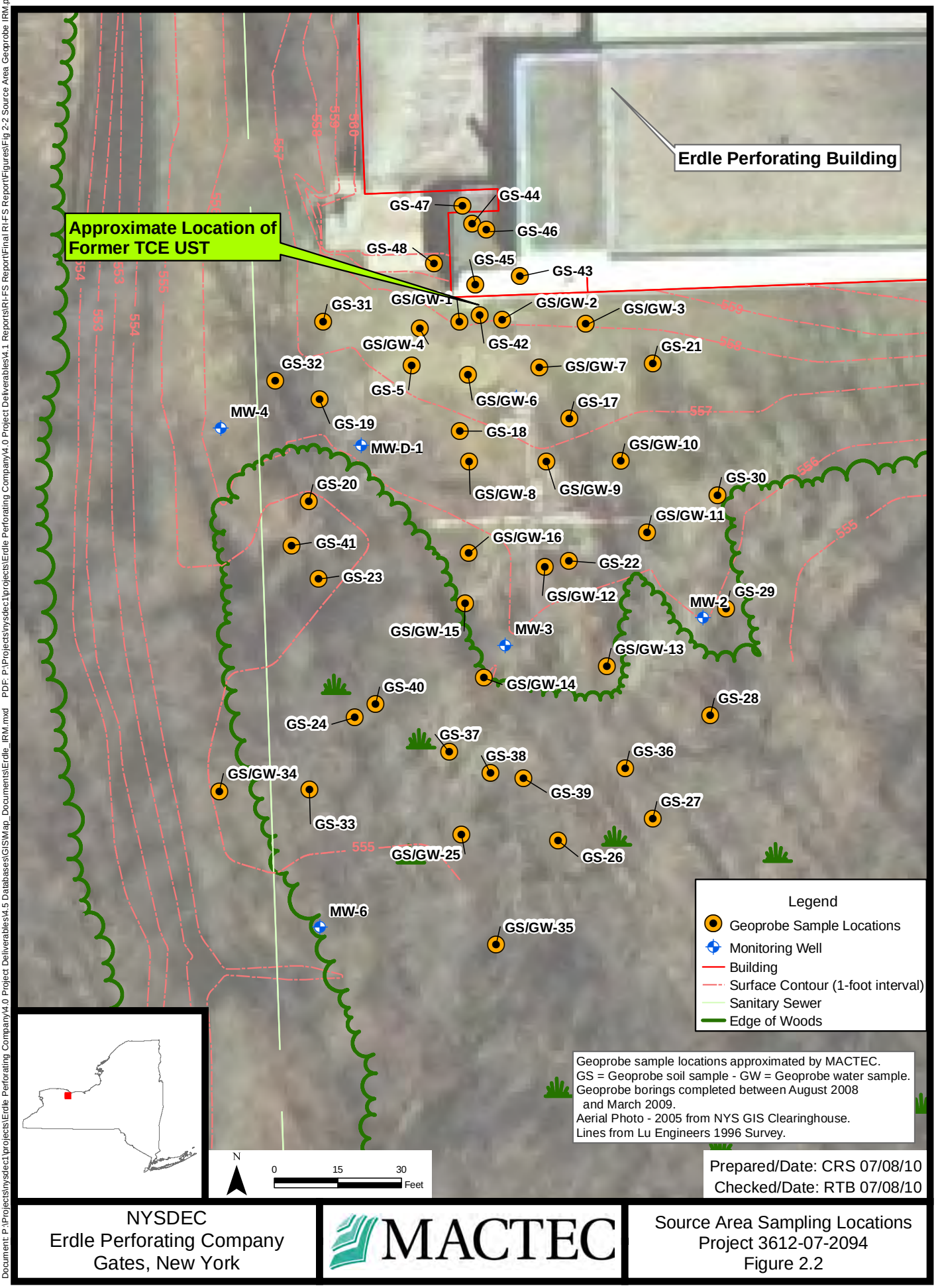
MACTEC

Site Location
Project 3612-07-2094
Figure 1.1

Document: C:\DOCUME~1\CRSTAP~1\LOCALS~1\Temp\~DF65E5.tmp PDF: P:\Projects\nysdec1\projects\Erdle Perforating Company\4.0 Project Deliverables\4.2 Work Plans\Figures\Fig_1-1_location.pdf 09/18/2007 12:50 PM cstaples



Document: P:\Projects\nysdec1\projects\Erdle Perforating Company\4.0 Project Deliverables\4.1 Reports\RI-FS Report\RI-FS Report\Figures\Fig 2-1 Sample Locations.pdf 02/12/2010 8:52 AM crstaples
PDF: P:\Projects\nysdec1\projects\Erdle Perforating Company\4.0 Project Deliverables\4.5 Databases\GIS\Map_Documents\Erdle_Site_locations.mxd



NYSDEC
Erdle Perforating Company
Gates, New York

MACTEC

Source Area Sampling Locations
Project 3612-07-2094
Figure 2.2

MW-5
554.03

I-490 East

554

MW-4
553.10

554

MW-2
554.05

MW-6
553.35

GPZ-7S
554.95

MW-10
553.88

MW-7
553.55

GPZ-7D
554.40

554

554

GPZ-6S
553.41

GPZ-5S
549.79

GPZ-6D
552.57

553

MW-8
553.31

552

MW-9
553.80

GPZ-5D
552.59

553

GPZ-2S1
552.17

552

551

MW-12
550.44

GPZ-2D
551.04

GPZ-1S1
552.31

GPZ-1S2
551.41

551

GPZ-1D
550.99

Interpreted Groundwater
Flow Direction

MW-17
550.10

MW-11
549.18

550

Upper Valley

Hidden Valley

MW-16
550.00

550

MW-14
549.52

MW-13
551.79

MW-15
547.49

549

549

Valley Creek

548

Rt 204 West to I-490 East

PZ-1
547.95

MW-18
547.91

PZ-3
547.49

PZ-2
547.18

MW-19
548.33

548

204 West

Legend

- Overburden Monitoring Wells and Groundwater Elevations
- Interpreted Groundwater Flow Direction
- Interpreted Overburden Groundwater Contour
- Sewer Lines
- Roads
- Property Lines (Approximate)

Notes:
Aerial photo - 2005 from NYS GIS Clearing House.
Property lines, Roads, and Sewers from Monroe County database.
Water Elevation points surveyed by Popli Design Group and water level collected by MACTEC on 1/14/08.
Groundwater contours are interpreted based on site knowledge and select water elevations; those shown in gray were not used in the interpretation.

N

0 100 200
Feet

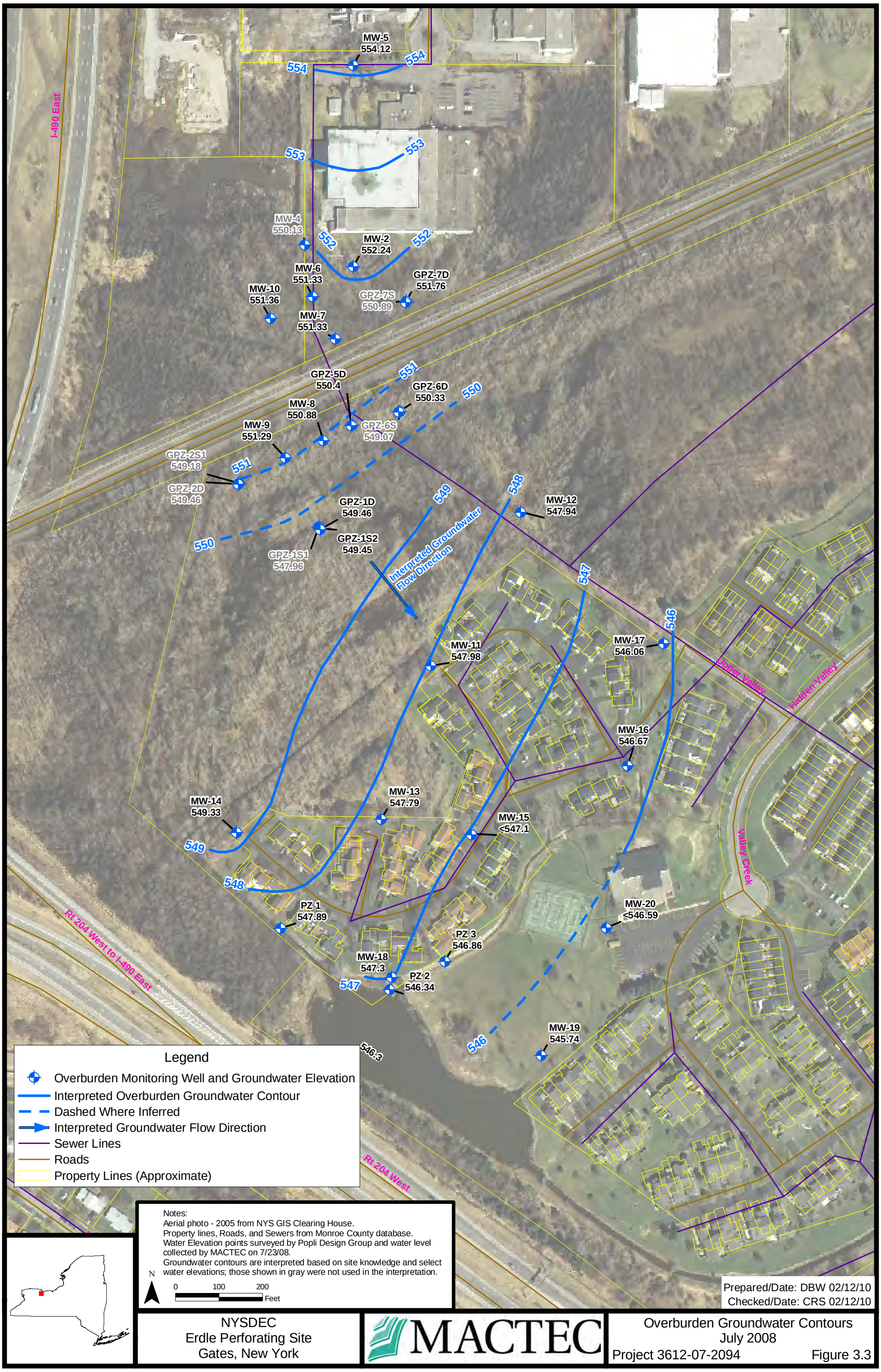
Prepared/Date: DBW 02/12/10
Checked/Date: CRS 02/12/10

NYSDEC
Erdle Perforating Site
Gates, New York

MACTEC

Overburden Groundwater Contours
January 2008
Project 3612-07-2094 Figure 3.1

Document: P:\Projects\nysdec1\projects\Erdle Perforating Company\4.0 Project Deliverables\4.1 Reports\RI-FS Report\RI-FS Report\Figures\Fig 3.1 OB GW cont Jan 2008.pdf 02/12/2010 12:18 PM crstaples
PDF: P:\Projects\nysdec1\projects\Erdle Perforating Company\4.0 Project Deliverables\4.5 Databases\GIS\Map_Documents\Erdle_Site_water_levels.mxd



Legend

- Overburden Monitoring Well and Groundwater Elevation
- Interpreted Overburden Groundwater Contour
- Dashed Where Inferred
- Interpreted Groundwater Flow Direction
- Sewer Lines
- Roads
- Property Lines (Approximate)

Notes:
Aerial photo - 2005 from NYS GIS Clearing House.
Property lines, Roads, and Sewers from Monroe County database.
Water Elevation points surveyed by Popli Design Group and water level collected by MACTEC on 7/23/08.
Groundwater contours are interpreted based on site knowledge and select water elevations; those shown in gray were not used in the interpretation.

N

0 100 200 Feet

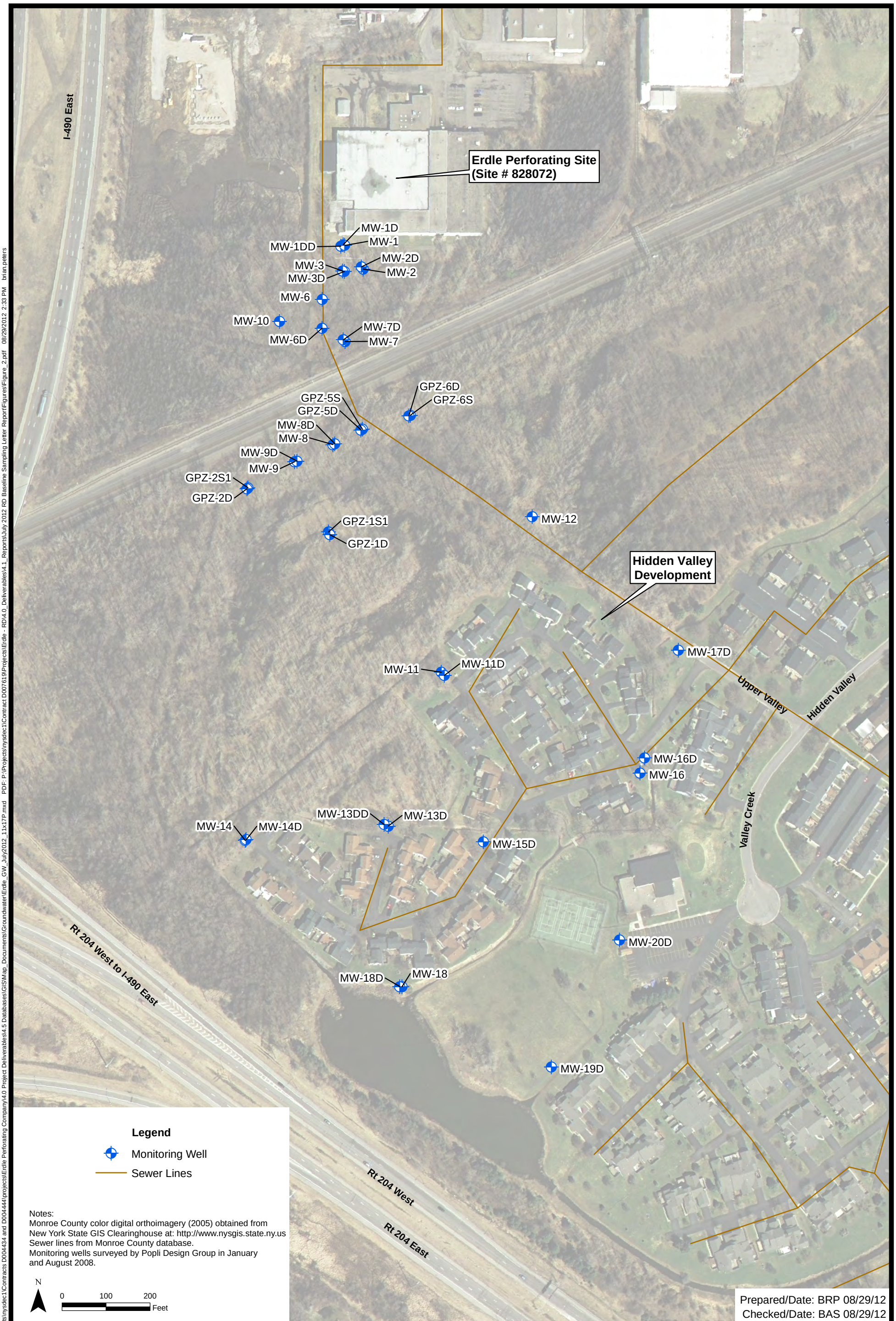
Prepared/Date: DBW 02/12/10
Checked/Date: CRS 02/12/10

NYSDEC
Erdle Perforating Site
Gates, New York

MACTEC

Overburden Groundwater Contours
July 2008
Project 3612-07-2094 Figure 3.3

Document: P:\Projects\nysdec1\projects\Erdle Perforating Company\4.0 Project Deliverables\4.1 Reports\RI-FS Report\RI-FS Report\Figures\Fig 3.3 OB GW cont July 2008.pdf 02/12/2010 11:49 AM crstaples
PDF: P:\Projects\nysdec1\projects\Erdle Perforating Company\4.0 Project Deliverables\4.5 Databases\GIS\Map_Documents\Erdle_Site_water_levels.mxd

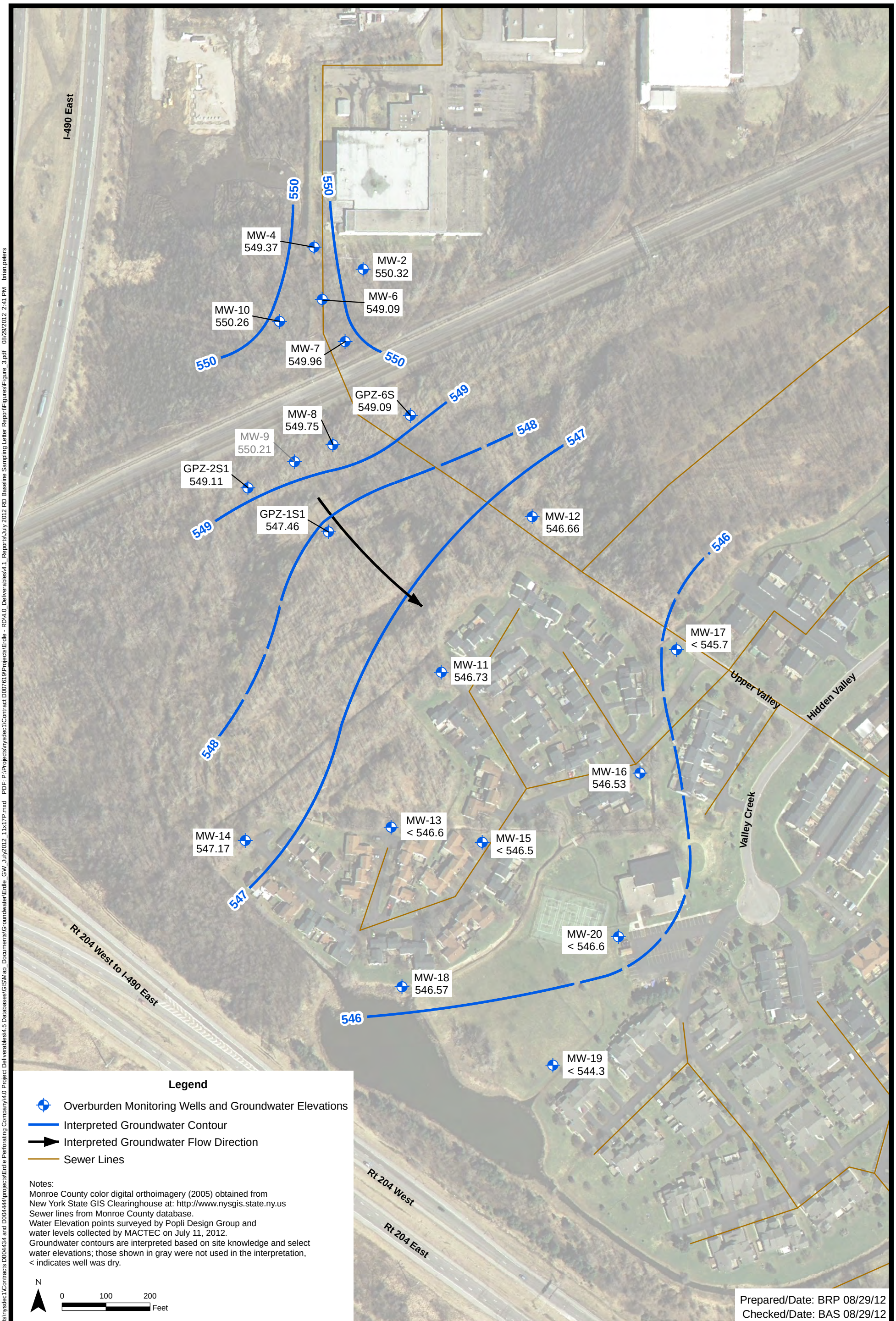


REMEDIAL DESIGN LETTER REPORT
ERDLE PERFORATING SITE
GATES, NEW YORK

MACTEC

JULY 2012 SAMPLING LOCATIONS

Project 3612-11-2215 Figure 2



Legend

- Overburden Monitoring Wells and Groundwater Elevations
- Interpreted Groundwater Contour
- Interpreted Groundwater Flow Direction
- Sewer Lines

Notes:
Monroe County color digital orthoimagery (2005) obtained from New York State GIS Clearinghouse at: http://www.nysgis.state.ny.us
Sewer lines from Monroe County database.
Water Elevation points surveyed by Popli Design Group and water levels collected by MACTEC on July 11, 2012.
Groundwater contours are interpreted based on site knowledge and select water elevations; those shown in gray were not used in the interpretation,
< indicates well was dry.

N

0 100 200 Feet

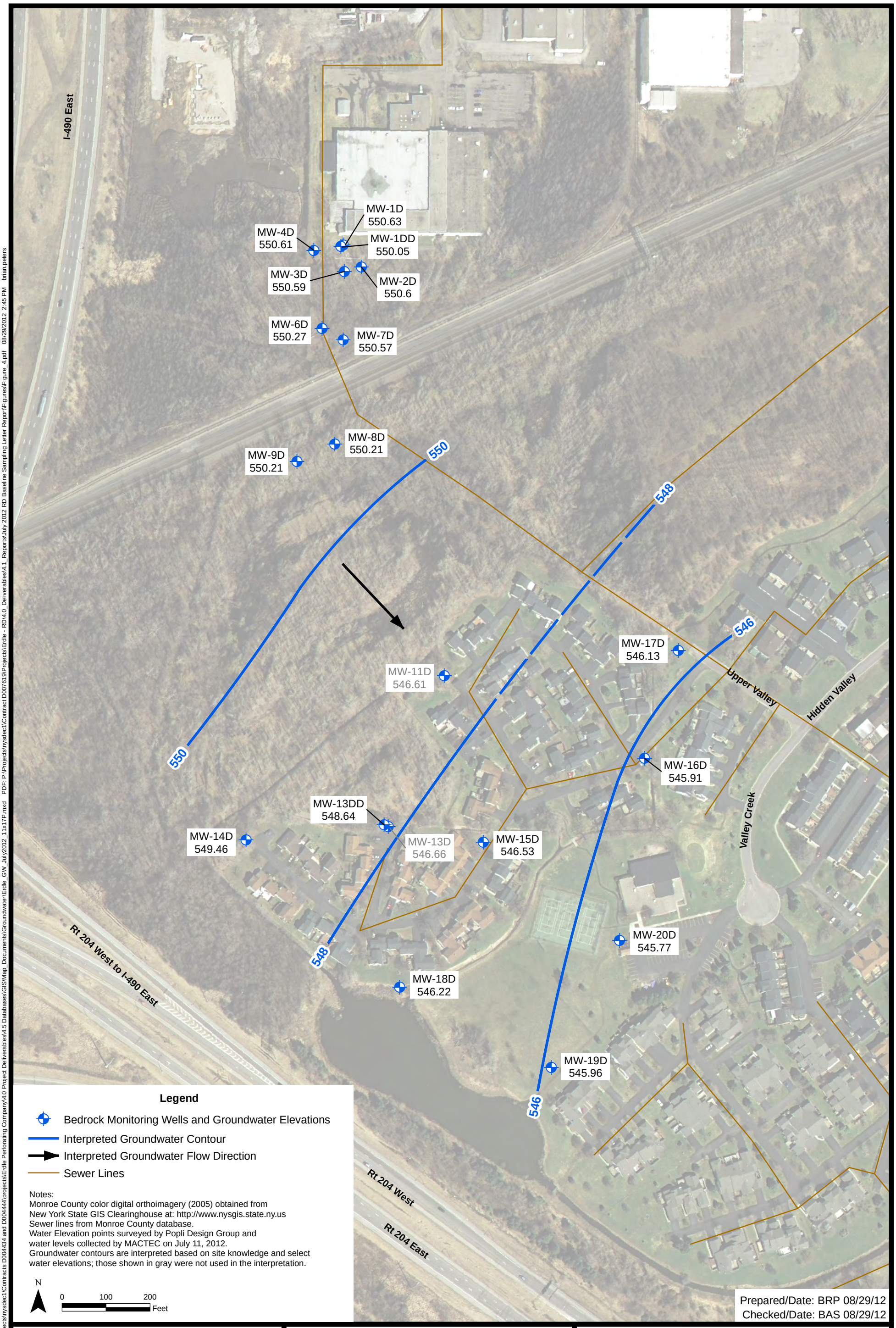
Prepared/Date: BRP 08/29/12
Checked/Date: BAS 08/29/12

REMEDIAL DESIGN LETTER REPORT
ERDLE PERFORATING SITE
GATES, NEW YORK

MACTEC

OVERBURDEN GROUNDWATER CONTOURS
JULY 2012
Project 3612-11-2215 Figure 3

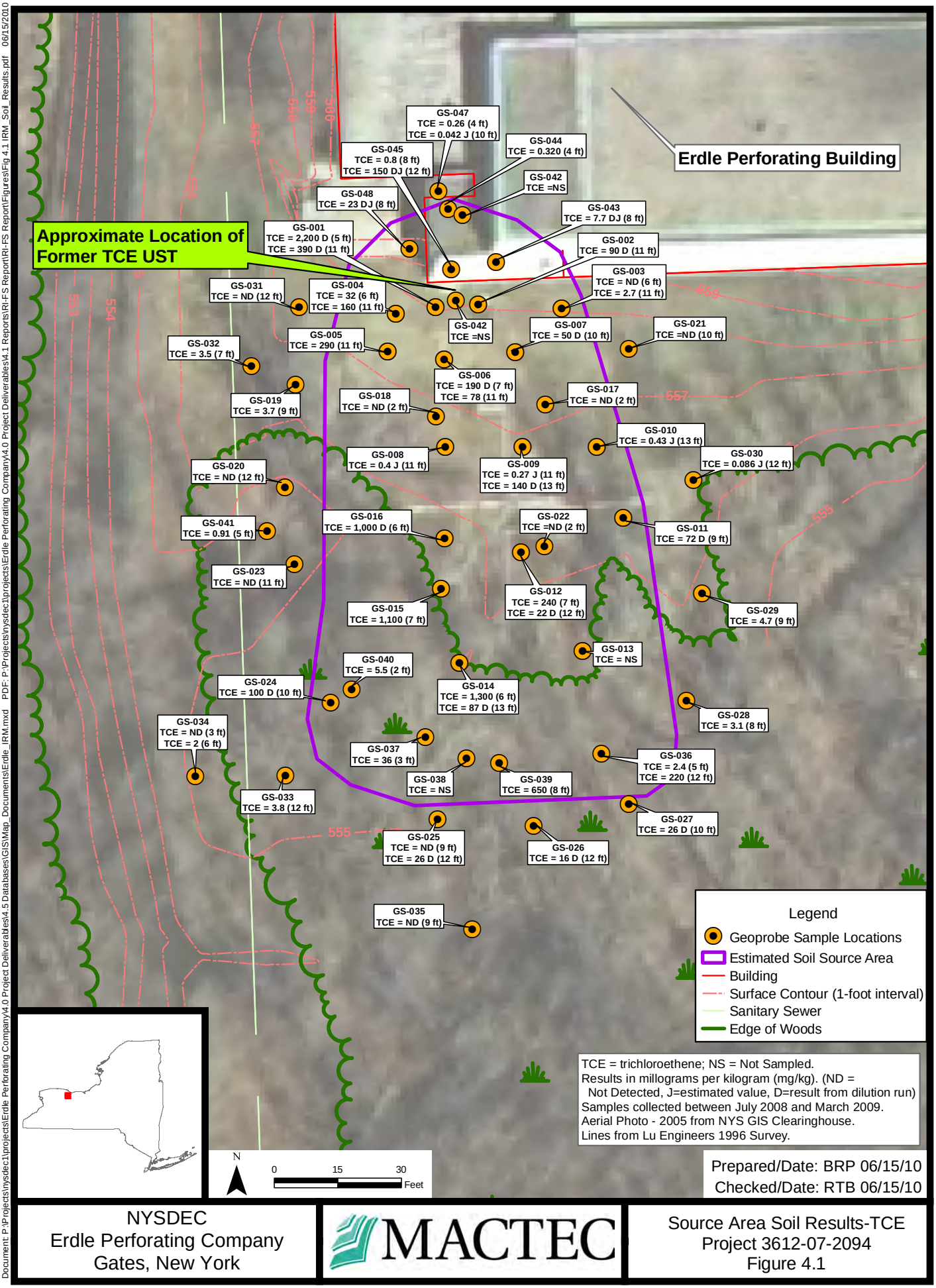
Document: P:\Projects\nysdec1\Contracts D004434 and D004441\projects\Erdle Perforating Company\4.0 Project Deliverables\4.5 Databases\GIS\Map_Documents\Groundwater\Erdle_GW_July2012_11x17P.mxd PDF: P:\Projects\nysdec1\Contract D007619\Projects\Erdle - RD\4.0_Deliverables\4.1_Reports\July 2012 RD Baseline Sampling Letter Report\Figures\Figure_3.pdf 08/29/2012 2:41 PM brian.peters



REMEDIAL DESIGN LETTER REPORT
ERDLE PERFORATING SITE
GATES, NEW YORK

MACTEC

BEDROCK GROUNDWATER CONTOURS
JULY 2012
Project 3612-11-2215 Figure 4



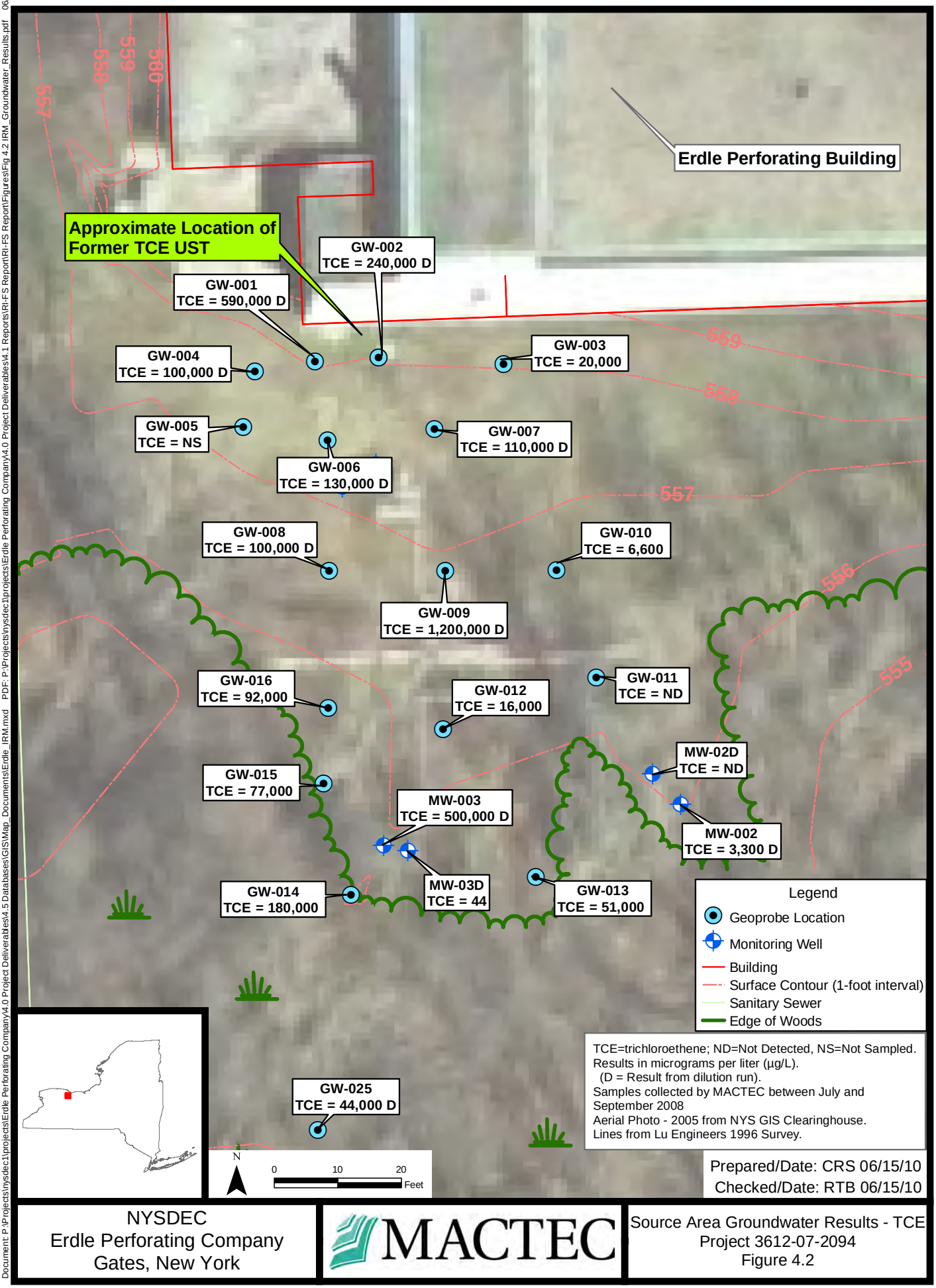
TCE = trichloroethene; NS = Not Sampled.
Results in milligrams per kilogram (mg/kg). (ND = Not Detected, J=estimated value, D=result from dilution run)
Samples collected between July 2008 and March 2009.
Aerial Photo - 2005 from NYS GIS Clearinghouse.
Lines from Lu Engineers 1996 Survey.

Prepared/Date: BRP 06/15/10
Checked/Date: RTB 06/15/10

NYSDEC
Erdle Perforating Company
Gates, New York

MACTEC

Source Area Soil Results-TCE
Project 3612-07-2094
Figure 4.1



TCE=trichloroethene; ND=Not Detected, NS=Not Sampled.
Results in micrograms per liter (µg/L).
(D = Result from dilution run).
Samples collected by MACTEC between July and September 2008
Aerial Photo - 2005 from NYS GIS Clearinghouse.
Lines from Lu Engineers 1996 Survey.

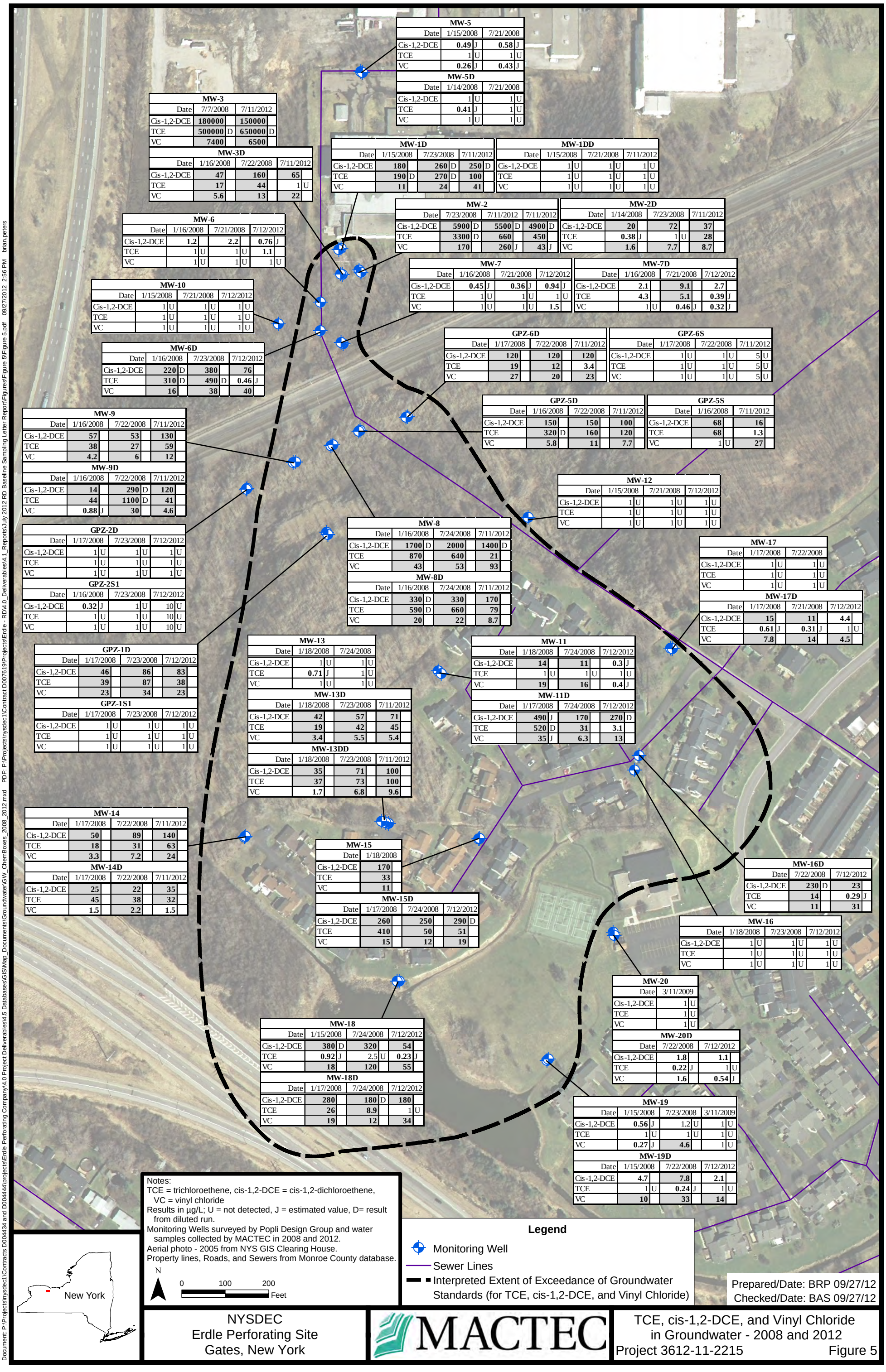
Prepared/Date: CRS 06/15/10
Checked/Date: RTB 06/15/10

NYSDEC
Erdle Perforating Company
Gates, New York

MACTEC

Source Area Groundwater Results - TCE
Project 3612-07-2094
Figure 4.2

Document: P:\Projects\nysdec1\projects\Erdle Perforating Company\4.0 Project Deliverables\4.5 Databases\GIS\Map_Documents\Erdle_IRM.mxd PDF: P:\Projects\nysdec1\projects\Erdle Perforating Company\4.0 Project Deliverables\4.1 Reports\RI-FS Report\RI-FS Report\Figures\Fig 4.2 IRM_Groundwater_Results.pdf 06/15/2010 5:13



MW-5					
Date	1/15/2008		7/21/2008		
Cis-1,2-DCE	**0.49**	J	**0.58**	J	
TCE	1	U	1	U	
VC	**0.26**	J	**0.43**	J	

MW-5D					
Date	1/14/2008		7/21/2008		
Cis-1,2-DCE	1	U	1	U	
TCE	**0.41**	J	1	U	
VC	1	U	1	U	

MW-3					
Date	7/7/2008		7/11/2012		
Cis-1,2-DCE	**180000**		**150000**		
TCE	**500000**	D	**650000**	D	
VC	**7400**		**6500**		

MW-3D						
Date	1/16/2008		7/22/2008		7/11/2012	
Cis-1,2-DCE	**47**		**160**		**65**	
TCE	**17**		**44**		1	U
VC	**5.6**		**13**		**22**	

MW-1D						
Date	1/15/2008		7/23/2008		7/11/2012	
Cis-1,2-DCE	**180**		**260**	D	**250**	D
TCE	**190**	D	**270**	D	**100**	
VC	**11**		**24**		**41**	

MW-1DD						
Date	1/15/2008		7/21/2008		7/11/2012	
Cis-1,2-DCE	1	U	1	U	1	U
TCE	1	U	1	U	1	U
VC	1	U	1	U	1	U

MW-2						
Date	7/23/2008		7/11/2012		7/11/2012	
Cis-1,2-DCE	**5900**	D	**5500**	D	**4900**	D
TCE	**3300**	D	**660**		**450**	
VC	**170**		**260**	J	**43**	J

MW-2D						
Date	1/14/2008		7/23/2008		7/11/2012	
Cis-1,2-DCE	**20**		**72**		**37**	
TCE	**0.38**	J	1	U	**28**	
VC	**1.6**		**7.7**		**8.7**	

MW-6						
Date	1/16/2008		7/21/2008		7/12/2012	
Cis-1,2-DCE	**1.2**		**2.2**		**0.76**	J
TCE	1	U	1	U	**1.1**	
VC	1	U	1	U	1	U

MW-7						
Date	1/16/2008		7/21/2008		7/12/2012	
Cis-1,2-DCE	**0.45**	J	**0.36**	J	**0.94**	J
TCE	1	U	1	U	1	U
VC	1	U	1	U	**1.5**	

MW-7D						
Date	1/16/2008		7/21/2008		7/12/2012	
Cis-1,2-DCE	**2.1**		**9.1**		**2.7**	
TCE	**4.3**		**5.1**		**0.39**	J
VC	1	U	**0.46**	J	**0.32**	J

MW-10						
Date	1/15/2008		7/21/2008		7/12/2012	
Cis-1,2-DCE	1	U	1	U	1	U
TCE	1	U	1	U	1	U
VC	1	U	1	U	1	U

MW-6D						
Date	1/16/2008		7/23/2008		7/12/2012	
Cis-1,2-DCE	**220**	D	**380**		**76**	
TCE	**310**	D	**490**	D	**0.46**	J
VC	**16**		**38**		**40**	

GPZ-6D						
Date	1/17/2008		7/22/2008		7/11/2012	
Cis-1,2-DCE	**120**		**120**		**120**	
TCE	**19**		**12**		**3.4**	
VC	**27**		**20**		**23**	

GPZ-6S						
Date	1/17/2008		7/22/2008		7/11/2012	
Cis-1,2-DCE	1	U	1	U	5	U
TCE	1	U	1	U	5	U
VC	1	U	1	U	5	U

GPZ-5D						
Date	1/16/2008		7/22/2008		7/11/2012	
Cis-1,2-DCE	**150**		**150**		**100**	
TCE	**320**	D	**160**		**120**	
VC	**5.8**		**11**		**7.7**	

GPZ-5S				
Date	1/16/2008		7/11/2012	
Cis-1,2-DCE	**68**		**16**	
TCE	**68**		**1.3**	
VC	1	U	**27**	

MW-9						
Date	1/16/2008		7/22/2008		7/11/2012	
Cis-1,2-DCE	**57**		**53**		**130**	
TCE	**38**		**27**		**59**	
VC	**4.2**		**6**		**12**	

MW-9D						
Date	1/16/2008		7/22/2008		7/11/2012	
Cis-1,2-DCE	**14**		**290**	D	**120**	
TCE	**44**		**1100**	D	**41**	
VC	**0.88**	J	**30**		**4.6**	

MW-12						
Date	1/15/2008		7/21/2008		7/12/2012	
Cis-1,2-DCE	1	U	1	U	1	U
TCE	1	U	1	U	1	U
VC	1	U	1	U	1	U

GPZ-2D						
Date	1/17/2008		7/23/2008		7/12/2012	
Cis-1,2-DCE	1	U	1	U	1	U
TCE	1	U	1	U	1	U
VC	1	U	1	U	1	U

GPZ-2S1						
Date	1/16/2008		7/23/2008		7/12/2012	
Cis-1,2-DCE	**0.32**	J	1	U	10	U
TCE	1	U	1	U	10	U
VC	1	U	1	U	10	U

MW-8						
Date	1/16/2008		7/24/2008		7/11/2012	
Cis-1,2-DCE	**1700**	D	**2000**		**1400**	D
TCE	**870**		**640**		**21**	
VC	**43**		**53**		**93**	

MW-8D						
Date	1/16/2008		7/24/2008		7/11/2012	
Cis-1,2-DCE	**330**	D	**330**		**170**	
TCE	**590**	D	**660**		**79**	
VC	**20**		**22**		**8.7**	

MW-17				
Date	1/17/2008		7/22/2008	
Cis-1,2-DCE	1	U	1	U
TCE	1	U	1	U
VC	1	U	1	U

MW-17D						
Date	1/17/2008		7/21/2008		7/12/2012	
Cis-1,2-DCE	**15**		**11**		**4.4**	
TCE	**0.61**	J	**0.31**	J	1	U
VC	**7.8**		**14**		**4.5**	

GPZ-1D						
Date	1/17/2008		7/23/2008		7/12/2012	
Cis-1,2-DCE	**46**		**86**		**83**	
TCE	**39**		**87**		**38**	
VC	**23**		**34**		**23**	

GPZ-1S1						
Date	1/17/2008		7/23/2008		7/12/2012	
Cis-1,2-DCE	1	U	1	U	1	U
TCE	1	U	1	U	1	U
VC	1	U	1	U	1	U

MW-13				
Date	1/18/2008		7/24/2008	
Cis-1,2-DCE	1	U	1	U
TCE	**0.71**	J	1	U
VC	1	U	1	U

MW-13D						
Date	1/18/2008		7/23/2008		7/11/2012	
Cis-1,2-DCE	**42**		**57**		**71**	
TCE	**19**		**42**		**45**	
VC	**3.4**		**5.5**		**5.4**	

MW-13DD						
Date	1/18/2008		7/23/2008		7/11/2012	
Cis-1,2-DCE	**35**		**71**		**100**	
TCE	**37**		**73**		**100**	
VC	**1.7**		**6.8**		**9.6**	

MW-11						
Date	1/18/2008		7/24/2008		7/12/2012	
Cis-1,2-DCE	**14**		**11**		**0.3**	J
TCE	1	U	1	U	1	U
VC	**19**		**16**		**0.4**	J

MW-11D						
Date	1/17/2008		7/24/2008		7/12/2012	
Cis-1,2-DCE	**490**	J	**170**		**270**	D
TCE	**520**	D	**31**		**3.1**	
VC	**35**	J	**6.3**		**13**	

MW-14						
Date	1/17/2008		7/22/2008		7/11/2012	
Cis-1,2-DCE	**50**		**89**		**140**	
TCE	**18**		**31**		**63**	
VC	**3.3**		**7.2**		**24**	

MW-14D						
Date	1/17/2008		7/22/2008		7/11/2012	
Cis-1,2-DCE	**25**		**22**		**35**	
TCE	**45**		**38**		**32**	
VC	**1.5**		**2.2**		**1.5**	

MW-15		
Date	1/18/2008	
Cis-1,2-DCE	**170**	
TCE	**33**	
VC	**11**	

MW-15D						
Date	1/17/2008		7/24/2008		7/12/2012	
Cis-1,2-DCE	**260**		**250**		**290**	D
TCE	**410**		**50**		**51**	
VC	**15**		**12**		**19**	

MW-16D				
Date	7/22/2008		7/12/2012	
Cis-1,2-DCE	**230**	D	**23**	
TCE	**14**		**0.29**	J
VC	**11**		**31**	

MW-16						
Date	1/18/2008		7/23/2008		7/12/2012	
Cis-1,2-DCE	1	U	1	U	1	U
TCE	1	U	1	U	1	U
VC	1	U	1	U	1	U

MW-18						
Date	1/15/2008		7/24/2008		7/12/2012	
Cis-1,2-DCE	**380**	D	**320**		**54**	
TCE	**0.92**	J	2.5	U	**0.23**	J
VC	**18**		**120**		**55**	

MW-18D						
Date	1/17/2008		7/24/2008		7/12/2012	
Cis-1,2-DCE	**280**		**180**	D	**180**	
TCE	**26**		**8.9**		1	U
VC	**19**		**12**		**34**	

MW-20		
Date	3/11/2009	
Cis-1,2-DCE	1	U
TCE	1	U
VC	1	U

MW-20D				
Date	7/22/2008		7/12/2012	
Cis-1,2-DCE	**1.8**		**1.1**	
TCE	**0.22**	J	1	U
VC	**1.6**		**0.54**	J

MW-19						
Date	1/15/2008		7/23/2008		3/11/2009	
Cis-1,2-DCE	**0.56**	J	1.2	U	1	U
TCE	1	U	1	U	1	U
VC	**0.27**	J	**4.6**		1	U

MW-19D						
Date	1/15/2008		7/22/2008		7/12/2012	
Cis-1,2-DCE	**4.7**		**7.8**		**2.1**	
TCE	1	U	**0.24**	J	1	U
VC	**10**		**33**		**14**	

Notes:
TCE = trichloroethene, cis-1,2-DCE = cis-1,2-dichloroethene, VC = vinyl chloride
Results in µg/L; U = not detected, J = estimated value, D= result from diluted run.
Monitoring Wells surveyed by Popli Design Group and water samples collected by MACTEC in 2008 and 2012.
Aerial photo - 2005 from NYS GIS Clearing House.
Property lines, Roads, and Sewers from Monroe County database.

N
0 100 200
Feet

New York

Legend

- Monitoring Well
- Sewer Lines
- Interpreted Extent of Exceedance of Groundwater Standards (for TCE, cis-1,2-DCE, and Vinyl Chloride)

Prepared/Date: BRP 09/27/12
Checked/Date: BAS 09/27/12

NYSDEC
Erdle Perforating Site
Gates, New York

MACTEC

TCE, cis-1,2-DCE, and Vinyl Chloride in Groundwater - 2008 and 2012
Project 3612-11-2215 Figure 5

Document: P:\Projects\nysdec1\Contracts D004434 and D004444\projects\Erdle Perforating Company\4.0 Project Deliverables\4.5 Databases\GIS\Map_Documents\GroundwaterGW_ChemBoxes_2008_2012.mxd PDF: P:\Projects\nysdec1\Contract D007619\Projects\Erdle - RD\4.0_Deliverables\4.1_Reports\July 2012 RD Baseline Sampling Letter Report\Figures\Figure 5\Figure 5.pdf 09/27/2012 2:56 PM brian.peters

TABLES

The enclosed tables are taken from historical Erdle Perforating Company Site investigation reports. In general, the tables depict onsite and nearby area conditions observed at various times between 1994 and 2012. The intent of the tables is to depict onsite and nearby area conditions at the site including water levels, contaminant concentrations and a conceptual model.

Contaminant concentrations presented on the tables are those reported at the time the table was generated. This information is being offered for consideration when planning the remedial work.

Table 3.1: Water Level Measurement Data

Exploration ID	Ground Elevation	Casing Elevation	Riser Elevation	Depth of Monitoring Well	Measure Point	Measured Depth (TOR/TOC) Date:1/14/08	DTW- (TOR/TOC) (1/2008)	Groundwater Elevation (1/2008)	DTW- (TOR/TOC) (7/2008)	Groundwater Elevation (7/2008)
MW-D-1	555.02	557.54	NA	NA	TOC	NA	4.22	553.32	6.2	551.34
MW-1D	556.49	559.07	558.91	26.50	TOR	26.4	4.59	554.32	7.09	551.82
MW-1DD	556.46	558.42	558.30	41.70	TOC	42.8	4.11	554.19	6.89	551.41
MW-2	555.49	557.81	557.42	10.60	TOR	10.7*	3.37	554.05	5.18	552.24
MW-2D	555.59	557.32	NA	NA	TOC	22.1	3.06	554.26	5.49	551.83
MW-3D	554.76	556.87	NA	20.25	TOC	16.7	2.58	554.29	5.18	551.69
MW-4	555.41	557.06	556.94	NA	TOR	NA	3.84	553.1	6.81	550.13
MW-4D	555.46	557.51	NA	NA	TOC	NA	3.21	554.3	5.79	551.72
MW-5	555.00	555.00	554.76	7.80	TOR	7.8*	0.73	554.03	0.64	554.12
MW-5D	555.16	555.36	NA	NA	TOC	12.2	0.55	554.81	3.06	552.3
MW-6	554.14	556.34	556.36	10.10	TOR	10.1	3.01	553.35	5.03	551.33
MW-6D	553.76	555.67	NA	25.60	TOC	25.9*	1.77	553.9	4.31	551.36
MW-7	553.89	556.48	556.24	17.00	TOR	17.1	2.69	553.55	4.91	551.33
MW-7D	553.70	555.49	NA	27.10	TOC	26.9	1.26	554.23	3.81	551.68
MW-8	565.37	566.73	566.80	27.90	TOR	28.0	13.49	553.31	15.92	550.88
MW-8D	565.25	566.65	NA	38.70	TOC	38.2	12.80	553.85	15.33	551.32
MW-9	567.01	568.86	568.91	30.20	TOR	30.1	15.11	553.8	17.62	551.29
MW-9D	566.76	568.86	NA	48	TOC	40.2	15.02	553.84	17.56	551.3
MW-10	553.86	557.03	556.90	17.00	TOR	16.9	3.02	553.88	5.54	551.36
MW-11	553.55	556.75	556.60	13.25	TOR	13.3	7.42	549.18	8.62	547.98
MW-11D	554.05	557.81	555.09	23.70	TOC	23.7*	8.64	549.17	9.84	547.97
MW-12	554.66	557.74	557.60	12.00	TOR	11.9	7.16	550.44	9.66	547.94
MW-13	553.71	553.79	553.40	7.80	TOR	6.7	1.61	551.79	5.61	547.79
MW-13D	553.57	553.63	553.33	12.25	TOR	12.1	4.64	548.69	5.55	547.78
MW-13DD	553.55	553.60	553.33	40.10	TOR	40.1	1.61	551.72	3.71	549.62
MW-14	552.88	553.01	552.64	16.20	TOR	16.3*	3.12	549.52	3.31	549.33
MW-14D	552.96	552.97	552.78	33.80	TOR	33	0	552.78	2.01	550.77
MW-15	553.18	553.30	553.11	6.50	TOR	6.5	5.62	547.49	<6.01	< 547.1
MW-15D	553.22	553.28	553.09	23.90	TOR	23.9	3.32	549.77	4.11	548.98
MW-16	553.94	553.96	553.78	8.90	TOR	8.9	3.78	550	7.11	546.67
MW-16D	553.94	553.97	553.64	22.20	TOR	22.2*	NA	NA	6.51	547.13
MW-17	553.88	553.95	553.43	7.70	TOR	7.7	3.33	550.1	7.37	546.06
MW-17D	554.01	554.09	553.73	23.20	TOR	23.2	4.49	549.24	6.31	547.42
MW-18	552.34	552.25	551.84	10.90	TOR	10.9	3.93	547.91	4.54	547.3
MW-18D	552.28	552.23	551.72	22.80	TOR	21.7	3.84	547.88	4.69	547.03
MW-19	552.03	551.95	551.55	7.20	TOR	7	3.22	548.33	5.81	545.74
MW-19D	551.98	552.02	551.43	19.50	TOR	19.7	3.36	548.07	5.65	545.78
MW-20	553.62	553.70	553.39	6.8	TOR	6.8*	NA	NA	<6.8	< 546.59
MW-20D	553.59	553.64	553.39	20.9	TOR	20.85*	NA	NA	6.52	546.87
GPZ-1S1	552.70	NA	554.91	8.60	TOR	8.6	2.60	552.31	6.95	547.96
GPZ-1S2	552.69	NA	554.68	12.60	NA	12.5*	3.27	551.41	5.23	549.45
GPZ-1D	552.99	NA	555.50	15.50	NA	15.7	4.51	550.99	6.04	549.46
GPZ-2S1	562.79	NA	565.01	16.60	TOR	16.6	12.84	552.17	15.83	549.18
GPZ-2S2	562.58	NA	NA	NA	NA	NA	NA	NA	NA	NA
GPZ-2D	562.38	NA	564.88	27.50	NA	20.9	13.84	551.04	15.42	549.46
GPZ-5S	563.99	NA	566.94	20.00	TOR	20.0	17.15	549.79	18.47	548.47
GPZ-5D	564.08	NA	566.98	29.10	TOR	28.2	14.39	552.59	16.58	550.4
GPZ-6S	563.72	NA	564.14	20.10	TOR	20.1	10.73	553.41	15.07	549.07
GPZ-6D	564.25	NA	566.74	28.40	NA	29.1	14.17	552.57	16.41	550.33
GPZ-7S	557.95	NA	560.57	NA	NA	NA	5.62	554.95	9.68	550.89
GPZ-7D	557.82	NA	560.37	NA	NA	NA	5.97	554.4	8.61	551.76
PZ 1	NA	NA	549.60	NA	TOR	NA	1.65	547.95	1.71	547.89
PZ 2	NA	NA	549.09	NA	TOR	NA	1.91	547.18	2.75	546.34
PZ 3	NA	NA	549.27	NA	TOR	NA	1.78	547.49	2.41	546.86

Notes:
Wells Surveyed by Popli Deseign Group - Northing/Easting = North American Datum 83/96 - NYSPCS WEST (US SURVEY FT.)
Elevations = North Atlantic Vertical Datum 88 (US SURVEY FT.)
DTW = Depth to Water
TOR/TOC = from top of riser or top of casing
Water levels collected by MACTEC Engineering

Table 3.2: Summary of Hydraulic Conductivity Test Results

Well Identification	Well Type	Hvorslev (cm/sec) FHT	Hvorslev (cm/sec) RHT	Bouwer-Rice (cm/sec) FHT	Bouwer-Rice (cm/sec) RHT	Geometric mean (cm/sec)	K values (ft/day)	V = Ki/n (ft/day)	V (ft/year)	Geometric mean	
MW-14D	Bedrock		0.011		0.009	0.0098	27.8	5.0	1826	**962**	**=V (ft/year)**
MW-15D	Bedrock	0.009	0.011	0.006	0.008	0.0084	23.8	4.3	1564	**Bedrock**	
MW-17D	Bedrock	0.003	0.002	0.002	0.002	0.0020	5.6	1.0	371		
MW-18D	Bedrock	0.004	0.004	0.003	0.003	0.0031	8.8	1.6	577		
MW-19D	Bedrock	0.009	0.008	0.007	0.006	0.0072	20.5	3.7	1348		
MW-14	Overburden	0.002	0.001	0.002	0.001	0.0011	3.2	0.0	16	**50**	**=V (ft/year)**
MW-17	Overburden		0.010		0.005	0.0071	20.1	0.3	103	**Overburden**	
MW-18	Overburden	0.002	0.002	0.001	0.001	0.0014	4.1	0.1	21		
MW-19	Overburden		0.015		0.009	0.0119	33.7	0.5	172		

Well Identification	Well Type	Butler (ft/day) FHT	Butler (ft/day) RHT	Springer-Gelhar (ft/day) FHT	Springer-Gelhar (ft/day) RHT	Geometric mean K value (ft/day)	V = Ki/n (ft/day)
MW-13DD	Bedrock	169.6	170.1	126.9	138.8	150.1	35.0

FHT = Falling Head Slug Test
RHT = Rising Head Slug Test
cm/sec = centimeter per second
ft/day = feet per day
ft/year = feet per year
K = hydraulic conductivity
V = velocity (in either ft/day or ft/year)
i = hydraulic gradient (feet per foot); hydraulic gradient calculated at .009 feet per foot for the bedrock wells and .0035 feet per foot for the overburden wells.
n = porosity, using assumed porosity of 0.03 for the deep bedrock well, 0.05 for the bedrock wells, and 0.25 for the overburden wells.
slug testing conducted in 2008

Table 4.1: Source Area Soil VOC Results

	Location	GS-001		GS-001		GS-001		GS-002		GS-003		GS-003	
	Sample Date	7/7/2008		7/7/2008		7/7/2008		7/7/2008		7/7/2008		7/7/2008	
	Sample ID	828072-GS001005		828072-GS001011		828072-GS001011D		828072-GS002011		828072-GS003006		828072-GS003011	
	Sample Depth	005		011		011		011		006		011	
	Qc Code	FS		FS		FD		FS		FS		FS	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	0.68	**12**	J	0.56	U	17	U	0.5	U	0.5	U	0.46	U
1,1,2-Trichloroethane	NA	26	U	0.56	U	17	U	0.5	U	0.5	U	0.46	U
1,1-Dichloroethane	0.27	26	U	**0.61**		17	U	**0.15**	J	**0.051**	J	**0.043**	J
1,1-Dichloroethene	0.33	26	U	**0.34**	J	17	U	**0.15**	J	0.5	U	0.46	U
1,2,4-Trichlorobenzene	NA	26	UJ	0.56	UJ	17	UJ	0.5	UJ	0.5	UJ	0.46	UJ
Acetic acid, methyl ester	NA	52	U	**0.11**	J	34	U	0.99	U	**0.068**	J	0.92	U
Acetone	0.05	100	U	**0.71**	J	69	U	2	U	2	U	1.8	U
Carbon disulfide	NA	52	U	1.1	U	34	U	0.99	U	**0.05**	J	0.92	U
Chloroethane	NA	52	U	1.1	U	34	U	0.99	U	1	U	0.92	U
Cis-1,2-Dichloroethene	0.25	**110**		**23**	JD	**27**		**59**	D	0.5	U	**6.2**	
Cyclohexane	NA	26	U	0.56	U	17	U	0.5	U	**0.073**	J	0.46	U
Ethyl benzene	1	26	U	0.56	U	17	U	0.5	U	**0.041**	J	0.46	U
Isopropylbenzene	NA	26	U	0.56	U	17	U	0.5	U	0.5	U	0.46	U
Methyl cyclohexane	NA	26	U	0.56	U	17	U	0.5	U	0.5	U	0.46	U
Tetrachloroethene	1.3	**17**	J	**1.2**		17	U	**1.3**		0.5	U	**0.12**	J
Toluene	0.7	26	U	0.56	U	17	U	**0.039**	J	**0.058**	J	**0.044**	J
trans-1,2-Dichloroethene	0.19	26	U	0.56	U	17	U	**0.16**	J	0.5	U	**0.097**	J
Trichloroethene	0.47	**2200**	D	**390**	D	**380**		**90**	D	0.5	U	**2.7**	
Vinyl chloride	0.02	**5.6**	J	**1.4**		17	U	**2.9**		0.5	U	**1.7**	
Xylene, m/p	0.26	26	U	0.56	U	17	U	0.5	U	0.5	U	0.46	U
Xylene, o	0.26	26	U	0.56	U	17	U	0.5	U	**0.061**	J	0.46	U
Total Organic Carbon	NA	**1700**						**865**				**1320**	
Percent Solids	NA	**82.6**		**85.4**		**86.4**		**87.1**		**82.4**		**85.9**	

Notes:
Results in milligrams per kilogram (mg/Kg)
Depth in feet below ground surface
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method 8260B
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected at a concentration greater than the reporting limit
J = Estimated value
D = Result from dilution run
B = analyte detected in blank (see* below)
Criteria - 6 NYCRR 375 Soil Cleanup Objectives for unrestricted use.
Detections are indicated in **BOLD**
Highlighted results exceed criteria
* =sample result as reported by NYSDEC laboratory (sample not validated)
- for this sample NA = not analyzed

Table 4.1: Source Area Soil VOC Results

	Location	GS-004		GS-004		GS-005		GS-006		GS-006		GS-007	
	Sample Date	7/7/2008		7/7/2008		7/7/2008		7/7/2008		7/7/2008		7/7/2008	
	Sample ID	828072-GS004006		828072-GS004011		828072-GS005011		828072-GS006007		828072-GS006011		828072-GS007010	
	Sample Depth	006		011		011		007		011		010	
	Qc Code	FS		FS		FS		FS		FS		FS	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	0.68	5	U	4.9	U	8.7	U	9	U	3.8	U	0.58	U
1,1,2-Trichloroethane	NA	5	U	4.9	U	8.7	U	9	U	3.8	U	0.58	U
1,1-Dichloroethane	0.27	5	U	**0.41**	J	8.7	U	9	U	3.8	U	0.58	U
1,1-Dichloroethene	0.33	5	U	**0.58**	J	8.7	U	9	U	3.8	U	0.58	U
1,2,4-Trichlorobenzene	NA	5	UJ	4.9	UJ	8.7	UJ	9	UJ	3.8	UJ	0.58	UJ
Acetic acid, methyl ester	NA	10	U	9.8	U	17	U	18	U	7.5	U	1.2	U
Acetone	0.05	20	U	20	U	35	U	36	U	15	U	2.3	U
Carbon disulfide	NA	10	U	9.8	U	17	U	18	U	7.5	U	1.2	U
Chloroethane	NA	10	U	9.8	U	17	U	18	U	7.5	U	1.2	U
Cis-1,2-Dichloroethene	0.25	**120**		**65**		**17**		**24**	D	**42**		**11**	
Cyclohexane	NA	5	U	4.9	U	8.7	U	9	U	3.8	U	0.58	U
Ethyl benzene	1	5	U	4.9	U	8.7	U	9	U	3.8	U	0.58	U
Isopropylbenzene	NA	5	U	4.9	U	8.7	U	9	U	3.8	U	0.58	U
Methyl cyclohexane	NA	5	U	4.9	U	8.7	U	9	U	3.8	U	0.58	U
Tetrachloroethene	1.3	5	U	4.9	U	**1.1**	J	**5.6**	JD	3.8	U	0.58	U
Toluene	0.7	5	U	4.9	U	8.7	U	9	U	3.8	U	0.58	U
trans-1,2-Dichloroethene	0.19	5	U	4.9	U	8.7	U	9	U	3.8	U	**0.081**	J
Trichloroethene	0.47	**32**		**160**		**290**		**190**	D	**78**		**50**	D
Vinyl chloride	0.02	**8.2**		**2.6**	J	**1.1**	J	**2.5**	JD	**2.9**	J	**0.42**	J
Xylene, m/p	0.26	5	U	4.9	U	8.7	U	9	U	3.8	U	0.58	U
Xylene, o	0.26	5	U	4.9	U	8.7	U	9	U	3.8	U	0.58	U
Total Organic Carbon	NA									**3800**		**647**	
Percent Solids	NA	**81.9**		**79.8**		**86**		**84.2**		**87.5**		**86**	

Notes:
Results in milligrams per kilogram (mg/Kg)
Depth in feet below ground surface
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method 8260B
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected at a concentration greater than the reporting limit
J = Estimated value
D = Result from dilution run
B = analyte detected in blank (see* below)
Criteria - 6 NYCRR 375 Soil Cleanup Objectives for unrestricted use.
Detections are indicated in **BOLD**
Highlighted results exceed criteria
* =sample result as reported by NYSDEC laboratory (sample not validated)
- for this sample NA = not analyzed

Table 4.1: Source Area Soil VOC Results

	Location	GS-008		GS-009		GS-009		GS-010		GS-011		GS-012	
	Sample Date	7/8/2008		7/7/2008		7/7/2008		7/8/2008		7/8/2008		7/8/2008	
	Sample ID	828072-GS008011		828072-GS009011		828072-GS009013		828072-GS010013		828072-GS011009		828072-GS012007	
	Sample Depth	011		011		013		013		009		007	
	Qc Code	FS		FS		FS		FS		FS		FS	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	0.68	0.43	U	0.41	U	0.4	U	0.47	U	0.51	U	9.3	U
1,1,2-Trichloroethane	NA	0.43	U	0.41	U	0.4	U	0.47	U	0.51	U	9.3	U
1,1-Dichloroethane	0.27	0.43	U	0.41	U	0.4	U	0.47	U	0.51	U	9.3	U
1,1-Dichloroethene	0.33	0.43	U	0.41	U	0.4	U	0.47	U	0.51	U	9.3	U
1,2,4-Trichlorobenzene	NA	0.43	UJ	0.41	UJ	0.4	UJ	0.47	UJ	0.51	UJ	9.3	UJ
Acetic acid, methyl ester	NA	0.87	U	0.82	U	0.81	U	0.94	U	1	U	19	U
Acetone	0.05	1.7	U	1.6	U	1.6	U	1.9	U	2	U	37	U
Carbon disulfide	NA	0.87	U	0.82	U	0.81	U	0.94	U	1	U	19	U
Chloroethane	NA	0.87	U	0.82	U	0.81	U	0.94	U	1	U	19	U
Cis-1,2-Dichloroethene	0.25	**9.2**		**4.3**		**4.6**		**0.97**		**3.5**		**4.1**	J
Cyclohexane	NA	0.43	U	0.41	U	0.4	U	0.47	U	0.51	U	9.3	U
Ethyl benzene	1	0.43	U	0.41	U	0.4	U	0.47	U	0.51	U	9.3	U
Isopropylbenzene	NA	0.43	U	0.41	U	0.4	U	0.47	U	0.51	U	9.3	U
Methyl cyclohexane	NA	0.43	UJ	0.41	U	0.4	U	0.47	UJ	0.51	UJ	9.3	U
Tetrachloroethene	1.3	0.43	U	0.41	U	**0.52**		0.47	U	0.51	U	9.3	U
Toluene	0.7	0.43	U	0.41	U	0.4	U	0.47	U	0.51	U	9.3	U
trans-1,2-Dichloroethene	0.19	0.43	U	**0.089**	J	0.4	U	0.47	U	0.51	U	9.3	U
Trichloroethene	0.47	**0.4**	J	**0.27**	J	**140**	D	**0.43**	J	**72**	D	**240**	
Vinyl chloride	0.02	**3.1**	J	**2.2**		**1.8**		**0.49**	J	**0.12**	J	9.3	U
Xylene, m/p	0.26	0.43	U	0.41	U	0.4	U	0.47	U	0.51	U	9.3	U
Xylene, o	0.26	0.43	U	0.41	U	0.4	U	0.47	U	0.51	U	9.3	U
Total Organic Carbon	NA	**4410**											
Percent Solids	NA	**84.1**		**88**		**87.2**		**87**		**79.7**		**83.9**	

Notes:
Results in milligrams per kilogram (mg/Kg)
Depth in feet below ground surface
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method 8260B
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected at a concentration greater than the reporting limit
J = Estimated value
D = Result from dilution run
B = analyte detected in blank (see* below)
Criteria - 6 NYCRR 375 Soil Cleanup Objectives for unrestricted use.
Detections are indicated in **BOLD**
Highlighted results exceed criteria
* =sample result as reported by NYSDEC laboratory (sample not validated)
- for this sample NA = not analyzed

Table 4.1: Source Area Soil VOC Results

	Location	GS-012		GS-014		GS-014		GS-015		GS-016		GS-017	
	Sample Date	7/8/2008		7/8/2008		7/8/2008		7/8/2008		7/8/2008		9/22/2008	
	Sample ID	828072-GS012012		828072-GS014006		828072-GS014013		828072-GS015007		828072-GS016006		828072-GS017002	
	Sample Depth	012		006		013		007		006		002	
	Qc Code	FS		FS		FS		FS		FS		FS	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	0.68	0.42	U	44	U	0.81	U	45	U	45	U	0.43	UJ
1,1,2-Trichloroethane	NA	0.42	U	44	U	0.81	U	45	U	45	U	0.43	UJ
1,1-Dichloroethane	0.27	0.42	U	44	U	0.81	U	45	U	45	U	0.43	UJ
1,1-Dichloroethene	0.33	0.42	U	44	U	0.81	U	45	U	45	U	0.43	UJ
1,2,4-Trichlorobenzene	NA	0.42	UJ	44	UJ	0.81	UJ	45	UJ	45	UJ	0.43	UJ
Acetic acid, methyl ester	NA	0.84	U	88	U	1.6	U	90	U	89	U	**1**	J
Acetone	0.05	1.7	U	180	U	3.2	U	180	U	180	U	**0.37**	J
Carbon disulfide	NA	0.84	U	88	U	1.6	U	90	U	89	U	**0.033**	J
Chloroethane	NA	0.84	U	88	U	1.6	U	90	U	89	U	0.86	UJ
Cis-1,2-Dichloroethene	0.25	**1.1**		**68**		**15**		**8.6**	J	**32**	JD	0.43	UJ
Cyclohexane	NA	0.42	U	44	U	0.81	U	45	U	45	U	0.43	UJ
Ethyl benzene	1	0.42	U	44	U	0.81	U	45	U	45	U	**0.037**	J
Isopropylbenzene	NA	0.42	U	44	U	0.81	U	45	U	45	U	0.43	UJ
Methyl cyclohexane	NA	0.42	UJ	44	U	0.81	UJ	45	U	45	U	0.43	UJ
Tetrachloroethene	1.3	0.42	U	44	U	0.81	U	45	U	45	U	0.43	UJ
Toluene	0.7	0.42	U	44	U	0.81	U	45	U	45	U	**0.057**	J
trans-1,2-Dichloroethene	0.19	0.42	U	44	U	0.81	U	45	U	45	U	0.43	UJ
Trichloroethene	0.47	**22**	D	**1300**		**87**	D	**1100**		**1000**	D	0.43	UJ
Vinyl chloride	0.02	**0.074**	J	44	U	**0.11**	J	45	U	45	U	0.43	UJ
Xylene, m/p	0.26	0.42	U	44	U	0.81	U	45	U	45	U	**0.098**	J
Xylene, o	0.26	0.42	U	44	U	0.81	U	45	U	45	U	**0.047**	J
Total Organic Carbon	NA												
Percent Solids	NA	**87**		**84.1**		**87.5**		**86.5**		**84**		**49.1**	

Notes:
Results in milligrams per kilogram (mg/Kg)
Depth in feet below ground surface
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method 8260B
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected at a concentration greater than the reporting limit
J = Estimated value
D = Result from dilution run
B = analyte detected in blank (see* below)
Criteria - 6 NYCRR 375 Soil Cleanup Objectives for unrestricted use.
Detections are indicated in **BOLD**
Highlighted results exceed criteria
* =sample result as reported by NYSDEC laboratory (sample not validated)
- for this sample NA = not analyzed

Table 4.1: Source Area Soil VOC Results

	Location	GS-018		GS-019		GS-020		GS-021		GS-022		GS-023	
	Sample Date	9/22/2008		9/22/2008		9/22/2008		9/22/2008		9/22/2008		9/22/2008	
	Sample ID	828072-GS018002		828072-GS019009		828072-GS020012		828072-GS021010		828072-GS022002		828072-GS023011	
	Sample Depth	002		009		012		010		002		011	
	Qc Code	FS		FS		FS		FS		FS		FS	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	0.68	0.21	U	0.17	U	0.12	U	0.088	U	0.17	U	0.16	U
1,1,2-Trichloroethane	NA	0.21	U	0.17	U	0.12	U	0.088	U	0.17	U	0.16	U
1,1-Dichloroethane	0.27	0.21	U	0.17	U	0.12	U	0.088	U	0.17	U	0.16	U
1,1-Dichloroethene	0.33	0.21	U	0.17	U	0.12	U	0.088	U	0.17	U	0.16	U
1,2,4-Trichlorobenzene	NA	0.21	U	0.17	U	0.12	U	0.088	U	0.17	U	0.16	U
Acetic acid, methyl ester	NA	**0.61**		**0.015**	J	0.23	U	**0.011**	J	**0.4**		0.31	U
Acetone	0.05	**0.18**	J	0.66	U	0.47	U	0.35	U	**0.13**	J	0.63	U
Carbon disulfide	NA	0.42	U	0.33	U	0.23	U	0.18	U	0.34	U	0.31	U
Chloroethane	NA	0.42	U	0.33	UJ	0.23	UJ	0.18	UJ	0.34	U	0.31	UJ
Cis-1,2-Dichloroethene	0.25	0.21	U	**6.1**		0.12	U	**0.36**		**0.082**	J	0.16	U
Cyclohexane	NA	0.21	U	0.17	U	0.12	U	0.088	U	0.17	U	0.16	U
Ethyl benzene	1	0.21	U	0.17	U	0.12	U	0.088	U	0.17	U	0.16	U
Isopropylbenzene	NA	0.21	U	0.17	U	0.12	U	0.088	U	0.17	U	0.16	U
Methyl cyclohexane	NA	0.21	UJ	0.17	U	0.12	U	0.088	U	0.17	UJ	0.16	U
Tetrachloroethene	1.3	0.21	U	0.17	U	0.12	U	0.088	U	0.17	U	0.16	U
Toluene	0.7	**0.06**	J	0.17	U	0.12	U	**0.0087**	J	**0.23**		0.16	U
trans-1,2-Dichloroethene	0.19	0.21	U	**0.1**	J	0.12	U	0.088	U	0.17	U	0.16	U
Trichloroethene	0.47	0.21	U	**3.7**		0.12	U	0.088	U	0.17	U	0.16	U
Vinyl chloride	0.02	0.21	U	**0.48**		0.12	U	**0.12**		**0.023**	J	0.16	U
Xylene, m/p	0.26	0.21	U	0.17	U	0.12	U	0.088	U	0.17	U	0.16	U
Xylene, o	0.26	0.21	U	0.17	U	0.12	U	0.088	U	0.17	U	0.16	U
Total Organic Carbon	NA												
Percent Solids	NA	**71.7**		**80.7**		**86.9**		**88.7**		**75.2**		**85.5**	

Notes:
Results in milligrams per kilogram (mg/Kg)
Depth in feet below ground surface
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method 8260B
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected at a concentration greater than the reporting limit
J = Estimated value
D = Result from dilution run
B = analyte detected in blank (see* below)
Criteria - 6 NYCRR 375 Soil Cleanup Objectives for unrestricted use.
Detections are indicated in **BOLD**
Highlighted results exceed criteria
* =sample result as reported by NYSDEC laboratory (sample not validated)
- for this sample NA = not analyzed

Table 4.1: Source Area Soil VOC Results

	Location	GS-024		GS-025		GS-025		GS-025		GS-026		GS-027	
	Sample Date	9/22/2008		9/23/2008		9/23/2008		9/23/2008		9/23/2008		9/23/2008	
	Sample ID	828072-GS024010		828072-GS025009		828072-GS025009D		828072-GS025012		828072-GS026012		828072-GS027010	
	Sample Depth	010		009		009		012		012		010	
	Qc Code	FS		FS		FD		FS		FS		FS	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	0.68	0.12	U	0.15	U	0.2	U	0.082	U	0.12	U	0.19	U
1,1,2-Trichloroethane	NA	0.12	U	0.15	U	0.2	U	0.082	U	0.12	U	0.19	U
1,1-Dichloroethane	0.27	0.12	U	0.15	U	0.2	U	0.082	U	0.12	U	0.19	U
1,1-Dichloroethene	0.33	**0.023**	J	0.15	U	0.2	U	0.082	U	0.12	U	0.19	U
1,2,4-Trichlorobenzene	NA	0.12	U	0.15	U	**0.1**	J	0.082	U	0.12	U	0.19	U
Acetic acid, methyl ester	NA	**0.024**	J	0.29	U	0.4	U	0.16	U	0.24	U	**0.023**	J
Acetone	0.05	0.48	U	0.59	U	0.8	U	0.33	U	0.48	U	0.76	U
Carbon disulfide	NA	0.24	U	0.29	U	0.4	U	0.16	U	0.24	U	0.38	U
Chloroethane	NA	0.24	UJ	0.29	U	0.4	UJ	0.16	UJ	0.24	UJ	0.38	U
Cis-1,2-Dichloroethene	0.25	**1.5**		**0.33**		**0.47**		**2.6**		**0.6**		**0.5**	
Cyclohexane	NA	0.12	U	0.15	U	0.2	U	0.082	U	0.12	U	0.19	U
Ethyl benzene	1	0.12	U	0.15	U	0.2	U	0.082	U	0.12	U	0.19	U
Isopropylbenzene	NA	0.12	U	0.15	U	0.2	U	0.082	U	0.12	U	0.19	U
Methyl cyclohexane	NA	0.12	U	0.15	UJ	0.2	U	0.082	U	0.12	U	0.19	UJ
Tetrachloroethene	1.3	0.12	U	0.15	U	0.2	U	0.082	U	0.12	U	0.19	U
Toluene	0.7	0.12	U	0.15	U	0.2	U	0.082	U	0.12	U	0.19	U
trans-1,2-Dichloroethene	0.19	0.12	U	0.15	U	0.2	U	0.082	U	0.12	U	0.19	U
Trichloroethene	0.47	**100**	D	0.15	U	0.2	U	**26**	D	**16**	D	**26**	D
Vinyl chloride	0.02	0.12	U	0.15	U	0.2	U	0.082	U	0.12	U	**0.036**	J
Xylene, m/p	0.26	0.12	U	0.15	U	0.2	U	0.082	U	0.12	U	0.19	U
Xylene, o	0.26	0.12	U	0.15	U	0.2	U	0.082	U	0.12	U	0.19	U
Total Organic Carbon	NA												
Percent Solids	NA	**79.9**		**80**		**78.9**		**86.2**		**87.9**		**78.3**	

Notes:
Results in milligrams per kilogram (mg/Kg)
Depth in feet below ground surface
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method 8260B
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected at a concentration greater than the reporting limit
J = Estimated value
D = Result from dilution run
B = analyte detected in blank (see* below)
Criteria - 6 NYCRR 375 Soil Cleanup Objectives for unrestricted use.
Detections are indicated in **BOLD**
Highlighted results exceed criteria
* =sample result as reported by NYSDEC laboratory (sample not validated)
- for this sample NA = not analyzed

Table 4.1: Source Area Soil VOC Results

	Location	GS-028		GS-029		GS-030		GS-031		GS-032		GS-032	
	Sample Date	9/23/2008		9/23/2008		9/23/2008		9/23/2008		9/23/2008		9/23/2008	
	Sample ID	828072-GS028008		828072-GS029009		828072-GS030012		828072-GS031012		828072-GS032007		828072-GS032007D	
	Sample Depth	008		009		012		012		007		007	
	Qc Code	FS		FS		FS		FS		FS		FD	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	0.68	0.21	U	0.2	U	0.13	U	0.15	U	0.3	U	0.31	U
1,1,2-Trichloroethane	NA	0.21	U	0.2	U	0.13	U	0.15	U	0.3	U	0.31	U
1,1-Dichloroethane	0.27	0.21	U	0.2	U	0.13	U	0.15	U	0.3	U	0.31	U
1,1-Dichloroethene	0.33	0.21	U	0.2	U	0.13	U	0.15	U	0.3	U	0.31	U
1,2,4-Trichlorobenzene	NA	0.21	U	0.2	U	0.13	U	0.15	U	0.3	U	0.31	U
Acetic acid, methyl ester	NA	0.41	U	0.41	U	0.27	U	0.31	U	0.6	U	0.62	U
Acetone	0.05	0.83	U	0.82	U	0.53	U	0.62	U	0.31	U	1.2	U
Carbon disulfide	NA	0.41	U	0.41	U	0.27	U	0.31	U	0.6	U	0.62	U
Chloroethane	NA	0.41	U	0.41	U	0.27	UJ	0.31	UJ	0.6	U	0.62	UJ
Cis-1,2-Dichloroethene	0.25	**1**		**0.073**	J	**0.044**	J	**0.2**		**3.9**		**3.5**	
Cyclohexane	NA	0.21	U	0.2	U	0.13	U	0.15	U	0.3	U	0.31	U
Ethyl benzene	1	0.21	U	0.2	U	0.13	U	0.15	U	0.3	U	0.31	U
Isopropylbenzene	NA	0.21	U	0.2	U	0.13	U	0.15	U	0.3	U	0.31	U
Methyl cyclohexane	NA	0.21	UJ	0.2	UJ	0.13	U	0.15	U	0.3	U	0.31	U
Tetrachloroethene	1.3	0.21	U	0.2	U	0.13	U	0.15	U	0.3	U	0.31	U
Toluene	0.7	0.21	U	0.2	U	0.13	U	0.15	U	0.3	U	0.31	U
trans-1,2-Dichloroethene	0.19	0.21	U	0.2	U	0.13	U	0.15	U	**0.13**	J	**0.12**	J
Trichloroethene	0.47	**3.1**		**4.7**		**0.086**	J	0.15	UJ	**3.5**		**3.1**	J
Vinyl chloride	0.02	**0.046**	J	0.2	U	0.13	U	**0.05**	J	**0.32**		**0.29**	J
Xylene, m/p	0.26	0.21	U	0.2	U	0.13	U	0.15	U	0.3	U	0.31	U
Xylene, o	0.26	0.21	U	0.2	U	0.13	U	0.15	U	0.3	U	0.31	U
Total Organic Carbon	NA												
Percent Solids	NA	**81.3**		**80.3**		**87.9**		**86.7**		**81.7**		**79.9**	

Notes:
Results in milligrams per kilogram (mg/Kg)
Depth in feet below ground surface
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method 8260B
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected at a concentration greater than the reporting limit
J = Estimated value
D = Result from dilution run
B = analyte detected in blank (see* below)
Criteria - 6 NYCRR 375 Soil Cleanup Objectives for unrestricted use.
Detections are indicated in **BOLD**
Highlighted results exceed criteria
* =sample result as reported by NYSDEC laboratory (sample not validated)
- for this sample NA = not analyzed

Table 4.1: Source Area Soil VOC Results

	Location	GS-033		GS-034		GS-034		GS-035		GS-036		GS-036	
	Sample Date	9/23/2008		9/23/2008		9/23/2008		9/23/2008		9/23/2008		9/23/2008	
	Sample ID	828072-GS033012		828072-GS034003		828072-GS034006		828072-GS035009		828072-GS036005		828072-GS036012	
	Sample Depth	012		003		006		009		005		012	
	Qc Code	FS		FS		FS		FS		FS		FS	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	0.68	0.18	U	0.14	U	0.25	UJ	0.31	U	0.18	U	8.6	U
1,1,2-Trichloroethane	NA	0.18	U	0.14	U	0.25	UJ	0.31	U	0.18	U	8.6	U
1,1-Dichloroethane	0.27	0.18	U	0.14	U	0.25	UJ	0.31	U	0.18	U	8.6	U
1,1-Dichloroethene	0.33	0.18	U	0.14	U	0.25	UJ	0.31	U	0.18	U	8.6	U
1,2,4-Trichlorobenzene	NA	0.18	U	0.14	U	0.25	UJ	0.31	U	0.18	U	8.6	U
Acetic acid, methyl ester	NA	0.36	U	0.28	U	0.5	U	0.63	U	0.37	U	17	U
Acetone	0.05	0.73	U	0.55	U	0.99	UJ	0.31	U	0.12	U	6.3	U
Carbon disulfide	NA	0.36	U	0.28	U	0.5	UJ	0.63	U	0.37	U	17	U
Chloroethane	NA	0.36	UJ	0.28	U	0.5	UJ	0.63	U	0.37	U	17	U
Cis-1,2-Dichloroethene	0.25	**0.57**		**0.91**		**2.2**	J	0.31	U	**0.5**		**3.8**	J
Cyclohexane	NA	0.18	U	0.14	U	0.25	UJ	0.31	U	0.18	U	8.6	U
Ethyl benzene	1	0.18	U	0.14	U	0.25	UJ	0.31	U	0.18	U	8.6	U
Isopropylbenzene	NA	0.18	U	0.14	U	0.25	U	0.31	U	0.18	U	8.6	U
Methyl cyclohexane	NA	0.18	U	0.14	UJ	0.25	UJ	0.31	U	0.18	U	8.6	U
Tetrachloroethene	1.3	0.18	U	0.14	U	0.25	UJ	0.31	U	0.18	U	8.6	U
Toluene	0.7	0.18	U	0.14	U	0.25	UJ	0.31	U	0.18	U	8.6	U
trans-1,2-Dichloroethene	0.19	0.18	U	0.14	U	**0.029**	J	0.31	U	0.18	U	8.6	U
Trichloroethene	0.47	**3.8**	J	0.14	U	**2**	J	0.31	U	**2.4**		**220**	
Vinyl chloride	0.02	0.18	U	**0.083**	J	0.25	UJ	0.31	U	0.18	U	8.6	U
Xylene, m/p	0.26	0.18	U	0.14	U	0.25	U	0.31	U	0.18	U	8.6	U
Xylene, o	0.26	0.18	U	0.14	U	0.25	U	0.31	U	0.18	U	8.6	U
Total Organic Carbon	NA												
Percent Solids	NA	**87.9**		**84.3**		**83.5**		**78**		**81.8**		**89**	

Notes:
Results in milligrams per kilogram (mg/Kg)
Depth in feet below ground surface
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method 8260B
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected at a concentration greater than the reporting limit
J = Estimated value
D = Result from dilution run
B = analyte detected in blank (see* below)
Criteria - 6 NYCRR 375 Soil Cleanup Objectives for unrestricted use.
Detections are indicated in **BOLD**
Highlighted results exceed criteria
* =sample result as reported by NYSDEC laboratory (sample not validated)
- for this sample NA = not analyzed

Table 4.1: Source Area Soil VOC Results

	Location	GS-037		GS-037*		GS-039		GS-040		GS-041		GS-043	
	Sample Date	9/24/2008		9/24/2008		9/24/2008		9/24/2008		9/24/2008		3/9/2009	
	Sample ID	828072-GS037003		GS-37 9'-10'		828072-GS039008		828072-GS040002		828072-GS041005		828072-GS043008	
	Sample Depth	003		009		008		002		005		008	
	Qc Code	FS		FS		FS		FS		FS		FS	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	0.68	1.2	U	0.016	U	21	U	0.22	U	0.2	U	**0.025**	J
1,1,2-Trichloroethane	NA	1.2	U	0.016	U	21	U	0.22	U	0.2	U	0.11	U
1,1-Dichloroethane	0.27	1.2	U	0.016	U	21	U	0.22	U	0.2	U	0.11	U
1,1-Dichloroethene	0.33	1.2	U	0.016	U	21	U	0.22	U	0.2	U	0.11	U
1,2,4-Trichlorobenzene	NA	1.2	U	0.016	U	21	U	0.22	U	0.2	U	0.11	U
Acetic acid, methyl ester	NA	2.5	U	NA		42	U	0.44	U	0.39	U	**0.15**	J
Acetone	0.05	1.2	U	**0.019**	B	17	U	0.23	U	0.15	U	0.42	UJ
Carbon disulfide	NA	2.5	U	**0.002**	J	42	U	0.44	U	0.39	U	0.21	UJ
Chloroethane	NA	2.5	U	0.016	U	42	U	0.44	U	0.39	U	0.11	U
Cis-1,2-Dichloroethene	0.25	**3.9**		**0.14**		21	U	**1.1**		**1.2**		**0.63**	
Cyclohexane	NA	1.2	U	NA		21	U	0.22	U	0.2	U	0.21	U
Ethyl benzene	1	1.2	U	0.016	U	21	U	0.22	U	0.2	U	0.11	U
Isopropylbenzene	NA	1.2	U	NA		21	U	0.22	U	0.2	U	0.11	U
Methyl cyclohexane	NA	1.2	U	NA		21	U	0.22	U	0.2	U	0.21	U
Tetrachloroethene	1.3	1.2	U	0.016	U	21	U	0.22	U	0.2	U	**0.13**	
Toluene	0.7	1.2	U	0.016	U	21	U	0.22	U	0.2	U	0.11	U
trans-1,2-Dichloroethene	0.19	1.2	U	0.016	U	21	U	0.22	U	0.2	U	**0.081**	J
Trichloroethene	0.47	**36**		**34**		**650**		**5.5**		**0.91**		**7.7**	DJ
Vinyl chloride	0.02	1.2	U	0.016	U	21	U	0.22	U	0.2	U	**0.055**	J
Xylene, m/p	0.26	1.2	U	0.016	U	21	U	0.22	U	0.2	U	0.11	U
Xylene, o	0.26	1.2	U	0.016	U	21	U	0.22	U	0.2	U	0.11	U
Total Organic Carbon	NA												
Percent Solids	NA	**81.3**		**81.5**		**83**		**83.1**		**82.2**			

Notes:
Results in milligrams per kilogram (mg/Kg)
Depth in feet below ground surface
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method 8260B
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected at a concentration greater than the reporting limit
J = Estimated value
D = Result from dilution run
B = analyte detected in blank (see* below)
Criteria - 6 NYCRR 375 Soil Cleanup Objectives for unrestricted use.
Detections are indicated in **BOLD**
Highlighted results exceed criteria
* =sample result as reported by NYSDEC laboratory (sample not validated)
- for this sample NA = not analyzed

Table 4.1: Source Area Soil VOC Results

	Location	GS-044		GS-045		GS-045		GS-047		GS-047		GS-048	
	Sample Date	3/9/2009		3/9/2009		3/9/2009		3/10/2009		3/10/2009		3/10/2009	
	Sample ID	828072-GS044004		828072-GS045008		828072-GS045012		828072-GS047004		828072-GS047010		828072-GS048008	
	Sample Depth	004		008		012		004		010		008	
	Qc Code	FS		FS		FS		FS		FS		FS	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	0.68	0.24	U	0.25	U	2.4	U	**1**		**3**		**0.017**	J
1,1,2-Trichloroethane	NA	0.24	U	0.25	U	2.4	U	0.22	U	0.16	U	**0.021**	J
1,1-Dichloroethane	0.27	0.24	U	**0.072**	J	2.4	U	**0.19**	J	**0.89**		**0.094**	J
1,1-Dichloroethene	0.33	0.24	U	**0.043**	J	2.4	U	0.22	U	0.16	U	**0.1**	J
1,2,4-Trichlorobenzene	NA	0.24	U	0.25	U	2.4	U	0.22	U	0.16	U	0.16	U
Acetic acid, methyl ester	NA	0.48	U	**0.034**	J	4.9	U	**0.13**	J	**0.057**	J	0.32	U
Acetone	0.05	0.97	U	1	UJ	9.7	UJ	0.87	UJ	0.62	UJ	0.64	UJ
Carbon disulfide	NA	0.48	U	0.5	UJ	4.9	UJ	0.43	UJ	0.31	UJ	0.32	UJ
Chloroethane	NA	0.24	U	0.25	U	2.4	U	0.22	U	**0.014**	J	0.16	U
Cis-1,2-Dichloroethene	0.25	**0.15**	J	**30**	DJ	**46**		**2.3**		**0.018**	J	**44**	DJ
Cyclohexane	NA	0.48	U	0.5	U	4.9	U	0.43	U	0.31	U	0.32	U
Ethyl benzene	1	0.24	U	0.25	U	2.4	U	0.22	U	**0.022**	J	0.16	U
Isopropylbenzene	NA	0.24	U	0.25	U	2.4	U	**0.092**	J	**0.073**	J	0.16	U
Methyl cyclohexane	NA	0.48	U	0.5	U	4.9	U	**0.036**	J	**0.023**	J	0.32	U
Tetrachloroethene	1.3	0.24	U	0.25	U	**1.1**	J	0.22	U	0.16	U	**1.6**	
Toluene	0.7	0.24	U	0.25	U	2.4	U	0.22	U	**0.079**	J	0.16	U
trans-1,2-Dichloroethene	0.19	0.24	U	**0.078**	J	2.4	U	**0.25**		**0.018**	J	**0.11**	J
Trichloroethene	0.47	**0.32**		**0.8**		**150**	DJ	**0.26**		**0.042**	J	**23**	DJ
Vinyl chloride	0.02	0.24	U	**5**		**1.7**	J	**0.94**		0.16	U	**2.8**	
Xylene, m/p	0.26	0.24	U	0.25	U	2.4	U	**0.19**	J	**0.16**	J	0.16	U
Xylene, o	0.26	0.24	U	0.25	U	2.4	U	**0.18**	J	**0.13**	J	0.16	U
Total Organic Carbon	NA												
Percent Solids	NA	**93.2**		**84.6**		**81**		**77.9**		**85.5**		**84.6**	

Notes:
Results in milligrams per kilogram (mg/Kg)
Depth in feet below ground surface
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method 8260B
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected at a concentration greater than the reporting limit
J = Estimated value
D = Result from dilution run
B = analyte detected in blank (see* below)
Criteria - 6 NYCRR 375 Soil Cleanup Objectives for unrestricted use.
Detections are indicated in **BOLD**
Highlighted results exceed criteria
* =sample result as reported by NYSDEC laboratory (sample not validated)
- for this sample NA = not analyzed

Table 4.2: PID Readings and TCE Soil Results

Date	7/7/08		7/7/08		7/7/08		7/7/08		7/7/08		7/7/08		7/7/08	
Boring ID	**GS-001**		**GS-002**		**GS-003**		**GS-004**		**GS-005**		**GS-006**		**GS-007**	
Depth (ft bgs)	**Result (ppm)**	**TCE (mg/Kg)**	**Result (ppm)**	**TCE (mg/Kg)**	**Result (ppm)**	**TCE (mg/Kg)**	**Result (ppm)**	**TCE (mg/Kg)**	**Result (ppm)**	**TCE (mg/Kg)**	**Result (ppm)**	**TCE (mg/Kg)**	**Result (ppm)**	**TCE (mg/Kg)**
0														
1	< 1		< 1		< 1		< 1		< 1		19		< 1	
2							< 1							
3							3		< 1		42			
4	800		1.1		< 1		25		9		60		20	
5	2500	2200			30		220		340		500			
6						ND	368	32	203				300	
7	500				1				190		730	190		
8			20		1		185		170		200		100	
9							261		195		150			
10							233		240		50		250	50
11	1800	390	100	90	4	2.7	205	160	380	290	200	78		
12									900					
13	1000		30				250				300		250	
14														
	BOB-14.5'		BOB-14.5'		BOB-15'		BOB-14'		BOB-13.8'		BOB-14.2'		BOB-14.0'	

Notes:

ft bgs = feet below ground surface

Result = photoionization detector (Thermo 580B) readings in parts per million (ppm)

* = photoionization detector = MiniRae ppb

TCE = trichloroethene results from USEPA Method 8260 analyzed by Columbia Analytical, Rochester, NY

mg/Kg = milligrams per kilogram

BOB = bottom of boring depth (feet below ground surface)

Bottom of boring was Geoprobe refusal, with the exception of GS-17, GS-18, GS-22, GS-40, and GS-42 to GS-48.

ND = not detected

Table 4.2: PID Readings and TCE Soil Results

Date	7/8/08		7/8/08		7/8/08		7/8/08		7/8/08		7/8/08		7/8/08	
Boring ID	**GS-008**		**GS-009**		**GS-010**		**GS-011**		**GS-012**		**GS-014**		**GS-015**	
Depth (ft bgs)	**Result (ppm)**	**TCE (mg/Kg)**	**Result (ppm)**	**TCE (mg/Kg)**	**Result (ppm)**	**TCE (mg/Kg)**	**Result (ppm)**	**TCE (mg/Kg)**	**Result (ppm)**	**TCE (mg/Kg)**	**Result (ppm)**	**TCE (mg/Kg)**	**Result (ppm)**	**TCE (mg/Kg)**
0														
1	< 1		< 1		< 1		< 1		< 1		< 1		< 1	
2														
3							< 1		10					
4	30		< 1		< 1		2.2		100		900		350	
5			1.5		1.5				50		2200		500	
6	46		3.7				3.5		500		2400	1300	2600	
7	35		13.1		3		1.2		900	240	2200		2200	1100
8	15		5		2.5				800		800		600	
9							63	72	100		1000		500	
10			10		14		30		100		600		250	
11	35	0.4	7-100	0.27	30		6		50		200		150	
12	150		2000						100	22	250		80	
13	250		1000	140	1.5	0.43			50		150	87	70	
14														
	BOB-13.8'		BOB-14.0'		BOB-14.0'		BOB-13.0'		BOB-13.5'		BOB-14.0'		BOB-13.0'	

Table 4.2: PID Readings and TCE Soil Results

Date	7/8/08		9/22/08		9/22/08		9/22/08		9/22/08		9/22/08		9/22/08	
Boring ID	**GS-016**		**GS-17**		**GS-18**		**GS-19**		**GS-20**		**GS-21**		**GS-22**	
Depth (ft bgs)	**Result (ppm)**	**TCE (mg/Kg)**	**Result (ppm)**	**TCE (mg/Kg)**	**Result (ppm)**	**TCE (mg/Kg)**	**Result (ppm)**	**TCE (mg/Kg)**	**Result (ppm)**	**TCE (mg/Kg)**	**Result (ppm)**	**TCE (mg/Kg)**	**Result (ppm)**	**TCE (mg/Kg)**
0			0.1		< 1		< 1		< 1		< 1		< 1	
1	< 1		0.1		< 1		3.1		< 1		< 1		< 1	
2			0.1	ND	< 1	ND	0.1		< 1		< 1		< 1	ND
3			0.1		< 1		0.1		< 1		< 1		< 1	
4	2000						0.4		< 1		< 1			
5	2200						0.7		< 1		< 1			
6	2000	1000					0.7		< 1		< 1			
7	1800						0.1		< 1		< 1			
8	2000						0.1		< 1		< 1			
9	2500						10.6	3.7	< 1		< 1			
10	1800						2.4		< 1		< 1	ND		
11	200						3.2		< 1		< 1			
12	150						4.5		< 1	ND	< 1			
13	80								< 1		< 1			
14											< 1			
	BOB-13.0'		BOB-4.0'		BOB-4.0'		BOB-13.0'		BOB-13.2'		BOB-15.0'		BOB-4.0'	

Table 4.2: PID Readings and TCE Soil Results

Date	9/22/08		9/22/08		9/23/08		9/23/08		9/23/08		9/23/08		9/23/08	
Boring ID	**GS-23**		**GS-24**		**GS-25**		**GS-26**		**GS-27**		**GS-28**		**GS-29**	
Depth (ft bgs)	**Result (ppm)**	**TCE (mg/Kg)**	**Result (ppm)**	**TCE (mg/Kg)**	**Result (ppm)**	**TCE (mg/Kg)**	**Result (ppm)**	**TCE (mg/Kg)**	**Result (ppm)**	**TCE (mg/Kg)**	**Result (ppm)**	**TCE (mg/Kg)**	**Result (ppm)**	**TCE (mg/Kg)**
0	< 1		< 1		0.3		< 1		< 1		< 1		< 1	
1	3.6		< 1		< 1		< 1		< 1		< 1		< 1	
2	< 1		< 1		< 1		< 1		< 1		< 1		< 1	
3	< 1		6.5		< 1		< 1		< 1		< 1		< 1	
4	< 1		8.4		0.3		< 1		0.3		< 1		< 1	
5	< 1		14.8		< 1		< 1		2.1		0.3		< 1	
6	< 1		23.1		< 1		< 1		1.8		0.6		< 1	
7	< 1		8		0.3		< 1		0.8		1.7		0.3	
8	< 1		65		< 1		< 1		6.8		0.8	3.1	4.1	
9	< 1		238		< 1	ND	< 1		24		3.1		6.8	4.7
10	< 1		160	100	< 1		< 1		21	26	1		2.1	
11	< 1	ND	140		4.6		6.7		2.7		< 1		< 1	
12	< 1		60		3.6	26	23	16	6.8		< 1		< 1	
13	< 1				108		18		2.1		< 1		< 1	
14														
	BOB-13.2'		BOB-13.0'		BOB-13.2'		BOB-13.8'		BOB-13.6'		BOB-13.8'		BOB-13.6'	

Table 4.2: PID Readings and TCE Soil Results

Date	9/23/08		9/23/08		9/23/08		9/23/08		9/23/08		9/23/08		9/23/08	
Boring ID	**GS-30**		**GS-31**		**GS-32**		**GS-33**		**GS-34**		**GS-35**		**GS-36**	
Depth (ft bgs)	**Result (ppm)**	**TCE (mg/Kg)**	**Result (ppm)**	**TCE (mg/Kg)**	**Result (ppm)**	**TCE (mg/Kg)**	**Result (ppm)**	**TCE (mg/Kg)**	**Result (ppm)**	**TCE (mg/Kg)**	**Result (ppm)**	**TCE (mg/Kg)**	**Result (ppm)**	**TCE (mg/Kg)**
0	< 1		< 1		< 1		< 1		< 1		< 1		< 1	
1	< 1		< 1		< 1		< 1		5.1		< 1		< 1	
2	< 1		< 1		< 1		< 1		7.6		< 1		0.6	
3	< 1		< 1		< 1		< 1		0.3	ND	< 1		4.1	
4	< 1		< 1		1.4		< 1		2.1		< 1		7.6	
5	< 1		< 1		4.9		< 1		1.9		< 1		13.4	2.4
6	< 1		< 1		3.6		< 1		3.1	2	< 1		27	
7	< 1		< 1		7.7	3.5	< 1		1.9		< 1		141	
8	< 1		0.6		1.8		< 1		3		< 1		34	
9	< 1		0.3		1.2		< 1		2.4		< 1	ND	119	
10	< 1		< 1		0.3		< 1		1.8		< 1		208	
11	< 1		< 1		< 1		< 1		< 1		< 1		730	
12	< 1	0.086	0.3	ND	< 1		< 1	3.8	< 1		< 1		1880	220
13	< 1						1.5		< 1				190	
14														
	BOB-13.6'		BOB-13.0'		BOB-13.0'		BOB-13.8'		BOB-14.0'		BOB-13.0'		BOB-13.8'	

Table 4.2: PID Readings and TCE Soil Results

Date	9/24/08		9/24/08		9/24/08		9/24/08		9/24/08		9/24/08	
Boring ID	**GS-37**		**GS-38**		**GS-39**		**GS-40**		**GS-41**		**GS-42**	
Depth (ft bgs)	**Result (ppm)**	**TCE (mg/Kg)**	**Result (ppm)**	**TCE (mg/Kg)**	**Result (ppm)**	**TCE (mg/Kg)**	**Result (ppm)**	**TCE (mg/Kg)**	**Result (ppm)**	**TCE (mg/Kg)**	**Result (ppm)**	**TCE (mg/Kg)**
0	1.8		4		2.1		4		< 1		< 1	
1	4.2		23		4.8		9		< 1		< 1	
2	15.6		105		15		56	5.5	0.6		1.3	
3	118	36	500		87		80	0.01 (DEC)	0.3		1.9	
4	370		900		180		110		2			
5	420		2400		680		113		4.1	0.9		
6	850		600		850		90		1.8			
7	2400		400		3000		2470		< 1			
8	400		450		650	650			< 1			
9	850	34 (DEC)	2200		1400				< 1			
10	2400		1500		240				< 1			
11	680		500		450				< 1			
12	400		150		900							
13												
14												
	BOB-13.0'		BOB-13.0'		BOB-13.0'		BOB-8.0'		BOB-12.0'		BOB-7.5'	

Table 4.2: PID Readings and TCE Soil Results

Date	3/9/09		3/9/09		3/9/09		3/10/09		3/10/09		3/10/09	
Boring ID	**GS-43**		**GS-44**		**GS-45**		**GS-46**		**GS-47**		**GS-48**	
Depth (ft bgs)	**Result * (ppm)**	**TCE (mg/Kg)**	**Result * (ppm)**	**TCE (mg/Kg)**	**Result * (ppm)**	**TCE (mg/Kg)**	**Result * (ppm)**	**TCE (mg/Kg)**	**Result * (ppm)**	**TCE (mg/Kg)**	**Result* (ppm)**	**TCE (mg/Kg)**
0									< 1		< 1	
1	0.1		0.1		0.3		2		30		63	
2	0.55		0.09		1.2				35		68	
3	0.69		0.9				5		66		8	
4	3.6		0.96	0.32	0.1		6		59	0.26	1.4	
5	1.6				1.4				81		2.8	
6					0.7				125		7	
7					73	0.8			83		80	
8	5	7.7			105				15		>199	23
9					48				29		>199	
10					>199				80	0.04	>199	
11					178				12		>199	
12					>199	150			6			
13					>199				0.4			
14					31							
	BOB-7.8'		BOB-3.6'		BOB-15.2'		BOB-3.8'		BOB-12.7'		BOB-12.0'	

Table 4.3: Source Area Groundwater VOC Results

	Location	GW-001		GW-002		GW-002		GW-003		GW-004	
	Sample Date	7/7/2008		7/7/2008		7/7/2008		7/7/2008		7/7/2008	
	Sample ID	828072-GW001012		828072-GW002011		828072-GW002011D		828072-GW003011		828072-GW004012	
	Qc Code	FS		FS		FD		FS		FS	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	**4,400**		500	U	500	U	100	U	500	U
1,1-Dichloroethane	5	**620**		**520**		**550**		**33**	J	**430**	J
1,1-Dichloroethene	5	**260**	J	**270**	J	**280**	J	100	U	500	U
Acetone	50*	**1,200**	J	5,000	U	**670**	J	140	U	**900**	J
Benzene	1	500	U	500	U	500	U	100	U	500	U
Chloroform	7	500	U	500	U	500	U	100	U	500	U
Cis-1,2-Dichloroethene	5	**71,000**	D	**180,000**	D	**170,000**	D	**5,500**		**87,000**	
Methylene chloride	5	500	U	500	U	500	U	100	U	500	U
Tetrachloroethene	5	**2,300**		**680**		**760**		100	U	**500**	
Toluene	5	500	U	500	U	500	U	100	U	500	U
trans-1,2-Dichloroethene	5	**280**	J	**420**	J	**480**	J	100	U	500	U
Trichloroethene	5	**590,000**	D	**240,000**	D	**250,000**	D	**20,000**		**100,000**	D
Vinyl chloride	2	**4,900**		**11,000**		**11,000**		**300**		**2,500**	

Notes:
Results in microgram per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method 8260B
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected at a concentration greater than the reporting limit
J = Estimated value
D = Result from diluted run
Criteria = Values from Technical and Operational Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance values and Groundwater Effluent Limitations (NYSDEC, 1998). Number shown is standard unless *.
* Criteria is NYSDEC Guidance Value
Detections are indicated in **BOLD**
Highlighted results exceed criteria

Table 4.3: Source Area Groundwater VOC Results

	Location	GW-006		GW-007		GW-008		GW-009		GW-010	
	Sample Date	7/7/2008		7/7/2008		7/8/2008		7/7/2008		7/8/2008	
	Sample ID	828072-GW006011		828072-GW007012		828072-GW008012		828072-GW009012		828072-GW010014	
	Qc Code	FS		FS		FS		FS		FS	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	100	U	500	U	500	U	**690**	J	50	U
1,1-Dichloroethane	5	**120**		**100**	J	**240**	J	**400**	J	50	U
1,1-Dichloroethene	5	**58**	J	500	U	500	U	1,000	U	50	U
Acetone	50*	130	U	**380**	J	5,000	U	10,000	U	86	U
Benzene	1	100	U	500	U	500	U	1,000	U	50	U
Chloroform	7	100	U	500	U	500	U	1,000	U	**26**	J
Cis-1,2-Dichloroethene	5	**25,000**	D	**32,000**		**110,000**	D	**40,000**		**1,600**	
Methylene chloride	5	100	U	**130**	J	500	U	1,000	U	50	U
Tetrachloroethene	5	**510**		**400**	J	500	U	1,000	U	**82**	
Toluene	5	100	U	500	U	500	U	1,000	U	50	U
trans-1,2-Dichloroethene	5	**76**	J	**140**	J	**400**	J	1,000	U	50	U
Trichloroethene	5	**130,000**	D	**110,000**	D	**100,000**	D	**1,200,000**	D	**6,600**	
Vinyl chloride	2	**1,500**		**4,500**		**12,000**		**14,000**		**200**	

Notes:
Results in microgram per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method 8260B
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected at a concentration greater than the reporting limit
J = Estimated value
D = Result from diluted run
Criteria = Values from Technical and Operational Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance values and Groundwater Effluent Limitations (NYSDEC, 1998).
Number shown is standard unless *.
* Criteria is NYSDEC Guidance Value
Detections are indicated in **BOLD**
Highlighted results exceed criteria

Table 4.3: Source Area Groundwater VOC Results

	Location	GW-011		GW-012		GW-013		GW-014		GW-015	
	Sample Date	7/8/2008		7/8/2008		7/8/2008		7/8/2008		7/8/2008	
	Sample ID	828072-GW011012		828072-GW012013		828072-GW013013		828072-GW014013		828072-GW015012	
	Qc Code	FS		FS		FS		FS		FS	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	2	U	100	U	500	U	1,000	U	500	U
1,1-Dichloroethane	5	2	U	100	U	500	U	1,000	U	500	U
1,1-Dichloroethene	5	2	U	100	U	500	U	1,000	U	500	U
Acetone	50*	11	U	1,000	U	**840**	J	10,000	U	**720**	J
Benzene	1	2	U	100	U	500	U	1,000	U	500	U
Chloroform	7	**1.6**	J	**150**		**360**	J	1,000	U	500	U
Cis-1,2-Dichloroethene	5	66	U	**5,000**		**21,000**		**72,000**		**32,000**	
Methylene chloride	5	2	U	100	U	500	U	1,000	U	500	U
Tetrachloroethene	5	2	U	100	U	500	U	1,000	U	500	U
Toluene	5	2	U	100	U	500	U	1,000	U	500	U
trans-1,2-Dichloroethene	5	2	U	100	U	500	U	**370**	J	500	U
Trichloroethene	5	260	U	**16,000**		**51,000**		**180,000**		**77,000**	
Vinyl chloride	2	**63**		**280**		**300**	J	**740**		**290**	J

Notes:
Results in microgram per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method 8260B
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected at a concentration greater than the reporting limit
J = Estimated value
D = Result from diluted run
Criteria = Values from Technical and Operational Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance values and Groundwater Effluent Limitations (NYSDEC, 1998). Number shown is standard unless *.
* Criteria is NYSDEC Guidance Value
Detections are indicated in **BOLD**
Highlighted results exceed criteria

Table 4.3: Source Area Groundwater VOC Results

	Location	GW-016		GW-025		GW-034		GW-035	
	Sample Date	7/8/2008		9/23/2008		9/23/2008		9/23/2008	
	Sample ID	828072-GW016012		828072-GW025012		828072-GW034013		828072-GW035013	
	Qc Code	FS		FS		FS		FS	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	500	U	1	U	1	U	1	U
1,1-Dichloroethane	5	500	U	**1.3**		**0.93**	J	1	U
1,1-Dichloroethene	5	500	U	**31**		1	U	1	U
Acetone	50*	5,000	U	**4.2**	J	**4.2**	J	**6.3**	J
Benzene	1	500	U	**0.61**	J	1	U	1	U
Chloroform	7	500	U	1	U	1	U	1	U
Cis-1,2-Dichloroethene	5	**14,000**		**12,000**	D	**280**	D	**15**	
Methylene chloride	5	500	U	1	U	1	U	1	U
Tetrachloroethene	5	500	U	1	U	1	U	1	U
Toluene	5	500	U	**1.4**		**0.58**	J	**0.58**	J
trans-1,2-Dichloroethene	5	500	U	**55**		**2**	J	1	U
Trichloroethene	5	**92,000**		**44,000**	D	**48**		**45**	
Vinyl chloride	2	**720**		**40**		**31**		**0.65**	J

Notes:
Results in microgram per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method 8260B
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected at a concentration greater than the reporting limit
J = Estimated value
D = Result from diluted run
Criteria = Values from Technical and Operational Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance values and Groundwater Effluent Limitations (NYSDEC, 1998).
Number shown is standard unless *.
* Criteria is NYSDEC Guidance Value
Detections are indicated in **BOLD**
Highlighted results exceed criteria

Table 4.4: VOCs in Groundwater - Round 1

	Location	MW-1D		MW-1DD		MW-2D		MW-3D		MW-5		MW-5D	
	Field Sample Date	1/15/2008		1/15/2008		1/14/2008		1/16/2008		1/15/2008		1/14/2008	
	Field Sample ID	828072-MW01D021		828072-MW1DD038		828072-MW02D017		828072-MW03D013		828072-MW005006		828072-MW05D010	
	QC Code	FS		FS		FS		FS		FS		FS	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	**0.34**	J	1	U	1	U	**0.27**	J	1	U	1	U
1,1-Dichloroethane	5	**1.8**		1	U	**1.3**		**1.3**		**0.93**	J	**0.71**	J
1,1-Dichloroethene	5	**0.95**	J	1	U	1	U	**0.3**	J	1	U	1	U
Acetone	50*	10	U	10	U	10	U	10	U	10	U	10	U
Benzene	1	1	U	1	U	1	U	1	U	1	U	1	U
Carbon disulfide	NA	1	U	1	U	1	U	1	U	1	U	1	U
Cis-1,2-Dichloroethene	5	**180**		1	U	**20**		**47**		**0.49**	J	1	U
Cyclohexane	NA	1	U	1	U	1	U	1	U	1	U	1	U
Methyl cyclohexane	NA	1	U	1	U	1	U	1	U	1	U	1	U
Methyl Tertbutyl Ether	10*	1	U	1	U	1	U	1	U	1	U	1	U
o-Xylene	5	1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	5	**1**		1	U	1	U	1	U	1	U	1	U
Toluene	5	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	5	**1.5**		1	U	**0.56**	J	**1.2**		1	U	1	U
Trichloroethene	5	**190**	D	1	U	**0.38**	J	**17**		1	U	**0.41**	J
Vinyl chloride	2	**11**		1	U	**1.6**		**5.6**		**0.26**	J	1	U
Xylene, m/p	5	1	U	1	U	1	U	1	U	1	U	1	U

Notes:
Results in microgram per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method 8260B
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected at a concentration greater than the reporting limit
J = Estimated value
D = Result from dilution run
Criteria = Values from Technical and Operational Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance values and Groundwater Effluent Limitations (NYSDEC, 1998).
Criteria is New York State Standard unless *
* Criteria is NYSDEC Guidance Value
Detections are indicated in **BOLD**
Highlighted results exceed criteria
NA = No criteria available

Table 4.4: VOCs in Groundwater - Round 1

	Location	MW-6		MW-6D		MW-7		MW-7D		MW-8		MW-8	
	Field Sample Date	1/16/2008		1/16/2008		1/16/2008		1/16/2008		1/16/2008		1/16/2008	
	Field Sample ID	828072-MW006008		828072-MW06D015		828072-MW007015		828072-MW07D022		828072-MW008023		828072-MW008023DUP	
	QC Code	FS		FS		FS		FS		FS		FD	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	1	U	**0.57**	J	1	U	**0.45**	J	10	U	5	U
1,1-Dichloroethane	5	1	U	**1.5**		1	U	**1.3**		**15**		**15**	
1,1-Dichloroethene	5	1	U	**0.96**	J	1	U	1	U	**6**	J	**6**	
Acetone	50*	10	U	10	U	10	U	10	U	100	U	50	U
Benzene	1	1	U	1	U	1	U	1	U	10	U	5	U
Carbon disulfide	NA	1	U	1	U	1	U	1	U	10	U	5	U
Cis-1,2-Dichloroethene	5	**1.2**		**220**	D	**0.45**	J	**2.1**		**1700**	D	**1700**	D
Cyclohexane	NA	1	U	1	U	1	U	1	U	10	U	5	U
Methyl cyclohexane	NA	1	U	1	U	1	U	1	U	10	U	5	U
Methyl Tertbutyl Ether	10*	1	U	1	U	1	U	1	U	10	U	5	U
o-Xylene	5	1	U	1	U	1	U	1	U	10	U	5	U
Tetrachloroethene	5	1	U	**0.81**	J	1	U	**0.34**	J	10	U	5	U
Toluene	5	1	U	1	U	1	U	1	U	10	U	5	U
trans-1,2-Dichloroethene	5	1	U	**1.8**		1	U	1	U	**18**		**15**	
Trichloroethene	5	1	U	**310**	D	1	U	**4.3**		**870**		**820**	
Vinyl chloride	2	1	U	**16**		1	U	1	U	**43**		**41**	
Xylene, m/p	5	1	U	1	U	1	U	1	U	10	U	5	U

Notes:
Results in microgram per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method 8260B
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected at a concentration greater than the reporting limit
J = Estimated value
D = Result from dilution run
Criteria = Values from Technical and Operational Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance values and Groundwater Effluent Limitations (NYSDEC, 1998).
Criteria is New York State Standard unless *
* Criteria is NYSDEC Guidance Value
Detections are indicated in **BOLD**
Highlighted results exceed criteria
NA = No criteria available

Table 4.4: VOCs in Groundwater - Round 1

Location		MW-8D		MW-9		MW-9D		MW-10		MW-11		MW-11D	
Field Sample Date		1/16/2008		1/16/2008		1/16/2008		1/15/2008		1/18/2008		1/17/2008	
Field Sample ID		828072-MW08D033		828072-MW009025		828072-MW09D035		828072-MW010015		828072-MW011010		828072-MW11D026	
QC Code		FS		FS		FS		FS		FS		FS	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	**1.5**		**0.2**	J	**0.61**	J	1	U	1	U	2.5	U
1,1-Dichloroethane	5	**1.8**		**1.4**		**0.64**	J	1	U	**0.74**	J	**3.1**	J
1,1-Dichloroethene	5	**1.8**		**0.33**	J	1	U	1	U	1	U	**2**	J
Acetone	50*	10	U	10	U	10	U	10	U	10	U	25	U
Benzene	1	1	U	1	U	1	U	1	U	1	U	2.5	U
Carbon disulfide	NA	1	U	1	U	1	U	1	U	1	U	2.5	U
Cis-1,2-Dichloroethene	5	**330**	D	**57**		**14**		1	U	**14**		**490**	J
Cyclohexane	NA	1	U	1	U	1	U	1	U	1	U	2.5	U
Methyl cyclohexane	NA	1	U	1	U	1	U	1	U	1	U	2.5	U
Methyl Tertbutyl Ether	10*	1	U	1	U	1	U	1	U	1	U	2.5	U
o-Xylene	5	1	U	1	U	1	U	1	U	1	U	2.5	U
Tetrachloroethene	5	**1.7**		1	U	**0.22**	J	1	U	1	U	2.5	U
Toluene	5	1	U	1	U	1	U	1	U	1	U	2.5	U
trans-1,2-Dichloroethene	5	**3.6**		**0.33**	J	**0.42**	J	1	U	1	U	**3.2**	J
Trichloroethene	5	**590**	D	**38**		**44**		1	U	1	U	**520**	D
Vinyl chloride	2	**20**		**4.2**		**0.88**	J	1	U	**19**		**34**	J
Xylene, m/p	5	1	U	1	U	1	U	1	U	1	U	2.5	U

Notes:
Results in microgram per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method 8260B
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected at a concentration greater than the reporting limit
J = Estimated value
D = Result from dilution run
Criteria = Values from Technical and Operational Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance values and Groundwater Effluent Limitations (NYSDEC, 1998).
Criteria is New York State Standard unless *
* Criteria is NYSDEC Guidance Value
Detections are indicated in **BOLD**
Highlighted results exceed criteria
NA = No criteria available

Table 4.4: VOCs in Groundwater - Round 1

	Location	MW-11D		MW-12		MW-13		MW-13D		MW-13DD		MW-14	
	Field Sample Date	1/17/2008		1/15/2008		1/18/2008		1/18/2008		1/18/2008		1/17/2008	
	Field Sample ID	828072-MW11D026DUP		828072-MW012011		828072-MW013006		828072-MW13D010		828072-MW13DD037		828072-MW014015	
	QC Code	FD		FS		FS		FS		FS		FS	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	5	U	1	U	1	U	1	U	**0.21**	J	1	U
1,1-Dichloroethane	5	**3.2**	J	1	U	1	U	**1.1**		**0.95**	J	**1.4**	
1,1-Dichloroethene	5	**2**	J	1	U	1	U	**0.35**	J	**0.27**	J	**0.26**	J
Acetone	50*	50	U	10	U	10	U	10	U	10	U	10	U
Benzene	1	5	U	1	U	1	U	1	U	1	U	1	U
Carbon disulfide	NA	5	U	1	U	1	U	1	U	1	U	1	U
Cis-1,2-Dichloroethene	5	**490**	DJ	1	U	1	U	**42**		**35**		**50**	
Cyclohexane	NA	5	U	1	U	1	U	1	U	1	U	**0.25**	J
Methyl cyclohexane	NA	5	U	1	U	1	U	1	U	1	U	**0.32**	J
Methyl Tertbutyl Ether	10*	5	U	1	U	1	U	1	U	1	U	1	U
o-Xylene	5	5	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	5	5	U	1	U	1	U	1	U	1	U	1	U
Toluene	5	5	U	1	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	5	**3.7**	J	1	U	1	U	**0.29**	J	**0.22**	J	**0.24**	J
Trichloroethene	5	**520**	D	1	U	**0.71**	J	**19**		**37**		**18**	
Vinyl chloride	2	**35**	J	1	U	1	U	**3.4**		**1.7**		**3.3**	
Xylene, m/p	5	5	U	1	U	1	U	1	U	1	U	1	U

Notes:
Results in microgram per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method 8260B
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected at a concentration greater than the reporting limit
J = Estimated value
D = Result from dilution run
Criteria = Values from Technical and Operational Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance values and Groundwater Effluent Limitations (NYSDEC, 1998).
Criteria is New York State Standard unless *
* Criteria is NYSDEC Guidance Value
Detections are indicated in **BOLD**
Highlighted results exceed criteria
NA = No criteria available

Table 4.4: VOCs in Groundwater - Round 1

	Location	MW-14D		MW-15		MW-15D		MW-16		MW-17		MW-17D	
	Field Sample Date	1/17/2008		1/18/2008		1/17/2008		1/18/2008		1/17/2008		1/17/2008	
	Field Sample ID	828072-MW14D029		828072-MW015006		828072-MW15D019		828072-MW016008		828072-MW017007		828072-MW17D018	
	QC Code	FS		FS		FS		FS		FS		FS	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	**0.78**	J	1	U	2.5	U	1	U	1	U	1	U
1,1-Dichloroethane	5	**1**		**1**		**2.4**	J	1	U	1	U	**0.21**	J
1,1-Dichloroethene	5	**0.25**	J	**0.3**	J	**1.2**	J	1	U	1	U	1	U
Acetone	50*	10	U	10	U	10	U	10	U	10	U	10	U
Benzene	1	1	U	**0.97**	J	2.5	U	1	U	1	U	1	U
Carbon disulfide	NA	1	U	1	U	2.5	U	1	U	1	U	1	U
Cis-1,2-Dichloroethene	5	**25**		**170**		**260**		1	U	1	U	**15**	
Cyclohexane	NA	1	U	1	U	2.5	U	1	U	1	U	1	U
Methyl cyclohexane	NA	1	U	**0.4**	J	2.5	U	1	U	1	U	1	U
Methyl Tertbutyl Ether	10*	1	U	**0.83**	J	2.5	U	1	U	1	U	1	U
o-Xylene	5	1	U	**0.23**	J	2.5	U	1	U	1	U	1	U
Tetrachloroethene	5	**0.23**	J	1	U	2.5	U	1	U	1	U	1	U
Toluene	5	1	U	**0.94**	J	2.5	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	5	1	U	**1.8**		**2**	J	1	U	1	U	**0.44**	J
Trichloroethene	5	**45**		**33**		**410**		1	U	1	U	**0.61**	J
Vinyl chloride	2	**1.5**		**11**		**15**		1	U	1	U	**7.8**	
Xylene, m/p	5	1	U	**0.45**	J	2.5	U	1	U	1	U	1	U

Notes:
Results in microgram per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method 8260B
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected at a concentration greater than the reporting limit
J = Estimated value
D = Result from dilution run
Criteria = Values from Technical and Operational Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance values and Groundwater Effluent Limitations (NYSDEC, 1998).
Criteria is New York State Standard unless *
* Criteria is NYSDEC Guidance Value
Detections are indicated in **BOLD**
Highlighted results exceed criteria
NA = No criteria available

Table 4.4: VOCs in Groundwater - Round 1

	Location	MW-18		MW-18D		MW-19		MW-19D		GPZ-1S1		GPZ-1D	
	Field Sample Date	1/15/2008		1/17/2008		1/15/2008		1/15/2008		1/17/2008		1/17/2008	
	Field Sample ID	828072-MW018009		828072-MW18D019		828072-MW019006		828072-MW19D014		828072-GPZ1S1008		828072-GPZ1D014	
	QC Code	FS		FS		FS		FS		FS		FS	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	2.5	U	2.5	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	5	**3.2**		**1.7**	J	**0.87**	J	**0.22**	J	1	U	**10**	
1,1-Dichloroethene	5	**0.8**	J	**0.62**	J	1	U	1	U	1	U	**0.23**	J
Acetone	50*	25	U	10	U	10	U	10	U	**2.7**	J	10	U
Benzene	1	2.5	U	2.5	U	1	U	1	U	1	U	1	U
Carbon disulfide	NA	**0.88**	J	2.5	U	1	U	1	U	1	U	1	U
Cis-1,2-Dichloroethene	5	**380**	D	**280**		**0.56**	J	**4.7**		1	U	**46**	
Cyclohexane	NA	2.5	U	2.5	U	1	U	1	U	1	U	1	U
Methyl cyclohexane	NA	2.5	U	2.5	U	1	U	1	U	1	U	1	U
Methyl Tertbutyl Ether	10*	2.5	U	2.5	U	1	U	1	U	1	U	1	U
o-Xylene	5	2.5	U	2.5	U	1	U	1	U	1	U	1	U
Tetrachloroethene	5	2.5	U	2.5	U	1	U	1	U	1	U	1	U
Toluene	5	2.5	U	2.5	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	5	**1.4**	J	**1.5**	J	1	U	1	U	1	U	**0.36**	J
Trichloroethene	5	**0.92**	J	**26**		1	U	1	U	1	U	**39**	
Vinyl chloride	2	**18**		**19**		**0.27**	J	**10**		1	U	**23**	
Xylene, m/p	5	2.5	U	2.5	U	1	U	1	U	1	U	1	U

Notes:
Results in microgram per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method 8260B
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected at a concentration greater than the reporting limit
J = Estimated value
D = Result from dilution run
Criteria = Values from Technical and Operational Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance values and Groundwater Effluent Limitations (NYSDEC, 1998).
Criteria is New York State Standard unless *
* Criteria is NYSDEC Guidance Value
Detections are indicated in **BOLD**
Highlighted results exceed criteria
NA = No criteria available

Table 4.4: VOCs in Groundwater - Round 1

	Location	GPZ-2S1		GPZ-2D		GPZ-5S		GPZ-5D		GPZ-6S		GPZ-6D	
	Field Sample Date	1/16/2008		1/17/2008		1/16/2008		1/16/2008		1/17/2008		1/17/2008	
	Field Sample ID	828072-GPZ2S1014		828072-GPZ2D020		828072-GPZ5S018		828072-GPZ5D025		828072-GPZ6S019		828072-GPZ6D028	
	QC Code	FS		FS		FS		FS		FS		FS	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	1	U	1	U	1	U	**0.32**	J	1	U	1	U
1,1-Dichloroethane	5	1	U	1	U	**0.73**	J	**1.7**		1	U	**7**	
1,1-Dichloroethene	5	1	U	1	U	1	U	**0.69**	J	1	U	**0.82**	J
Acetone	50*	10	U	**1**	J	10	U	10	U	**1.7**	J	10	U
Benzene	1	1	U	1	U	1	U	1	U	1	U	1	U
Carbon disulfide	NA	1	U	1	U	1	U	1	U	1	U	1	U
Cis-1,2-Dichloroethene	5	**0.32**	J	1	U	**68**		**150**		1	U	**120**	
Cyclohexane	NA	1	U	1	U	1	U	1	U	1	U	1	U
Methyl cyclohexane	NA	1	U	1	U	1	U	1	U	1	U	1	U
Methyl Tertbutyl Ether	10*	1	U	1	U	1	U	1	U	1	U	1	U
o-Xylene	5	1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	5	1	U	1	U	1	U	**0.36**	J	1	U	1	U
Toluene	5	1	U	1	U	1	U	1	U	**0.23**	J	1	U
trans-1,2-Dichloroethene	5	1	U	1	U	**0.37**	J	**2.2**		1	U	**0.72**	J
Trichloroethene	5	1	U	1	U	**68**		**320**	D	1	U	**19**	
Vinyl chloride	2	1	U	1	U	1	U	**5.8**		1	U	**27**	
Xylene, m/p	5	1	U	1	U	1	U	1	U	1	U	1	U

Notes:
Results in microgram per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method 8260B
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected at a concentration greater than the reporting limit
J = Estimated value
D = Result from dilution run
Criteria = Values from Technical and Operational Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance values and Groundwater Effluent Limitations (NYSDEC, 1998).
Criteria is New York State Standard unless *
* Criteria is NYSDEC Guidance Value
Detections are indicated in **BOLD**
Highlighted results exceed criteria
NA = No criteria available

Table 4.5: Metals in Groundwater

	Location	MW-1D		MW-3D		MW-5		MW-5D	
	Field Sample Date	1/15/2008		1/16/2008		1/15/2008		1/14/2008	
	Field Sample ID	828072-MW01D021		828072-MW03D013		828072-MW005006		828072-MW05D010	
	QC Code	FS		FS		FS		FS	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Aluminum	NA	100	U	100	U	**205**		100	U
Barium	1,000	**143**		**131**		**23.5**		**136**	
Calcium	NA	**160000**		**153000**		**313000**		**134000**	
Iron	300	**1450**		**8030**		**1150**		**4290**	
Magnesium	35000*	**48700**		**47800**		**154000**		**45900**	
Manganese	300	**105**		**248**		**612**		**149**	
Potassium	NA	**3450**		**3270**		**2040**		**3240**	
Sodium	20,000	**460000**		**459000**		**195000**		**471000**	
Zinc	2000*	**52.3**		**39.3**		**21.7**		20	U

Notes:
Sample results reported in micrograms per liter (µg/L)
Only detected compounds shown.
Samples analyzed for Metals by EPA Method SW6010B
QC Code:
FS = Field Sample
FD = Field Sample
Qualifiers:
U = Not detected at a concentration greater than the RL
Criteria = Groundwater guidance or standard values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).
Criteria =Standard unless *
* = Guidance Value
NA = No criteria available
Bold = Detected in sample below criteria value
Highlighted results exceed criteria

Table 4.5: Metals in Groundwater

	Location	MW-6D		MW-7D		MW-8		MW-8	
	Field Sample Date	1/16/2008		1/16/2008		1/16/2008		1/16/2008	
	Field Sample ID	828072-MW06D015		828072-MW07D022		828072-MW008023		828072-MW008023DUP	
	QC Code	FS		FS		FS		FD	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Aluminum	NA	100	U	100	U	100	U	100	U
Barium	1,000	**147**		**142**		**430**		**439**	
Calcium	NA	**158000**		**162000**		**148000**		**139000**	
Iron	300	**5650**		**4540**		**2240**		**2090**	
Magnesium	35000*	**48500**		**50400**		**48500**		**45200**	
Manganese	300	**156**		**120**		**83.3**		**76.7**	
Potassium	NA	**3260**		**3450**		**3320**		**3120**	
Sodium	20,000	**461000**		**474000**		**411000**		**391000**	
Zinc	2000*	**62.5**		**31.5**		20	U	20	U

Notes:
Sample results reported in micrograms per liter (µg/L)
Only detected compounds shown.
Samples analyzed for Metals by EPA Method SW6010B
QC Code:
FS = Field Sample
FD = Field Sample
Qualifiers:
U = Not detected at a concentration greater than the RL
Criteria = Groundwater guidance or standard values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).
Criteria =Standard unless *
* = Guidance Value
NA = No criteria available
Bold = Detected in sample below criteria value
Highlighted results exceed criteria

Table 4.5: Metals in Groundwater

	Location	MW-8D		MW-9D		MW-11D		MW-11D	
	Field Sample Date	1/16/2008		1/16/2008		1/17/2008		1/17/2008	
	Field Sample ID	828072-MW08D033		828072-MW09D035		828072-MW11D026		828072-MW11D026DUP	
	QC Code	FS		FS		FS		FD	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Aluminum	NA	100	U	100	U	100	U	100	U
Barium	1,000	**143**		**144**		**182**		**183**	
Calcium	NA	**147000**		**134000**		**145000**		**148000**	
Iron	300	**2520**		**1670**		**2160**		**2210**	
Magnesium	35000*	**44900**		**39900**		**43700**		**44300**	
Manganese	300	**113**		**96.4**		**115**		**118**	
Potassium	NA	**3090**		**2810**		**3070**		**3110**	
Sodium	20,000	**459000**		**431000**		**397000**		**398000**	
Zinc	2000*	**69.8**		**102**		**31.6**		**31.8**	

Notes:
Sample results reported in micrograms per liter (µg/L)
Only detected compounds shown.
Samples analyzed for Metals by EPA Method SW6010B
QC Code:
FS = Field Sample
FD = Field Sample
Qualifiers:
U = Not detected at a concentration greater than the RL
Criteria = Groundwater guidance or standard values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).
Criteria =Standard unless *
* = Guidance Value
NA = No criteria available
Bold = Detected in sample below criteria value
Highlighted results exceed criteria

Table 4.5: Metals in Groundwater

	Location	MW-13		MW-13D		MW-13DD		MW-14	
	Field Sample Date	1/18/2008		1/18/2008		1/18/2008		1/17/2008	
	Field Sample ID	828072-MW013006		828072-MW13D010		828072-MW13DD037		828072-MW014015	
	QC Code	FS		FS		FS		FS	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Aluminum	NA	100	U	100	U	100	U	100	U
Barium	1,000	**39.3**		**138**		**145**		**289**	
Calcium	NA	**153000**		**132000**		**147000**		**128000**	
Iron	300	**4270**		**3350**		**1000**		**445**	
Magnesium	35000*	**37100**		**41600**		**42000**		**48800**	
Manganese	300	**385**		**300**		**86**		**367**	
Potassium	NA	**2000**		**3070**		**2920**		**5360**	
Sodium	20,000	**96500**		**365000**		**417000**		**429000**	
Zinc	2000*	20	U	20	U	**68.6**		20	U

Notes:
Sample results reported in micrograms per liter (µg/L)
Only detected compounds shown.
Samples analyzed for Metals by EPA Method SW6010B
QC Code:
FS = Field Sample
FD = Field Sample
Qualifiers:
U = Not detected at a concentration greater than the RL
Criteria = Groundwater guidance or standard values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).
Criteria =Standard unless *
* = Guidance Value
NA = No criteria available
Bold = Detected in sample below criteria value
Highlighted results exceed criteria

Table 4.5: Metals in Groundwater

	Location	MW-14D		MW-15D		MW-16		MW-17	
	Field Sample Date	1/17/2008		1/17/2008		1/18/2008		1/17/2008	
	Field Sample ID	828072-MW14D029		828072-MW15D019		828072-MW016008		828072-MW017007	
	QC Code	FS		FS		FS		FS	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Aluminum	NA	100	U	100	U	100	U	100	U
Barium	1,000	**148**		**152**		**76.7**		**104**	
Calcium	NA	**144000**		**155000**		**195000**		**136000**	
Iron	300	**1270**		**1330**		100	U	100	U
Magnesium	35000*	**42300**		**47400**		**47400**		**50900**	
Manganese	300	**94.1**		**100**		**14.3**		**48.9**	
Potassium	NA	**2890**		**3210**		2000	U	**8660**	
Sodium	20,000	**438000**		**428000**		**52200**		**7600**	
Zinc	2000*	**105**		**50.3**		**38.2**		**20.2**	

Notes:
Sample results reported in micrograms per liter (µg/L)
Only detected compounds shown.
Samples analyzed for Metals by EPA Method SW6010B
QC Code:
FS = Field Sample
FD = Field Sample
Qualifiers:
U = Not detected at a concentration greater than the RL
Criteria = Groundwater guidance or standard values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).
Criteria =Standard unless *
* = Guidance Value
NA = No criteria available
Bold = Detected in sample below criteria value
Highlighted results exceed criteria

Table 4.5: Metals in Groundwater

	Location	MW-17D		MW-18		MW-18D		MW-19		MW-19D	
	Field Sample Date	1/17/2008		1/15/2008		1/17/2008		1/15/2008		1/15/2008	
	Field Sample ID	828072-MW17D018		828072-MW018009		828072-MW18D019		828072-MW019006		828072-MW19D014	
	QC Code	FS		FS		FS		FS		FS	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Aluminum	NA	100	U	100	U	100	U	100	U	100	U
Barium	1,000	**92.8**		**192**		**174**		**92.9**		**78.5**	
Calcium	NA	**115000**		**258000**		**148000**		**107000**		**125000**	
Iron	300	**1020**		**2030**		**591**		100	U	**862**	
Magnesium	35000*	**31900**		**47600**		**45200**		**30600**		**36900**	
Manganese	300	**98.3**		**72.6**		**108**		**27.3**		**121**	
Potassium	NA	**2890**		**18500**		**3340**		**6840**		**2670**	
Sodium	20,000	**111000**		**303000**		**400000**		**8970**		**47700**	
Zinc	2000*	**94.9**		20	U	20	U	20	U	**526**	

Notes:
Sample results reported in micrograms per liter (µg/L)
Only detected compounds shown.
Samples analyzed for Metals by EPA Method SW6010B
QC Code:
FS = Field Sample
FD = Field Sample
Qualifiers:
U = Not detected at a concentration greater than the RL
Criteria = Groundwater guidance or standard values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).
Criteria =Standard unless *
* = Guidance Value
NA = No criteria available
Bold = Detected in sample below criteria value
Highlighted results exceed criteria

Table 4.6: SVOCs in Groundwater

	Location	MW-1D		MW-3D		MW-5		MW-5D		MW-6D	
	Field Sample Date	1/15/2008		1/16/2008		1/15/2008		1/14/2008		1/16/2008	
	Field Sample ID	828072-MW01D021		828072-MW03D013		828072-MW005006		828072-MW05D010		828072-MW06D015	
	QC Code	FS		FS		FS		FS		FS	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
2-Methylnaphthalene	NA	9.4	U	9.4	U	9.4	U	9.4	U	9.4	U
Benzo(b)fluoranthene	0.002	9.4	U	9.4	U	9.4	U	9.4	U	9.4	U
Benzo(ghi)perylene	NA	9.4	U	9.4	U	9.4	U	9.4	U	9.4	U
Bis(2-Ethylhexyl)phthalate	5	9.4	U	9.4	U	9.4	U	9.4	U	9.4	U
Chrysene	0.002	9.4	U	9.4	U	9.4	U	9.4	U	9.4	U
Fluoranthene	50*	9.4	U	9.4	U	9.4	U	9.4	U	9.4	U
Phenanthrene	50*	9.4	U	9.4	U	9.4	U	9.4	U	9.4	U
Phenol	1	9.4	U	9.4	U	9.4	U	9.4	U	9.4	U
Pyrene	50*	9.4	U	9.4	U	9.4	U	9.4	U	9.4	U

Notes:
Results in microgram per liter (µg/L)
Only detected compounds shown.
Samples analyzed for SVOCs by EPA Method 8270
QC Code:
FS = Field Sample
FD = Field Sample
Qualifiers:
U = Not detected at a concentration greater than the RL
J = Estimated Value
Criteria = Groundwater guidance or standard values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).
Criteria =Standard unless *
* = Guidance Value
NA = No criteria available
Bold = Detected in sample below criteria value
Highlighted results exceed criteria

Table 4.6: SVOCs in Groundwater

	Location	MW-7D		MW-8		MW-8		MW-8D		MW-9D	
	Field Sample Date	1/16/2008		1/16/2008		1/16/2008		1/16/2008		1/16/2008	
	Field Sample ID	828072-MW07D022		828072-MW008023		828072-MW008023DUI		828072-MW08D033		828072-MW09D035	
	QC Code	FS		FS		FD		FS		FS	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
2-Methylnaphthalene	NA	9.4	U	9.8	U	9.8	U	9.4	U	9.4	U
Benzo(b)fluoranthene	0.002	9.4	U	9.8	U	9.8	U	9.4	U	9.4	U
Benzo(ghi)perylene	NA	9.4	U	9.8	U	9.8	U	9.4	U	9.4	U
Bis(2-Ethylhexyl)phthalate	5	9.4	U	9.8	U	9.8	U	9.4	U	9.4	U
Chrysene	0.002	9.4	U	9.8	U	9.8	U	9.4	U	9.4	U
Fluoranthene	50*	9.4	U	9.8	U	9.8	U	9.4	U	9.4	U
Phenanthrene	50*	9.4	U	9.8	U	9.8	U	9.4	U	9.4	U
Phenol	1	9.4	U	9.8	U	9.8	U	9.4	U	9.4	U
Pyrene	50*	9.4	U	9.8	U	9.8	U	9.4	U	9.4	U

Notes:
Results in microgram per liter (µg/L)
Only detected compounds shown.
Samples analyzed for SVOCs by EPA Method 8270
QC Code:
FS = Field Sample
FD = Field Sample
Qualifiers:
U = Not detected at a concentration greater than the RL
J = Estimated Value
Criteria = Groundwater guidance or standard values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).
Criteria =Standard unless *
* = Guidance Value
NA = No criteria available
Bold = Detected in sample below criteria value
Highlighted results exceed criteria

Table 4.6: SVOCs in Groundwater

	Location	MW-11D		MW-11D		MW-13		MW-13D		MW-13DD	
	Field Sample Date	1/17/2008		1/17/2008		1/18/2008		1/18/2008		1/18/2008	
	Field Sample ID	828072-MW11D026		828072-MW11D026DU		828072-MW013006		828072-MW13D010		828072-MW13DD037	
	QC Code	FS		FD		FS		FS		FS	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
2-Methylnaphthalene	NA	9.4	U	9.4	U	9.4	U	9.7	U	9.4	U
Benzo(b)fluoranthene	0.002	9.4	U	9.4	U	**0.56**	J	9.7	U	9.4	U
Benzo(ghi)perylene	NA	9.4	U	9.4	U	**0.47**	J	9.7	U	9.4	U
Bis(2-Ethylhexyl)phthalate	5	9.4	U	**0.37**	J	9.4	U	9.7	U	9.4	U
Chrysene	0.002	9.4	U	9.4	U	**0.39**	J	9.7	U	9.4	U
Fluoranthene	50*	9.4	U	9.4	U	**0.75**	J	9.7	U	9.4	U
Phenanthrene	50*	9.4	U	9.4	U	**0.48**	J	9.7	U	9.4	U
Phenol	1	9.4	U	9.4	U	9.4	U	**0.56**	J	9.4	U
Pyrene	50*	9.4	U	9.4	U	**0.54**	J	9.7	U	9.4	U

Notes:
Results in microgram per liter (µg/L)
Only detected compounds shown.
Samples analyzed for SVOCs by EPA Method 8270
QC Code:
FS = Field Sample
FD = Field Sample
Qualifiers:
U = Not detected at a concentration greater than the RL
J = Estimated Value
Criteria = Groundwater guidance or standard values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).
Criteria =Standard unless *
* = Guidance Value
NA = No criteria available
Bold = Detected in sample below criteria value
Highlighted results exceed criteria

Table 4.6: SVOCs in Groundwater

	Location	MW-14		MW-14D		MW-15D		MW-16		MW-17	
	Field Sample Date	1/17/2008		1/17/2008		1/17/2008		1/18/2008		1/17/2008	
	Field Sample ID	828072-MW014015		828072-MW14D029		828072-MW15D019		828072-MW016008		828072-MW017007	
	QC Code	FS		FS		FS		FS		FS	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
2-Methylnaphthalene	NA	9.4	U	9.4	U	9.4	U	9.4	U	9.4	U
Benzo(b)fluoranthene	0.002	9.4	U	9.4	U	9.4	U	9.4	U	9.4	U
Benzo(ghi)perylene	NA	9.4	U	9.4	U	9.4	U	9.4	U	9.4	U
Bis(2-Ethylhexyl)phthalate	5	9.4	U	9.4	U	9.4	U	9.4	U	9.4	U
Chrysene	0.002	9.4	U	9.4	U	9.4	U	9.4	U	9.4	U
Fluoranthene	50*	9.4	U	9.4	U	9.4	U	9.4	U	9.4	U
Phenanthrene	50*	9.4	U	9.4	U	9.4	U	9.4	U	9.4	U
Phenol	1	9.4	U	9.4	U	9.4	U	9.4	U	9.4	U
Pyrene	50*	9.4	U	9.4	U	9.4	U	9.4	U	9.4	U

Notes:
Results in microgram per liter (µg/L)
Only detected compounds shown.
Samples analyzed for SVOCs by EPA Method 8270
QC Code:
FS = Field Sample
FD = Field Sample
Qualifiers:
U = Not detected at a concentration greater than the RL
J = Estimated Value
Criteria = Groundwater guidance or standard values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).
Criteria =Standard unless *
* = Guidance Value
NA = No criteria available
Bold = Detected in sample below criteria value
Highlighted results exceed criteria

Table 4.6: SVOCs in Groundwater

	Location	MW-17D		MW-18		MW-18D		MW-19		MW-19D	
	Field Sample Date	1/17/2008		1/15/2008		1/17/2008		1/15/2008		1/15/2008	
	Field Sample ID	828072-MW17D018		828072-MW018009		828072-MW18D019		828072-MW019006		828072-MW19D014	
	QC Code	FS		FS		FS		FS		FS	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
2-Methylnaphthalene	NA	10	U	**0.36**	J	9.5	U	9.4	U	9.4	U
Benzo(b)fluoranthene	0.002	10	U	9.4	U	9.5	U	9.4	U	9.4	U
Benzo(ghi)perylene	NA	10	U	9.4	U	9.5	U	9.4	U	9.4	U
Bis(2-Ethylhexyl)phthalate	5	10	U	9.4	U	9.5	U	9.4	U	9.4	U
Chrysene	0.002	10	U	9.4	U	9.5	U	9.4	U	9.4	U
Fluoranthene	50*	10	U	9.4	U	9.5	U	9.4	U	9.4	U
Phenanthrene	50*	10	U	**0.39**	J	9.5	U	9.4	U	9.4	U
Phenol	1	10	U	9.4	U	9.5	U	9.4	U	9.4	U
Pyrene	50*	10	U	9.4	U	9.5	U	9.4	U	9.4	U

Notes:
Results in microgram per liter (µg/L)
Only detected compounds shown.
Samples analyzed for SVOCs by EPA Method 8270
QC Code:
FS = Field Sample
FD = Field Sample
Qualifiers:
U = Not detected at a concentration greater than the RL
J = Estimated Value
Criteria = Groundwater guidance or standard values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).
Criteria =Standard unless *
* = Guidance Value
NA = No criteria available
Bold = Detected in sample below criteria value
Highlighted results exceed criteria

Table 4.7: Natural Attenuation Parameters

	Location	MW-1D		MW-3D		MW-6D		MW-7D		MW-8		MW-8	
	Field Sample Date	1/15/2008		1/16/2008		1/16/2008		1/16/2008		1/16/2008		1/16/2008	
	Field Sample ID	828072-MW01D021		828072-MW03D013		828072-MW06D015		828072-MW07D022		828072-MW008023		828072-MW008023DUP	
	QC Code	FS		FS		FS		FS		FS		FD	
Parameter	**Units**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Laboratory Results													
Ethane	µg/L	**0.71**	J	**0.96**	J	**0.94**	J	**0.4**	J	**5.6**		**5.5**	
Ethene	µg/L	**0.31**	J	**0.5**	J	**1**		1	U	**6.9**		**6.9**	
Methane	µg/L	**300**	D	**320**	D	**280**	D	**340**	D	**160**	D	**160**	D
Carbon Dioxide	mg/L	**61**		**54**		**67**		**66**		**56**		**60**	
Chloride	mg/L	**696**		**743**		**747**		**730**		**647**		**684**	
Nitrate as N	mg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Nitrite as N	mg/L	0.01	U	0.02	U	0.01	U	0.01	U	0.01	U	0.01	U
pH		**7.0**		**7.1**		**7.0**		**7.0**		**7.1**		**7.1**	
Sulfate	mg/L	**95.9**		**85**		**90.5**		**89.6**		**77.7**		**77.9**	
Sulfide	mg/L	1	U	**3.43**		1	U	**1.12**		1	U	1	U
Total Dissolved Solids	mg/L	**1730**		**1710**		**1720**		**1740**		**1540**		**1500**	
Total Alkalinity, as CaCO3	mg/L	**328**		**338**		**341**		**339**		**350**		**351**	
Total Organic Carbon	mg/L	**3.11**		**2.94**		**3.15**		**3.1**		**3.37**		**3.2**	
Field Measurements													
pH		6.8		8.0		7.8		7.8		7.7		7.7	
Temperature	Deg. C	13		11		10		9		11		11	
Specific Conductance	mS/cm	3.71		3.17		3.19		3.19		4.16		4.16	
Dissolved Oxygen	mg/L	3.5		< 0.1		< 0.1		< 0.1		< 0.1		< 0.1	
Redox Potential	mV	-160		-170		-110		-110		-180		-180	
Natural Attenuation Score		12		18		15		16		15		15	

Notes:

Detected Laboratory Parameters shown in **BOLD**

MNA Parameters = Monitoring Natural Attenuation Parameters = TOC by USEPA Method 415.1, Nitrate by NYSDEC ASP Method 352.1, Sulfate by NYSDEC ASP Method 375.4, Sulfide by NYSDEC ASP Method 376.2, Methane/Ethane/Ethene by ASTM Method D-1945, carbon dioxide by Hach Method, Nitrite by NYSDEC ASP Method 354.1,Alkalinity by USEPA Method 310.1, chloride by USEPA Method 325.3, and iron and manganese will be analyzed by USEPA Method 6010B. In addition, oxyen and reduction/oxydation potential will be measured during well stabilization

Field measurements recorded using a Horiba U-22 during purging activities.

Field parameters determined to be stable using USEPA low-flow guidance values.

Daily calibration of field instruments within acceptable ranges.

Natural Attenuation Score from 'Bichlor' program following the "Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Groundwater", USEPA 1998

0 to 5 = Inadequate evidence for anaerobic biodegradation (reductive dechlorination) of chlorinated organics
6 to 14 = Limited evidence for anaerobic biodegradation (reductive dechlorination) of chlorinated organics
15 to 20 = Adequate evidence for anaerobic biodegradation (reductive dechlorination) of chlorinated organics
>20 = Strong evidence for anaerobic biodegradation (reductive dechlorination) of chlorinated organics

Prepared by: BAS 3/21/08
Checked by: CRS 4/28/08

Table 4.7: Natural Attenuation Parameters

	Location	MW-8D		MW-9		MW-9D		MW-11D		MW-13D		MW-13DD	
	Field Sample Date	1/16/2008		1/16/2008		1/16/2008		1/17/2008		1/18/2008		1/18/2008	
	Field Sample ID	828072-MW08D033		828072-MW009025		828072-MW09D035		828072-MW11D026		828072-MW13D010		828072-MW13DD037	
	QC Code	FS		FS		FS		FS		FS		FS	
Parameter	**Units**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Laboratory Results													
Ethane	µg/L	**0.93**	J	**0.95**	J	**0.36**	J	**1.8**		**1**		**0.83**	J
Ethene	µg/L	**1.5**		**0.31**	J	1	U	**1.4**		1	U	1	U
Methane	µg/L	**310**	D	**240**	D	**180**	D	**280**	D	**640**	D	**110**	D
Carbon Dioxide	mg/L	**71**		**64**		**60**		**64**		**53**		**65**	
Chloride	mg/L	**811**		**742**		**38.4**		**705**		**624**		**696**	
Nitrate as N	mg/L	0.5	U	0.5	U	**3.51**		0.5	U	0.5	U	0.5	U
Nitrite as N	mg/L	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
pH		**7.0**		**7.0**		**7.0**		**7.0**		**7.1**		**7.0**	
Sulfate	mg/L	**89.2**		**83.5**		**35**		**84.5**		**64.6**		**103**	
Sulfide	mg/L	1	U	1	U	1	U	1	U	1	U	1	U
Total Dissolved Solids	mg/L	**1700**		**430**		**1620**		**1550**		**1370**		**1580**	
Total Alkalinity, as CaCO3	mg/L	**332**		**327**		**301**		**329**		**295**		**335**	
Total Organic Carbon	mg/L	**3.09**		**3.43**		**3.67**		**4.59**		**2.05**		**2.98**	
Field Measurements													
pH		7.6		7.6		7.6		8.2		8.3		7.6	
Temperature	Deg. C	11		10		10		10		9		10	
Specific Conductance	mS/cm	5.75		5.70		4.26		2.89		2.39		2.65	
Dissolved Oxygen	mg/L	< 0.1		< 0.1		< 0.1		< 0.1		< 0.1		< 0.1	
Redox Potential	mV	-170		-110		-130		-120		-140		-170	
Natural Attenuation Score		15		15		13		15		18		12	

Notes:

Detected Laboratory Parameters shown in **BOLD**

MNA Parameters = Monitoring Natural Attenuation Parameters = TOC by USEPA Method 415.1, Nitrate by NYSDEC ASP Method 352.1, Sulfate by NYSDEC ASP Method 375.4, Sulfide by NYSDEC ASP Method 376.2, Methane/Ethane/Ethene by ASTM Method D-1945, carbon dioxide by Hach Method, Nitrite by NYSDEC ASP Method 354.1,Alkalinity by USEPA Method 310.1, chloride by USEPA Method 325.3, and iron and manganese will be analyzed by USEPA Method 6010B. In addition, oxyen and reduction/oxydation potential will be measured during well stabilization

Field measurements recorded using a Horiba U-22 during purging activities.

Field parameters determined to be stable using USEPA low-flow guidance values.

Daily calibration of field instruments within acceptable ranges.

Natural Attenuation Score from 'Bichlor' program following the "Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Groundwater", USEPA 1998

- 0 to 5 = Inadequate evidence for anaerobic biodegradation (reductive dechlorination) of chlorinated organics
- 6 to 14 = Limited evidence for anaerobic biodegradation (reductive dechlorination) of chlorinated organics
- 15 to 20 = Adequate evidence for anaerobic biodegradation (reductive dechlorination) of chlorinated organics
- >20 = Strong evidence for anaerobic biodegradation (reductive dechlorination) of chlorinated organics

Table 4.7: Natural Attenuation Parameters

	Location	MW-14		MW-14D		MW-15D		MW-16		MW-17		MW-17D	
	Field Sample Date	1/17/2008		1/17/2008		1/17/2008		1/18/2008		1/17/2008		1/17/2008	
	Field Sample ID	828072-MW014015		828072-MW14D029		828072-MW15D019		828072-MW016008		828072-MW017007		828072-MW17D018	
	QC Code	FS		FS		FS		FS		FS		FS	
Parameter	**Units**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Laboratory Results													
Ethane	µg/L	**9.6**		**0.58**	J	**1.5**	J	1	U	**0.38**	J	**0.48**	J
Ethene	µg/L	**0.66**	J	1	U	**0.89**	J	1	U	1	U	1	U
Methane	µg/L	**120**	D	**140**	D	**210**	D	2	U	**1.1**	J	**84**	
Carbon Dioxide	mg/L	**25**		**28**		**19**		**129**		**94**		**65**	
Chloride	mg/L	**727**		**752**		**733**		**76.9**		**18.6**		**190**	
Nitrate as N	mg/L	0.5	U	0.5	U	0.5	U	**34.3**		**9.87**		0.5	U
Nitrite as N	mg/L	0.01	U	0.01	U	0.01	U	0.01	U	**0.127**		0.01	U
pH		**7.4**		**7.0**		**7.0**		**6.8**		**7.0**		**7.0**	
Sulfate	mg/L	**83.1**		**92.6**		**93.6**		**138**		**54.2**		**72.5**	
Sulfide	mg/L	1	U	1	U	1	U	1	U	1	U	1	U
Total Dissolved Solids	mg/L	**1590**		**1590**		**1660**		**858**		**596**		**750**	
Total Alkalinity, as CaCO3	mg/L	**298**		**312**		**249**		**389**		**482**		**342**	
Total Organic Carbon	mg/L	**3.39**		**3.46**		**2.99**		**6.98**		**3.29**		**3.72**	
Field Measurements													
pH		8.6		8.2		7.6		7.1		7.7		7.6	
Temperature	Deg. C	8		10		11		6		6		10	
Specific Conductance	mS/cm	3.01		3.02		4.07		1.49		1.06		1.51	
Dissolved Oxygen	mg/L	< 0.1		< 0.1		< 0.1		1.7		2.1		< 0.1	
Redox Potential	mV	-170		-90		-150		80		90		-130	
Natural Attenuation Score		12		13		15		0		0		15	

Notes:

Detected Laboratory Parameters shown in **BOLD**

MNA Parameters = Monitoring Natural Attenuation Parameters = TOC by USEPA Method 415.1, Nitrate by NYSDEC ASP Method 352.1, Sulfate by NYSDEC ASP Method 375.4, Sulfide by NYSDEC ASP Method 376.2, Methane/Ethane/Ethene by ASTM Method D-1945, carbon dioxide by Hach Method, Nitrite by NYSDEC ASP Method 354.1,Alkalinity by USEPA Method 310.1, chloride by USEPA Method 325.3, and iron and manganese will be analyzed by USEPA Method 6010B. In addition, oxyen and reduction/oxydation potential will be measured during well stabilization

Field measurements recorded using a Horiba U-22 during purging activities.

Field parameters determined to be stable using USEPA low-flow guidance values.

Daily calibration of field instruments within acceptable ranges.

Natural Attenuation Score from 'Bichlor' program following the "Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Groundwater", USEPA 1998

0 to 5 = Inadequate evidence for anaerobic biodegradation (reductive dechlorination) of chlorinated organics
6 to 14 = Limited evidence for anaerobic biodegradation (reductive dechlorination) of chlorinated organics
15 to 20 = Adequate evidence for anaerobic biodegradation (reductive dechlorination) of chlorinated organics
>20 = Strong evidence for anaerobic biodegradation (reductive dechlorination) of chlorinated organics

Table 4.7: Natural Attenuation Parameters

	Location	MW-18		MW-18D		MW-19		MW-19D	
	Field Sample Date	1/15/2008		1/17/2008		1/15/2008		1/15/2008	
	Field Sample ID	828072-MW018009		828072-MW18D019		828072-MW019006		828072-MW19D014	
	QC Code	FS		FS		FS		FS	
Parameter	**Units**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Laboratory Results									
Ethane	µg/L	**1.6**	J	**1.2**		**1.3**		1	U
Ethene	µg/L	2	U	**0.38**	J	1	U	1	U
Methane	µg/L	**110**		**130**	D	**3.7**		**43**	
Carbon Dioxide	mg/L	**16**		**71**		**30**		**74**	
Chloride	mg/L	**766**		**678**		**42.1**		**104**	
Nitrate as N	mg/L	0.5	U	0.5	U	**3.57**		0.5	U
Nitrite as N	mg/L	0.01	U	0.01	U	0.01	U	0.01	U
pH		**7.5**		**7.0**		**7.3**		**7.0**	
Sulfate	mg/L	**68.9**		**102**		**35.6**		**81.8**	
Sulfide	mg/L	1	U	1	U	1	U	1	U
Total Dissolved Solids	mg/L	**1760**		**1580**		**1560**		**614**	
Total Alkalinity, as CaCO3	mg/L	**268**		**345**		**315**		**338**	
Total Organic Carbon	mg/L	**8.89**		**3.74**		**3.36**		**3.5**	
Field Measurements									
pH		9.2		7.8		7.3		6.9	
Temperature	Deg. C	8		10		5		9	
Specific Conductance	mS/cm	3.66		2.89		1.44		1.59	
Dissolved Oxygen	mg/L	< 0.1		< 0.1		5.4		3.4	
Redox Potential	mV	-180		-10		110		-20	
Natural Attenuation Score		12		13		1		7	

Notes:

Detected Laboratory Parameters shown in **BOLD**

MNA Parameters = Monitoring Natural Attenuation Parameters = TOC by USEPA Method 415.1, Nitrate by NYSDEC ASP Method 352.1, Sulfate by NYSDEC ASP Method 375.4, Sulfide by NYSDEC ASP Method 376.2, Methane/Ethane/Ethene by ASTM Method D-1945, carbon dioxide by Hach Method, Nitrite by NYSDEC ASP Method 354.1,Alkalinity by USEPA Method 310.1, chloride by USEPA Method 325.3, and iron and manganese will be analyzed by USEPA Method 6010B. In addition, oxyen and reduction/oxydation potential will be measured during well stabilization

Field measurements recorded using a Horiba U-22 during purging activities.

Field parameters determined to be stable using USEPA low-flow guidance values.

Daily calibration of field instruments within acceptable ranges.

Natural Attenuation Score from 'Bichlor' program following the "Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Groundwater", USEPA 1998

- 0 to 5 = Inadequate evidence for anaerobic biodegradation (reductive dechlorination) of chlorinated organics
- 6 to 14 = Limited evidence for anaerobic biodegradation (reductive dechlorination) of chlorinated organics
- 15 to 20 = Adequate evidence for anaerobic biodegradation (reductive dechlorination) of chlorinated organics
- >20 = Strong evidence for anaerobic biodegradation (reductive dechlorination) of chlorinated organics

Table 4.8: VOCs in Groundwater - Round 2

	Location	GPZ-1D		GPZ-1S1		GPZ-2D		GPZ-2S1		GPZ-5D		GPZ-6D		GPZ-6S		MW-1D	
	Field Sample Date	7/23/2008		7/23/2008		7/23/2008		7/23/2008		7/22/2008		7/22/2008		7/22/2008		7/23/2008	
	Field Sample ID	GPZ1D01401		GPZ1S100101		GPZ2D02001		GPZ2S101401		GPZ5D02501		GPZ6D02801		GPZ6S01901		MW01D02101	
	QC Code	FS		FS		FS		FS		FS		FS		FS		FS	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	1	U	1	U	1	U	1	U	**0.35**	J	1	U	1	U	**0.33**	J
1,1,2-Trichloroethane	1	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	5	**15**		1	U	1	U	1	U	**2**		**7.5**		1	U	**2**	
1,1-Dichloroethene	5	**0.4**	J	1	U	1	U	1	U	**0.6**	J	**0.72**	J	1	U	**0.91**	J
Acetone	50*	10	U	10	U	10	U	10	U	10	UJ	**1.8**	J	**2.2**	J	10	U
Benzene	1	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Carbon disulfide	60	**0.34**	J	**0.28**	J	1	U	**0.23**	J	1	U	**0.24**	J	**0.33**	J	**0.31**	J
Chloroform	7	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Cis-1,2-Dichloroethene	5	**86**		1	U	1	U	1	U	**150**		**120**		1	U	**260**	D
Cyclohexane	NA	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Methyl cyclohexane	NA	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Methylene chloride	5	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
o-Xylene	5	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	5	1	U	1	U	1	U	1	U	1	U	1	U	1	U	**1.2**	
Toluene	5	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	5	**1.4**		1	U	1	U	1	U	**2.4**		**1.6**		1	U	**4.8**	
Trichloroethene	5	**87**		1	U	1	U	1	U	**160**		**12**		1	U	**270**	D
Vinyl chloride	2	**34**		1	U	1	U	1	U	**11**		**20**		1	U	**24**	
Xylene, m/p	5	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U

Notes:
Results in microgram per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method 8260E
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected at a concentration greater than the reporting limit
J = Estimated value
D = Result from diluted run
Criteria = Values from Technical and Operational Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance values and Groundwater Effluent Limitations (NYSDEC, 1998).
Number shown is standard unless *.
* Criteria is NYSDEC Guidance Value
Detections are indicated in **BOLD**
Highlighted results exceed criteria
NA = No criteria available

Table 4.8: VOCs in Groundwater - Round 2

	Location	MW-1DD		MW-2		MW-2D		MW-003		MW-3D		MW-5		MW-5D		MW-6	
	Field Sample Date	7/21/2008		7/23/2008		7/23/2008		7/7/2008		7/22/2008		7/21/2008		7/21/2008		7/21/2008	
	Field Sample ID	MW1DD03801		MW002000901		MW02D01701		828072-MW003		MW03D01301		MW00500601		MW05D01001		MW00600101	
	QC Code	FS		FS		FS		FS		FS		FS		FS		FS	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	1	U	10	U	**0.47**	J	1000	U	**0.35**	J	1	U	1	U	1	U
1,1,2-Trichloroethane	1	1	U	**3.5**	J	1	U	1000	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	5	1	U	10	U	**2.3**		1000	U	**2.5**		**0.91**	J	**0.4**	J	1	U
1,1-Dichloroethene	5	1	U	**20**		**0.24**	J	1000	U	**0.41**	J	1	U	1	U	1	U
Acetone	50*	**3.9**	J	100	U	10	U	**1400**	J	10	U	**4**	J	10	U	**6.1**	J
Benzene	1	1	U	10	U	1	U	1000	U	1	U	1	U	1	U	1	U
Carbon disulfide	60	**0.3**	J	10	U	1	U	490	U	**0.26**	J	1	U	**0.43**	J	**0.22**	J
Chloroform	7	1	U	10	U	1	U	1000	U	1	U	1	U	1	U	1	U
Cis-1,2-Dichloroethene	5	1	U	**5900**	D	**72**		**180000**		**160**		**0.58**	J	1	U	**2.2**	
Cyclohexane	NA	1	U	10	U	1	U	1000	U	1	U	1	U	1	U	1	U
Methyl cyclohexane	NA	1	U	10	U	1	U	1000	U	1	U	1	U	1	U	1	U
Methylene chloride	5	1	U	**2.5**	J	1	U	1000	U	1	U	1	U	1	U	1	U
o-Xylene	5	1	U	10	U	1	U	1000	U	1	U	1	U	1	U	1	U
Tetrachloroethene	5	1	U	10	U	1	U	1000	U	1	U	1	U	1	U	1	U
Toluene	5	1	U	10	U	1	U	1000	U	1	U	1	U	**0.2**	J	1	U
trans-1,2-Dichloroethene	5	1	U	**66**		**3.3**		**1100**		**3.7**		1	U	1	U	1	U
Trichloroethene	5	1	U	**3300**	D	1	U	**500000**	D	**44**		1	U	1	U	1	U
Vinyl chloride	2	1	U	**170**		**7.7**		**7400**		**13**		**0.43**	J	1	U	1	U
Xylene, m/p	5	1	U	10	U	1	U	1000	U	1	U	1	U	1	U	1	U

Notes:
Results in microgram per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method 8260B
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected at a concentration greater than the reporting limit
J = Estimated value
D = Result from diluted run
Criteria = Values from Technical and Operational Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance values and Groundwater Effluent Limitations (NYSDEC, 1998).
Number shown is standard unless *.
* Criteria is NYSDEC Guidance Value
Detections are indicated in **BOLD**
Highlighted results exceed criteria
NA = No criteria available

Table 4.8: VOCs in Groundwater - Round 2

	Location	MW-6D		MW-7		MW-7D		MW-8		MW-8		MW-8D		MW-9		MW-9D	
	Field Sample Date	7/23/2008		7/21/2008		7/21/2008		7/24/2008		7/24/2008		7/24/2008		7/22/2008		7/22/2008	
	Field Sample ID	MW06D01501		MW00701501		MW07D02201		MW00802301		MW00802301D		MW08D03301		MW00902501		MW09D03501	
	QC Code	FS		FS		FS		FS		FD		FS		FS		FS	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	**0.74**	J	1	U	**0.28**	J	10	U	10	U	**1**	J	**0.2**	J	**0.79**	J
1,1,2-Trichloroethane	1	2	U	1	U	1	U	10	U	10	U	5	U	1	U	1	U
1,1-Dichloroethane	5	**2.6**		1	U	**1.4**		**16**		**17**		**2.6**	J	**1.4**		**3.6**	
1,1-Dichloroethene	5	**1**	J	1	U	**0.2**	J	**5.7**	J	**6.3**	J	**1.6**	J	**0.29**	J	**1.2**	
Acetone	50*	20	U	**2**	J	10	U	100	U	100	U	13	U	**2.3**	J	10	U
Benzene	1	2	U	1	U	1	U	10	U	10	U	5	U	1	U	1	U
Carbon disulfide	60	**0.62**	J	**0.2**	J	1	U	10	U	10	U	5	U	**0.2**	J	1	U
Chloroform	7	2	U	1	U	1	U	10	U	10	U	5	U	1	U	1	U
Cis-1,2-Dichloroethene	5	**380**		**0.36**	J	**9.1**		**2000**		**2000**		**330**		**53**		**290**	D
Cyclohexane	NA	2	U	1	U	1	U	10	U	10	U	5	U	1	U	1	U
Methyl cyclohexane	NA	2	U	1	U	1	U	10	U	10	U	5	U	1	U	1	U
Methylene chloride	5	1	U	1	U	1	U	2.7	U	2.3	U	1.2	U	1	U	1	U
o-Xylene	5	2	U	1	U	1	U	10	U	10	U	5	U	1	U	1	U
Tetrachloroethene	5	**0.86**	J	1	U	1	U	10	U	10	U	**1**	J	1	U	**1.1**	
Toluene	5	2	U	1	U	1	U	10	U	10	U	5	U	1	U	1	U
trans-1,2-Dichloroethene	5	**4.8**		1	U	1	U	**47**		**42**		**4.4**	J	**0.92**	J	**3.9**	
Trichloroethene	5	**490**	D	1	U	**5.1**		**640**		**610**		**660**		**27**		**1100**	D
Vinyl chloride	2	**38**		1	U	**0.46**	J	**51**		**53**		**22**		**6**		**30**	
Xylene, m/p	5	2	U	1	U	1	U	10	U	10	U	5	U	1	U	1	U

Notes:
Results in microgram per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method 8260E
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected at a concentration greater than the reporting limit
J = Estimated value
D = Result from diluted run
Criteria = Values from Technical and Operational Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance values and Groundwater Effluent Limitations (NYSDEC, 1998).
Number shown is standard unless *.
* Criteria is NYSDEC Guidance Value
Detections are indicated in **BOLD**
Highlighted results exceed criteria
NA = No criteria available

Table 4.8: VOCs in Groundwater - Round 2

	Location	MW-10	MW-11	MW-11D	MW-11D	MW-12	MW-13	MW-13D	MW-13DD
	Field Sample Date	7/21/2008	7/24/2008	7/24/2008	7/24/2008	7/21/2008	7/24/2008	7/23/2008	7/23/2008
	Field Sample ID	MW01001501	MW01101201	MW11D02601	MW11D02601D	MW01201101	MW01300501	MW13D01001	MW13DD03701
	QC Code	FS	FS	FS	FD	FS	FS	FS	FS
Parameter	**Criteria**	Result Qualifier	Result Qualifier	Result Qualifier	Result Qualifier	Result Qualifier	Result Qualifier	Result Qualifier	Result Qualifier
1,1,1-Trichloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	5	1 U	**0.64** J	**2.2**	**2.2**	1 U	1 U	**1.2**	**1.8**
1,1-Dichloroethene	5	1 U	1 U	**0.67** J	**0.7** J	1 U	1 U	**0.34** J	**0.33** J
Acetone	50*	10 U	10 U	**1.9** J	10 U	**2** J	**8** J	10 U	10 U
Benzene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon disulfide	60	1 U	1 U	1 U	1 U	1 U	1 U	**0.2** J	1 U
Chloroform	7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cis-1,2-Dichloroethene	5	1 U	**11**	**170**	**170**	1 U	1 U	**57**	**71**
Cyclohexane	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl cyclohexane	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene chloride	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
o-Xylene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	5	1 U	**0.21** J	**1.1**	**1.2**	1 U	1 U	**1.2**	**1.5**
Trichloroethene	5	1 U	1 U	**30**	**31**	1 U	1 U	**42**	**73**
Vinyl chloride	2	1 U	**16**	**6.3**	**6.3**	1 U	1 U	**5.5**	**6.8**
Xylene, m/p	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Notes:
Results in microgram per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method 8260E
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected at a concentration greater than the reporting limit
J = Estimated value
D = Result from diluted run
Criteria = Values from Technical and Operational Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance values and Groundwater Effluent Limitations (NYSDEC, 1998).
Number shown is standard unless *.
* Criteria is NYSDEC Guidance Value
Detections are indicated in **BOLD**
Highlighted results exceed criteria
NA = No criteria available

Table 4.8: VOCs in Groundwater - Round 2

	Location	MW-14		MW-14D		MW-15D		MW-16		MW-16D		MW-17		MW-17D		MW-18	
	Field Sample Date	7/22/2008		7/22/2008		7/24/2008		7/23/2008		7/22/2008		7/22/2008		7/21/2008		7/24/2008	
	Field Sample ID	MW01401501		MW14D02901		MW15D01901		MW01600101		MW16D01901		MW01700701		MW17D01801		MW01800901	
	QC Code	FS		FS		FS		FS		FS		FS		FS		FS	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	1	U	**0.71**	J	2.5	U	1	U	1	U	1	U	1	U	2.5	U
1,1,2-Trichloroethane	1	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
1,1-Dichloroethane	5	**1.6**		**1.1**		**2.5**	J	1	U	**2**		1	U	**0.25**	J	**3.6**	
1,1-Dichloroethene	5	**0.51**	J	**0.27**	J	**1**	J	1	U	**1.2**		1	U	1	U	2.5	U
Acetone	50*	10	U	10	U	10	U	10	U	**1.7**	J	**12**		10	U	10	U
Benzene	1	**0.25**	J	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
Carbon disulfide	60	**0.22**	J	1	U	2.5	U	1	U	1	U	**0.2**	J	1	U	**0.6**	J
Chloroform	7	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
Cis-1,2-Dichloroethene	5	**89**		**22**		**250**		1	U	**230**	D	1	U	**11**		**320**	
Cyclohexane	NA	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
Methyl cyclohexane	NA	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
Methylene chloride	5	1	U	1	U	1	U	1	U	1	U	1	U	1	U	2.5	U
o-Xylene	5	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
Tetrachloroethene	5	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
Toluene	5	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
trans-1,2-Dichloroethene	5	**0.71**	J	**0.34**	J	**5.2**		1	U	**2.6**		1	U	**0.43**	J	**5**	
Trichloroethene	5	**31**		**38**		**50**		1	U	**14**		1	U	**0.31**	J	2.5	U
Vinyl chloride	2	**7.2**		**2.2**		**12**		1	U	**11**		1	U	**14**		**120**	
Xylene, m/p	5	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U

Notes:
Results in microgram per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method 8260E
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected at a concentration greater than the reporting limit
J = Estimated value
D = Result from diluted run
Criteria = Values from Technical and Operational Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance values and Groundwater Effluent Limitations (NYSDEC, 1998).
Number shown is standard unless *.
* Criteria is NYSDEC Guidance Value
Detections are indicated in **BOLD**
Highlighted results exceed criteria
NA = No criteria available

Table 4.8: VOCs in Groundwater - Round 2

	Location	MW-18D		MW-19		MW-019		MW-19D		MW-020		MW-20D	
	Field Sample Date	7/24/2008		7/23/2008		3/11/2009		7/22/2008		3/11/2009		7/22/2008	
	Field Sample ID	MW18D01901		MW01900601		828072-MW01900603		MW19D01401		828072-MW02000603		MW20D01901	
	QC Code	FS		FS		FS		FS		FS		FS	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	1	U	1	U	1	U	1	U	1	U	1	U
1,1,2-Trichloroethane	1	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	5	**1.6**		1	U	1	U	**0.35**	J	1	U	**0.42**	J
1,1-Dichloroethene	5	**0.67**	J	1	U	1	U	1	U	1	U	1	U
Acetone	50*	10	U	10	U	10	UJ	**2.3**	J	10	UJ	10	U
Benzene	1	1	U	1	U	1	U	1	U	1	U	**0.62**	J
Carbon disulfide	60	**0.37**	J	**0.26**	J	1	U	**0.21**	J	1	U	**0.33**	J
Chloroform	7	1	U	1	U	1	U	1	U	1	U	**0.39**	J
Cis-1,2-Dichloroethene	5	**180**	D	1.2	U	1	U	**7.8**		1	U	**1.8**	
Cyclohexane	NA	1	U	1	U	1	U	1	U	1	U	**0.57**	J
Methyl cyclohexane	NA	1	U	1	U	1	U	1	U	1	U	**0.81**	J
Methylene chloride	5	1	U	1	U	1	U	1	U	1	U	1	U
o-Xylene	5	1	U	1	U	1	U	1	U	1	U	**0.27**	J
Tetrachloroethene	5	1	U	1	U	1	U	1	U	1	U	1	U
Toluene	5	1	U	1	U	1	U	1	U	1	U	**1**	
trans-1,2-Dichloroethene	5	**2.6**		1	U	1	U	**0.26**	J	1	U	1	U
Trichloroethene	5	**8.9**		1	U	1	U	**0.24**	J	1	U	**0.22**	J
Vinyl chloride	2	**12**		**4.6**		1	U	**33**		1	U	**1.6**	
Xylene, m/p	5	1	U	1	U	1	U	1	U	1	U	**0.81**	J

Notes:
Results in microgram per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method 8260E
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected at a concentration greater than the reporting limit
J = Estimated value
D = Result from diluted run
Criteria = Values from Technical and Operational Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance values and Groundwater Effluent Limitations (NYSDEC, 1998).
Number shown is standard unless *.
* Criteria is NYSDEC Guidance Value
Detections are indicated in **BOLD**
Highlighted results exceed criteria
NA = No criteria available

Table 1: Monitoring Well and Groundwater Elevation Data

Exploration ID	Ground Elevation	Casing Elevation	Riser Elevation	Depth of Monitoring Well	Measurement Point	Measured Monitoring Well Depth	DTW (TOR/TOC) (July 11, 2012)	Groundwater Elevation (July 11, 2012)
MW-D-1	555.02	557.54	NA	NA	TOC	9.9 ^	5.31	552.23
MW-1D	556.49	559.07	558.91	26.50	TOR	26.4	8.28	550.63
MW-1DD	556.46	558.42	558.30	41.70	TOC	41.7 ^	8.25	550.05
MW-2	555.49	557.81	557.42	10.60	TOR	10.7*	7.10	550.32
MW-2D	555.59	557.32	NA	NA	TOC	20.3 ^	6.72	550.6
MW-3	NA	NA	NA	NA	NA	9.4 ^	5.65	NA
MW-3D	554.76	556.87	NA	20.25	TOC	20.3 ^	6.28	550.59
MW-4	555.41	557.06	556.94	NA	TOR	9.5 ^	7.57	549.37
MW-4D	555.46	557.51	NA	NA	TOC	22.1 ^	6.90	550.61
MW-5	555.00	555.00	554.76	7.80	TOR	NA[1]	NA[1]	NA[1]
MW-5D	555.16	555.36	NA	NA	TOC	NA[1]	NA[1]	NA[1]
MW-6	554.14	556.34	556.36	10.10	TOR	10.1	7.27	549.09
MW-6D	553.76	555.67	NA	25.60	TOC	25.9*	5.40	550.27
MW-7	553.89	556.48	556.24	17.00	TOR	17.1	6.28	549.96
MW-7D	553.70	555.49	NA	27.10	TOC	26.2 ^	4.92	550.57
MW-8	565.37	566.73	566.80	27.90	TOR	28.0	17.05	549.75
MW-8D	565.25	566.65	NA	38.70	TOC	38.7 ^	16.44	550.21
MW-9	567.01	568.86	568.91	30.20	TOR	30.1	18.70	550.21
MW-9D	566.76	568.86	NA	48	TOC	40.2	18.65	550.21
MW-10	553.86	557.03	556.90	17.00	TOR	16.9	6.64	550.26
MW-11	553.55	556.75	556.60	13.25	TOR	13.3	9.87	546.73
MW-11D	554.05	557.81	555.09	23.70	TOC	23.7*	11.20	546.61
MW-12	554.66	557.74	557.60	12.00	TOR	11.9	10.94	546.66
MW-13	553.71	553.79	553.40	7.80	TOR	6.8 ^	> 6.8	< 546.6
MW-13D	553.57	553.63	553.33	12.25	TOR	12.3 ^	6.67	546.66
MW-13DD	553.55	553.60	553.33	40.10	TOR	40.1	4.69	548.64
MW-14	552.88	553.01	552.64	16.20	TOR	16.3*	5.47	547.17
MW-14D	552.96	552.97	552.78	33.80	TOR	33.8 ^	3.32	549.46
MW-15	553.18	553.30	553.11	6.50	TOR	6.6 ^	> 6.6	< 546.5
MW-15D	553.22	553.28	553.09	23.90	TOR	23.9	6.56	546.53
MW-16	553.94	553.96	553.78	8.90	TOR	8.9	7.25	546.53
MW-16D	553.94	553.97	553.64	22.20	TOR	29.7 ^	7.73	545.91
MW-17	553.88	553.95	553.43	7.70	TOR	7.7	> 7.7	< 545.7
MW-17D	554.01	554.09	553.73	23.20	TOR	23.2	7.60	546.13
MW-18	552.34	552.25	551.84	10.90	TOR	9.9 ^	5.27	546.57
MW-18D	552.28	552.23	551.72	22.80	TOR	22.8 ^	5.50	546.22
MW-19	552.03	551.95	551.55	7.20	TOR	7.2 ^	>7.2	< 544.3
MW-19D	551.98	552.02	551.43	19.50	TOR	19.7	5.47	545.96
MW-20	553.62	553.70	553.39	6.8	TOR	6.8*	> 6.8	< 546.6
MW-20D	553.59	553.64	553.39	20.9	TOR	20.9 ^	7.62	545.77
GPZ-1S1	552.70	NA	554.91	8.60	TOR	8.6	7.45	547.46
GPZ-1D	552.99	NA	555.50	15.50	NA	15.7	7.45	548.05
GPZ-2S1	562.79	NA	565.01	16.60	TOR	16.6	15.90	549.11
GPZ-2D	562.38	NA	564.88	27.50	NA	20.5 ^	15.19	549.69
GPZ-5S	563.99	NA	566.94	20.00	TOR	20.0	18.40	548.54
GPZ-5D	564.08	NA	566.98	29.10	TOR	28.2	17.95	549.03
GPZ-6S	563.72	NA	564.14	20.10	TOR	20.1	15.05	549.09
GPZ-6D	564.25	NA	566.74	28.40	NA	20.1 ^	17.60	549.14

Notes:

Wells Surveyed by Popli Deseign Group - Northing/Easting = North American Datum 83/96 - NYSPCS WEST (US SURVEY FT.)
Elevations = North Atlantic Vertical Datum 88 (US SURVEY FT.)
DTW = depth to water
TOR/TOC = from top of riser or top of casing
Groundwater levels collected by MACTEC Engineering on July 11, 2012
Measured well depth (unless notated) from January 2008; * = July 2008; ^ = July 2012
NA = Not Available
NA[1] = Unable to locate monitoring wells in July 2012

Table 2: July 2012 Groundwater VOC Results

	Location ID	GPZ-1D		GPZ-1S1		GPZ-2D		GPZ-2S1		GPZ-5D		GPZ-5S	
	Field Sample Date	7/12/2012		7/12/2012		7/12/2012		7/12/2012		7/11/2012		7/11/2012	
	Field Sample ID	828072-GPZ1D014		828072-GPZ1S1008		828072-GPZ2D020		828072-GPZ2S1014		828072-GPZ5D025		828072-GPZ5S018	
	Field Sample Depth (ft bgs)	14		8		20		14		25		18	
	QC Code	FS		FS		FS		FS		FS		FS	
Parameter Name	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	1	U	1	U	1	U	10	U	1	U	1	U
1,1-Dichloroethane	5	**9.8**		1	U	1	U	10	U	**1.6**		**0.44**	J
1,1-Dichloroethene	5	**0.32**	J	1	U	1	U	10	U	**0.62**	J	1	U
Acetone	50*	**4.9**	J	**1.2**	J	10	U	100	U	10	U	10	U
Carbon disulfide	60*	1	U	1	U	1	U	10	U	1	U	1	U
Cis-1,2-Dichloroethene	5	**83**		1	U	1	U	10	U	**100**		**16**	
Tetrachloroethene	5	1	U	1	U	1	U	10	U	1	U	1	U
Toluene	5	1	U	1	U	1	U	10	U	1	U	1	U
trans-1,2-Dichloroethene	5	**2.1**		1	U	1	U	10	U	**2.4**		**0.31**	J
Trichloroethene	5	**38**		1	U	1	U	10	U	**120**		**1.3**	
Vinyl chloride	2	**23**		1	U	1	U	10	U	**7.7**		**27**	

Notes:
Results reported in micrograms per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method SW8260B
ft bgs = feet below ground surface
QC Code:
FS = Field Sample
FD = Field Sample
Qualifiers:
U = Not detected greater than the reporting limit
J = Estimated value
D = Result from diluted run
Criteria = Groundwater guidance or standard values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).
* = Guidance Value
NYS, 1999. New York Codes, Rules, and Regulations, Title 6, Part 700-705 Water Quality Regulations Surface Water and Groundwater Classifications and Standards. Amended August 1999
Bold = Compound detected in sample
Highlighted results exceed criteria

Table 2: July 2012 Groundwater VOC Results

	Location ID	GPZ-6D		GPZ-6S		MW-1		MW-1D		MW-1DD		MW-2	
	Field Sample Date	7/11/2012		7/11/2012		7/11/2012		7/11/2012		7/11/2012		7/11/2012	
	Field Sample ID	828072-GPZ6D028		828072-GPZ6S019		828072-MW01		828072-MW01D021		828072-MW1DD038		828072-MW002009	
	Field Sample Depth (ft bgs)	28		19		21		21		38		9	
	QC Code	FS		FS		FS		FS		FS		FS	
Parameter Name	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	1	U	5	U	25	U	1	U	1	U	25	U
1,1-Dichloroethane	5	**6.9**		5	U	**19**	J	**1.2**		1	U	25	U
1,1-Dichloroethene	5	**0.63**	J	5	U	**33**		**0.68**	J	1	U	**17**	J
Acetone	50*	10	U	50	U	250	U	**1.4**	J	10	U	250	U
Carbon disulfide	60*	1	U	5	U	25	U	1	U	1	U	25	U
Cis-1,2-Dichloroethene	5	**120**		5	U	**5800**	D	**250**	D	1	U	**5500**	D
Tetrachloroethene	5	1	U	5	U	**9.5**	J	1	U	1	U	25	U
Toluene	5	1	U	5	U	**5.3**	J	1	U	1	U	25	U
trans-1,2-Dichloroethene	5	**1.5**		5	U	**68**		**2.4**		1	U	**37**	
Trichloroethene	5	**3.4**		5	U	**190**		**100**		1	U	**660**	
Vinyl chloride	2	**23**		5	U	**3000**		**41**		1	U	**260**	J

Notes:
Results reported in micrograms per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method SW8260B
ft bgs = feet below ground surface
QC Code:
FS = Field Sample
FD = Field Sample
Qualifiers:
U = Not detected greater than the reporting limit
J = Estimated value
D = Result from diluted run
Criteria = Groundwater guidance or standard values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).
* = Guidance Value
NYS, 1999. New York Codes, Rules, and Regulations, Title 6, Part 700-705 Water Quality Regulations Surface Water and Groundwater Classifications and Standards. Amended August 1999
Bold = Compound detected in sample
Highlighted results exceed criteria

Table 2: July 2012 Groundwater VOC Results

	Location ID	MW-2		MW-2D		MW-3		MW-3D		MW-6		MW-6D	
	Field Sample Date	7/11/2012		7/11/2012		7/11/2012		7/11/2012		7/12/2012		7/12/2012	
	Field Sample ID	828072-MW002009D		828072-MW02D017		828072-MW00306		828072-MW03D020		828072-MW006008		828072-MW06D015	
	Field Sample Depth (ft bgs)	9		17		6		20		8		15	
	QC Code	FD		FS		FS		FS		FS		FS	
Parameter Name	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	10	U	**0.24**	J	2000	U	1	U	1	U	1	U
1,1-Dichloroethane	5	10	U	**1.2**		2000	U	**1.9**		1	U	**1.1**	
1,1-Dichloroethene	5	**8.7**	J	1	U	2000	U	1	U	1	U	1	U
Acetone	50*	100	U	10	U	20000	U	10	U	**2.8**	J	10	U
Carbon disulfide	60*	10	U	1	U	2000	U	1	U	1	U	1	U
Cis-1,2-Dichloroethene	5	**4900**	D	**37**		**150000**		**65**		**0.76**	J	**76**	
Tetrachloroethene	5	**2.9**	J	**100**		2000	U	1	U	1	U	1	U
Toluene	5	10	U	1	U	2000	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	5	**21**		**1.4**		**820**	J	**4.4**		1	U	**4.7**	
Trichloroethene	5	**450**		**28**		**650000**	D	1	U	**1.1**		**0.46**	J
Vinyl chloride	2	**43**	J	**8.7**		**6500**		**22**		1	U	**40**	

Notes:
Results reported in micrograms per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method SW8260B
ft bgs = feet below ground surface
QC Code:
FS = Field Sample
FD = Field Sample
Qualifiers:
U = Not detected greater than the reporting limit
J = Estimated value
D = Result from diluted run
Criteria = Groundwater guidance or standard values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).
* = Guidance Value
NYS, 1999. New York Codes, Rules, and Regulations, Title 6, Part 700-705 Water Quality Regulations Surface Water and Groundwater Classifications and Standards. Amended August 1999
Bold = Compound detected in sample
Highlighted results exceed criteria

Table 2: July 2012 Groundwater VOC Results

	Location ID	MW-7		MW-7D		MW-8		MW-8		MW-8D		MW-9	
	Field Sample Date	7/12/2012		7/12/2012		7/11/2012		7/11/2012		7/11/2012		7/11/2012	
	Field Sample ID	828072-MW007015		828072-MW07D022		828072-MW008023		828072-MW008023D		828072-MW08D033		828072-MW009025	
	Field Sample Depth (ft bgs)	15		22		23		23		33		25	
	QC Code	FS		FS		FS		FD		FS		FS	
Parameter Name	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	1	U	1	U	5	U	5	U	1	U	1	U
1,1-Dichloroethane	5	1	U	**1**		**10**		**11**		**0.57**	J	**1.7**	
1,1-Dichloroethene	5	1	U	1	U	**3.4**	J	**2.8**	J	**0.56**	J	**0.51**	J
Acetone	50*	**1.7**	J	10	U	50	U	50	U	10	U	10	U
Carbon disulfide	60*	1	U	1	U	5	U	5	U	**0.32**	J	1	U
Cis-1,2-Dichloroethene	5	**0.94**	J	**2.7**		**1300**	D	**1400**	D	**170**		**130**	
Tetrachloroethene	5	**0.4**	J	1	U	5	U	5	U	1	U	1	U
Toluene	5	1	U	1	U	5	U	5	U	1	U	1	U
trans-1,2-Dichloroethene	5	1	U	1	U	**17**		**15**		**13**		**0.7**	J
Trichloroethene	5	1	U	**0.39**	J	**17**		**21**		**79**		**59**	
Vinyl chloride	2	**1.5**		**0.32**	J	**89**		**93**		**8.7**		**12**	

Notes:
Results reported in micrograms per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method SW8260B
ft bgs = feet below ground surface
QC Code:
FS = Field Sample
FD = Field Sample
Qualifiers:
U = Not detected greater than the reporting limit
J = Estimated value
D = Result from diluted run
Criteria = Groundwater guidance or standard values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).
* = Guidance Value
NYS, 1999. New York Codes, Rules, and Regulations, Title 6, Part 700-705 Water Quality Regulations Surface Water and Groundwater Classifications and Standards. Amended August 1999
Bold = Compound detected in sample
Highlighted results exceed criteria

Table 2: July 2012 Groundwater VOC Results

	Location ID	MW-9D		MW-10		MW-11		MW-11D		MW-11D		MW-12	
	Field Sample Date	7/11/2012		7/12/2012		7/12/2012		7/12/2012		7/12/2012		7/12/2012	
	Field Sample ID	828072-MW09D035		828072-MW010015		828072-MW011010		828072-MW11D026		828072-MW11D026D		828072-MW012011	
	Field Sample Depth (ft bgs)	35		15		10		26		26		11	
	QC Code	FS		FS		FS		FS		FD		FS	
Parameter Name	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	5	**0.53**	J	1	U	1	U	**1.8**		**2.1**		1	U
1,1-Dichloroethene	5	**0.31**	J	1	U	1	U	**0.95**	J	**1**		1	U
Acetone	50*	10	U	10	U	**3**	J	10	U	**1.1**	J	**4.6**	J
Carbon disulfide	60*	1	U	1	U	1	U	1	U	1	U	1	U
Cis-1,2-Dichloroethene	5	**120**		1	U	**0.3**	J	**270**	D	**260**	D	1	U
Tetrachloroethene	5	1	U	1	U	1	U	**0.5**	J	**0.43**	J	1	U
Toluene	5	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	5	**20**		1	U	1	U	**3.5**		**3.3**		1	U
Trichloroethene	5	**41**		1	U	1	U	**2.9**		**3.1**		1	U
Vinyl chloride	2	**4.6**		1	U	**0.4**	J	**12**		**13**		1	U

Notes:
Results reported in micrograms per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method SW8260B
ft bgs = feet below ground surface
QC Code:
FS = Field Sample
FD = Field Sample
Qualifiers:
U = Not detected greater than the reporting limit
J = Estimated value
D = Result from diluted run
Criteria = Groundwater guidance or standard values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).
* = Guidance Value
NYS, 1999. New York Codes, Rules, and Regulations, Title 6, Part 700-705 Water Quality Regulations Surface Water and Groundwater Classifications and Standards. Amended August 1999
Bold = Compound detected in sample
Highlighted results exceed criteria

Table 2: July 2012 Groundwater VOC Results

	Location ID	MW-13D		MW-13DD		MW-14		MW-14D		MW-15D		MW-16	
	Field Sample Date	7/11/2012		7/11/2012		7/11/2012		7/11/2012		7/12/2012		7/12/2012	
	Field Sample ID	828072-MW13D010		828072-MW13DD037		828072-MW014015		828072-MW14D029		828072-MW15D019		828072-MW016008	
	Field Sample Depth (ft bgs)	10		37		15		29		19		8	
	QC Code	FS		FS		FS		FS		FS		FS	
Parameter Name	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	1	U	1	U	1	U	**0.28**	J	1	U	1	U
1,1-Dichloroethane	5	**0.87**	J	**1.6**		**1.5**		**1.4**		**2**		1	U
1,1-Dichloroethene	5	**0.31**	J	**0.36**	J	**0.45**	J	**0.3**	J	**0.91**	J	1	U
Acetone	50*	**2.3**	J	10	U	**1**	J	10	U	**1.1**	J	10	U
Carbon disulfide	60*	1	U	**1.5**		1	U	1	U	1	U	1	U
Cis-1,2-Dichloroethene	5	**71**		**100**		**140**		**35**		**290**	D	1	U
Tetrachloroethene	5	1	U	1	U	1	U	1	U	1	U	1	U
Toluene	5	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	5	**1.3**		**0.7**	J	**1.4**		**0.49**	J	**2.2**		1	U
Trichloroethene	5	**45**		**100**		**63**		**32**		**51**		1	U
Vinyl chloride	2	**5.4**		**9.6**		**24**		**1.5**		**19**		1	U

Notes:
Results reported in micrograms per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method SW8260B
ft bgs = feet below ground surface
QC Code:
FS = Field Sample
FD = Field Sample
Qualifiers:
U = Not detected greater than the reporting limit
J = Estimated value
D = Result from diluted run
Criteria = Groundwater guidance or standard values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).
* = Guidance Value
NYS, 1999. New York Codes, Rules, and Regulations, Title 6, Part 700-705 Water Quality Regulations Surface Water and Groundwater Classifications and Standards. Amended August 1999
Bold = Compound detected in sample
Highlighted results exceed criteria

Table 2: July 2012 Groundwater VOC Results

	Location ID	MW-16D		MW-17D		MW-18		MW-18D		MW-19D		MW-20D	
	Field Sample Date	7/12/2012		7/12/2012		7/12/2012		7/12/2012		7/12/2012		7/12/2012	
	Field Sample ID	828072-MW16D019		828072-MW17D018		828072-MW018009		828072-MW18D019		828072-MW19D014		828072-MW20D019	
	Field Sample Depth (ft bgs)	19		18		9		19		14		19	
	QC Code	FS		FS		FS		FS		FS		FS	
Parameter Name	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	5	**0.56**	J	1	U	**2**		**1.2**		1	U	1	U
1,1-Dichloroethene	5	1	U	1	U	1	U	1	U	1	U	1	U
Acetone	50*	**1.2**	J	10	U	**1.3**	J	**1.1**	J	**1.4**	J	**1.7**	J
Carbon disulfide	60*	1	U	1	U	1	U	1	U	1	U	1	U
Cis-1,2-Dichloroethene	5	**23**		**4.4**		**54**		**180**		**2.1**		**1.1**	
Tetrachloroethene	5	1	U	1	U	**0.31**	J	1	U	1	U	1	U
Toluene	5	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	5	**0.48**	J	1	U	**1.3**		**1.7**		1	U	1	U
Trichloroethene	5	**0.29**	J	1	U	**0.23**	J	1	U	1	U	1	U
Vinyl chloride	2	**31**		**4.5**		**55**		**34**		**14**		**0.54**	J

Notes:
Results reported in micrograms per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method SW8260B
ft bgs = feet below ground surface
QC Code:
FS = Field Sample
FD = Field Sample
Qualifiers:
U = Not detected greater than the reporting limit
J = Estimated value
D = Result from diluted run
Criteria = Groundwater guidance or standard values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).
* = Guidance Value
NYS, 1999. New York Codes, Rules, and Regulations, Title 6, Part 700-705 Water Quality Regulations Surface Water and Groundwater Classifications and Standards. Amended August 1999
Bold = Compound detected in sample
Highlighted results exceed criteria

Table 3: Historical Groundwater VOC Results

Location ID		MW-1D						MW-1DD					
Field Sample Date		1/15/2008		7/23/2008		7/11/2012		1/15/2008		7/21/2008		7/11/2012	
Field Sample ID		828072-MW01D021		MW01D02101		828072-MW01D021		828072-MW1DD038		MW1DD03801		828072-MW1DD038	
Field Sample Depth (ft bgs)		21		21		21		38		38		38	
QC Code		FS		FS		FS		FS		FS		FS	
Parameter Name	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	**0.34**	J	**0.33**	J	1	U	1	U	1	U	1	U
1,1,2-Trichloroethane	1	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	5	**1.8**		**2**		**1.2**		1	U	1	U	1	U
1,1-Dichloroethene	5	**0.95**	J	**0.91**	J	**0.68**	J	1	U	1	U	1	U
Acetone	50*	10	U	10	U	**1.4**	J	10	U	**3.9**	J	10	U
Benzene	1	1	U	1	U	1	U	1	U	1	U	1	U
Carbon disulfide	60*	1	U	**0.31**	J	1	U	1	U	**0.3**	J	1	U
Chloroform	7	1	U	1	U	1	U	1	U	1	U	1	U
Cis-1,2-Dichloroethene	5	**180**		**260**	D	**250**	D	1	U	1	U	1	U
Cyclohexane	NS	1	U	1	U	2	U	1	U	1	U	2	U
Methyl cyclohexane	NS	1	U	1	U	1	U	1	U	1	U	1	U
Methyl Tertbutyl Ether	10*	1	U	1	U	1	U	1	U	1	U	1	U
Methylene chloride	5	1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	5	**1**		**1.2**		1	U	1	U	1	U	1	U
Toluene	5	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	5	**1.5**		**4.8**		**2.4**		1	U	1	U	1	U
Trichloroethene	5	**190**	D	**270**	D	**100**		1	U	1	U	1	U
Vinyl chloride	2	**11**		**24**		**41**		1	U	1	U	1	U
Xylene, o	5	1	U	1	U	1	U	1	U	1	U	1	U
Xylenes (m&p)	5	1	U	1	U	2	U	1	U	1	U	2	U

Notes:
Results reported in micrograms per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method SW8260B
ft bgs = feet below ground surface
QC Code:
FS = Field Sample, FD = Field Duplicate
Qualifiers:
U = Not detected greater than the reporting limit
J = Estimated value
D = Result from diluted run
Criteria = Groundwater guidance or standard values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).
* = Guidance Value
NYS, 1999. New York Codes, Rules, and Regulations, Title 6, Part 700-705 Water Quality Regulations Surface Water and Groundwater Classifications and Standards. Amended August 1999
NS = No standard or guidance value for compound
Bold = Compound detected in sample
Highlighted results exceed criteria

Table 3: Historical Groundwater VOC Results

Location ID		MW-2						MW-2D					
Field Sample Date		7/23/2008		7/11/2012		7/11/2012		1/14/2008		7/23/2008		7/11/2012	
Field Sample ID		MW002000901		828072-MW002009		828072-MW002009D		828072-MW02D017		MW02D01701		828072-MW02D017	
Field Sample Depth (ft bgs)		9		9		9		17		17		17	
QC Code		FS		FS		FD		FS		FS		FS	
Parameter Name	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	10	U	25	U	10	U	1	U	**0.47**	J	**0.24**	J
1,1,2-Trichloroethane	1	**3.5**	J	25	U	10	U	1	U	1	U	1	U
1,1-Dichloroethane	5	10	U	25	U	10	U	**1.3**		**2.3**		**1.2**	
1,1-Dichloroethene	5	**20**		**17**	J	**8.7**	J	1	U	**0.24**	J	1	U
Acetone	50*	100	U	250	U	100	U	10	U	10	U	10	U
Benzene	1	10	U	25	U	10	U	1	U	1	U	1	U
Carbon disulfide	60*	10	U	25	U	10	U	1	U	1	U	1	U
Chloroform	7	10	U	25	U	10	U	1	U	1	U	1	U
Cis-1,2-Dichloroethene	5	**5900**	D	**5500**	D	**4900**	D	**20**		**72**		**37**	
Cyclohexane	NS	10	U	50	U	20	U	1	U	1	U	2	U
Methyl cyclohexane	NS	10	U	25	U	10	U	1	U	1	U	1	U
Methyl Tertbutyl Ether	10*	10	U	25	U	10	U	1	U	1	U	1	U
Methylene chloride	5	**2.5**	J	25	U	10	U	1	U	1	U	1	U
Tetrachloroethene	5	10	U	25	U	**2.9**	J	1	U	1	U	**100**	
Toluene	5	10	U	25	U	10	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	5	**66**		**37**		**21**		**0.56**	J	**3.3**		**1.4**	
Trichloroethene	5	**3300**	D	**660**		**450**		**0.38**	J	1	U	**28**	
Vinyl chloride	2	**170**		**260**	J	**43**	J	**1.6**		**7.7**		**8.7**	
Xylene, o	5	10	U	25	U	10	U	1	U	1	U	1	U
Xylenes (m&p)	5	10	U	50	U	20	U	1	U	1	U	2	U

Notes:
Results reported in micrograms per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method SW8260B
ft bgs = feet below ground surface
QC Code:
FS = Field Sample, FD = Field Duplicate
Qualifiers:
U = Not detected greater than the reporting limit
J = Estimated value
D = Result from diluted run
Criteria = Groundwater guidance or standard values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).
* = Guidance Value
NYS, 1999. New York Codes, Rules, and Regulations, Title 6, Part 700-705 Water Quality Regulations Surface Water and Groundwater Classifications and Standards. Amended August 1999
NS = No standard or guidance value for compound
Bold = Compound detected in sample
Highlighted results exceed criteria

Table 3: Historical Groundwater VOC Results

Location ID		MW-3				MW-3D						MW-5	
Field Sample Date		7/7/2008		7/11/2012		1/16/2008		7/22/2008		7/11/2012		1/15/2008	
Field Sample ID		828072-MW003		828072-MW00306		828072-MW03D013		MW03D01301		828072-MW03D020		828072-MW005006	
Field Sample Depth (ft bgs)		6		6		13		13		20		6	
QC Code		FS		FS		FS		FS		FS		FS	
Parameter Name	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Qualifier	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	1000	U	2000	U	**0.27**	J	**0.35**	J	1	U	1	U
1,1,2-Trichloroethane	1	1000	U	2000	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	5	1000	U	2000	U	**1.3**		**2.5**		**1.9**		**0.93**	J
1,1-Dichloroethene	5	1000	U	2000	U	**0.3**	J	**0.41**	J	1	U	1	U
Acetone	50*	**1400**	J	20000	U	10	U	10	U	10	U	10	U
Benzene	1	1000	U	2000	U	1	U	1	U	1	U	1	U
Carbon disulfide	60*	490	U	2000	U	1	U	**0.26**	J	1	U	1	U
Chloroform	7	1000	U	2000	U	1	U	1	U	1	U	1	U
Cis-1,2-Dichloroethene	5	**180000**		**150000**		**47**		**160**		**65**		**0.49**	J
Cyclohexane	NS	1000	U	4000	U	1	U	1	U	2	U	1	U
Methyl cyclohexane	NS	1000	U	2000	U	1	U	1	U	1	U	1	U
Methyl Tertbutyl Ether	10*	1000	U	2000	U	1	U	1	U	1	U	1	U
Methylene chloride	5	1000	U	2000	U	1	U	1	U	1	U	1	U
Tetrachloroethene	5	1000	U	2000	U	1	U	1	U	1	U	1	U
Toluene	5	1000	U	2000	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	5	**1100**		**820**	J	**1.2**		**3.7**		**4.4**		1	U
Trichloroethene	5	**500000**	D	**650000**	D	**17**		**44**		1	U	1	U
Vinyl chloride	2	**7400**		**6500**		**5.6**		**13**		**22**		**0.26**	J
Xylene, o	5	1000	U	2000	U	1	U	1	U	1	U	1	U
Xylenes (m&p)	5	1000	U	4000	U	1	U	1	U	2	U	1	U

Notes:
Results reported in micrograms per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method SW8260B
ft bgs = feet below ground surface
QC Code:
FS = Field Sample, FD = Field Duplicate
Qualifiers:
U = Not detected greater than the reporting limit
J = Estimated value
D = Result from diluted run
Criteria = Groundwater guidance or standard values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).
* = Guidance Value
NYS, 1999. New York Codes, Rules, and Regulations, Title 6, Part 700-705 Water Quality Regulations Surface Water and Groundwater Classifications and Standards. Amended August 1999
NS = No standard or guidance value for compound
Bold = Compound detected in sample
Highlighted results exceed criteria

Table 3: Historical Groundwater VOC Results

	Location ID	MW-5		MW-5D				MW-6					
	Field Sample Date	7/21/2008		1/14/2008		7/21/2008		1/16/2008		7/21/2008		7/12/2012	
	Field Sample ID	MW00500601		828072-MW05D010		MW05D01001		828072-MW006008		MW00600101		828072-MW006008	
	Field Sample Depth (ft bgs)	6		10		10		8		10		8	
	QC Code	FS		FS		FS		FS		FS		FS	
Parameter Name	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	1	U	1	U	1	U	1	U	1	U	1	U
1,1,2-Trichloroethane	1	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	5	**0.91**	J	**0.71**	J	**0.4**	J	1	U	1	U	1	U
1,1-Dichloroethene	5	1	U	1	U	1	U	1	U	1	U	1	U
Acetone	50*	**4**	J	10	U	10	U	10	U	**6.1**	J	**2.8**	J
Benzene	1	1	U	1	U	1	U	1	U	1	U	1	U
Carbon disulfide	60*	1	U	1	U	**0.43**	J	1	U	**0.22**	J	1	U
Chloroform	7	1	U	1	U	1	U	1	U	1	U	1	U
Cis-1,2-Dichloroethene	5	**0.58**	J	1	U	1	U	**1.2**		**2.2**		**0.76**	J
Cyclohexane	NS	1	U	1	U	1	U	1	U	1	U	2	U
Methyl cyclohexane	NS	1	U	1	U	1	U	1	U	1	U	1	U
Methyl Tertbutyl Ether	10*	1	U	1	U	1	U	1	U	1	U	1	U
Methylene chloride	5	1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	5	1	U	1	U	1	U	1	U	1	U	1	U
Toluene	5	1	U	1	U	**0.2**	J	1	U	1	U	1	U
trans-1,2-Dichloroethene	5	1	U	1	U	1	U	1	U	1	U	1	U
Trichloroethene	5	1	U	**0.41**	J	1	U	1	U	1	U	**1.1**	
Vinyl chloride	2	**0.43**	J	1	U	1	U	1	U	1	U	1	U
Xylene, o	5	1	U	1	U	1	U	1	U	1	U	1	U
Xylenes (m&p)	5	1	U	1	U	1	U	1	U	1	U	2	U

Notes:
Results reported in micrograms per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method SW8260B
ft bgs = feet below ground surface
QC Code:
FS = Field Sample, FD = Field Duplicate
Qualifiers:
U = Not detected greater than the reporting limit
J = Estimated value
D = Result from diluted run
Criteria = Groundwater guidance or standard values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).
* = Guidance Value
NYS, 1999. New York Codes, Rules, and Regulations, Title 6, Part 700-705 Water Quality Regulations Surface Water and Groundwater Classifications and Standards. Amended August 1999
NS = No standard or guidance value for compound
Bold = Compound detected in sample
Highlighted results exceed criteria

Table 3: Historical Groundwater VOC Results

Location ID		MW-6D						MW-7					
Field Sample Date		1/16/2008		7/23/2008		7/12/2012		1/16/2008		7/21/2008		7/12/2012	
Field Sample ID		828072-MW06D015		MW06D01501		828072-MW06D015		828072-MW007015		MW00701501		828072-MW007015	
Field Sample Depth (ft bgs)		15		15		15		15		15		15	
QC Code		FS		FS		FS		FS		FS		FS	
Parameter Name	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	**0.57**	J	**0.74**	J	1	U	1	U	1	U	1	U
1,1,2-Trichloroethane	1	1	U	2	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	5	**1.5**		**2.6**		**1.1**		1	U	1	U	1	U
1,1-Dichloroethene	5	**0.96**	J	**1**	J	1	U	1	U	1	U	1	U
Acetone	50*	10	U	20	U	10	U	10	U	**2**	J	**1.7**	J
Benzene	1	1	U	2	U	1	U	1	U	1	U	1	U
Carbon disulfide	60*	1	U	**0.62**	J	1	U	1	U	**0.2**	J	1	U
Chloroform	7	1	U	2	U	1	U	1	U	1	U	1	U
Cis-1,2-Dichloroethene	5	**220**	D	**380**		**76**		**0.45**	J	**0.36**	J	**0.94**	J
Cyclohexane	NS	1	U	2	U	2	U	1	U	1	U	2	U
Methyl cyclohexane	NS	1	U	2	U	1	U	1	U	1	U	1	U
Methyl Tertbutyl Ether	10*	1	U	2	U	1	U	1	U	1	U	1	U
Methylene chloride	5	1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	5	**0.81**	J	**0.86**	J	1	U	1	U	1	U	**0.4**	J
Toluene	5	1	U	2	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	5	**1.8**		**4.8**		**4.7**		1	U	1	U	1	U
Trichloroethene	5	**310**	D	**490**	D	**0.46**	J	1	U	1	U	1	U
Vinyl chloride	2	**16**		**38**		**40**		1	U	1	U	**1.5**	
Xylene, o	5	1	U	2	U	1	U	1	U	1	U	1	U
Xylenes (m&p)	5	1	U	2	U	2	U	1	U	1	U	2	U

Notes:
Results reported in micrograms per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method SW8260B
ft bgs = feet below ground surface
QC Code:
FS = Field Sample, FD = Field Duplicate
Qualifiers:
U = Not detected greater than the reporting limit
J = Estimated value
D = Result from diluted run
Criteria = Groundwater guidance or standard values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).
* = Guidance Value
NYS, 1999. New York Codes, Rules, and Regulations, Title 6, Part 700-705 Water Quality Regulations Surface Water and Groundwater Classifications and Standards. Amended August 1999
NS = No standard or guidance value for compound
Bold = Compound detected in sample
Highlighted results exceed criteria

Table 3: Historical Groundwater VOC Results

Location ID		MW-7D						MW-8					
Field Sample Date		1/16/2008		7/21/2008		7/12/2012		1/16/2008		1/16/2008		7/24/2008	
Field Sample ID		828072-MW07D022		MW07D02201		828072-MW07D022		828072-MW008023		828072-MW008023DUP		MW00802301	
Field Sample Depth (ft bgs)		22		22		22		23		23		23	
QC Code		FS		FS		FS		FS		FD		FS	
Parameter Name	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	**0.45**	J	**0.28**	J	1	U	10	U	5	U	10	U
1,1,2-Trichloroethane	1	1	U	1	U	1	U	10	U	5	U	10	U
1,1-Dichloroethane	5	**1.3**		**1.4**		**1**		**15**		**15**		**16**	
1,1-Dichloroethene	5	1	U	**0.2**	J	1	U	**6**	J	**6**		**5.7**	J
Acetone	50*	10	U	10	U	10	U	100	U	50	U	100	U
Benzene	1	1	U	1	U	1	U	10	U	5	U	10	U
Carbon disulfide	60*	1	U	1	U	1	U	10	U	5	U	10	U
Chloroform	7	1	U	1	U	1	U	10	U	5	U	10	U
Cis-1,2-Dichloroethene	5	**2.1**		**9.1**		**2.7**		**1700**	D	**1700**	D	**2000**	
Cyclohexane	NS	1	U	1	U	2	U	10	U	5	U	10	U
Methyl cyclohexane	NS	1	U	1	U	1	U	10	U	5	U	10	U
Methyl Tertbutyl Ether	10*	1	U	1	U	1	U	10	U	5	U	10	U
Methylene chloride	5	1	U	1	U	1	U	10	U	5	U	2.7	U
Tetrachloroethene	5	**0.34**	J	1	U	1	U	10	U	5	U	10	U
Toluene	5	1	U	1	U	1	U	10	U	5	U	10	U
trans-1,2-Dichloroethene	5	1	U	1	U	1	U	**18**		**15**		**47**	
Trichloroethene	5	**4.3**		**5.1**		**0.39**	J	**870**		**820**		**640**	
Vinyl chloride	2	1	U	**0.46**	J	**0.32**	J	**43**		**41**		**51**	
Xylene, o	5	1	U	1	U	1	U	10	U	5	U	10	U
Xylenes (m&p)	5	1	U	1	U	2	U	10	U	5	U	10	U

Notes:
Results reported in micrograms per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method SW8260B
ft bgs = feet below ground surface
QC Code:
FS = Field Sample, FD = Field Duplicate
Qualifiers:
U = Not detected greater than the reporting limit
J = Estimated value
D = Result from diluted run
Criteria = Groundwater guidance or standard values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).
* = Guidance Value
NYS, 1999. New York Codes, Rules, and Regulations, Title 6, Part 700-705 Water Quality Regulations Surface Water and Groundwater Classifications and Standards. Amended August 1999
NS = No standard or guidance value for compound
Bold = Compound detected in sample
Highlighted results exceed criteria

Table 3: Historical Groundwater VOC Results

Location ID		MW-8						MW-8D					
Field Sample Date		7/24/2008		7/11/2012		7/11/2012		1/16/2008		7/24/2008		7/11/2012	
Field Sample ID		MW00802301D		828072-MW008023		828072-MW008023D		828072-MW08D033		MW08D03301		828072-MW08D033	
Field Sample Depth (ft bgs)		23		23		23		33		33		33	
QC Code		FD		FS		FD		FS		FS		FS	
Parameter Name	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	10	U	5	U	5	U	**1.5**		**1**	J	1	U
1,1,2-Trichloroethane	1	10	U	5	U	5	U	1	U	5	U	1	U
1,1-Dichloroethane	5	**17**		**10**		**11**		**1.8**		**2.6**	J	**0.57**	J
1,1-Dichloroethene	5	**6.3**	J	**3.4**	J	**2.8**	J	**1.8**		**1.6**	J	**0.56**	J
Acetone	50*	100	U	50	U	50	U	10	U	13	U	10	U
Benzene	1	10	U	5	U	5	U	1	U	5	U	1	U
Carbon disulfide	60*	10	U	5	U	5	U	1	U	5	U	**0.32**	J
Chloroform	7	10	U	5	U	5	U	1	U	5	U	1	U
Cis-1,2-Dichloroethene	5	**2000**		**1300**	D	**1400**	D	**330**	D	**330**		**170**	
Cyclohexane	NS	10	U	10	U	10	U	1	U	5	U	2	U
Methyl cyclohexane	NS	10	U	5	U	5	U	1	U	5	U	1	U
Methyl Tertbutyl Ether	10*	10	U	5	U	5	U	1	U	5	U	1	U
Methylene chloride	5	2.3	U	5	U	5	U	1	U	1.2	U	1	U
Tetrachloroethene	5	10	U	5	U	5	U	**1.7**		**1**	J	1	U
Toluene	5	10	U	5	U	5	U	1	U	5	U	1	U
trans-1,2-Dichloroethene	5	**42**		**17**		**15**		**3.6**		**4.4**	J	**13**	
Trichloroethene	5	**610**		**17**		**21**		**590**	D	**660**		**79**	
Vinyl chloride	2	**53**		**89**		**93**		**20**		**22**		**8.7**	
Xylene, o	5	10	U	5	U	5	U	1	U	5	U	1	U
Xylenes (m&p)	5	10	U	10	U	10	U	1	U	5	U	2	U

Notes:
Results reported in micrograms per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method SW8260B
ft bgs = feet below ground surface
QC Code:
FS = Field Sample, FD = Field Duplicate
Qualifiers:
U = Not detected greater than the reporting limit
J = Estimated value
D = Result from diluted run
Criteria = Groundwater guidance or standard values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).
* = Guidance Value
NYS, 1999. New York Codes, Rules, and Regulations, Title 6, Part 700-705 Water Quality Regulations Surface Water and Groundwater Classifications and Standards. Amended August 1999
NS = No standard or guidance value for compound
Bold = Compound detected in sample
Highlighted results exceed criteria

Table 3: Historical Groundwater VOC Results

Location ID		MW-9						MW-9D					
Field Sample Date		1/16/2008		7/22/2008		7/11/2012		1/16/2008		7/22/2008		7/11/2012	
Field Sample ID		828072-MW009025		MW00902501		828072-MW009025		828072-MW09D035		MW09D03501		828072-MW09D035	
Field Sample Depth (ft bgs)		25		25		25		35		35		35	
QC Code		FS		FS		FS		FS		FS		FS	
Parameter Name	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	**0.2**	J	**0.2**	J	1	U	**0.61**	J	**0.79**	J	1	U
1,1,2-Trichloroethane	1	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	5	**1.4**		**1.4**		**1.7**		**0.64**	J	**3.6**		**0.53**	J
1,1-Dichloroethene	5	**0.33**	J	**0.29**	J	**0.51**	J	1	U	**1.2**		**0.31**	J
Acetone	50*	10	U	**2.3**	J	10	U	10	U	10	U	10	U
Benzene	1	1	U	1	U	1	U	1	U	1	U	1	U
Carbon disulfide	60*	1	U	**0.2**	J	1	U	1	U	1	U	1	U
Chloroform	7	1	U	1	U	1	U	1	U	1	U	1	U
Cis-1,2-Dichloroethene	5	**57**		**53**		**130**		**14**		**290**	D	**120**	
Cyclohexane	NS	1	U	1	U	2	U	1	U	1	U	2	U
Methyl cyclohexane	NS	1	U	1	U	1	U	1	U	1	U	1	U
Methyl Tertbutyl Ether	10*	1	U	1	U	1	U	1	U	1	U	1	U
Methylene chloride	5	1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	5	1	U	1	U	1	U	**0.22**	J	**1.1**		1	U
Toluene	5	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	5	**0.33**	J	**0.92**	J	**0.7**	J	**0.42**	J	**3.9**		**20**	
Trichloroethene	5	**38**		**27**		**59**		**44**		**1100**	D	**41**	
Vinyl chloride	2	**4.2**		**6**		**12**		**0.88**	J	**30**		**4.6**	
Xylene, o	5	1	U	1	U	1	U	1	U	1	U	1	U
Xylenes (m&p)	5	1	U	1	U	2	U	1	U	1	U	2	U

Notes:
Results reported in micrograms per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method SW8260B
ft bgs = feet below ground surface
QC Code:
FS = Field Sample, FD = Field Duplicate
Qualifiers:
U = Not detected greater than the reporting limit
J = Estimated value
D = Result from diluted run
Criteria = Groundwater guidance or standard values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).
* = Guidance Value
NYS, 1999. New York Codes, Rules, and Regulations, Title 6, Part 700-705 Water Quality Regulations Surface Water and Groundwater Classifications and Standards. Amended August 1999
NS = No standard or guidance value for compound
Bold = Compound detected in sample
Highlighted results exceed criteria

Table 3: Historical Groundwater VOC Results

Location ID		MW-10						MW-11					
Field Sample Date		1/15/2008		7/21/2008		7/12/2012		1/18/2008		7/24/2008		7/12/2012	
Field Sample ID		828072-MW010015		MW01001501		828072-MW010015		828072-MW011010		MW01101201		828072-MW011010	
Field Sample Depth (ft bgs)		15		15		15		10		12		10	
QC Code		FS		FS		FS		FS		FS		FS	
Parameter Name	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	1	U	1	U	1	U	1	U	1	U	1	U
1,1,2-Trichloroethane	1	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	5	1	U	1	U	1	U	**0.74**	J	**0.64**	J	1	U
1,1-Dichloroethene	5	1	U	1	U	1	U	1	U	1	U	1	U
Acetone	50*	10	U	10	U	10	U	10	U	10	U	**3**	J
Benzene	1	1	U	1	U	1	U	1	U	1	U	1	U
Carbon disulfide	60*	1	U	1	U	1	U	1	U	1	U	1	U
Chloroform	7	1	U	1	U	1	U	1	U	1	U	1	U
Cis-1,2-Dichloroethene	5	1	U	1	U	1	U	**14**		**11**		**0.3**	J
Cyclohexane	NS	1	U	1	U	2	U	1	U	1	U	2	U
Methyl cyclohexane	NS	1	U	1	U	1	U	1	U	1	U	1	U
Methyl Tertbutyl Ether	10*	1	U	1	U	1	U	1	U	1	U	1	U
Methylene chloride	5	1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	5	1	U	1	U	1	U	1	U	1	U	1	U
Toluene	5	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	5	1	U	1	U	1	U	1	U	**0.21**	J	1	U
Trichloroethene	5	1	U	1	U	1	U	1	U	1	U	1	U
Vinyl chloride	2	1	U	1	U	1	U	**19**		**16**		**0.4**	J
Xylene, o	5	1	U	1	U	1	U	1	U	1	U	1	U
Xylenes (m&p)	5	1	U	1	U	2	U	1	U	1	U	2	U

Notes:
Results reported in micrograms per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method SW8260B
ft bgs = feet below ground surface
QC Code:
FS = Field Sample, FD = Field Duplicate
Qualifiers:
U = Not detected greater than the reporting limit
J = Estimated value
D = Result from diluted run
Criteria = Groundwater guidance or standard values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).
* = Guidance Value
NYS, 1999. New York Codes, Rules, and Regulations, Title 6, Part 700-705 Water Quality Regulations Surface Water and Groundwater Classifications and Standards. Amended August 1999
NS = No standard or guidance value for compound
Bold = Compound detected in sample
Highlighted results exceed criteria

Table 3: Historical Groundwater VOC Results

Location ID		MW-11D											
Field Sample Date		1/17/2008		1/17/2008		7/24/2008		7/24/2008		7/12/2012		7/12/2012	
Field Sample ID		828072-MW11D026		828072-MW11D026DUP		MW11D02601		MW11D02601D		828072-MW11D026		828072-MW11D026D	
Field Sample Depth (ft bgs)		26		26		26		26		26		26	
QC Code		FS		FD		FS		FD		FS		FD	
Parameter Name	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	2.5	U	5	U	1	U	1	U	1	U	1	U
1,1,2-Trichloroethane	1	2.5	U	5	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	5	**3.1**	J	**3.2**	J	**2.2**		**2.2**		**1.8**		**2.1**	
1,1-Dichloroethene	5	**2**	J	**2**	J	**0.67**	J	**0.7**	J	**0.95**	J	**1**	
Acetone	50*	25	U	50	U	**1.9**	J	10	U	10	U	**1.1**	J
Benzene	1	2.5	U	5	U	1	U	1	U	1	U	1	U
Carbon disulfide	60*	2.5	U	5	U	1	U	1	U	1	U	1	U
Chloroform	7	2.5	U	5	U	1	U	1	U	1	U	1	U
Cis-1,2-Dichloroethene	5	**490**	J	**490**	DJ	**170**		**170**		**270**	D	**260**	D
Cyclohexane	NS	2.5	U	5	U	1	U	1	U	2	U	2	U
Methyl cyclohexane	NS	2.5	U	5	U	1	U	1	U	1	U	1	U
Methyl Tertbutyl Ether	10*	2.5	U	5	U	1	U	1	U	1	U	1	U
Methylene chloride	5	2.5	U	5	U	1	U	1	U	1	U	1	U
Tetrachloroethene	5	2.5	U	5	U	1	U	1	U	**0.5**	J	**0.43**	J
Toluene	5	2.5	U	5	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	5	**3.2**	J	**3.7**	J	**1.1**		**1.2**		**3.5**		**3.3**	
Trichloroethene	5	**520**	D	**520**	D	**30**		**31**		**2.9**		**3.1**	
Vinyl chloride	2	**34**	J	**35**	J	**6.3**		**6.3**		**12**		**13**	
Xylene, o	5	2.5	U	5	U	1	U	1	U	1	U	1	U
Xylenes (m&p)	5	2.5	U	5	U	1	U	1	U	2	U	2	U

Notes:
Results reported in micrograms per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method SW8260B
ft bgs = feet below ground surface
QC Code:
FS = Field Sample, FD = Field Duplicate
Qualifiers:
U = Not detected greater than the reporting limit
J = Estimated value
D = Result from diluted run
Criteria = Groundwater guidance or standard values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).
* = Guidance Value
NYS, 1999. New York Codes, Rules, and Regulations, Title 6, Part 700-705 Water Quality Regulations Surface Water and Groundwater Classifications and Standards. Amended August 1999
NS = No standard or guidance value for compound
Bold = Compound detected in sample
Highlighted results exceed criteria

Table 3: Historical Groundwater VOC Results

Location ID		MW-12						MW-13				MW-13D	
Field Sample Date		1/15/2008		7/21/2008		7/12/2012		1/18/2008		7/24/2008		1/18/2008	
Field Sample ID		828072-MW012011		MW01201101		828072-MW012011		828072-MW013006		MW01300501		828072-MW13D010	
Field Sample Depth (ft bgs)		11		11		11		6		5		10	
QC Code		FS		FS		FS		FS		FS		FS	
Parameter Name	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	1	U	1	U	1	U	1	U	1	U	1	U
1,1,2-Trichloroethane	1	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	5	1	U	1	U	1	U	1	U	1	U	**1.1**	
1,1-Dichloroethene	5	1	U	1	U	1	U	1	U	1	U	**0.35**	J
Acetone	50*	10	U	**2**	J	**4.6**	J	10	U	**8**	J	10	U
Benzene	1	1	U	1	U	1	U	1	U	1	U	1	U
Carbon disulfide	60*	1	U	1	U	1	U	1	U	1	U	1	U
Chloroform	7	1	U	1	U	1	U	1	U	1	U	1	U
Cis-1,2-Dichloroethene	5	1	U	1	U	1	U	1	U	1	U	**42**	
Cyclohexane	NS	1	U	1	U	2	U	1	U	1	U	1	U
Methyl cyclohexane	NS	1	U	1	U	1	UJ	1	U	1	U	1	U
Methyl Tertbutyl Ether	10*	1	U	1	U	1	U	1	U	1	U	1	U
Methylene chloride	5	1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	5	1	U	1	U	1	U	1	U	1	U	1	U
Toluene	5	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	5	1	U	1	U	1	U	1	U	1	U	**0.29**	J
Trichloroethene	5	1	U	1	U	1	U	**0.71**	J	1	U	**19**	
Vinyl chloride	2	1	U	1	U	1	U	1	U	1	U	**3.4**	
Xylene, o	5	1	U	1	U	1	U	1	U	1	U	1	U
Xylenes (m&p)	5	1	U	1	U	2	U	1	U	1	U	1	U

Notes:
Results reported in micrograms per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method SW8260B
ft bgs = feet below ground surface
QC Code:
FS = Field Sample, FD = Field Duplicate
Qualifiers:
U = Not detected greater than the reporting limit
J = Estimated value
D = Result from diluted run
Criteria = Groundwater guidance or standard values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).
* = Guidance Value
NYS, 1999. New York Codes, Rules, and Regulations, Title 6, Part 700-705 Water Quality Regulations Surface Water and Groundwater Classifications and Standards. Amended August 1999
NS = No standard or guidance value for compound
Bold = Compound detected in sample
Highlighted results exceed criteria

Table 3: Historical Groundwater VOC Results

Location ID		MW-13D				MW-13DD						MW-14	
Field Sample Date		7/23/2008		7/11/2012		1/18/2008		7/23/2008		7/11/2012		1/17/2008	
Field Sample ID		MW13D01001		828072-MW13D010		828072-MW13DD037		MW13DD03701		828072-MW13DD037		828072-MW014015	
Field Sample Depth (ft bgs)		10		10		37		37		37		15	
QC Code		FS		FS		FS		FS		FS		FS	
Parameter Name	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	1	U	1	U	**0.21**	J	1	U	1	U	1	U
1,1,2-Trichloroethane	1	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	5	**1.2**		**0.87**	J	**0.95**	J	**1.8**		**1.6**		**1.4**	
1,1-Dichloroethene	5	**0.34**	J	**0.31**	J	**0.27**	J	**0.33**	J	**0.36**	J	**0.26**	J
Acetone	50*	10	U	**2.3**	J	10	U	10	U	10	U	10	U
Benzene	1	1	U	1	U	1	U	1	U	1	U	1	U
Carbon disulfide	60*	**0.2**	J	1	U	1	U	1	U	**1.5**		1	U
Chloroform	7	1	U	1	U	1	U	1	U	1	U	1	U
Cis-1,2-Dichloroethene	5	**57**		**71**		**35**		**71**		**100**		**50**	
Cyclohexane	NS	1	U	2	U	1	U	1	U	2	U	**0.25**	J
Methyl cyclohexane	NS	1	U	1	U	1	U	1	U	1	U	**0.32**	J
Methyl Tertbutyl Ether	10*	1	U	1	U	1	U	1	U	1	U	1	U
Methylene chloride	5	1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	5	1	U	1	U	1	U	1	U	1	U	1	U
Toluene	5	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	5	**1.2**		**1.3**		**0.22**	J	**1.5**		**0.7**	J	**0.24**	J
Trichloroethene	5	**42**		**45**		**37**		**73**		**100**		**18**	
Vinyl chloride	2	**5.5**		**5.4**		**1.7**		**6.8**		**9.6**		**3.3**	
Xylene, o	5	1	U	1	U	1	U	1	U	1	U	1	U
Xylenes (m&p)	5	1	U	2	U	1	U	1	U	2	U	1	U

Notes:
Results reported in micrograms per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method SW8260B
ft bgs = feet below ground surface
QC Code:
FS = Field Sample, FD = Field Duplicate
Qualifiers:
U = Not detected greater than the reporting limit
J = Estimated value
D = Result from diluted run
Criteria = Groundwater guidance or standard values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).
* = Guidance Value
NYS, 1999. New York Codes, Rules, and Regulations, Title 6, Part 700-705 Water Quality Regulations Surface Water and Groundwater Classifications and Standards. Amended August 1999
NS = No standard or guidance value for compound
Bold = Compound detected in sample
Highlighted results exceed criteria

Table 3: Historical Groundwater VOC Results

Location ID		MW-14				MW-14D						MW-15	
Field Sample Date		7/22/2008		7/11/2012		1/17/2008		7/22/2008		7/11/2012		1/18/2008	
Field Sample ID		MW01401501		828072-MW014015		828072-MW14D029		MW14D02901		828072-MW14D029		828072-MW015006	
Field Sample Depth (ft bgs)		15		15		29		29		29		6	
QC Code		FS		FS		FS		FS		FS		FS	
Parameter Name	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	1	U	1	U	**0.78**	J	**0.71**	J	**0.28**	J	1	U
1,1,2-Trichloroethane	1	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	5	**1.6**		**1.5**		**1**		**1.1**		**1.4**		**1**	
1,1-Dichloroethene	5	**0.51**	J	**0.45**	J	**0.25**	J	**0.27**	J	**0.3**	J	**0.3**	J
Acetone	50*	10	U	**1**	J	10	U	10	U	10	U	10	U
Benzene	1	**0.25**	J	1	U	1	U	1	U	1	U	**0.97**	J
Carbon disulfide	60*	**0.22**	J	1	U	1	U	1	U	1	U	1	U
Chloroform	7	1	U	1	U	1	U	1	U	1	U	1	U
Cis-1,2-Dichloroethene	5	**89**		**140**		**25**		**22**		**35**		**170**	
Cyclohexane	NS	1	U	2	U	1	U	1	U	2	U	1	U
Methyl cyclohexane	NS	1	U	1	U	1	U	1	U	1	U	**0.4**	J
Methyl Tertbutyl Ether	10*	1	U	1	U	1	U	1	U	1	U	**0.83**	J
Methylene chloride	5	1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	5	1	U	1	U	**0.23**	J	1	U	1	U	1	U
Toluene	5	1	U	1	U	1	U	1	U	1	U	**0.94**	J
trans-1,2-Dichloroethene	5	**0.71**	J	**1.4**		1	U	**0.34**	J	**0.49**	J	**1.8**	
Trichloroethene	5	**31**		**63**		**45**		**38**		**32**		**33**	
Vinyl chloride	2	**7.2**		**24**		**1.5**		**2.2**		**1.5**		**11**	
Xylene, o	5	1	U	1	U	1	U	1	U	1	U	**0.23**	J
Xylenes (m&p)	5	1	U	2	U	1	U	1	U	2	U	**0.45**	J

Notes:
Results reported in micrograms per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method SW8260B
ft bgs = feet below ground surface
QC Code:
FS = Field Sample, FD = Field Duplicate
Qualifiers:
U = Not detected greater than the reporting limit
J = Estimated value
D = Result from diluted run
Criteria = Groundwater guidance or standard values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).
* = Guidance Value
NYS, 1999. New York Codes, Rules, and Regulations, Title 6, Part 700-705 Water Quality Regulations Surface Water and Groundwater Classifications and Standards. Amended August 1999
NS = No standard or guidance value for compound
Bold = Compound detected in sample
Highlighted results exceed criteria

Table 3: Historical Groundwater VOC Results

Location ID		MW-15D						MW-16					
Field Sample Date		1/17/2008		7/24/2008		7/12/2012		1/18/2008		7/23/2008		7/12/2012	
Field Sample ID		828072-MW15D019		MW15D01901		828072-MW15D019		828072-MW016008		MW01600101		828072-MW016008	
Field Sample Depth (ft bgs)		19		19		19		8		10		8	
QC Code		FS		FS		FS		FS		FS		FS	
Parameter Name	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	2.5	U	2.5	U	1	U	1	U	1	U	1	U
1,1,2-Trichloroethane	1	2.5	U	2.5	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	5	**2.4**	J	**2.5**	J	**2**		1	U	1	U	1	U
1,1-Dichloroethene	5	**1.2**	J	**1**	J	**0.91**	J	1	U	1	U	1	U
Acetone	50*	10	U	10	U	**1.1**	J	10	U	10	U	10	U
Benzene	1	2.5	U	2.5	U	1	U	1	U	1	U	1	U
Carbon disulfide	60*	2.5	U	2.5	U	1	U	1	U	1	U	1	U
Chloroform	7	2.5	U	2.5	U	1	U	1	U	1	U	1	U
Cis-1,2-Dichloroethene	5	**260**		**250**		**290**	D	1	U	1	U	1	U
Cyclohexane	NS	2.5	U	2.5	U	2	U	1	U	1	U	2	U
Methyl cyclohexane	NS	2.5	U	2.5	U	1	U	1	U	1	U	1	U
Methyl Tertbutyl Ether	10*	2.5	U	2.5	U	1	U	1	U	1	U	1	U
Methylene chloride	5	2.5	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	5	2.5	U	2.5	U	1	U	1	U	1	U	1	U
Toluene	5	2.5	U	2.5	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	5	**2**	J	**5.2**		**2.2**		1	U	1	U	1	U
Trichloroethene	5	**410**		**50**		**51**		1	U	1	U	1	U
Vinyl chloride	2	**15**		**12**		**19**		1	U	1	U	1	U
Xylene, o	5	2.5	U	2.5	U	1	U	1	U	1	U	1	U
Xylenes (m&p)	5	2.5	U	2.5	U	2	U	1	U	1	U	2	U

Notes:
Results reported in micrograms per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method SW8260B
ft bgs = feet below ground surface
QC Code:
FS = Field Sample, FD = Field Duplicate
Qualifiers:
U = Not detected greater than the reporting limit
J = Estimated value
D = Result from diluted run
Criteria = Groundwater guidance or standard values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).
* = Guidance Value
NYS, 1999. New York Codes, Rules, and Regulations, Title 6, Part 700-705 Water Quality Regulations Surface Water and Groundwater Classifications and Standards. Amended August 1999
NS = No standard or guidance value for compound
Bold = Compound detected in sample
Highlighted results exceed criteria

Table 3: Historical Groundwater VOC Results

Location ID		MW-16D				MW-17				MW-17D			
Field Sample Date		7/22/2008		7/12/2012		1/17/2008		7/22/2008		1/17/2008		7/21/2008	
Field Sample ID		MW16D01901		828072-MW16D019		828072-MW017007		MW01700701		828072-MW17D018		MW17D01801	
Field Sample Depth (ft bgs)		19		19		7		7		18		18	
QC Code		FS		FS		FS		FS		FS		FS	
Parameter Name	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	1	U	1	U	1	U	1	U	1	U	1	U
1,1,2-Trichloroethane	1	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	5	**2**		**0.56**	J	1	U	1	U	**0.21**	J	**0.25**	J
1,1-Dichloroethene	5	**1.2**		1	U	1	U	1	U	1	U	1	U
Acetone	50*	**1.7**	J	**1.2**	J	10	U	**12**		10	U	10	U
Benzene	1	1	U	1	U	1	U	1	U	1	U	1	U
Carbon disulfide	60*	1	U	1	U	1	U	**0.2**	J	1	U	1	U
Chloroform	7	1	U	1	U	1	U	1	U	1	U	1	U
Cis-1,2-Dichloroethene	5	**230**	D	**23**		1	U	1	U	**15**		**11**	
Cyclohexane	NS	1	U	2	U	1	U	1	U	1	U	1	U
Methyl cyclohexane	NS	1	U	1	U	1	U	1	U	1	U	1	U
Methyl Tertbutyl Ether	10*	1	U	1	U	1	U	1	U	1	U	1	U
Methylene chloride	5	1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	5	1	U	1	U	1	U	1	U	1	U	1	U
Toluene	5	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	5	**2.6**		**0.48**	J	1	U	1	U	**0.44**	J	**0.43**	J
Trichloroethene	5	**14**		**0.29**	J	1	U	1	U	**0.61**	J	**0.31**	J
Vinyl chloride	2	**11**		**31**		1	U	1	U	**7.8**		**14**	
Xylene, o	5	1	U	1	U	1	U	1	U	1	U	1	U
Xylenes (m&p)	5	1	U	2	U	1	U	1	U	1	U	1	U

Notes:
Results reported in micrograms per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method SW8260B
ft bgs = feet below ground surface
QC Code:
FS = Field Sample, FD = Field Duplicate
Qualifiers:
U = Not detected greater than the reporting limit
J = Estimated value
D = Result from diluted run
Criteria = Groundwater guidance or standard values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).
* = Guidance Value
NYS, 1999. New York Codes, Rules, and Regulations, Title 6, Part 700-705 Water Quality Regulations Surface Water and Groundwater Classifications and Standards. Amended August 1999
NS = No standard or guidance value for compound
Bold = Compound detected in sample
Highlighted results exceed criteria

Table 3: Historical Groundwater VOC Results

	Location ID	MW-17D		MW-18						MW-18D			
	Field Sample Date	7/12/2012		1/15/2008		7/24/2008		7/12/2012		1/17/2008		7/24/2008	
	Field Sample ID	828072-MW17D018		828072-MW018009		MW01800901		828072-MW018009		828072-MW18D019		MW18D01901	
	Field Sample Depth (ft bgs)	18		9		9		9		19		19	
	QC Code	FS		FS		FS		FS		FS		FS	
Parameter Name	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	1	U	2.5	U	2.5	U	1	U	2.5	U	1	U
1,1,2-Trichloroethane	1	1	U	2.5	U	2.5	U	1	U	2.5	U	1	U
1,1-Dichloroethane	5	1	U	**3.2**		**3.6**		**2**		**1.7**	J	**1.6**	
1,1-Dichloroethene	5	1	U	**0.8**	J	2.5	U	1	U	**0.62**	J	**0.67**	J
Acetone	50*	10	U	25	U	10	U	**1.3**	J	10	U	10	U
Benzene	1	1	U	2.5	U	2.5	U	1	U	2.5	U	1	U
Carbon disulfide	60*	1	U	**0.88**	J	**0.6**	J	1	U	2.5	U	**0.37**	J
Chloroform	7	1	U	2.5	U	2.5	U	1	U	2.5	U	1	U
Cis-1,2-Dichloroethene	5	**4.4**		**380**	D	**320**		**54**		**280**		**180**	D
Cyclohexane	NS	2	U	2.5	U	2.5	U	2	U	2.5	U	1	U
Methyl cyclohexane	NS	1	U	2.5	U	2.5	U	1	UJ	2.5	U	1	U
Methyl Tertbutyl Ether	10*	1	U	2.5	U	2.5	U	1	U	2.5	U	1	U
Methylene chloride	5	1	U	2.5	U	2.5	U	1	U	2.5	U	1	U
Tetrachloroethene	5	1	U	2.5	U	2.5	U	**0.31**	J	2.5	U	1	U
Toluene	5	1	U	2.5	U	2.5	U	1	U	2.5	U	1	U
trans-1,2-Dichloroethene	5	1	U	**1.4**	J	**5**		**1.3**		**1.5**	J	**2.6**	
Trichloroethene	5	1	U	**0.92**	J	2.5	U	**0.23**	J	**26**		**8.9**	
Vinyl chloride	2	**4.5**		**18**		**120**		**55**		**19**		**12**	
Xylene, o	5	1	U	2.5	U	2.5	U	1	U	2.5	U	1	U
Xylenes (m&p)	5	2	U	2.5	U	2.5	U	2	U	2.5	U	1	U

Notes:
Results reported in micrograms per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method SW8260B
ft bgs = feet below ground surface
QC Code:
FS = Field Sample, FD = Field Duplicate
Qualifiers:
U = Not detected greater than the reporting limit
J = Estimated value
D = Result from diluted run
Criteria = Groundwater guidance or standard values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).
* = Guidance Value
NYS, 1999. New York Codes, Rules, and Regulations, Title 6, Part 700-705 Water Quality Regulations Surface Water and Groundwater Classifications and Standards. Amended August 1999
NS = No standard or guidance value for compound
Bold = Compound detected in sample
Highlighted results exceed criteria

Table 3: Historical Groundwater VOC Results

Location ID		MW-18D		MW-19						MW-19D			
Field Sample Date		7/12/2012		1/15/2008		7/23/2008		3/11/2009		1/15/2008		7/22/2008	
Field Sample ID		828072-MW18D019		828072-MW019006		MW01900601		828072-MW01900603		828072-MW19D014		MW19D01401	
Field Sample Depth (ft bgs)		19		6		6		6		14		14	
QC Code		FS		FS		FS		FS		FS		FS	
Parameter Name	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	1	U	1	U	1	U	1	U	1	U	1	U
1,1,2-Trichloroethane	1	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	5	**1.2**		**0.87**	J	1	U	1	U	**0.22**	J	**0.35**	J
1,1-Dichloroethene	5	1	U	1	U	1	U	1	U	1	U	1	U
Acetone	50*	**1.1**	J	10	U	10	U	10	UJ	10	U	**2.3**	J
Benzene	1	1	U	1	U	1	U	1	U	1	U	1	U
Carbon disulfide	60*	1	U	1	U	**0.26**	J	1	UJ	1	U	**0.21**	J
Chloroform	7	1	U	1	U	1	U	1	U	1	U	1	U
Cis-1,2-Dichloroethene	5	**180**		**0.56**	J	1.2	U	1	U	**4.7**		**7.8**	
Cyclohexane	NS	2	U	1	U	1	U	2	U	1	U	1	U
Methyl cyclohexane	NS	1	UJ	1	U	1	U	1	U	1	U	1	U
Methyl Tertbutyl Ether	10*	1	U	1	U	1	U	1	U	1	U	1	U
Methylene chloride	5	1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	5	1	U	1	U	1	U	1	U	1	U	1	U
Toluene	5	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	5	**1.7**		1	U	1	U	1	U	1	U	**0.26**	J
Trichloroethene	5	1	U	1	U	1	U	1	U	1	U	**0.24**	J
Vinyl chloride	2	**34**		**0.27**	J	**4.6**		1	U	**10**		**33**	
Xylene, o	5	1	U	1	U	1	U	1	U	1	U	1	U
Xylenes (m&p)	5	2	U	1	U	1	U	2	U	1	U	1	U

Notes:
Results reported in micrograms per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method SW8260B
ft bgs = feet below ground surface
QC Code:
FS = Field Sample, FD = Field Duplicate
Qualifiers:
U = Not detected greater than the reporting limit
J = Estimated value
D = Result from diluted run
Criteria = Groundwater guidance or standard values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).
* = Guidance Value
NYS, 1999. New York Codes, Rules, and Regulations, Title 6, Part 700-705 Water Quality Regulations Surface Water and Groundwater Classifications and Standards. Amended August 1999
NS = No standard or guidance value for compound
Bold = Compound detected in sample
Highlighted results exceed criteria

Table 3: Historical Groundwater VOC Results

	Location ID	MW-19D		MW-20		MW-20D			
	Field Sample Date	7/12/2012		3/11/2009		7/22/2008		7/12/2012	
	Field Sample ID	828072-MW19D014		828072-MW02000603		MW20D01901		828072-MW20D019	
	Field Sample Depth (ft bgs)	14		6		19		19	
	QC Code	FS		FS		FS		FS	
Parameter Name	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	1	U	1	U	1	U	1	U
1,1,2-Trichloroethane	1	1	U	1	U	1	U	1	U
1,1-Dichloroethane	5	1	U	1	U	**0.42**	J	1	U
1,1-Dichloroethene	5	1	U	1	U	1	U	1	U
Acetone	50*	**1.4**	J	10	UJ	10	U	**1.7**	J
Benzene	1	1	U	1	U	**0.62**	J	1	U
Carbon disulfide	60*	1	U	1	UJ	**0.33**	J	1	U
Chloroform	7	1	U	1	U	**0.39**	J	1	U
Cis-1,2-Dichloroethene	5	**2.1**		1	U	**1.8**		**1.1**	
Cyclohexane	NS	2	U	2	U	**0.57**	J	2	U
Methyl cyclohexane	NS	1	UJ	1	U	**0.81**	J	1	UJ
Methyl Tertbutyl Ether	10*	1	U	1	U	1	U	1	U
Methylene chloride	5	1	U	1	U	1	U	1	U
Tetrachloroethene	5	1	U	1	U	1	U	1	U
Toluene	5	1	U	1	U	**1**		1	U
trans-1,2-Dichloroethene	5	1	U	1	U	1	U	1	U
Trichloroethene	5	1	U	1	U	**0.22**	J	1	U
Vinyl chloride	2	**14**		1	U	**1.6**		**0.54**	J
Xylene, o	5	1	U	1	U	**0.27**	J	1	U
Xylenes (m&p)	5	2	U	2	U	**0.81**	J	2	U

Notes:
Results reported in micrograms per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method SW8260B
ft bgs = feet below ground surface
QC Code:
FS = Field Sample, FD = Field Duplicate
Qualifiers:
U = Not detected greater than the reporting limit
J = Estimated value
D = Result from diluted run
Criteria = Groundwater guidance or standard values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).
* = Guidance Value
NYS, 1999. New York Codes, Rules, and Regulations, Title 6, Part 700-705 Water Quality Regulations Surface Water and Groundwater Classifications and Standards. Amended August 1999
NS = No standard or guidance value for compound
Bold = Compound detected in sample
Highlighted results exceed criteria

Table 3: Historical Groundwater VOC Results

Location ID		GPZ-1D						GPZ-1S1					
Field Sample Date		1/17/2008		7/23/2008		7/12/2012		1/17/2008		7/23/2008		7/12/2012	
Field Sample ID		828072-GPZ1D014		GPZ1D01401		828072-GPZ1D014		828072-GPZ1S1008		GPZ1S100101		828072-GPZ1S1008	
Field Sample Depth (ft bgs)		14		14		14		8		10		8	
QC Code		FS		FS		FS		FS		FS		FS	
Parameter Name	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	1	U	**1**	U	1	U	1	U	1	U	1	U
1,1,2-Trichloroethane	1	**1**	U	**1**	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	5	**10**		**15**		**9.8**		1	U	1	U	1	U
1,1-Dichloroethene	5	**0.23**	J	**0.4**	J	**0.32**	J	1	U	1	U	1	U
Acetone	50*	**10**	U	**10**	U	**4.9**	J	**2.7**	J	10	U	**1.2**	J
Benzene	1	**1**	U	**1**	U	1	U	1	U	1	U	1	U
Carbon disulfide	60*	**1**	U	**0.34**	J	1	U	1	U	**0.28**	J	1	U
Chloroform	7	**1**	U	**1**	U	1	U	1	U	1	U	1	U
Cis-1,2-Dichloroethene	5	**46**		**86**		**83**		1	U	1	U	1	U
Cyclohexane	NS	**1**	U	**1**	U	2	U	1	U	1	U	2	U
Methyl cyclohexane	NS	**1**	U	**1**	U	1	UJ	1	U	1	U	1	U
Methyl Tertbutyl Ether	10*	**1**	U	**1**	U	1	U	1	U	1	U	1	U
Methylene chloride	5	**1**	U	**1**	U	1	U	1	U	1	U	1	U
Tetrachloroethene	5	**1**	U	**1**	U	1	U	1	U	1	U	1	U
Toluene	5	**1**	U	**1**	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	5	**0.36**	J	**1.4**		**2.1**		1	U	1	U	1	U
Trichloroethene	5	**39**		**87**		**38**		1	U	1	U	1	U
Vinyl chloride	2	**23**		**34**		**23**		1	U	1	U	1	U
Xylene, o	5	**1**	U	**1**	U	1	U	1	U	1	U	1	U
Xylenes (m&p)	5	**1**	U	**1**	U	2	U	1	U	1	U	2	U

Notes:

Results reported in micrograms per liter (µg/L)

Only detected compounds shown.

Samples analyzed for VOCs by EPA Method SW8260B

ft bgs = feet below ground surface

QC Code:

FS = Field Sample, FD = Field Duplicate

Qualifiers:

U = Not detected greater than the reporting limit

J = Estimated value

D = Result from diluted run

Criteria = Groundwater guidance or standard values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).

* = Guidance Value

NYS, 1999. New York Codes, Rules, and Regulations, Title 6, Part 700-705 Water Quality Regulations Surface Water and Groundwater Classifications and Standards. Amended August 1999

NS = No standard or guidance value for compound

Bold = Compound detected in sample

Highlighted results exceed criteria

Table 3: Historical Groundwater VOC Results

Location ID		GPZ-2D						GPZ-2S1					
Field Sample Date		1/17/2008		7/23/2008		7/12/2012		1/16/2008		7/23/2008		7/12/2012	
Field Sample ID		828072-GPZ2D020		GPZ2D02001		828072-GPZ2D020		828072-GPZ2S1014		GPZ2S101401		828072-GPZ2S1014	
Field Sample Depth (ft bgs)		20		20		20		14		14		14	
QC Code		FS		FS		FS		FS		FS		FS	
Parameter Name	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	1	U	1	U	1	U	1	U	1	U	10	U
1,1,2-Trichloroethane	1	1	U	1	U	1	U	1	U	1	U	10	U
1,1-Dichloroethane	5	1	U	1	U	1	U	1	U	1	U	10	U
1,1-Dichloroethene	5	1	U	1	U	1	U	1	U	1	U	10	U
Acetone	50*	**1**	J	10	U	10	U	10	U	10	U	100	U
Benzene	1	1	U	1	U	1	U	1	U	1	U	10	U
Carbon disulfide	60*	1	U	1	U	1	U	1	U	**0.23**	J	10	U
Chloroform	7	1	U	1	U	1	U	1	U	1	U	10	U
Cis-1,2-Dichloroethene	5	1	U	1	U	1	U	**0.32**	J	1	U	10	U
Cyclohexane	NS	1	U	1	U	2	U	1	U	1	U	20	U
Methyl cyclohexane	NS	1	U	1	U	1	U	1	U	1	U	10	U
Methyl Tertbutyl Ether	10*	1	U	1	U	1	U	1	U	1	U	10	U
Methylene chloride	5	1	U	1	U	1	U	1	U	1	U	10	U
Tetrachloroethene	5	1	U	1	U	1	U	1	U	1	U	10	U
Toluene	5	1	U	1	U	1	U	1	U	1	U	10	U
trans-1,2-Dichloroethene	5	1	U	1	U	1	U	1	U	1	U	10	U
Trichloroethene	5	1	U	1	U	1	U	1	U	1	U	10	U
Vinyl chloride	2	1	U	1	U	1	U	1	U	1	U	10	U
Xylene, o	5	1	U	1	U	1	U	1	U	1	U	10	U
Xylenes (m&p)	5	1	U	1	U	2	U	1	U	1	U	20	U

Notes:

Results reported in micrograms per liter (µg/L)

Only detected compounds shown.

Samples analyzed for VOCs by EPA Method SW8260B

ft bgs = feet below ground surface

QC Code:

FS = Field Sample, FD = Field Duplicate

Qualifiers:

U = Not detected greater than the reporting limit

J = Estimated value

D = Result from diluted run

Criteria = Groundwater guidance or standard values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).

* = Guidance Value

NYS, 1999. New York Codes, Rules, and Regulations, Title 6, Part 700-705 Water Quality Regulations Surface Water and Groundwater Classifications and Standards. Amended August 1999

NS = No standard or guidance value for compound

Bold = Compound detected in sample

Highlighted results exceed criteria

Table 3: Historical Groundwater VOC Results

Location ID		GPZ-5D						GPZ-5S				GPZ-6D	
Field Sample Date		1/16/2008		7/22/2008		7/11/2012		1/16/2008		7/11/2012		1/17/2008	
Field Sample ID		828072-GPZ5D025		GPZ5D02501		828072-GPZ5D025		828072-GPZ5S018		828072-GPZ5S018		828072-GPZ6D028	
Field Sample Depth (ft bgs)		25		25		25		18		18		28	
QC Code		FS		FS		FS		FS		FS		FS	
Parameter Name	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	**0.32**	J	**0.35**	J	1	U	1	U	1	U	1	U
1,1,2-Trichloroethane	1	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	5	**1.7**		**2**		**1.6**		**0.73**	J	**0.44**	J	**7**	
1,1-Dichloroethene	5	**0.69**	J	**0.6**	J	**0.62**	J	1	U	1	U	**0.82**	J
Acetone	50*	10	U	10	UJ	10	U	10	U	10	U	10	U
Benzene	1	1	U	1	U	1	U	1	U	1	U	1	U
Carbon disulfide	60*	1	U	1	U	1	U	1	U	1	U	1	U
Chloroform	7	1	U	1	U	1	U	1	U	1	U	1	U
Cis-1,2-Dichloroethene	5	**150**		**150**		**100**		**68**		**16**		**120**	
Cyclohexane	NS	1	U	1	U	2	U	1	U	2	U	1	U
Methyl cyclohexane	NS	1	U	1	U	1	U	1	U	1	U	1	U
Methyl Tertbutyl Ether	10*	1	U	1	U	1	U	1	U	1	U	1	U
Methylene chloride	5	1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	5	**0.36**	J	1	U	1	U	1	U	1	U	1	U
Toluene	5	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	5	**2.2**		**2.4**		**2.4**		**0.37**	J	**0.31**	J	**0.72**	J
Trichloroethene	5	**320**	D	**160**		**120**		**68**		**1.3**		**19**	
Vinyl chloride	2	**5.8**		**11**		**7.7**		1	U	**27**		**27**	
Xylene, o	5	1	U	1	U	1	U	1	U	1	U	1	U
Xylenes (m&p)	5	1	U	1	U	2	U	1	U	2	U	1	U

Notes:

Results reported in micrograms per liter (µg/L)

Only detected compounds shown.

Samples analyzed for VOCs by EPA Method SW8260B

ft bgs = feet below ground surface

QC Code:

FS = Field Sample, FD = Field Duplicate

Qualifiers:

U = Not detected greater than the reporting limit

J = Estimated value

D = Result from diluted run

Criteria = Groundwater guidance or standard values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).

* = Guidance Value

NYS, 1999. New York Codes, Rules, and Regulations, Title 6, Part 700-705 Water Quality Regulations Surface Water and Groundwater Classifications and Standards. Amended August 1999

NS = No standard or guidance value for compound

Bold = Compound detected in sample

Highlighted results exceed criteria

Table 3: Historical Groundwater VOC Results

Location ID		GPZ-6D				GPZ-6S					
Field Sample Date		7/22/2008		7/11/2012		1/17/2008		7/22/2008		7/11/2012	
Field Sample ID		GPZ6D02801		828072-GPZ6D028		828072-GPZ6S019		GPZ6S01901		828072-GPZ6S019	
Field Sample Depth (ft bgs)		28		28		19		19		19	
QC Code		FS		FS		FS		FS		FS	
Parameter Name	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	1	U	1	U	1	U	1	U	5	U
1,1,2-Trichloroethane	1	1	U	1	U	1	U	1	U	5	U
1,1-Dichloroethane	5	**7.5**		**6.9**		1	U	1	U	5	U
1,1-Dichloroethene	5	**0.72**	J	**0.63**	J	1	U	1	U	5	U
Acetone	50*	**1.8**	J	10	U	**1.7**	J	**2.2**	J	50	U
Benzene	1	1	U	1	U	1	U	1	U	5	U
Carbon disulfide	60*	**0.24**	J	1	U	1	U	**0.33**	J	5	U
Chloroform	7	1	U	1	U	1	U	1	U	5	U
Cis-1,2-Dichloroethene	5	**120**		**120**		1	U	1	U	5	U
Cyclohexane	NS	1	U	2	U	1	U	1	U	10	U
Methyl cyclohexane	NS	1	U	1	U	1	U	1	U	5	U
Methyl Tertbutyl Ether	10*	1	U	1	U	1	U	1	U	5	U
Methylene chloride	5	1	U	1	U	1	U	1	U	5	U
Tetrachloroethene	5	1	U	1	U	1	U	1	U	5	U
Toluene	5	1	U	1	U	**0.23**	J	1	U	5	U
trans-1,2-Dichloroethene	5	**1.6**		**1.5**		1	U	1	U	5	U
Trichloroethene	5	**12**		**3.4**		1	U	1	U	5	U
Vinyl chloride	2	**20**		**23**		1	U	1	U	5	U
Xylene, o	5	1	U	1	U	1	U	1	U	5	U
Xylenes (m&p)	5	1	U	2	U	1	U	1	U	10	U

Notes:

Results reported in micrograms per liter (µg/L)

Only detected compounds shown.

Samples analyzed for VOCs by EPA Method SW8260B

ft bgs = feet below ground surface

QC Code:

FS = Field Sample, FD = Field Duplicate

Qualifiers:

U = Not detected greater than the reporting limit

J = Estimated value

D = Result from diluted run

Criteria = Groundwater guidance or standard values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).

* = Guidance Value

NYS, 1999. New York Codes, Rules, and Regulations, Title 6, Part 700-705 Water Quality Regulations Surface Water and Groundwater Classifications and Standards. Amended August 1999

NS = No standard or guidance value for compound

Bold = Compound detected in sample

Highlighted results exceed criteria

Table 5.2: TCE Trends in Groundwater

Well ID	Dec-94	Aug-96	Oct-97	Jan-98	Aug-98	Oct-98	Mar-99	Nov-99	Dec-00	Oct-04	Jan-08	Jul-08
MW-1D	6,000	9,900	270	1,300	910	5500	1,000		3,800		190	270
MW-2	1,600	1,000		940	410		580		21,000		NA	3,300
MW-2D		13		1	4.7	6.3	3.8		2.2		0.38	ND
MW-3	350,000	550,000	310,000	510,000			210,000		460,000			500,000
MW-3D	350	850	51	60	260	440	65		140	34	17	44
MW-6		ND		ND	ND	ND	ND		ND	ND	ND	ND
MW-6D		1,400	ND	1,000	320	290	150		230	210	310	490
MW-7						ND	ND		ND		ND	ND
MW-7D						41	39		2.5		4.3	5.1
MW-8								810	460	410	870	640
MW-8D								590	37	170	590	660
MW-9								55	19		38	27
MW-9D								79	47		44	1,100
MW-11										ND	ND	ND
MW-11D										18	520	30
MW-12										ND	ND	ND
MW-13										28	0.71	ND
MW-13D										27	19	42
GPZ-1D										5 J	39	87
GPZ-2D										28	ND	ND
GPZ-6D										ND	19	12

Notes:
Concentrations are results for trichloroethene; results are in micrograms per liter
Blank spaces indicate data not available
ND = TCE not detected above method detection limit
1994-2000 data from Radian Engineering, as presented from the NYSDEC to MACTEC
2004 data from Barron & Associates, 2005
2008 samples collected by MACTEC
Data presented if wells sampled by MACTEC and if data was available for previous sample rounds

APPENDIX A

SURVEY DATA

Appendix A contains the site survey prepared by Popli Consulting Engineers and Surveyors at the Erdle Perforating Company Site between 2007 and 2008. This information is offered for consideration when planning the remedial work.

NYSDEC ERDLE PERFORATING SITE

EXISTING SAMPLE LOCATIONS- LOCATED BY SURVEY PERFORMED 3/1/2008

Survey Performed by Popli Design Group, Penfield, NY

POINT ID	NAD 83/96 - NYSPCS WEST (US SURVEY FT.)		NAVD88 (US SURVEY FT.)	DESC.
	NORTHING	EASTING	ELEVATION	
MW-D-1	1144519.6	1379967.2	555.02	GROUND
			557.54	CASING
MW-1D	1144532.3	1380000.0	556.49	GROUND
			559.07	CASING
			558.91	RISER
MW-1DD	1144528.7	1379994.8	556.46	GROUND
			558.42	CASING
			558.30	RISER
MW-2	1144478.9	1380047.9	555.49	GROUND
			557.81	CASING
			557.42	RISER
MW-2D	1144483.7	1380043.6	555.59	GROUND
			557.32	CASING
MW-3D	1144471.6	1380005.1	554.76	GROUND
			556.87	CASING
MW-4	1144523.6	1379934.2	555.41	GROUND
			557.06	CASING
			556.94	RISER
MW-4D	1144516.9	1379933.8	555.46	GROUND
			557.51	CASING
MW-5	1144940.3	1380027.6	555.00	GROUND
			555.00	CASING
			554.76	RISER
MW-5D	1144938.6	1380032.1	555.16	GROUND
			555.36	CASING
MW-6	1144405.9	1379957.6	554.14	GROUND
			556.34	CASING
			556.36	RISER
MW-6D	1144340.7	1379960.1	553.76	GROUND
			555.67	CASING
MW-7	1144312.6	1380014.1	553.89	GROUND
			556.48	CASING
			556.24	RISER
MW-7D	1144316.0	1380009.1	553.70	GROUND
			555.49	CASING
MW-8	1144077.7	1379996.2	565.37	GROUND
			566.73	CASING
			566.80	RISER
MW-8D	1144079.8	1380000.2	565.25	GROUND
			566.65	CASING
MW-9	1144035.0	1379910.9	567.01	GROUND
			568.86	CASING
			568.91	RISER
MW-9D	1144036.5	1379916.4	566.76	GROUND
			568.86	CASING
MW-10	1144352.3	1379863.4	553.86	GROUND
			557.03	CASING
			556.90	RISER
MW-12	1143932.8	1380455.6	554.66	GROUND
			557.74	CASING
			557.60	RISER
GPZ-1S1	1143878.9	1379994.7	552.70	GROUND
GPZ-1S2	1143876.0	1379996.6	552.69	GROUND
GPZ-1D	1143873.0	1379997.9	552.99	GROUND
GPZ-2S1	1143971.4	1379807.5	562.79	GROUND
GPZ-2S2	1143970.3	1379806.5	562.58	GROUND
GPZ-2D	1143969.1	1379805.7	562.38	GROUND
GPZ-5S	1144115.6	1380061.4	563.99	GROUND
GPZ-5D	1144113.7	1380058.4	564.08	GROUND
GPZ-6S	1144151.9	1380168.9	563.72	GROUND
GPZ-6D	1144150.6	1380165.8	564.25	GROUND
GPZ-7S	1144404.7	1380172.4	557.95	GROUND
GPZ-7D	1144402.0	1380171.2	557.82	GROUND

NYSDEC ERDLE PERFORATING SITE

Survey of Sample Locations Completed from 12/2007 to 7/2008.

Survey Performed by Popli Design Group, Penfield, NY

ID	*NAD 83/96 - NYSPCS WEST (US SURVEY FEET)*		*NAVD88 (US SURVEY FEET)*	DESC.
	NORTHING	**EASTING**	**ELEVATION**	
MW 11	1143571.4	1380264.4	553.55	GROUND
			556.75	CASING
			556.60	RISER
MW 11D	1143564.8	1380271.7	554.05	GROUND
			557.81	CASING
			555.09	RISER
MW 13	1143217.5	1380158.8	553.57	GROUND
			553.63	CASING
			553.33	RISER
MW 13D	1143215.3	1380165.4	553.71	GROUND
			553.79	CASING
			553.40	RISER
MW 13DD	1143220.3	1380149.2	553.55	GROUND
			553.60	CASING
			553.33	RISER
MW 14	1143172.6	1379837.7	552.96	GROUND
			552.97	CASING
			552.78	RISER
MW 14D	1143170.5	1379836.0	552.88	GROUND
			553.01	CASING
			552.64	RISER
MW 15	1143189.0	1380373.6	553.18	GROUND
			553.30	CASING
			553.11	RISER
MW 15D	1143190.4	1380376.0	553.22	GROUND
			553.28	CASING
			553.09	RISER
MW 16	1143362.1	1380725.0	553.94	GROUND
			553.96	CASING
			553.78	RISER
MW 17	1143645.5	1380795.9	553.88	GROUND
			553.95	CASING
			553.43	RISER
MW 17D	1143644.6	1380799.9	554.01	GROUND
			554.09	CASING
			553.73	RISER
MW 18	1142854.1	1380205.6	552.34	GROUND
			552.25	CASING
			551.84	RISER
MW 18D	1142854.3	1380200.7	552.28	GROUND
			552.23	CASING
			551.72	RISER
MW 19	1142686.5	1380552.2	551.98	GROUND
			552.02	CASING
			551.43	RISER
MW 19D	1142690.3	1380555.5	552.03	GROUND
			551.95	CASING
			551.55	RISER
PS 1	1142919.1	1379997.1	547.6	GROUND
PS 11	1143440.4	1380036.7	550.0	GROUND
PS 12	1143353.6	1379945.8	549.7	GROUND
PS 13	1143248.9	1379828.4	549.5	GROUND
PS 14	1143178.1	1379740.1	549.9	GROUND
PS 7	1142770.8	1380271.3	547.3	GROUND
PS 8	1142617.8	1380453.7	547.4	GROUND
PS 9	1143633.1	1380245.7	550.3	GROUND
PZ 1	1142955.3	1379945.5	549.6	TOP OF PIPE
PZ 2	1142825.9	1380201.9	549.1	TOP OF PIPE
PZ 3	1142895.5	1380325.7	549.3	TOP OF PIPE

MW-16D	1143396.3	1380733.8	553.94	GROUND
			553.97	CASING
			553.64	RISER
MW-20D	1142981.0	1380694.6	553.59	GROUND
			553.64	CASING
			553.34	RISER
MW-20	1142988.1	1380691.8	553.62	GROUND
			553.70	CASING
			553.39	RISER

APPENDIX B

BORING LOGS

Appendix B contains soil boring and rock coring logs are taken from Erdle Perforating Company Site investigation reports. In general, the logs depict onsite and nearby area subsurface conditions observed at various times between 2007 and 2008. The intent of the logs is to depict onsite and nearby area observed subsurface conditions. This information is being offered for consideration when planning the remedial work.

SOIL BORING LOG

Client: NYSDEC / ERDLD	Project No. 361207.2096		AOC:
Contractor: Geologic	Date Started: 12/10/07		Boring No.: MW-13DD
Method: HSA / Core	Casing Size: 3 7/8 ID / 6" casing		Protection: D
Ground Elev.: 553.55	Soil Drilled: 8.8'		Completed: 12/20/07
Logged by: JTR	Checked by: CRS 3/5/08		PI Meter: TE-580B 10.6 eV
Screen: 10 (ft.)	Riser: 30.5 (ft.) Diam: 2 (ID)	Material: Sch 40 PVC	Total Depth: 41.2' BGS
			▽ Below Ground: 2.2'
			Page 1 of: 4

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PID/FID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
1	S1 0-2	0 1 2	5/4/3/5	2.0/2.0	0.3	0 - 1.7 Dark brown (10YR 3/3) to olive brown (2.5Y 4/4) fine sand with silt and traces of med - coarse sand asphalt at ~1' BGS. Very moist; stratified fill material.	SM	NA SM4	
2						1.7-2.0 Dark yellowish brown fine sand (10Y 4/6) with a trace to little silt.			
3	S2 2-4	2 ↓ 4	5/6/9/12	1.5/2.0	0.0	Reddish brown (5YR 4/4) to yellowish red (5YR 4/6) silt with a little fine sand and clay. Stiff, foliated appearance with mottled gray tissues vertical thin roots and root fibers.	ML		
4	1305								
5	S3 4-6	4 ↓ 6"	3/5/7/7	1.9/2.0	0.0	Reddish brown to olive brown (2.5Y 4/3) silt and clay with traces of fine sand some gray mottled tissues/root fibers). Stiff, moist, foliated appearance.	ML/CL		
6									
7	S4 6-8	6 ↓ 8	7/5/7/5	1.4/2.0	0.0	Reddish brown to olive brown silt and clay becomes sandy in bottom 0.6' of samples. Olive brown to olive gray to gray fine sandy silt with a little med-coarse sand and traces of gravel. Very moist at end of sample.	SM/SM/SM		
8									
9	S5 8-8.8 1405		3/50 0.3	0.7/0.8	1.0	Reddish brown to grayish brown (2.5Y 5/2) clay and silt, end of sample is grayish brown gravel with silt and sand, very wet and broken up with a slight odor. Refusal with spoon at 8.8' BGS.			
10						Set 6" casing to ~8.8' BGS and then cleaned out and drilled with tricone to 11.5' BGS. Hard rock from 8.8 to 10.2 Soft weathered rock or soil seam 10.2-10.7 Hard rock from 10.7 to 11.5'. Stopped socket at 11.5' - set and grouted 4" ID steel casing in borehole - going to let grout set up and return later to core rock to ~40' BGS.	cleaned out and		

PID on washwater 9.0 to 11.5 = 0.2 - 2.2 ppm slight odor on washwater possible sheen.

ROCK CORING LOG

Project: ERDLE	Site: ERDLE Hidden Valley	Exploration/Well No.: MW-13DD		Project No.: 361207.2044-2.1	
Client: NYSDEC	Driller's Name: Davehyons	Logged by: JKR	Checked by: CRS	Ground Elev.: 553.55	
Drilling Contractor: Geologic NY	Protection Level: D	Rig Type: ATV	Start Date: 12/10/07	Finish Date: 12/20/07	
Drilling Method: H core - wireline		P.I.D. (eV): 10.6	Casing Size: 6"/4"	Auger Size: 8"	
Bit type/size: H (4" OD)	Bit Use: ✓	Core Interval (to/from)(ft): 13 - 41.2			

Depth (feet) Below GRD Sort.	Sample No. & Penetration/ Recovery (feet)	Graphic Log	Natural Core Breaks: Type/Dip	Natural Core Breaks: Surface Condition	Weathered Condition	Rock Quality: Total 4" Core	Rock Quality: RQD (%)	Rock Quality: Rock Quality Description	Drilling Rate min/ft	Color	Rock Description and Comments on Drilling
13							83%	Good			Run #1 13.0-14.5 cored 1.8 rec 1.7'
						(86)					Core locked at 14.5'
14											lots of rubble bentonite etc
15			(88)			1.2'	100%	Excellent			Run #2 14.5-16 cored 1.2
											Start 0930 rec 1.2
16											End 0934
						4.7'	94%	Excellent			Run #3 16-21 cored 5.0'
17											Start 0950 end 1012 rec 5.0'
											End
18											Numerous horizontal bedding planes
19											
20											
21											
						4.5'	90%	Excellent			Run #4 21-26 cored 5' rec 5'
22											Start 1017
											End 1032
23											
24											
25											
26											

Light colored gray fossiliferous fractures PID=0

Possible fracture PID=0

Highly fracture zone areas of light brown rock in the gray matrix. PID=0

Possible fractures some shell fossils shell-like fossils

Bedrock appears to be a gray to light gray to brownish gray colored, medium grained dolomitic limestone, with numerous vugs, fossils, and stylolites consistant with descriptions of the Penfield member of the Lockport Formation

ROCK CORING LOG

Project: ERDLE	Site: Hidden Valley Development	Exploration/Well No.: MW-13DD		Project No.: 3612072044-2.1
Client: NYSDEC	Driller's Name: Dave Hymons	Logged by: JKR	Checked by: CRS	Ground Elev.: 553.55
Drilling Contractor: Geologic	Protection Level: D	Rig Type: ATV	Start Date: 12/14/07	Finish Date: 12/20/07
Drilling Method: HCore		P.I.D. (eV): 10.6	Casing Size: 6"	Auger Size: —
Bit type/size: H(4"OD)	Bit Use:	Core Interval (to/from)(ft): 13-41.2		

Depth (feet) Below GRD Sort.	Sample No. & Penetration/ Recovery (feet)	Graphic Log	Natural Core Breaks: Type/Dip	Natural Core Breaks: Surface Condition	Weathered Condition	Rock Quality: Total 4" Core	Rock Quality: RQD (%)	Rock Quality: Rock Quality Description	Drilling Rate min/ft	Color	Rock Description and Comments on Drilling
26											Run #5 26-31' cored 5' rec. 5.1'
					Fracture with calcite infilling layer of fossil shells/corals?	crystals					
27					PID=0	5.0'	100%	Excellent			
					Fossil shells/corals?						
28											
					PID=0						
29					Dissolution fracture with calcite crystals						
					light brown with some calcite crystals						
30					fracture						
					PID=0						
31											Run #6 31-36' cored 5' rec 5.1'
					Fossil shell fragments	4.6'	92%	Excellent			Start
32					Occasional fossil shells						End 1245
					light brown calcareous/calcite infilling along fracture						
33					occasional fossil shells/coral						
34					Poss. Fracture or weathered break.						
35					Fracture contains silty	PID=2.2 ppm slight odor					
36											
37											

CRS

ROCK CORING LOG

Project:	Site:	Exploration/Well No.:		Project No.:
ERDLE	Indian Valley Sub Division	MW-13DD		36120720940211
Client:	**Driller's Name:**	**Logged by:**	**Checked by:**	**Ground Elev.:**
NYSDEC	Dave Lyons	JKR	CRS	553.55
Drilling Contractor:	**Protection Level:**	**Rig Type:**	**Start Date:**	**Finish Date:**
Geologic NY	D	ATV	12/10/07	12/20/07
Drilling Method:		**P.I.D. (eV):**	**Casing Size:**	**Auger Size:**
H-core		10.6	6"/4"	—
Bit type/size:	**Bit Use:**	**Core Interval (to/from)(ft):**		
H (4"OD)	✓	13-41.2		

Depth (feet) Below GRD Sort.	Sample No. & Penetration/ Recovery (feet)	Graphic Log	Natural Core Breaks: Type/Dip	Natural Core Breaks: Surface Condition	Weathered Condition	Rock Quality: Total 4" Core	Rock Quality: RQD (%)	Rock Quality: Rock Quality Description	Drilling Rate min/ft	Color	Rock Description and Comments on Drilling
37					PID=0	4.7'	86%	Good			Run #7 36-41.2 Cored 5' Rec 5.2' Start 1249 End 1322
38					PID=0.2						
39					PID=0						
40					PID=0						
41											
42											

Lighthouse calcite infilling? Fracture zone Dissolved void with calcite crystals stylolites

Fractures Occasional shell fossils Carb

Fracture Some vesicles vugs

Bottom of boring = 41.2' BGS

CRS

SOIL BORING LOG

Client: NYSDEC/ERNLE	Project No. 3612072.04		AOC: ✓
Contractor: Geologic	Date Started: 12/13/07		Boring No.: MW-14D
Method: HSA/Dry rotwash	Casing Size: 3¼"ID/4"ID		Protection: D
Ground Elev.: 552.88	Soil Drilled: 18.5		Completed: 12/18/07
Logged by: TKR	Checked by: CRS 3/5/08		PI Meter: TE-55UB 10.6 ✓
Screen: 10 (ft.)	Riser: 23 (ft.)	Diam: 2" (ID) / Material: Sch 40 PVC	Total Depth: 34.1
			▽ Below Ground: 3.65
			Page 1 of: 4

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PID/FID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
1	S1	0–2	2/3/5/4	1.4/2.0	0	~~Dark~~ brown (10YR 3/2) fine sand with some silt and some gravel ~~silt~~ Moist root fibers grades to yellowish brown to dark yellowish brown (10YR 5/4–4/4) fine sand with some silt, Moist, well stratified	SM		
2									
3	S2	2–4	3/4/12/12	1.8/2.0	0	Yellowish brown to dark yellowish brown (10YR 5/6–4/4) Fine sand with a trace of silt and medium sand. slightly stratified. moist to very moist.	SP/SM		
4									
5	S3	4–6	3/4/4/5	1.2/2.0	0	Dark yellowish brown to brown (7.5YR 5/4) fine sand with a trace of silt and medium sand grading to silty fine sand. Wet	SM		
6									
7	S4	6–8	5/9/14/17	2.0/2.0	0	Brown fine sand with a trace of silt and clay silt layers grading to dark reddish brown ~~silt~~ (5YR 3/3) silt to clay/silt matrix with a little fine-coarse sand and trace of gravel. Moist, dense	ML/CL		
8									
9	S5	8–10	7/7/11/15	1.2/2.0	0	Dark reddish brown silt matrix to clay silt matrix with trace to little fine-coarse sand and a trace of gravel. Possible sand layer at top but more likely caved in. Very moist-Wet.	ML/CL		
10									

SOIL BORING LOG

Client: NYSDEC / ERDLE	Project No. 3412072.014		AOC: ✓
Contractor: Geologic	Date Started: 12/13/07		Boring No.: MW-14D
Method: HSA / Rotosonic	Casing Size: 3¼ ID / 6"		Protection: D
Ground Elev.: 552.88	Soil Drilled: 18.5'		Completed: 12/18/07
Logged by: TJR	Checked by: CRS 3/5/08		PI Meter: TE-580B 10.6eV
Screen: 10 (ft.)	Riser: 23 (ft.)	Diam: 2" (ID) Material: Sch 40 PVC	Total Depth: 34.1
			▽ Below Ground: 3.65'
			Page 2 of: 4

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PID/FID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
11	S6	10	4/5/7/8	0.6/2.0	0	Reddish brown to reddish gray (5YR 4/4-5/2) silt to clayey silt with traces of fine-medium sand along some layers. Moist, well stratified, stiff.	ml/cl		
12		12							
12	S7	12	4/4/4	1.7/2.0	0.1	Reddish brown to reddish gray silt and clay/silt with traces of fine sand. Moist to very moist, soft to firm, very well stratified	ml/cl		
13					0.1				
14		14							
14	S8	14	14/11/7/5	0.9/2.0	0.3	Reddish brown to reddish gray to gray. Top 0.8 is similar to S7. Bottom 0.6 is sand and gravel with some silt. Wet, loose	ml/cl		
15							sw/gm		
16		16							
16	S9		7/4/4/7	0.8/2.0	0.1	Gravel and sand with some silt. Wet. Faint odor in sand and gravel.	GW/GP		
17									
18	S10		50/0.5			Gravel and sand with silt	GM		
						Encountered refusal with R spoon at 18.5' BGS			
						Used Tricone to drill 6" rock socket 18.5 to 20' BGS			
						Cemented 4" steel casing to 20'			

ROCK CORING LOG

Project: ERDLE	Site: Hidden Valley Developed Cates NY	Exploration/Well No.: MW-140		Project No.: 36120720-094-2.1
Client: NYSDEC	Driller's Name: Davehyons	Logged by: JTR	Checked by: CRS	Ground Elev.: 552.88
Drilling Contractor: GEOLOGIC (NY)	Protection Level: D	Rig Type: ATV	Start Date: 12/14/07	Finish Date: 12/18/07
Drilling Method: H core		P.I.D. (eV): TE-5503 10.6	Casing Size: 4"	Auger Size: —
Bit type/size: H (4" OD)	Bit Use: —	Core Interval (to/from)(ft): 20 – 34		

Depth (feet) Below GRD Sort.	Sample No. & Penetration/ Recovery (feet)	Graphic Log	Natural Core Breaks: Type/Dip	Natural Core Breaks: Surface Condition	Weathered Condition	Rock Quality: Total 4" Core	Rock Quality: RQD (%)	Rock Quality: Rock Quality Description	Drilling Rate min/ft	Color	Rock Description and Comments on Drilling
20	natural breaks with vesicles					3.4'	85%	Good			1305 start core run #1 - 1321 Run #1 20-24' losing water 20-20.5' Cored 4' recovered 3.55'
21	mechanical break										
22	white calcite vein										Bedrock is a gray to light gray dolomitic limestone with some brownish gray layers, medium grained with numerous vugs, fossils, and some stylolites. (Penfield Member - Lockport Formation)
23	weak area with vesicles vugs possible mechanical break mechanical? fossil shell/coral/brachiopod?										
24											
25	Fracture Mechanical break					5.0'	100%	Excellent			Run #2 24-29' 1357 - 1405 Cored 5' recovered 5' 24-25.2 mostly light brownish creamy colored areas with some vesicles and shell fossils 25.2 – 27' Gray with shell containing layers which tend to be vesicular 27-29 Dark gray with mollusk shell impressions grouping along layers vesicular areas.
26	Numerous horizontal breaks or fractures along bedding planes or planes of weakness.										
27	Possible fracture										
28											
29	— cored fossil shells/corals					4.8	96%	Excellent			Run #3 29-34' BGS covered 5' recovered 1436 Start run. 1454 End run Possible odor from core PID = 0.3 ppm
30	apparent fracture cored fossil shells/corals										
31											

MACTEC

CRS - 3/5/09

ROCK CORING LOG

Project: ERDLE	Site: Hidden Valley Subdivision	Exploration/Well No.: MW-14D		Project No.: 3612072014
Client: NYSDEC	Driller's Name: Dave Lyons	Logged by: JKR	Checked by: CRS	Ground Elev.: 552.88
Drilling Contractor: Geologic NY	Protection Level: D	Rig Type: ATV	Start Date: 12/14/07	Finish Date: 12/18/07
Drilling Method: H core		P.I.D. (eV): TE-580 B 10.6	Casing Size: 4"	Auger Size: NA
Bit type/size: Diamond 17 (4" OD)	Bit Use: —	Core Interval (to/from)(ft): 20-34'		

Depth (feet) Below GRD Sort.	Sample No. & Penetration/ Recovery (feet)	Graphic Log	Natural Core Breaks: Type/Dip	Natural Core Breaks: Surface Condition	Weathered Condition	Rock Quality: Total 4" Core	Rock Quality: RQD (%)	Rock Quality: Rock Quality Description	Drilling Rate min/ft	Color	Rock Description and Comments on Drilling
31											Run #3 29-34 1436-1459 Cored 5' recovered 5'
			fossil shells (oysters?) & brachiopods?) small healed fracture (stylolite)								
32			fossil shells/corals								
			Breaks/fracture in calcareous shell layer								Possible odor from fractures
33			small tight fracture (PID=1.2)								PID = 0.2 ppm
34											Bottom of borehole = 34.1' BGS

CRS 3/5/08

MACTEC

SOIL BORING LOG

Client: NYSDEC - ERDLE	Project No. 36120720 96		AOC: ✓
Contractor: Geologic.	Date Started: 12/13/07		Boring No.: MW-15D
Method: HSA/Drive+Wash	Casing Size: 3¼"ID / 6"ID		Protection: D
Ground Elev.:	Soil Drilled: 7.5'		Completed: 12/20/07
Logged by: JKR	Checked by: CRS 3/5/08		PI Meter: TE-580B 10.6eV
Screen: 10 (ft.)	Riser: 13.6 (ft.)	Diam: 2 (ID) Material: Sch 40 PVC	Total Depth: 24.6'
			▽ Below Ground: 3.4'
			Page 1 of: 3

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PID/FID (ppm)	SOIL DESCRIPTION (7.5 YR 4/2 - 3/2)	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
1	S1	0.5 1 2.0	2/4/5	0.8/1.5	0.1	Brown to dark brown to dusky red fine sand and silt grading to silt with some fine sand. Moist, layered textured root fibers.	(2.5 SM SM/ML	Y 4/4	
2									
3	S2	2.0	5/7/10/11	1.2/2.0	0.2	Reddish brown (5YR 4/4) silt with a little fine sand. Moist, foliated appearance, stiff, some grey to olive mottling along fissures mostly horizontal some more vertical.	ML		
4		4.0							
5	S3		5/7/10/10	1.8/2.0	0	Reddish brown (5YR 4/3) silt and clay with traces of coarse gravel. Moist, stiff, foliated to stratified appearance with some grey to olive mottled fissures.	ML/CL		
6									
7	S4		7/13/- 50/0.4	1.2/1.4	0	Reddish brown to brown (7.5YR 4/4) silt and clay changing to brown 7.5YR 4/2 to grayish brown silt and fine sand with some gravel fragments (angular)	ML CL		
8						Bedrock? - refusal at 7.4-7.5' BGS Becomes very moist to wet at ≈6.8' BGS Set 6" casing to ≈7.5' BGS and cleaned out with 5 7/8" tricone bit.			
9					0	Drilled rock socket from 7.5 to 9.3' with tricone Rock is hard/competent. ~~Set 4" steel casing~~ Tremie grouted 6" casing then set 4" steel casing to 9.3' BGS.			
10									

ROCK CORING LOG

Project: ERDLE/NYSDEC	Site: Hidden Valley Development	Exploration/Well No.: MW-15D		Project No.: 361207209402
Client: NYSDEC	Driller's Name: Steve Laramie	Logged by: JKR	Checked by: CRS 1/15/08	Ground Elev.: 553.22
Drilling Contractor: Geologic	Protection Level: D	Rig Type: Trailer	Start Date: 12/13/07	Finish Date: 12/20/07
Drilling Method: Coring		P.I.D. (eV): 10.6	Casing Size: 4"	Auger Size: 8"
Bit type/size: H-core(4")	Bit Use:	Core Interval (to/from)(ft): 9.6-24.6		

Depth (feet) Below GRD Sort.	Sample No. & Penetration/ Recovery (feet)	Graphic Log	Natural Core Breaks: Type/Dip	Natural Core Breaks: Surface Condition	Weathered Condition	Rock Quality: Total 4" Core	Rock Quality: RQD (%)	Rock Quality: Rock Quality Description	Drilling Rate min/ft	Color	Rock Description and Comments on Drilling
10						4.3'	86%	Good			Run #1 9.6 - 14.6 cored 5.0' rec 5.0
	- ~~vesicles~~ vugs										
11											
	- vesicles/vugs										
12											
	- vertical fracture										Difficult to tell fractures from mechanical breaks along horizontal planes of weakness.
13	Stained/oozing water at 13.6' BGS										
14											
15						4.4'	88%	Good			Run #2 14.6 - 19.6 cored 5.0 rec 4.9
16											Bedrock is a gray to light gray colored dolomite/limestone with some light grayish brown colored layers. Medium grained, with vugs, fossils, and some stylolites. Fractures are primarily horizontal parallel to apparent bedding planes.
	vesicular/fossil ~~bearing~~ layer										
17											
18											
19											(Penfield Member/Lockport Formation)
	large fracture with rubble										
20											

ROCK CORING LOG

Project: ERDLE	Site: Hidden Valley Sub Division	Exploration/Well No.: MW-15D		Project No.: 361207204-02.1
Client: NYSDEC	Driller's Name: Steve Laramie	Logged by: JKR	Checked by: CRS 3/5/08	Ground Elev.: 553.22
Drilling Contractor: Geologic.	Protection Level: D	Rig Type: Trailer	Start Date: 12/13/07	Finish Date: 12/20/07
Drilling Method: HT core		P.I.D. (eV): 10.6	Casing Size: 4"	Auger Size: 8"
Bit type/size: HT (4" OD)	Bit Use: —	Core Interval (to/from)(ft): 9.6-24.6		

Depth (feet) Below GRD Sort.	Sample No. & Penetration/ Recovery (feet)	Graphic Log	Natural Core Breaks: Type/Dip	Natural Core Breaks: Surface Condition	Weathered Condition	Rock Quality: Total 4" Core	Rock Quality: RQD (%)	Rock Quality: Rock Quality Description	Drilling Rate min/ft	Color	Rock Description and Comments on Drilling
20						4.8'	96%	Excellent			Run #3 19.6-24.6-B6 S cored 5.0 rec 5.1
21											light brown green with numerous ~~vesicles~~ vugs (27)
22											
23											changes to light ~~gray~~ rock with few ~~vesicles~~ vugs. (19)
24											Dark thin layers showing small scale folding (stylolites)
25											

SOIL BORING LOG

Project: ERDLE	Boring/Well No.: MW-16	Project No.: 3612072044-2.1	
Client: NYSDEC	Site: Hidden Valley Subdivision	Sheet No.: 1 of 1	
Logged By: J. Rawcliffe (Checked ERS)	Ground Elevation: 553.94	Start Date: 12/20/07	Finish Date: 12/20/07
Drilling Contractor: Geologic	Driller's Name: Steve Laramie	Rig Type: Trailer	
Drilling Method: HSA	Protection Level: D	P.I.D. (eV): 10.6	Casing Size: NA / Auger Size: 4 1/4
Soil Drilled: 9.4	Rock Drilled: 0	Total Depth: 9.4	Depth to Groundwater/Date: 4.66' TOR 12/21/07 — Piez ☐ Well ☒ Boring ☒

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description (7.5YR 3/2)	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
1	S1 0-2	1/2/4/6 1.0/2.0		Top 0.5 Brown to dark brown silty fine sand topsoil/fill. Bottom 0.5 Reddish brown (5YR 4/3) silt with some fine sand and trace gravel. Moist, no ID	Fill / ML/SM	0.1	—	
2								
3	S2 2-4	4/5/6/8 1.3/2.0		Top 0.3 Reddish brown silt and fine sand. Changing to dark brown fine sand with silt. Tip is Yellowish brown (10YR 5/6) fine sand with a trace of silt - Very moist	ML / SM	0		
4								
5	S3 4-6	3/4/4/5 1.6/2.0		Yellowish brown to strong brown (7.5YR 5/6) fine sand with a little silt changing to Reddish brown 5YR 3/4 silt with clay and traces of coarser materials. Moist, mottled.	SM / ML/CL	0		
6								
7	S4 6-8	7/11/15/14		Reddish brown to gray (5YR 5/1) silt with clay and traces of fine sand. Stratified moist, stiff.	ML	0		
8								
9	S5 8-9.4	9/14/50/0.4		Yellowish brown to strong brown silty fine sand with some gravel and clay and medium-coarse sand grading to Yellowish brown mottled fine sand with clay silt and gravel and traces of m-c sand. Refusal with spoon at 9.4'	SP/SW			
10								

MACTEC
511 Congress Steet
Portland, ME 04101

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

PORT2007022w.mac

SOIL BORING LOG

Project: ERDLE Perforating	Boring/Well No.: MW-16B	Project No.: 36120722094
Client: NYSDEC	Site: Hidden Valley Subdivision	Sheet No.: 1 of 2
Logged By: J. Rawcliffe	Ground Elevation: 553.9'	Start Date: 7/7/08
		Finish Date: 7/8/08
Drilling Contractor: Nothnagle	Driller's Name: Neil Short	Rig Type: CME-75
Drilling Method: HSA, Tricone	Protection Level: D	P.I.D. (eV): 10.0
		Casing Size: Temp 6", Perm 4"
		Auger Size: 4¼" ID
Soil Drilled: 8.4	Rock Drilled: 8.4-22.5	Total Depth: 22.5
		Depth to Groundwater/Date: 7/9/08 -7.03 btoc
		Piez ☐ Well ☒ Boring ☐

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
	NA	NA	NA	0-1' Brown to dark brown fine sand and silt. (loamy topsoil fill). Slightly moist.		Logged cuttings only no split spoons.		
1				1-3' Brown to light reddish brown silty fine sand with a little to a trace of medium to coarse sand. (Fill)		0.0		
2								
3				3-6 light olive brown to reddish brown silt and clay with some fine sand and traces of coarser sand. Moist.		0.0		
4								
5								
6				6-7.5 Dark brown to reddish brown fine sand and silt with some to a little medium to coarse sand and a little gravel. Moist to very moist.		0.0		
7				Olive brown fine sand and silt with a little clay and some to a little gravel. Very moist to wet.		0.0		
8				Bedrock at 8.4' BGS. Rods wet from ≈ 7.4 to 8.4' BGS. Depths are approximate as no split spoon samples were collected. Soil were logged from drill cuttings from HSAs. Drilled rock socket from ≈ 8.4 to 10.4' BGS and installed permanent 4" casing.				

Checked by CRS 7/25/08

MACTEC
511 Congress Steet
Portland, ME 04101

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

ROCK CORING LOG

Project: ERDLE PERFORATING	Site: Hidden Valley Subdivision downgradient	Exploration/Well No.: MW-16D		Project No.: 3612072094
Client: NYSDEC	Driller's Name: Neil Short	Logged by: J. Rawcliffe	Checked by: CRS 7/25/08	Ground Elev.: 553.9
Drilling Contractor: Nothnagle	Protection Level: D	Rig Type: CME-75	Start Date: 7/7/08	Finish Date: 7/8/08
Drilling Method: HSA, Tricone		P.I.D. (eV): 10.0	Casing Size: 6" = Temporary 4" = permanent	Auger Size: 4¼ ID
Bit type/size: Tricone 3 7/8	Bit Use:	~~Core~~ Interval (to/from)(ft): Tricone 10.4-22.5		

Depth (feet) Below GRD Sort.	Sample No. & Penetration/ Recovery (feet)	Graphic Log	Natural Core Breaks: Type/Dip	Natural Core Breaks: Surface Condition	Weathered Condition	Rock Quality: Total 4" Core	Rock Quality: RQD (%)	Rock Quality: Rock Quality Description	Drilling Rate min/ft	Color	Rock Description and Comments on Drilling
	NA								NA	Gray	1025-1056 Drilled from 10.4' to 22.5' using Tricone button bit. No elevated PID readings, no odors, no sheens observed. Drill rate was consistent with no obvious fractures or soft areas. Lost very little water (20 gallons?). Rock appears to be fairly competent ~~with~~ cannot tell if there are water bearing fractures. Rock is gray fossiliferous dolomitic limestone based on cores from area and gray silt and sand sized drillcuttings.

Checked by CRS 7/25/08

MACTEC
511 Congress Steet
Portland, ME 04101

FIGURE 4-5
ROCK CORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

PORT2007022d.mac

SOIL BORING LOG

Client: NYSDEC		Project No. 3617072.014	AOC: ✓
Contractor: Geologic	Date Started: 12/13/07		Boring No.: MW-17 (D)
Method: HSA/Drive+Wash	Casing Size: 3¼ ID / 6" ID		Protection: D
Ground Elev.: 5538	Soil Drilled: 8.7'		Completed: 12/19/07
Logged by: JKR	Checked by: CRS 3/5/08		PI Meter: TE5806 10.16eV
Screen: 10 (ft.)	Riser: 13.5 (ft.) Diam: 2 (ID)	Material: Sch 40 PVC	Total Depth: 23.8' BGS
			▽ Below Ground: 3.0'
			Page 1 of: 3

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PID/FID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
1	S1	0–2	2/4/5/3	1.4/2.0	0	Dark brown to brown (7.5YR 3/2) fine sand with silt to silty fine sand with some gravel and trace m-c sand. Moist. (medium to coarse)	SM/ML		
2–3	S2	2–4	3/3/4/4	1.2/2.0	0	Brown to reddish brown (5YR 4/3) silt with traces of fine sand some lenses of silty fine sand and one light brown traces of gravel and m-c sand in some lenses. Primarily silt. Moist.	ML		
4–5	S3	4–6	2/2/3/3	0.8/2.0	0	Reddish brown clayey silt with occational angular rock fragments traces of fine sand. Very moist, soft to slightly firm.	ML/CL		
6–7	S4	6–8	4/11/9/9	0.7/2.0	0	Yellowish brown (10YR 5/4) fine sand with some silt and some to little gravel and medium to coarse sand. Wet, loose to slightly dense, slightly stratified appearance	SM		
8–9	S5	8–8.7	8/50/5.2	0.5/0.7	0	Yellowish brown fine sand with silt and gravel and m-c sand. Wet.	SM/SW		
10					0-1.3	Refusal with split spoon at 8.7' BGS Set 6" casing to 5.7' and cleaned out with 5 7/8" tri cone bottom bit. Drilled rock socket from 5.7 to 10.3' BGS Rock was hard and competent 5.7 to 10.3 BGS Installed and grouted 4" steel casing to 10.3' BGS			

ROCK CORING LOG

Project:	Site:	Exploration/Well No.:		Project No.:
ERDLE	Erdle	MW-17D		361207.0014
Client:	**Driller's Name:**	**Logged by:**	**Checked by:**	**Ground Elev.:**
NYSDEC	Steve Iwaniec	JKR	CRS 3/5/08	554.08
Drilling Contractor:	**Protection Level:**	**Rig Type:**	**Start Date:**	**Finish Date:**
GEOLOGIC	D	Trailer	12/13/07	12/19/07
Drilling Method:		**P.I.D. (eV):**	**Casing Size:**	**Auger Size:**
H core		10.6	4"	—
Bit type/size:	**Bit Use:**	**Core Interval (to/from)(ft):**		
H (4" OD)	—	10.5 - 24'		

Depth (feet) Below GRD Sort.	Sample No. & Penetration/ Recovery (feet)	Graphic Log	Natural Core Breaks: Type/Dip	Natural Core Breaks: Surface Condition	Weathered Condition	Rock Quality: Total 4" Core	Rock Quality: RQD (%)	Rock Quality: Rock Quality Description	Drilling Rate min/ft	Color	Rock Description and Comments on Drilling
11			Fossils			2.9	83%	Good			Run #1 10.5' to 14' Cored 3.5' Recovered 3.45 1102 - 1114
12	(W)		Fracture	PID = 0.1							Gray to dark gray horizontal bedding lots of vugs vesicles that appear to connect areas of shell fossils. Some stylolites, medium grained
13			Fracture and poss mechanical break around vesicular (weathered)	PID = 0							(Penfield Member - Lockport Formation)
14			Fractured shell fossil mechanical break								
15			Healed fracture with small vesicles PID = 0			5.0'	100%	Excellent			Run #2 14-19 Cored 5' Recovered 5.1' 1130 - 1135 and 1301 - 1312
16			Fracture is weathered with numerous large vesicles (30) vugs PID = 0.1								
17											
18			No fractures but areas of very large vugs vesicles (60) Coral fossil shells dissolved out of rock matrix)? PID = 0								
19			vugs								
20			Fracture (possible mech. break) change to lighter colored rock small vesicles			4.2	84%	Good			Run #3 19-24 Cored 5.0' Recovered 4.8' Start 1329 End 1345 PID = 0
21											

ROCK CORING LOG

Project: ERDLE	Site: Erdle	Exploration/Well No.: MW-17D	Project No.: 3612072094-02.1
Client: NYSDEC	Driller's Name: Steve Laramie	Logged by: JRR / Checked by: CRS 3/5/08	Ground Elev.: 554.01
Drilling Contractor: Geologic	Protection Level: D	Rig Type: / Start Date: 12/13/07	Finish Date: 12/19/07
Drilling Method: H core		P.I.D. (eV): — / Casing Size: 6"OB/4"BR	Auger Size: —
Bit type/size: H (4"OD)	Bit Use: —	Core Interval (to/from)(ft): 10.5-24'	

Depth (feet) Below GRD Surf.	Sample No. & Penetration/ Recovery (feet)	Graphic Log	Natural Core Breaks: Type/Dip	Natural Core Breaks: Surface Condition	Weathered Condition	Rock Quality: Total 4" Core	Rock Quality: RQD (%)	Rock Quality: Rock Quality Description	Drilling Rate min/ft	Color	Rock Description and Comments on Drilling
	- Fracture		PID=0								Run #3 (cont) 19-24' core 5' Start 1329 End 1345 Rec. 5'
	- large vesicle vug										
22	> Fractures										
23											
	- mechanical break		PID=0								
24											Bottom of boring ≈ 24' BGS
25											

SOIL BORING LOG

Project: Erdle Perforating Company	Boring/Well No.: MW-18	Project No.: 3612072094	
Client: NYSDEC	Site: Erdle	Sheet No.: 1 of 1	
Logged By: Brandon Shaw	Ground Elevation: 552.34	Start Date: 12-12-07	Finish Date: 12-12-07
Drilling Contractor: Nothnagle	Driller's Name: Kevin Busch	Rig Type: Track Mount	
Drilling Method: HSA	Protection Level: D	P.I.D. (eV): <0.1	Casing Size: N/A / Auger Size: 8¼"
Soil Drilled: 10.9	Rock Drilled: ~0.6 ~~N/A~~	Total Depth: 11.5 ~~10.9~~	Depth to Groundwater/Date: 3.98 TOR 12/12/07

Piez ☐ Well ☑ Boring ☐

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
1	0.0/2.0		100/1	Boulder beneath top soil; 0-0.5: Brown silty loam w/ trace fines/gravel, grass/roots, damp to wet, PG, MP		Fill Boulder		
2	18/2.0		2-3	2-2.5: Brownish red silty clay with trace coarse sand, Dense, HP, damp		CL		
3			7-7	2.5-2.8: Broken rock chips/fragments → gravel		GP		
4	1.2/2.0		4-5	2.8-4.0: Lt Brownish/red silty clay with little coarse m coarse sand, PG, MP/HP, friable, damp to dry, Stiff, poorly drained		CL		
5			9-9	4.0 to 5.2: Same as 2.8 to 4.0				
6	1.3/2.0	N/A	11-10	5.2 to 6.0: Lt Brown silty clay, MP, PG, friable v Stiff, dry, poorly drained	<0.1	CL		
7			12-12	6.0 to 6.8: Same as 5.2 to 6.0.		CL		
8	1.8/2.0		9-10	6.8 to 7.1: (2) lenses of fine sand (<0.1') in v. Stiff silty clay; Sand is Lt Brown, MP/HP		SP		
9			12-40	7.1 to 8.0: Same as 6.0-6.8.		CL		
10	0.2/0.9		15-50	8.0 to 8.8: Same as 7.1-8.0		SW		
11				8.8 to 9.6: Lt grey gravelly silty Sand, v soft wet/saturated, PG, SP/MP, Slight odor		100ppb SW		
12				9.6 to 10.0 Grey Sandy gravel w/ some fines, strong solvent odor, M Dense, WG, MP, Wet				
				10-10.9 refusal @ 10.9; sleeve was cave in soil from above	<0.1	n/A		
				Fractured Bedrock	Rock			
				TDS @ 11.5				
				Water Bearing fracture @ 12.0				

* used HSA to drive into fractured bedrock ~0.6'; but above the water bearing fracture @ ~12' (pref?)
* USCS classification symbols used

MACTEC
511 Congress Steet
Portland, ME 04101

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

PORT2007022w.mac

checked CRS 3/5/08

SOIL BORING LOG

Project: Erdle Perforating Company		Boring/Well No.: MW-18D	Project No.: 36120720 94
Client: NYSDEC	Site: Erdle		Sheet No.: 1 of 2
Logged By: Brandon Shaw	Ground Elevation: 552.28	Start Date: 12-11-07	Finish Date: 12-13-07
Drilling Contractor: Nothnagle	Driller's Name: Kevin Busch		Rig Type: Track Mount
Drilling Method: HSA/Tricone	Protection Level: D	P.I.D. (eV): <0.1	Casing Size: 4" / Auger Size: 8 1/4"
Soil Drilled: ~10	Rock Drilled: 13.3	Total Depth: 23.3	Depth to Groundwater/Date: 4.01 TOR 12/14/07 — Piez ☐ Well ☑ Boring ☐

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm): PI Meter Field Scan	Monitoring (ppm): PI Meter Head Space	Lab Tests ID Sample
1				Reddish/Lt Brown silty clay, moist/wet mP, P6, trace gravel	Sm CL			
2								
3	N/A	N/A	N/A	cobble/boulder	Rock	Lo-1		
4				Similar to ~~Same as~~ 0-2				
5					Sm CL			
6								
7								
8								
9				Lt grey silty, gravelly Sand, wet/ Saturated, loose, slight odor, loose to hard	Till	~100 ppb		
10								
11				Bedrock.	Rock			
12				water bearing zone (w ~12'				

* Soils were logged from auger blade cuttings
* depths are approximate
* USCS Classification used

MACTEC
511 Congress Steet
Portland, ME 04101

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

PORT2007022w.mac

checked CRS 3/5/08

SOIL BORING LOG

Project: Erdle Perforating Company		Boring/Well No.: MW-18D	Project No.: 361207294
Client: NYSDEC	Site: Erdle		Sheet No.: 2 of 2
Logged By: Brandon Shaw	Ground Elevation: 552.28	Start Date: 12-11-07	Finish Date: 12-13-07
Drilling Contractor: Nothnagle	Driller's Name: Kevin Busch		Rig Type: Track mount
Drilling Method: HSA/Tricone	Protection Level: D	P.I.D. (eV): CO.1	Casing Size: 4" / Auger Size: 8 1/4"
Soil Drilled: 10	Rock Drilled: 13.3	Total Depth: 23.3	Depth to Groundwater/Date: 4.01 TOR 12/14/07

Piez ☐ Well ☑ Boring ☐

Depth(Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
13				Bedrock chips				
14								
15				Lt grey to grey, dry				
16								
17				Grey to dark grey chips, wet				
18								
19								
20								
21								
22								
23				▼TDS: 23.3				

* Soils were logged from auger cuttings
* depths are approximate
* USCS classification used

MACTEC
511 Congress Steet
Portland, ME 04101

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

PORT2007022w.mac

checked - CRS 3/5/08

SOIL BORING LOG

Project: Erdle Perforating Company	Boring/Well No.: MW-19	Project No.: 3612072094
Client: NYSDEC	Site: Erdle	Sheet No.: 1 of 1
Logged By: Brandon Shenk	Ground Elevation:	Start Date: 12-10-07 / Finish Date: 12-10-07
Drilling Contractor: Nothnagle	Driller's Name: Kevin Busch	Rig Type: Track mount.
Drilling Method: HSA	Protection Level: D / P.I.D. (eV): <0.1	Casing Size: N/A / Auger Size: 8 1/4 OD
Soil Drilled: ~72'	Rock Drilled: N/A / Total Depth: ~72'	Depth to Groundwater/Date: 3.11' (TOR) 12-13-07 / Piez ☐ Well ☒ Boring ☐

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
1				Lt Brown/Brown fine sandy silt				
2				w/ some gravel, moist,				
3				poor w/ graded, slight plastic				
4				w/Dense,				
5	none	none	none		SM/SC	<0.1	N/A	
6								
7								
				* Soil observed from auger cuttings				

CBS 3/5/08

* depths are approximate

MACTEC
511 Congress Steet
Portland, ME 04101

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

SOIL BORING LOG

Project: Erdle Perforating Company		Boring/Well No.: MW-19D	Project No.: 3612072094
Client: NYSDEC	Site: Erdle		Sheet No.: 1 of 2
Logged By: Brandon Shaw	Ground Elevation: 552.03	Start Date: 12-10-07	Finish Date: 12-11-07
Drilling Contractor: Nothnagle	Driller's Name: Kevin Busch		Rig Type: Track Mount
Drilling Method: HSA/Tricone	Protection Level: D	P.I.D. (eV): co.1	Casing Size: 4" / Auger Size: 8"/4"
Soil Drilled: ~7'	Rock Drilled: ~13'	Total Depth: 20.2	Depth to Groundwater/Date: 3.38' TOR 12/13/07

Piez ☐ Well ☑ Boring ☐

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
1	1.2/2.0	3-2		0-0.5: Brown fine Sandy silt w/ clay, moist, PG, SP, work				
		7-9		0.5-1.5: Lt Brown/orange brown fine Sandy silt, PG, SP, Dense/stiff	Fill			
2	1.3/2.0	9-8		1.5-2: Brown fine Sandy gravel, WG, SP/NP, m Dense				
3		20-23		2-3.5: Lt Brown stratified fine Sandy clay, damp, V Stiff SP/MP, PG, well drained,				
4	1.4/2.0	4-8		3.5-4: Lt Brown to stratified, Sandy fine gravel/ damp to dry, M Dense, NP, WG	Silt SC			
5		14-18		4-5.5: Lt Brown fine gravelly sand, PG, NP, M Dense wet, trace fines	SP GP			
6	1.0/1.0	38-100		5.5-6: Lt Brown fine Sand some fine gravel rounds to angular, damp, NP, PG				
				6-7 Till/Bedrock interface; Lt Grey silty Sand till lger; Some gravel, wet, loose;	Till			
7				fractured bedrock; Lt grey to dark grey rock chips; some weathering observed				
8								
9								
10				Lt grey weathered bedrock chips, dry, v. angular	Rock			
11								
12								

* USCS classification used.

MACTEC
511 Congress Steet
Portland, ME 04101

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

PORT2007022w.mac

Checked. CRS 3/5/08

SOIL BORING LOG

Project: Erdle Perforating Company		Boring/Well No.: MW-14D	Project No.: 361207.2094
Client: NYSDEC	Site: Erdle		Sheet No.: 2 of 2
Logged By: Brandon Shaw	Ground Elevation: 552.03	Start Date: 12-10-07	Finish Date: 12-11-07
Drilling Contractor: Nothnagle	Driller's Name: Kevin Bush		Rig Type: Truck mount
Drilling Method: HSA/Tricone	Protection Level: D	P.I.D. (eV): <0.1	Casing Size: 4" / Auger Size: 8 1/4"
Soil Drilled: 7	Rock Drilled: 13	Total Depth: 20.2	Depth to Groundwater/Date: 3.38' TOR 12/13/07

Piez ☐ Well ☑ Boring ☐

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
13				Similar to ~~Sand~~ of ~9' to 12'	rock			
14				Grey to dark grey, non weathered rock chips, wet, v. angular.				
15								
16								
17								
18								
19		TDS ↓						
20				BOB: 20.2				

* USCS classification used

Checked CRT 3/5/08

MACTEC
511 Congress Steet
Portland, ME 04101

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

PORT2007022w.mac

SOIL BORING LOG

Project: ERDLE Perforating		Boring/Well No.: MW-20	Project No.: 3612072094
Client: NYSDEC	Site: Hidden Valley Subdivision		Sheet No.: 1 of 1
Logged By: J. Rawcliffe	Ground Elevation: 553.6' bgs	Start Date: 7/7/08	Finish Date: 7/7/08
Drilling Contractor: Nothnagle	Driller's Name: Neil Shord		Rig Type: CME-75
Drilling Method: HSA	Protection Level: D	P.I.D. (eV): 10.0	Casing Size: —
Auger Size: 4¼" ID			
Soil Drilled: 7.2	Rock Drilled: —	Total Depth: 7.2	Depth to Groundwater/Date: - Dry 7/7/08
Piez ☐ Well ☒ Boring ☐			

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
1–7				0-0.5 Brown to light brown fine sandy silt (Choamy topsoil). Dry to slightly moist. 0.5-2.0 Brown to light reddish brown silt and fine sand (Fill?). Moist. 2.0-4.5 Reddish brown to reddish olive brown silt and clay with a little to trace of fine sand and medium sand. Moist. 4.5-7.0 Olive gray to brown silt with clay and a little fine-coarse sand and gravel very moist. (Till). 7.0-7.2 Silt sand and gravel w/ cobbles		0.0		
8				Bottom of Boring = 7.2' BGS Refusal on Bedrock.				

Checked by CRS - 7/25/08

MACTEC
511 Congress Steet
Portland, ME 04101

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

PORT2007022w.mac

SOIL BORING LOG

Project: ERDLE (Hidden Valley Subdivision)		Boring/Well No.: MW-20D	Project No.: 3612072094
Client: NYSDEC	Site: Hidden Valley Subdivision		Sheet No.: 1 of 2
Logged By: J. Rawcliffe	Ground Elevation: 553.6	Start Date: 7/7/08	Finish Date: 7/8/08
Drilling Contractor: Nothnagle	Driller's Name: Niel Short		Rig Type: CME-75
Drilling Method: HSA/Roller bit.	Protection Level: D	P.I.D. (eV): 10.0	Casing Size: 6" Temp / 4" permanent; Auger Size: 9¼ ID
Soil Drilled: ≈7'	Rock Drilled: Socket (2.7') Total Borehole	Total Depth: 21.3'	Depth to Groundwater/Date: 6.75 / 7/9/08; Piez ☐ Well ☒ Boring ☐

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
1	NA	4"	NA	Augering without sampling logging cuttings light brown silty fine sandy loam. (±0-2').		0.0		
2				2-5 Becomes moist reddish olive brown to brown silt with a little clay and traces of sand				
3						0.0		
4								
5								
6				Encountered some gravel or cobbles with auger at ≈6' BGS		0.0		
7				Becomes moist to very moist at ≈7' Olive to olive brown silt with a little clay fine sand and little to traces of sand and gravel. Encountered refusal at 7' bedrock or boulder?				
8								
9		8"		Set temporary 6" casing to 7' and drilled with roller bit to 9' - no odors or elevated PID readings rock appears quite competent in the top 2' as no water is being lost while roller bit drilling to top 2' of rock.				
10						0.0		

Thin wall steel casing (4" ID)

Cement Bentonite Grout

Rock

9.3'

Checked by CRJ 7/15/08

MACTEC
511 Congress Steet
Portland, ME 04101

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

PORT2007022w.mac

ROCK CORING LOG

Project: ERDLE Perforating	Site: Hidden Valley Subdivision	Exploration/Well No.: MW-20D		Project No.: 3612072094
Client: NYSDEC	Driller's Name: Neil Short	Logged by: JKR	Checked by: CRS-7/25/08	Ground Elev.: 553.6
Drilling Contractor: Nothnagle	Protection Level: D	Rig Type: CME-75	Start Date: 7/7/08	Finish Date: 7/8/08
Drilling Method: Tri-cone		P.I.D. (eV): 10.0	Casing Size: 6" Temp 4" Permanent	Auger Size: 4 1/4" ID
Bit type/size: 4" OD	Bit Use: tri cone	~~Core~~ Interval (to/from)(ft): 9.3'-21.3'		

Depth (feet) Below GRD Sort.	Sample No. & Penetration/ Recovery (feet)	Graphic Log	Natural Core Breaks: Type/Dip	Natural Core Breaks: Surface Condition	Weathered Condition	Rock Quality: Total 4" Core	Rock Quality: RQD (%)	Rock Quality: Rock Quality Description	Drilling Rate min/ft	Color	Rock Description and Comments on Drilling
	NA	NA	NA	NA	NA	NA	NA	NA		Grey	0745 – 0840 Drilled from 9.3' to 21.3' BGS using Tricone button bit. No elevated PID readings, no odors, and no sheens observed. Drilling rate was consistent with no obvious fractures or soft areas, lost a little water (35 gallons?) down hole during drilling. Rock appears to be fairly competent with some minor water bearing fractures. Rock is grey fossiliferous dolomite/limestone based on cores from area and grey sand sized drill cuttings.

MACTEC
511 Congress Steet
Portland, ME 04101

FIGURE 4-5
ROCK CORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

PORT2007022d.mac

SOIL BORING LOG

Project: Erdle Perforating		Boring/Well No.: GS-001	Project No.: 36110720S9
Client: NYSDEC	Site: Erdle		Sheet No. 1 of 1
Logged By: C. Stapler	Ground Elevation	Start Date: 7/7/08	Finish Date: 7/7/08
Drilling Contractor: Nothnagle	Driller's Name: Jeff Schweitzer		Rig Type: Geoprobe 6610D
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): 5.8/10.5	Casing Size: —	Auger Size: 2"
Soil Drilled: 14.5	Rock Drilled: —	Total Depth: 14.5	Depth to Groundwater/Date: 9.5' 7/7/08	Piez ☐ Well ☐ Boring ☒

Depth(Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	PI Meter Head Space	Lab Tests ID Sample
1	S1 2.0/4.0 0-4'			0-0.6- Brown silty sand - topsoil - organic 0.6-2.0 Reddish brown w fine SAND, some silt. poorly graded, loose, damp, ~~slight plasticity~~ CRI 7/7/08	SP	<0.1		
2								
3								
4								
5	S2 4.0/4.0 4-8'			0-1.0 Same as S1 0.6-2.0 1.0-1.5 F. SAND brown/red - strong odor, damp 1.5-4.0 Red clay. damp little moderately slight plasticity CRI 7/8/08	SM/SP SP CL	800 2500 500		GS-001005 VOC TOC
6								
7								
8								
9	S3 3.5/4.0 8-12'			0-3.0 Reddish brown clay, ~~damp~~ moist, slight plasticity 3.0-3.5 Gray brown clay moist little plasticity - sweet odor	CL	1900		GS-001011 GS-001011D
10								
11								
12								
13	S4 12-14.5 2.5/2.5			0-2.5 Gray Clay, saturated, high plasticity sweet odor - rock in tip	CL	1000		
14				Groundwater sample Refusal on rock @ 14.5' bgs				GW001012 (10-14' screen) very silty - poor flow @1140

MACTEC
511 Congress Steet
Portland, ME 04101

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

PORT2007022w.mac

Checked by TC
7/25/08

SOIL BORING LOG

Project: Erdle Perforating		Boring/Well No.: GS-002	Project No.: 361207294
Client: NYSDEC	Site: Erdle		Sheet No. 1 of 1
Logged By: C. Stryker	Ground Elevation	Start Date: 7/7/09	Finish Date: 7/7/09
Drilling Contractor: Nothnagle	Driller's Name: J. Schweitzer		Rig Type: Geoprobe - 6610D
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): 58.8	Casing Size: — / Auger Size: 2"
Soil Drilled: 14.5	Rock Drilled: —	Total Depth: 14.5	Depth to Groundwater/Date: 9.5' Piez ☐ Well ☐ Boring ☒

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	PI Meter Head Space	Lab Tests ID Sample
1–4	S1 0-4' 0.8/4.0			0-0.8 Gravel + Cobble - little organic silt - fill, dry	GP	<0.1		
5–8	S2 4-8' 0.5/4.0			0-0.4 - saturated gravel - Fill 0.4-0.5 red clay, slight layering, moist, slight plasticity	GP CL	1.1		
9–12	S3 8-12' 4.0/4.0			0-3.0 red clay slight gray mottling, dense low plasticity, slight layering 3.0-4.0 gray clay, saturated high plasticity, - trace C. sand	~~CL~~ CL CL	20 100		GS002011 @ 12-14 VOC TOC
12–14.5	S4 12-14.5 2.5/2.5			0-2.5 gray clay, saturated, high plasticity soft - trace F. gravel, C. SAND	CH	30		

14.5

Ground Water Sample GW002011 + 2011D-photo Q1250 - silty - good flow

BOBO 14.5' bgs - refusal

MACTEC
511 Congress Steet
Portland, ME 04101

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

PORT2007022w.mac

Checked by TC 7/25/08

SOIL BORING LOG

Project: Erdle		Boring/Well No.: GS003	Project No.: 3612072094
Client: NYSDEC	Site: Erdle		Sheet No. 1 of 1
Logged By: C. Staples	Ground Elevation	Start Date: 7/7/08	Finish Date: 7/7/08
Drilling Contractor: Nothnagle	Driller's Name: J. Schweitzer		Rig Type: Geoprobe 6610 DT
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): 5808	Casing Size: — / Auger Size: 2"
Soil Drilled: 15'	Rock Drilled: —	Total Depth: 15'	Depth to Groundwater/Date: — Piez ☐ Well ☐ Boring ☐

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
1–4	S1 0-4' 1.0/4.0			0-1.0 - Gravel - gray, fill, little organic	GP	<0.1		
5–8	S2 4-8' 2.0/4.0			0-0.5 brown sandy gravel, dry to saturated 0.5-1.0 black F. SAND, saturated, fuel odor. P. graded 1.0-2.0 red clay, slight modeling	GP SP CL	<0.1 30 1.0		sample GS003006 @ 1320 VOC TOC
9–12	S3 8-12 3.5/4.0			0-2.0 red clay, slight modeling, slight plasticity, uniform - fuel odor 2.0-3.5 gray clay, saturated.	CL CH	1.0 4		sample GS003011 @ 1335 VOC TOC
12–15	S4 12-15' 0/3.0			No recovery - gravel bit				

BOB @ 15' refusal

Ground Water Sample GW003011 @ 1350 - Low Flow

MACTEC
511 Congress Steet
Portland, ME 04101

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

PORT2007022w.mac

Checked by TC 7/25/08

SOIL BORING LOG

Project: Erdle Perforating		Boring/Well No.: SS-004	Project No.: 36120720944
Client: NYSDEC	Site: Erdle		Sheet No.: 1 of 1
Logged By: C. Staples	Ground Elevation:	Start Date: 7/7/08	Finish Date: 7/7/08
Drilling Contractor: Nothnagle	Driller's Name: J. Schweitzer		Rig Type: Geoprobe 6610 DT
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): 580B	Casing Size: — / Auger Size: 2
Soil Drilled: 14'	Rock Drilled: —	Total Depth: 14'	Depth to Groundwater/Date: 12' bgs - 7/7/08 1530

Piez ☐ Well ☐ Boring ☒

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
1	S1 0-4' 3.0/4.0			0-0.5 Topsoil - brown SAND, little organics	SM	<1		
				0.5-2.5 Tan Fine SAND, poorly graded, damp	SP	<1		
2				2.5-3.0 Dark brown peat, dry, slight fibers	PT	3		
3								
4								
5	S2 4-8' 4.0/4.0			0-0.5 Dark brown peat, dry, slight fibers	PT	25		
				0.5-1.5 Tan F. SAND, p-graded, slight black saturated	SP	220		
6				1.5-4.0 Red clay, damp, slight modeling odor	CL	368		GS004006 @ 1500 VOC
7								
8								
9	S3 8-12' 4.0/4.0			Red clay damp, slight plasticity, slight layering, slight modeling - grayer/softer, more plastic @ tip (0.4")	CL	185		
10						261		
11						233		
12						205		
13	S4 12-14 2.0/2.0			Gray CLAY, saturated, high plasticity trace sand		250		GS004011 @ 1510 VOC
14				BOB @ 14' bgs - refusal				

Ground Water Sample: GW 004 012 @ 1530 10-14' screen - very little water (2 vials)

MACTEC
511 Congress Steet
Portland, ME 04101

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

PORT2007022w.mac

Checked by TC 7/25/08

SOIL BORING LOG

Project: Erdle Perforating	Boring/Well No.: GS-005	Project No.: 361207209G	
Client: NYSDEC	Site: Erdle	Sheet No. 1 of 1	
Logged By: C. Staples	Ground Elevation	Start Date: 7/7/08	Finish Date: 7/7/08
Drilling Contractor: Nothnagle	Driller's Name: J. Schweitzer	Rig Type: Geoprobe 6610 DT	
Drilling Method: Direct Push	Protection Level	P.I.D. (eV): SB0B	Casing Size: —	Auger Size: 2"
Soil Drilled: 13.8'	Rock Drilled: —	Total Depth: 13.8'	Depth to Groundwater/Date: dry	Piez ☐ Well ☐ Boring ☒

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
1	S1 0-4' 0.2/2.0			0-0.5 Brown topsoil, silt, organic 0.5-1.0 - reddish clay layer w FSAND 1.0-2.0 Dark brown peat, root fiber, - organic odor	SM CL/SM PT	<1.0 <1.0		
2								
3								
4								
5	S2 4-8' 4.0/4.0			0-0.5 Dark brown peat, root fibers 0.5-4.0 red/brown clay, slight mottling, ~~pa~~ slight plasticity, slight layering	PT CL	9 340 203 190		
6								
7								
8								
9	S3 8-12' 4.0/4.0			0-2.5 same as S2 0.5-4.0 2.5-3.0 - some cobble 3.0-4.0 gray clay, saturated, little fine sand, high plasticity	CL CH	170 1195 240 380		collect GS00501 11-12' VOC @1350
10								
11								
12	S4 12-13.8			Gray Clay, little sand, little gravel, high plasticity saturated.	CH	900		

1.8/1.9

Refusal @ 13.8' bgs

Dry-no water

MACTEC
511 Congress Steet
Portland, ME 04101

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

PORT2007022w.mac

Checked by TC 7/25/08

SOIL BORING LOG

Project: Erdle Perforating		Boring/Well No.: GS-006	Project No.: 3612072094
Client: NYSDEC	Site: Erdle		Sheet No. 1 of 1
Logged By: C. Stapler	Ground Elevation	Start Date: 7/7/08	Finish Date: 7/7/08
Drilling Contractor: Nothnagle	Driller's Name: J. Schweitzer		Rig Type: Geoprobe 6610DT
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): 580B	Casing Size: — / Auger Size: 2"
Soil Drilled: 14.2	Rock Drilled: —	Total Depth: 14.2	Depth to Groundwater/Date: 7' bgs 7/7/08 @ 1655

Piez ☐ Well ☐ Boring ☒

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
1–4	S1 1.5/4.0 0-4'			0-0.5 Brown silty topsoil 0.5-1.0 Gray gravel, damp 1.0-1.25 Brown/black peat, organic roots 1.25-1.5 Gray F. SAND, uniform, graded	GP PT SP	19 412		
4–8	S2 4-8' 4.0/4.0			0-1.0 gray clay, little f. SAND, mottled, graded, slight plasticity 1.0-4.0 reddish brown clay, little mottling, slight plasticity, moist	CL CL	60 500 730		GS006007 (7' bgs) VOC @ 1630
8–12	S3 8-12' 4.0/4.0			0-3.0 same as S2 1-4.0 3.0-4.0 change to gray clay, high plasticity, wet	CL OL	200 150 50 200		GS006011 VOC & TOC @ 1640
12–14	S4 12-14.2' 0.5/2.2			0-0.5 gray clay, high plasticity, wet	OL	300		

Refusal @ 14.2' bgs

Ground Water Sample GW006011 (10-14' screen) ok. flow @ 1645

MACTEC
511 Congress Steet
Portland, ME 04101

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

PORT2007022w.mac

Checked by TC 7/25/08

SOIL BORING LOG

Project	Boring/Well No.	Project No.
Erdle Perforating	GS-007	361207 2094

Client	Site	Sheet No.
NYSDEC	Erdle	1 of 1

Logged By	Ground Elevation	Start Date	Finish Date
C. Stapler		7/7/08	7/7/08

Drilling Contractor	Driller's Name	Rig Type
Nothnagle	J. Schweitzer	Geoprobe 6610 DT

Drilling Method	Protection Level	P.I.D. (eV)	Casing Size	Auger Size
Direct Push	D	580 B	—	2"

Soil Drilled	Rock Drilled	Total Depth	Depth to Groundwater/Date	Piez	Well	Boring
14.0	—	14.0		☐	☐	☒

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
1	S1 0-4' 1.5/4.0			topsoil, then wet gravel		<0.1		
2								
3								
4								
5	S2 4-8' 1.0/4.0			0-0.5 clean saturated gravel 0.5-1.0 red clay, damp, mottling, organic fibers	GP CL	20 300		
6								
7								
8								
9	S3 8-12' 20/4.0			0-2.0 Gray clay, saturated, soft, high plasticity, slight mottling	CH	100		
10						250	GS007010 @1715 VOC TOC	
11								
12								
13	S4 12-14.0			same as S3	CH	250		
14	2.0/2.0							

BOB @ 14.0' - refusal

Groundwater Sample GW007012 @1730 Good flow

MACTEC
511 Congress Steet
Portland, ME 04101

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

PORT2007022w.mac

Checked by TC 7/25/08

SOIL BORING LOG

Project	Boring/Well No.	Project No.
Erdle Perforating	GS-008	36120720 94

Client	Site	Sheet No.
NYSDEC	Erdle	1 of 1

Logged By	Ground Elevation	Start Date	Finish Date
C. Stapler		7/8/08	7/8/08

Drilling Contractor	Driller's Name	Rig Type
Nothnagle	J. Schweitzer	Geoprobe 6610 DT

Drilling Method	Protection Level	P.I.D. (eV)	Casing Size	Auger Size
Direct Push	D	580 B	—	2"

Soil Drilled	Rock Drilled	Total Depth	Depth to Groundwater/Date	Piez	Well	Boring
13.8	—	13.8	—	☐	☐	☒

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
1	S1 0-4' 1.8/2.0			0-0.5 Topsoil 0.5-1.8 Dark brown u.f. SAND topsoil - little silt, damp	SM	<1		
2								
3								
4								
5	S2 4-8' 4.0/4.0			0-0.5 Dark brown F. SAND, little silt, moist 0.5-4.0 - red clay, little mottling, slight fibers - damp, dense, slight plasticity	SM CL	30	30	
6								
7						46		
8						35		
9	S3 8-12' 3.5/4.0			0-2.8 same as S2 0.5-4.0	CL	15		
10				2.8-3.5 Turns gray clay, soft, saturated high plasticity	CH	35		GS008011 @ 0735 VOC TOC
11								
12								
13	S4 12-13.8			same as S3 - 2.8-3.5, trace fine SAND saturated	CH	150		
13.8	1.8/1.8			Refusal @ 13.8'		250		

Ground Water Sample GW008012 VOC @ 0745 - low flow (but 3 vials)

MACTEC
511 Congress Steet
Portland, ME 04101

PORT2007022w.mac

Checked by TC 7/25/08

SOIL BORING LOG

Project: Erdle		Boring/Well No.: GS-009	Project No.: 3612072094
Client: NYSDEC	Site: Erdle Perforating		Sheet No.: 1 of 1
Logged By: C. Staples	Ground Elevation:	Start Date: 7/7/08	Finish Date: 7/7/08
Drilling Contractor: Nothnagle	Driller's Name: J. Schweitzer		Rig Type: Geoprobe - 6610 DT
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): 580 B	Casing Size:	Auger Size: 2
Soil Drilled: 14	Rock Drilled: -	Total Depth: 14	Depth to Groundwater/Date: -	Piez ☐ Well ☐ Boring ☒

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
1–4	S1 0-4' 1.9/4.0			topsoil + cobble 0.5 - 1.9 Tan F. SAND, little clay + mottled clay		<0.1		
5–8	S2 4-8' 4.0/4.0			0-1.0 Gray + black F SAND, some PT/silt 1.0-4.0 red clay, slight mottling, little layering. Damp, slight plasticity	SM/PT CL	<0.1 1.5 37 131		
9–12	S3 8-12' 3.5/4.0			0-1.0 same as S2-1-4' 1.0-4.0 Gray clay, saturated, high plasticity little fine sand	CL CH	5 10 7		MS/MSD GS009011 @ 1745 VOC
12–14	S4 12-14' 2.0/2.0			0-1.5 same as S3 1.0-4.0 - slightly more F. sand 1.5-2.0 gravel/ little clay/silt, cobble - saturated - strong odor - Product in water sample Refusal @ 14.0' bgs	~~100~~	100 2000 1000		GS009013 @ 1800 Groundwater sample GW009012 (10-14') @ 1905 * Product in sample - black liquid

MACTEC
511 Congress Steet
Portland, ME 04101

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

PORT2007022w.mac

Checked by TC
7/25/08

SOIL BORING LOG

Project	Boring/Well No.	Project No.
Erdle	SS-010	3612072094

Client	Site	Sheet No.
NYSDEC	Erdle	1 of 1

Logged By	Ground Elevation	Start Date	Finish Date
C. Staples		7/8/08	7/8/08

Drilling Contractor	Driller's Name	Rig Type
Nothnagle	J. Schweitzer	Geoprobe 6610DT

Drilling Method	Protection Level	P.I.D. (eV)	Casing Size	Auger Size
Direct Push	D	58013	—	2"

Soil Drilled	Rock Drilled	Total Depth	Depth to Groundwater/Date	Piez	Well	Boring
14.0	—	14.0	4.0' 7/8/08 1240	☐	☐	☒

Depth(Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
1	S1 0-4' 1.8/2.0			0-0.5 topsoil- Brown silt 0.5-1.8 Brown F. SAND, little silt, damp	SM	<1		
2								
3								
4								
5	S2 4-8' 4.0/4.0			0-0.5 Brown F. SAND, little silt, damp 0.5-4.0 red clay, little mottling, dense, slight plasticity, damp	SM CL	<1 1.5		
6								
7								
8						3.0		
9	S3 8-12' 3.5/4.0			0-3.5 same as S2 0.5-4.0 - can see slight layering if break - 1 sand lense - 0.01"	CL			
10						2.5		
11						14		
12						30		
	S4 12-14' 2.0/2.0			0-2.0 Gray clay, soft, high plasticity, little coarse sand, saturated BOB @ 14.0' - refusal		1.5		GS010013 @0825 VOC GW-010014 @0850 - V. slow

Groundwater sample

MACTEC
511 Congress Steet
Portland, ME 04101

PORT2007022w.mac

Checked by TC 7/25/08

SOIL BORING LOG

Project: Erdle Perforating		Boring/Well No.: GS-011	Project No.: JG12072094
Client: NYSDEC	Site: Erdle		Sheet No. 1 of 1
Logged By: C. Stapler	Ground Elevation	Start Date: 7/8/08	Finish Date: 7/8/08
Drilling Contractor: Northeast	Driller's Name: J Schweitzer		Rig Type: Geoprobe 6610DT
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): 5813	Casing Size: —	Auger Size: 2
Soil Drilled: 13'	Rock Drilled: —	Total Depth: 13'	Depth to Groundwater/Date	Piez ☐ Well ☐ Boring ☒

Depth(Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
1	S1 0-4' 2.5/4.0			0-1.0 F. SAND, little to some silt, damp. little organics	SM	<1		
2				1.0-1.8 Peat, organic roots	PT			
3				1.8-2.5 Tan F. SAND grades to red clay damp - slight plasticity	SP CL	<1		
4								
5	S2 4-8' 4.0/4.0			0-4.0 red clay, slight mottling, stiff, dense damp, slight plasticity	CL	2.2		
6						3.5		
7						1.2		
8								
9	S3 8-11' 3.0/3.0			0-3.0 same as S2 - near tip becomes saturated & slight gray & high plasticity	CL	63		- GS011009 @0950 VOC
10						30		
11					CH	6		
12	S4 11-13' 2.0/2.0			0-2.0 Gray clay trace F SAND, trace F. gravel - glaciomarine - moist to saturated, - one cobble. High plasticity	CH			
13								

Refusal @ 13' bgs

Groundwater Sample GW011012 @ 1000 MS/MSD Grab Flow

MACTEC
511 Congress Steet
Portland, ME 04101

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

PORT2007022w.mac

Checked by TC 7/25/08

SOIL BORING LOG

Project: Erdle Perforating		Boring/Well No.: GS-012	Project No.: 3612072094
Client: NYSDEC	Site: Erdle		Sheet No.: 1 of 1
Logged By: C. Staples	Ground Elevation:	Start Date: 7/8/08	Finish Date: 7/9/08
Drilling Contractor: Nothnagle	Driller's Name: J. Schweitzer		Rig Type: Geoprobe 6610 DT
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): 580B	Casing Size: — / Auger Size: 2"
Soil Drilled: 13.5'	Rock Drilled: —	Total Depth: 13.5	Depth to Groundwater/Date: 6.4' 7/9/08 1100

Piez ☐ Well ☐ Boring ☒

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
1	S1 0-4' 2.5/3.0			0-0.2 topsoil 0.2-1.2 brown F-SAND, little silt, trace gravel moist, organic roots	SM	CL		
2				1.2-1.6 Peat-organic roots	PT			
3				1.6-2.5 red brown F-SAND (SILT/clay) 2" band 2" bands) some mixing moist	SM/CL	10		
4	S2 4-8' 3.5/4.0			0-3.5 red clay, slight mottling, dense, slight plasticity damp. Chlorinated odor	CL	100 50 500 900		GS012007 @1030
8						600		
9	S3 8-11' 3.0/3.0			0-2.0 same as S2 2.0-3.0 gray clay, high plasticity moist to saturated trace fine sand	CL CH	800 100 50 100 50		
11								
12	S4 11-13.5 2.0/2.5			0-2.0 Brown to gray clay, high plasticity trace fine sand - saturated. Wet		100 50		GS012012 @1045
13								
13.5								

Refusal @ 13.5' bgs

Groundwater sample GW012013 (grab flow) @1055

MACTEC
511 Congress Steet
Portland, ME 04101

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

PORT2007022w.mac

Checked by TC 7/25/08

SOIL BORING LOG

Project: Erdle Perforating		Boring/Well No.: GS014	Project No.: 3612072094
Client: NYSDEC	Site: Erdle		Sheet No.: 1 of 1
Logged By: C. Staples	Ground Elevation:	Start Date: 7/8/08	Finish Date: 7/8/08
Drilling Contractor: Nothnagl	Driller's Name: J. Schweitzer		Rig Type: Geoprobe 6610 DT
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): 5808	Casing Size: — / Auger Size: 2
Soil Drilled: 14	Rock Drilled: —	Total Depth: 14	Depth to Groundwater/Date: —

Piez ☐ Well ☐ Boring ☒

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
1–4	S1 0-4' 0.5/4.0			Topsoil - F. SAND, bits concrete, dry		<a1		
4–8	S2 4-8' 4.0/4.0			0-4.0 red clay, slight mottling, dense slight plasticity, damp - strong chlorinated odor	CL	900 / 2200 / 2400		GS014006 @ 1315 VOC
8–12	S3 8-11' 3.0/3.0			0-3.0 same as S2 some layering, fine lenses sand	CL	2200 / 800 / 1000 / 600 / 200 / 250		GS014013 @ 1330 VOC
12–14	S4 11-14' 3.0/3.0			0-1.0 same as S3 - starts changing to gray soft clay 1.0-3.0 Gray Clay, trace fine sand, soft high plasticity, saturated BOB - refusal @ 14.0'		150		Groundwater sample GW014013 @ 1335 VOC - clear flow

14

MACTEC
511 Congress Steet
Portland, ME 04101

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

PORT2007022w.mac

Checked by TC 7/25/08

SOIL BORING LOG

Project: Erdle Perforating		Boring/Well No.: GS-015	Project No.: 361207094
Client: NYSDEC	Site: Erdle		Sheet No.: 1 of 1
Logged By: C. Staples	Ground Elevation:	Start Date: 7/8/08	Finish Date: 7/8/08
Drilling Contractor: Nothnagle	Driller's Name: J. Schweitzer		Rig Type: Geoprobe 6610DT
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): 580B	Casing Size: — / Auger Size: 2
Soil Drilled: 13.0	Rock Drilled: —	Total Depth: 13.0	Depth to Groundwater/Date: —

Piez ☐ Well ☐ Boring ☒

Depth(Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
1–4	S1 0-4' 0.8/4.0			0-0.1 - fibrous topsoil – SAND				
5–8	S2 4-8' 4.0/4.0			0-4.0 - red clay, slight mottling, slight layering, dense, damp, slight plasticity	CL	350 500 2600 2200		GS015007 @ 1400 VOC
9–12	S3 8-12' 4.0/4.0			0-3.0 same as S2 3.0-4.0 changes to gray clay (gradual) - becomes softer, high plasticity		600 500 250 150		
12–13	S4 13-14' 1.0/1.0			0-1.0 gray clay, little F SAND, trace gravel, saturated, high plasticity Refusal @ 13' bgs	CH	80 70 25		GW015012 @ 1415 clk flow

Groundwater sample

MACTEC
511 Congress Steet
Portland, ME 04101

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

PORT2007022w.mac

Checked by TC
7/25/08

SOIL BORING LOG

Project: Erdle Perforating		Boring/Well No.: GS016	Project No.: 3612072094
Client: NYSDEC	Site: Erdle	Sheet No.: 1 of 1	
Logged By: C. Staples	Ground Elevation:	Start Date: 7/8/08	Finish Date: 7/8/08
Drilling Contractor: Nothnagle	Driller's Name: J. Schweitzer	Rig Type: Geoprobe 6610DT	
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): 580B	Casing Size: — / Auger Size: 2"
Soil Drilled: 13'	Rock Drilled: —	Total Depth: 13'	Depth to Groundwater/Date: 6.0' 7/8/08 @ 1505

Piez ☐ Well ☐ Boring ☒

Depth(Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
1–4	S1 3.0/4.0 0-4'			0-1.0 Topsoil, F. SAND 1.0-2.0 Brown SILT & gray clay, loose	SM	<0.1		
5–8	S2 4-8' 4.0/4.0			0-4.0 red clay, little mottling, slight layers in places, dense, slight plasticity	CL	2000 2200 2000 1800		GS016006 @ 1440
9–12	S3 8-12' 3.5/4.0			0-3.0 - same as S2 3.0-4.5 changes to gray clay, softer more plasticity, little mottling	CL CL	2000 2500 1800 200		
12–13	S4 12-13' 1.0/1.0			0-1.0 - gray clay, little C. SAND, trace gravel, saturated, soft, high plasticity	CH	150 80		

BOB @ 13.0' - refusal

Ground water sample GW016012 @ 1455 - sand filter

MACTEC
511 Congress Steet
Portland, ME 04101

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

PORT2007022w.mac

Checked by TC 7/25/08

SOIL BORING LOG

Project: ERDLE Perforating		Boring/Well No.: GS-17	Project No.: 36120720994
Client: NYSDEC	Site: IRM - Erdle Property		Sheet No.: 1 of 1
Logged By: J. Rauchfuß	Ground Elevation: NA	Start Date: 9/22/08	Finish Date: 9/22/08
Drilling Contractor: Northeast	Driller's Name: Jeff Schweitzer		Rig Type: Geoprobe 6610DT
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): 10.0	Casing Size: 2.125 OD / Auger Size: NA
Soil Drilled: 4.0	Rock Drilled: —	Total Depth: 4.0	Depth to Groundwater/Date: NA

Piez ☐ Well ☐ Boring ☒

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
				0-0.4				
1	2.7/4.0		NA	Brown to slightly reddish brown sand and silt with some fine gravel. Topsoil. Dark layer at bottom of topsoil.		0.1		
2				0.4-2.1 light reddish brown fine sand with a little silt. Moist.		0.1		
3		2.1-2.7		Very dark brown fine sand and silt. Faint organic odor. 8250712-GS017002 1355		0.1		
4				Collected sample from very dark brown layer. VOAs (MeOH) % Moisture				
				Bottom of boring = 4.0' BGS No refusal				

MACTEC
511 Congress Steet
Portland, ME 04101

Checked by CRJ 11/1/08

PORT2007022w.mac

SOIL BORING LOG

Project: Erdle Perforating		Boring/Well No.: GS-18	Project No.: 361207094
Client: NYSDEC	Site: Erdle Property		Sheet No.: 1 of 1
Logged By: J. Rawcliffe	Ground Elevation: NA	Start Date: 9/22/08	Finish Date: 9/22/08
Drilling Contractor: Nothnagle	Driller's Name: Jeff Schweitzer		Rig Type: Geoprobe 6610DT
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): 10.0	Casing Size: 2.125 OD / Auger Size: —
Soil Drilled: 4.0	Rock Drilled: —	Total Depth: 4.0	Depth to Groundwater/Date: NA

Piez ☐ Well ☐ Boring ☒

Depth(Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
1	2.7/4.0		NA	0-0.2 Brown sandy silt topsoil		0		
				0.2-0.8 light brown fine sand with a little silt and trace gravel.		0		
2				0.8-1.5 light grayish brown fine sand with gravel and silt. slight organic odor		0		
				1.5-2.5 light brown to reddish brown fine sand with a little silt.		0		
3				2.5-2.7 Dark brown to very dark brown fine sand and silt. Moist.				
4				Collected sample from 2.5-2.7' interval				
				VOA (MeOH)				
				%moisture				
				828072-GS018002				
				1405				
				Bottom of Boring = 4.0' No Refusal				

MACTEC
511 Congress Steet
Portland, ME 04101

Checked by CRS 11/1/08

Jerry Rawcliffe

PORT2007022w.mac

SOIL BORING LOG

Project: Erdle Perforating		Boring/Well No.: GS-19	Project No.: 3620072054
Client: NYSDEC	Site: Erdle - Property		Sheet No.: 1 of 1
Logged By: J. Rawcliffe	Ground Elevation: NA	Start Date: 9/22/08	Finish Date: 9/22/08
Drilling Contractor: Northnagle	Driller's Name: Jeff Schweitzer		Rig Type: Geoprobe 6610 DT
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): 10.0	Casing Size: 2.125" OD / Auger Size: —
Soil Drilled: 13.0	Rock Drilled: —	Total Depth: 13.0	Depth to Groundwater/Date: Piez ☐ Well ☐ Boring ☒

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
1	1.9 / 4.0			0-0.7 Brown fine sand with a little gravel and some silt (Top soil)		0		
2				0.7-1.9 Dark brown to dark grayish brown fine sand with silt. Slight organic odor.		3.1		
3						0.1		
4								
5	4.0 / 4.0		4-8	Reddish brown silt with fine sand and some clay. Moist, some sandy lenses, grayish colored layers.		0.1		
6						0.4		
7						0.6		
8						0.7		
9	3.8 / 4.0			8-12 9.5 Reddish brown silt with fine sand and some clay. Very moist, some gray colored layers		0.1		
10				9.5-10.5 light reddish brown to grayish brown fine sand and silt very moist to wet, stratified		10.6	sample ≈9.0' BGS	
11				10.5-12 Gray fine sand and silt, wet.		2.4	8258072-GS019009	
12	1.2 / 1.0		12-13	Gray fine sand and silt. wet.		2.1		
						3.2		
						4.5		
						2.7		

Bottom of boring = 13.0' refusal @ 13.0' BGS.

MACTEC
511 Congress Steet
Portland, ME 04101

Checked by CRS 11/1/09

Jerry Rawcliffe

PORT2007022w.mac

SOIL BORING LOG

Project: Erdle Perforating		Boring/Well No.: GS-20	Project No.: 3612072094
Client: NYSDEC	Site: Erdle Property		Sheet No.: 1 of 1
Logged By: J. Rawcliffe	Ground Elevation: NA	Start Date: 9/22/08	Finish Date: 9/22/08
Drilling Contractor: Nothnagle	Driller's Name: Jeff Schwietzer		Rig Type: Geoprobe 6610 DT
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): 10.0	Casing Size: 2.125" OD / Auger Size: —
Soil Drilled: 13.2	Rock Drilled: —	Total Depth: 13.2	Depth to Groundwater/Date: NA

Piez ☐ Well ☐ Boring ☒

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm): PI Meter Field Scan	Monitoring (ppm): PI Meter Head Space	Lab Tests ID Sample
1–4	2.3 / 4.0			0-1.5 Brown fine sand with a little silt. (Grassy topsoil). Gravelly layer at 1.5'. 1.5-2.3 light grayish brown fine sand with a little silt. Dry.		0, 0, 0, 0		
5–8	4.0 / 4.0			4-8' Reddish brown silt and fine sand with some clay. Becoming moist.		0, 0, 0, 0, 0		
9–11	4.0 / 3.0			8-10 Reddish brown silt and fine sand with some clay, moist to very moist. stratified. 10-11 Reddish brown to reddish gray silt and fine sand with a little clay. Wet. stratified.		0, 0, 0, 0		
12–13	3.6 / 2.2'			11-13.2 Gray silt with fine to coarse sand and a little gravel. Wet, soft, massive		0, 0, 0	Collected sample @ 12'	

13.2'

Bottom of boring = 13.2' Refusal @ 13.2' BGS

828072-GS020 012

MACTEC
511 Congress Steet
Portland, ME 04101

Checked by CRS 11/11/08

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

PORT2007022w.mac

SOIL BORING LOG

Project: ~~Maine DEP - Moosehead Manufacturing - Dover-Foxcroft~~ ERDLE		Boring/Well No.: GS-21	Project No.: 36120720 94
Client: ~~MEDEP~~ NYSDOT	Site: ~~Moosehead Manufacturing~~ Erdle Property		Sheet No.: 1 of 2
Logged By: J. Rawcliffe	Ground Elevation: Erdle NA	Start Date: 9/22/08	Finish Date: 9/22/08
Drilling Contractor: ~~County Environmental~~ Northern	Driller's Name: Jeff Schwiesres	Rig Type: Geoprobe 6610 DT	
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): 10.0	Casing Size: 2.125" OD / Auger Size: —
Soil Drilled: 15'	Rock Drilled: —	Total Depth: 15'	Depth to Groundwater/Date: NA — Piez ☐ Well ☐ Boring ☒

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
1	2.8 / 4.0			0-0.6 Brown to dark brown fine sand and silt (Topsoil Fill) Gravelly layer at 0.6'.		0		
2				0.6-2.6 light brown to light reddish brown fine sand with a trace of silt and gravel. Moist.		0		
3				2.6-2.8 Dark brown to very dark brown fine sand and silt with wood fragments and an organic odor.		0		
4								
5	4.0 / 4.0		4-5	~~light~~ Dark Brown to very dark brown fine sand and silt with root fibers, slight organic odor.		0		
6				5-5.2 light brown to brown fine sand with a little silt. Very moist to wet.		0		
7				5.2-8 Reddish brown silt with a little fine sand and some clay. Moist.		0		
8						0		
9	4.0 / 4.0			8-9.8 Reddish brown silt with a little fine sand and clay. Moist, some gray mottling		0		
10				9.8-12' Gray silt and fine sand with traces of med-coarse sand and some clay. Very moist to wet		0		Sample at 9.8'
11						0		825072-650210 10
12	/	/		(See next page)		0		VOA (MeOH) % Moisture

MACTEC
511 Congress Steet
Portland, ME 04101

checked by CRS 11/1/08

J. Rawcliffe

PORT2007022w.mac

SOIL BORING LOG

Project ~~Maine DEP - Moosehead Manufacturing - Dover-Foxcroft~~ BRRB		Boring/Well No. GS-21	Project No. 3612072094
Client ~~MEDEP~~ NYSDEC	Site Erdle Property ~~Moosehead Manufacturing~~		Sheet No. 2 of 2
Logged By J. Rawcliffe	Ground Elevation NA	Start Date 9/22/08	Finish Date 9/22/08
Drilling Contractor Nothnagle ~~County Environmental~~	Driller's Name Jeff Schwietzer		Rig Type Geoprobe 6610 DT
Drilling Method Direct Push	Protection Level D	P.I.D. (eV) 10.0	Casing Size 2.125 OD / Auger Size —
Soil Drilled 15	Rock Drilled —	Total Depth 15	Depth to Groundwater/Date NA — Piez ☐ Well ☐ Boring ☒

Depth(Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
13	3.1 / 3.0			13-15 Reddish gray to gray fine sand and silt with a little clay and traces of medium to coarse sand. Wet, slight foliated appearance.		0		
14						0		
15						0		
				Bottom of boring = 15.0'; Refusal @ 15.0' BGS				

MACTEC
511 Congress Steet
Portland, ME 04101

Checked by CRS 11/1/08

Jerry Rawcliffe

PORT2007022w.mac

SOIL BORING LOG

Project: ERDLE Perforating		Boring/Well No.: GP-22	Project No.: 3612072094
Client: NYSDEC	Site: Erdle Property		Sheet No.: 1 of 1
Logged By: J. Rawcliffe	Ground Elevation: NA	Start Date: 9/22/08	Finish Date: 9/22/08
Drilling Contractor: Nothnagle	Driller's Name: Jeff Schuietzer		Rig Type: Geoprobe 6610 DT
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): 10.0	Casing Size: 2.125 OD / Auger Size:
Soil Drilled: 4'	Rock Drilled:	Total Depth: 4'	Depth to Groundwater/Date: NA

Piez ☐ Well ☐ Boring ☒

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
1	1.9/4.0			0-0.7 Brown to dark brown fine sand with some silt and trace of gravel. (Topsoil.) Gravel layer at 0.7'.		0		
2						0		
3				0.7-1.9 Dark grayish brown to dark gray, fine sand and silt with some root/ wood fibers and an organic odor		0	sample at 1.7' 1540	
4				Bottom of boring 4.0'. No Refusal		0		828072-GS022002 VOA (MeOH) % Moisture

Checked by CRS 11/1/08

MACTEC
511 Congress Steet
Portland, ME 04101

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

PORT2007022w.mac

Jay Rawcliffe

SOIL BORING LOG

Project: ERDLE Perforating		Boring/Well No.: GS-23	Project No.: 36120720594
Client: NYSDEC	Site: Erdle Property		Sheet No.: 1 of 1
Logged By: J. Rawcliffe	Ground Elevation: NA	Start Date: 9/22/08	Finish Date: 9/22/08
Drilling Contractor: Nothnagle	Driller's Name: Jeff Schweitzer		Rig Type: Geoprobe 6610 DT
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): 10.0	Casing Size: 2.125 OD / Auger Size: —
Soil Drilled: 13.2	Rock Drilled: —	Total Depth: 13.2	Depth to Groundwater/Date: NA

Piez ☐ Well ☐ Boring ☒

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm): PI Meter Field Scan	Monitoring (ppm): PI Meter Head Space	Lab Tests ID Sample
1	2.6/4.0			0-0.8 light reddish brown to light brown fine sand with silt and traces of med sand and gravel. dry		0		
2						0		
						3.6		
3				0.8-1.5 Brown fine sand with traces of silt and medium to coarse sand with some wood fragments. Slightly moist.		0		
4				1.5-2.6 Brown to light reddish brown fine sand and silt. Slightly moist				
5	4.0/4.0			4-8' Reddish brown fine sand and silt with traces of medium to coarse sand and gravel. Slightly moist.		0		
6						0		
7						0		
8						0		
9	3.5/4.0			8-11 Reddish brown to reddish gray ~~fine~~ silt and fine sand with some clay. Stratified with traces of coarser material at top becoming moist fines grained at bottom		0		
10						0		
11						0		
12	2.5/2.2			11-12 Gray to slightly reddish gray ~~fine sand~~ silt and fine sand with clay. Very moist.		0		Sample at 11' 1605
				12-13.2 Gray silt with fine sand a little clay and traces of medium to coarse sand and gravel. Very moist to wet.		0		

13.2

Bottom of boring = 13.2'. Refusal at 13.2' BGS.

828072-6502301

VOA (MeOH) w/ Moisture

MACTEC
511 Congress Steet
Portland, ME 04101

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

PORT2007022w.mac

Checked by CRS 11/1/08

Jay Rawcliffe

SOIL BORING LOG

Project	Boring/Well No.	Project No.
EROLE	GS-24	3612072054

Client	Site	Sheet No.
NYSDEC	Erdle Property	1 of 1

Logged By	Ground Elevation	Start Date	Finish Date
J. Rawcliffe	NA	9/22/08	9/22/08

Drilling Contractor	Driller's Name	Rig Type
Northeastern	Jeff Schweitzer	Geoprobe 6610 DT

Drilling Method	Protection Level	P.I.D. (eV)	Casing Size	Auger Size
Direct Push	D	10.0	2.125" OD	—

Soil Drilled	Rock Drilled	Total Depth	Depth to Groundwater/Date	Piez	Well	Boring
13.0	—	13.0	NA	☐	☐	☒

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
1–4	2.8/4.0			0-0.3 Brown to light reddish brown fine sand and silt. Dry to moist (Topsoil.) 0.3-1.5 Brown to dark brown fine sand and silt with some root fibers slightly moist. 1.5-2.8 light brown to light reddish brown fine sand and silt. Slightly moist, stratified		0 0 0 0 6.5		
5–8	4.0/4.0			4-8' Reddish brown silt with some clay and traces of fine sand. Slightly moist. slight stratified appearance with some gray mottling. ~~and traces of~~		5.2 8.4 14.8 23.1 8.0		
8–11	3.5/3.0			8-10 Reddish brown silt with some clay. Very moist, stratified, some mottling. 10-11 Gray to reddish gray silt with some clay and traces of fine sand. Very moist. ~~to~~ wet at bottom		6.5 17 68 238 160		828072-GS024010 VOA (MeOH) % Moisture
11–13	2.5/2.0			11-13 Gray silt with a little clay and traces of fine to coarse sand. ~~Top moist to~~ wet.		140 111 60 28		

Bottom of boring = 13.0'. Refusal @ 13' BGS.

MACTEC
511 Congress Steet
Portland, ME 04101

Checked by CRS 11/1/08

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

PORT2007022w.mac

SOIL BORING LOG

Project: ERDLE Perforating		Boring/Well No.: GS-25	Project No.: 361208209C
Client: NYSDEC	Site: Erdle Property		Sheet No.: 1 of 1
Logged By: J. Rawcliffe	Ground Elevation: NA	Start Date: 9/23/08	Finish Date: 9/23/08
Drilling Contractor: Nothnagle	Driller's Name: Jeff Schwietzer		Rig Type: Geoprobe 6610 DT
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): 10.0	Casing Size: 2.125" OD / Auger Size: —
Soil Drilled: 13.2	Rock Drilled: —	Total Depth: 13.2	Depth to Groundwater/Date: NA

Piez ☐ Well ☐ Boring ☒

Depth(Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
1	2.8/4.0			0-0.8 Dark brown to very dark brown fine sand and silt. (loamy topsoil). Moist		0.3		
2				0.8-1.6 Dark grayish brown fine sand with a little silt. Moist		0		
3				1.6-2.2 Brown to slightly reddish brown fine sand with some silt. Very moist to wet.		0		
4				2.2-2.8 Reddish brown silt with a little fine sand. Very moist, slightly mottled.		0		
5	3.6/4.0			4-8' Reddish brown silt with occational reddish gray layers. Traces of f-c sand and occational pieces of gravel. Moist, stratified.		0.3		
6						0		
7						0		
8						0		
9	3.1/3.0			8-9' Brown fine to medium sand with a little silt (possible caving). Wet.		0		Sample at 9' 828072-GS025009 0750 MS/MSD/DUP
10				9-11' Reddish brown silt with some clay and occational traces of coarse material. Very moist to wet, stratified some gray layers.		0		
11						4.6		
12	2.0/2.2			11-12 Brown fine sand with some silt, wet		0.3		
				12-13.2 Gray fine sand and silt with some traces of medium to coarse sand and fine gravel. Wet.		3.6 / 108		Sample at ~12.5' 828072-GS025012 0757

13.2' Bottom of boring. Refusal at 13.2' BGS

GW sample in GS-25
828072-~~GS025~~
GW025012
0810

MACTEC
511 Congress Steet
Portland, ME 04101

Checked by CRJ 11/1/08

PORT2007022w.mac

SOIL BORING LOG

Project: ERDLE Perforating	Boring/Well No.: GS-26	Project No.: 3612072094
Client: NYSDEC	Site: Erdle Property	Sheet No. 1 of 1
Logged By: J. Rawcliffe	Ground Elevation: NA	Start Date: 9/23/08	Finish Date: 9/23/08
Drilling Contractor: Nothnagle	Driller's Name: Jeff Schwiedzer	Rig Type: Geoprobe 6610 DT
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): 10.0	Casing Size: 2.125" OD	Auger Size: —
Soil Drilled: 13.8	Rock Drilled: —	Total Depth: 13.8	Depth to Groundwater/Date: NA	Piez ☐ Well ☐ Boring ☒

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
1	2.1 / 4.0			0-1.1 Dark brown to very dark brown fine sand with silt and organic silt and other organic debris. Moist.		0		
2				1.1-1.5 Gray to dark gray fine sand with a little silt. Moist		0		
3				1.5-2.2 Brown to slightly reddish brown fine sand with a little silt. Moist to wet.		0		
4						0		
5	3.8 / 4.0			4-8' Reddish brown silt with a little fine to coarse sand and traces of gravel. Moist, massive		0		
6						0		
7						0		
8						0		
9	2.8 / 3.0			8-11 Reddish brown to grey (thin grey layers) silt with traces of fine to coarse sand and occasional gravel pieces. Moist, stratified.		0		
10						0		
11						0		
						6.7		
12	2.5 / 2.8			11-12 Brown fine to medium sand and silt with some silt/clay layers (reddish brown). Wet.		5.1		12.5'
				12-13.8 Gray fine to coarse sand and silt with some brown sand lenses and some silty layers. Wet.		23		828072-GS026012 VOA (Method 01?) % Moisture 0850
13.8						18		

MACTEC
511 Congress Steet
Portland, ME 04101

Bottom of boring = 13.8' BGS. Refusal at 13.8'

Checked by CRS 11/1/08

Jerry Rawcliffe

PORT2007022w.mac

SOIL BORING LOG

Project: ERIE Perforating		Boring/Well No.: GS-27	Project No.: 36120720S4
Client: NYSDEC	Site: Erdle property		Sheet No.: 1 of 1
Logged By: J. Rawcliffe	Ground Elevation: NA	Start Date: 9/23/08	Finish Date: 9/23/08
Drilling Contractor: Northeagle	Driller's Name: Jeff Schweitzer		Rig Type: Geoprobe 6610DT
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): 10.0	Casing Size: 2.125" OD / Auger Size: —
Soil Drilled: 13.6	Rock Drilled: —	Total Depth: 13.6	Depth to Groundwater/Date: NA

Piez ☐ Well ☐ Boring ☒

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm): PI Meter Field Scan	Monitoring (ppm): PI Meter Head Space	Lab Tests ID Sample
1	1.6 / 4.0			0-.2 Very dark brown fine sand and silt with organic silt and other organic debris.		0		
2				.2-1.0 light reddish brown to yellowish brown fine sand with a little medium sand and silt. Moist, to wet at 1.0'.		0		
3				1.0-1.6 Reddish brown silt with a little fine sand and clay. Moist, stratified with		0		
4						0		
5	3.6 / 4.0			4-8 Reddish brown silt with clay and traces of fine to coarse sand and occational gravel pieces. Moist, stratified.		0.3		
6						2.1		
7						1.8		
8						0.8		
9	2.9 / 3.0			8-8.5 Brown fine to medium sand with a little silt. Wet, possibly caving		0.3		
10				8.5-11 Reddish brown silt with clay and traces of coarse material (f-c sand & gravel). Stratified with frequent grey colored layers. Moist to very moist		6.8		
11						24		S25072-GS027010 VOA (MeOH) % Solids 0930
12	1.2 / 2.6			Brown to reddish brown to grey fine sand with silt medium to coarse sand and occational gravel. Appears very disturbed becomes grey at bottom, wet.		21		
13						2.7		
13.6						6.8		
						2.1		

MACTEC
511 Congress Steet
Portland, ME 04101

Bottom of boring = 13.6', Refusal at 13.6' BGS

Checked by CRS 11/1/08

Jerry Rawcliffe

PORT2007022w.mac

SOIL BORING LOG

Project: Erdle Perforating		Boring/Well No.: GS-28	Project No.: 36120720954
Client: NYSDEC	Site: Erdle Perforating		Sheet No.: 1 of 1
Logged By: J. Rawcliffe	Ground Elevation: NA	Start Date: 9/23/08	Finish Date: 9/23/08
Drilling Contractor: Northeastern	Driller's Name: Jeff Schweitzer		Rig Type: Geoprobe 6610 DT
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): 10.0	Casing Size: 2.125" OD
Auger Size: —			
Soil Drilled: 13.8	Rock Drilled: —	Total Depth: 13.8	Depth to Groundwater/Date: NA
Piez ☐ Well ☐ Boring ☒			

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
1	2.9/4.0			0-1.1 Dark brown to very dark brown fine sand with silt and organic debris/silt. Some organic stained soils. Moist.		0		
2				1.1-2.3 Brown to light brown to reddish brown fine sand with some silt and traces of medium sand. Moist stratified becomes finer with depth.		0		
3						0		
4				2.3-2.9 Brown to slightly reddish brown fine sand with some silt grading to silt with fine sand. Moist.		0		
5	3.4/4.0			4-8 Reddish brown silt with clay and traces of f-c sand and occational gravel pieces. Moist, massive.		0		
6						0.3		
7						0		
8						0.6		
9	2.6/3.0			8-11 Reddish brown silt with clay and occational lenses of f-c sand. Some grey colored layers becomes finer plastic with depth moist.		1.7		
10						0.8		S28072-GS028008 VOA (Modified) VOC (Modified) TOTO
11						3.1		
12	1.8/2.8			11-12 Reddish brown to reddish grey silt with a little fine sand. Wet, soft, stratified.		1.0		
13				12-13.8 Grey to reddish grey silt with some fine to coarse sand and traces of gravel. Wet, massive.		0		
13.8						0		

MACTEC
511 Congress Steet
Portland, ME 04101

Bottom of boring = 13.8' BGS Refusal at 13.8'.

checked by CRS 11/1/08

Jay Rawcliffe

PORT2007022w.mac

SOIL BORING LOG

Project: ERDLE Perforating		Boring/Well No.: GS-29	Project No.: 3612072054
Client: NYSDEC	Site: Erdle Property		Sheet No.: 1 of 1
Logged By: J. Rawcliffe	Ground Elevation: NA	Start Date: 9/23/08	Finish Date: 9/23/08
Drilling Contractor: Northnagle	Driller's Name: Jeff Schweitzer		Rig Type: Geoprobe 6610DT
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): 10.0	Casing Size: 2.125" OD / Auger Size: —
Soil Drilled: 13.6	Rock Drilled:	Total Depth: 13.6	Depth to Groundwater/Date: NA

Piez ☐ Well ☐ Boring ☒

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
1	2.3 / 4.0			0-0.7 Dark brown fine sand and silt with organic debris, loose dry to moist.		0		
2				0.7-0.8 Wood fragment		0		
3				0.8-1.6 light brown to brown to slightly reddish brown fine sand with a little silt and traces of medium sand. Moist		0		
4				1.6-2.3 Reddish brown silt and fine sand moist, some stratification		6		
5	3.6 / 4.0			4-4.6 Reddish brown to brown to grey silt and fine sand. Saturated moist with mottling.		0		
6				4.6-8 Reddish brown silt with a little clay and a little to trace of fine to coarse sand and occasional pieces of gravel. Moist, massive becomes softer with depth.		0		
7						0		
8						2.3		
9	3.0 / 3.0			8-10.5 Reddish brown silt with some clay and a little fine sand along thin layers. Some grey layers and traces of m-coarse sand and gravel. Moist, becoming softer. Well stratified		0 / 4.1 / 6.8 / 1.8		828072-GS029009 VOA (MeOH) % Moisture 1045
10								
11				10.5-11 Grey to reddish grey silt and fine sand with a little clay and medium to coarse sand traces of gravel very moist, stratified.		2.1 / 0		
12	1.8 / 2.6			11-13.6 Grey to light reddish grey fine sand and silt with a little to traces of medium to coarse sand and gravel. Wet, loose/soft.		0 / 0		
13						0		
13.6				~~Becomes coarser at bottom.~~				

MACTEC
511 Congress Steet
Portland, ME 04101

Bottom of boring = 13.6' Refusal at 13.6' BGS

checked by CRS 11/1/08

Jerry Rawcliffe

PORT2007022w.mac

SOIL BORING LOG

Project: ERDLE Perforating		Boring/Well No.: GS-30	Project No.: 3612072094
Client: NYSDEC	Site: Erdle property		Sheet No.: 1 of 1
Logged By: J. Rawcliffe	Ground Elevation: NA	Start Date: 9/23/08	Finish Date: 9/23/08
Drilling Contractor: Nothnagle	Driller's Name: Jeff Schweitzer		Rig Type: Geoprobe 6610 DT
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): 10.0	Casing Size: 2.125" OD / Auger Size: —
Soil Drilled: 13.6	Rock Drilled: —	Total Depth: 13.6	Depth to Groundwater/Date: NA

Piez ☐ Well ☐ Boring ☒

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
1–4	2.2/4.0			0-1.1 Brown to light brown fine sand with a little silt and traces of med.-coarse sand and gravel. Dry to slightly moist. Some crude stratification. 1.1-1.6 Dark brown fine sand and silt with a little organic debris. Large wood fragment at the bottom. Dry to slightly moist. 1.6-2.2 Light brown to reddish brown fine sand with some silt. Moist.		0, 0, 0, 0		
5–8	3.6/4.0			4-8 Reddish brown silt and clay with a little to a trace of fine sand and traces of medium to coarse sand and gravel. Moist, massive but becomes soft to slightly stratified near bottom.		0, 0, 0, 0, 0		
9–11	3.4/3.0			8-10 Reddish brown silt and clay with traces of fine sand. Occasional lenses of coarser grained material some gray layers. Moist, becomes soft with depth. 10-11 Gray to slightly reddish gray silt and clay with a trace to a little fine sand and traces of med.-coarse sand at bottom. Wet soft.		0, 0, 0, 0		
12–13	1.5/2.6			11-13.6 Gray silt and fine sand with a little clay and medium to coarse sand. Wet, soft. Becomes coarser grained with traces of gravel at bottom.		0, 0		225072-GS020012 VOA (MeOH) 0% Moisture 1115
13.6						0		

MACTEC
511 Congress Steet
Portland, ME 04101

Bottom of boring = 13.6 Refusal at 13.6' BGS.

Checked by CRJ 11/1/08

Jerry Rawcliffe

PORT2007022w.mac

SOIL BORING LOG

Project: Erdle Perforating		Boring/Well No.: GS-31	Project No.: 36120720S4
Client: NYSDEC	Site: Erdle property		Sheet No.: 1 of 1
Logged By: J. Rawcliffe	Ground Elevation: NA	Start Date: 9/23/08	Finish Date: 9/23/08
Drilling Contractor: Nothnagle	Driller's Name: Jeff Schweitzer		Rig Type: Geoprobe 6610DT
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): 10.0	Casing Size: 2.125 OD / Auger Size: —
Soil Drilled: 13.0	Rock Drilled:	Total Depth: 13.0	Depth to Groundwater/Date: NA

Piez ☐ Well ☐ Boring ☒

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
1–4	2.1/4.0			0-0.9 Brown to dark brown fine to coarse sand and gravel with some silt. Top 0.2' is silty topsoil. Dry to slightly moist, loose. 0.9-2.1 Dark brown to very dark brown fine sand and silt with traces of medium to coarse sand some gravel fragments and organic debris. Faint organic (oily) odor.		0, 0, 0, 0		
4–8	4.0/4.0			4-4.6 Very dark brown/black to gray to brown fine sand with silt and zones of reddish sand becomes coarser gravel with depth. Faint organic odor. Changes abruptly at 4.6'. 4.6-7 Reddish brown silt with clay a little fine sand and zones of medium to coarse sand and gravel. Moist, massive. 7-8 Reddish brown silt with clay and zones of fine sand. Very moist, soft, stratified with gray layers.		0, 0, 0, 0, 0		
8–11	2.7/3.0			8-9 Reddish brown silt and clay Very moist. stratified with gray colored layers. 9-11 Reddish gray to gray silt with clay and a little to traces of fine to coarse sand. Becomes coarser at bottom. Wet.		0, 0.6, 0.3, 0		
12–13	0.9/2.0			11-13 Gray silt and fine sand with some clay and a little medium to coarse sand and traces of gravel. Wet, no apparent structure.		0, 0, 0.3		825073=GS03#012 VOA (Methyl) % Moisture 1145

MACTEC
511 Congress Steet
Portland, ME 04101

Bottom of boring = 13.0' Refusal at 13.0' 1365

checked by cps 11/1/08

Jerry Rawcliffe

PORT2007022w.mac

SOIL BORING LOG

Project: Erdle Perforating		Boring/Well No.: GS-32	Project No.: 3612072054
Client: NYSDEC	Site: Erdle property		Sheet No.: 1 of 1
Logged By: J. Rawcliffe	Ground Elevation: NA	Start Date: 9/23/08	Finish Date: 9/23/08
Drilling Contractor: Nothnagle	Driller's Name: Jeff Schwietzer		Rig Type: Geoprobe 6610 DT
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): 10.0	Casing Size: 2.125" OD / Auger Size: —
Soil Drilled: 13.0	Rock Drilled:	Total Depth: 13.0	Depth to Groundwater/Date: NA / Piez ☐ Well ☐ Boring ☒

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
1	2.7 / 4.0			0-0.2 Sandy silt Topsoil Brown-dark brown.		0		
2				0.2-1.6 Brown to dark brown fine sand with silt and some to a little medium to coarse sand and gravel. Dry		0		
3				1.6-2.4 Dark brown fine sand and silt with some organic material Faint organic (petroleum?) odor. Dry		0		
4				2.4-27 Reddish brown fine sand and silt lenses of med-coarse sand. Moist, mottled.		0		
5	3.6 / 4.0			4-6 Reddish brown silt with clay and lenses of fine to coarse sand and occasional gravel pieces. Moist massive.		1.4		
6						4.9		
7				6-8 Reddish brown clay silt with lenses of fine sand. Gray layers, stratified, moist. plastic.		3.6		
8						7.7		8250072-GS032007 VOA (MS/MSD) S/U Moisture MS/MSD/DUP 1315
9	2.5 / 3.0			8-9.5 Reddish brown to gray silt with clay and lenses of fine sand. Moist, stratified with gray colored layers.		1.8		
10				9.5-11 Gray silt with clay and a little fine sand and traces of medium to coarse sand. Wet, no apparent structure.		0.6		
11						0.3		
12	2.0			11-13 Gray silt with clay and a little fine to medium sand and traces of coarser material. Wet, loose/soft.		1.2		
13						0.3		
						0		

MACTEC
511 Congress Steet
Portland, ME 04101

Bottom of boring = 13' Refusal at 13.0' BGS

checked by CRS 11/1/08

Jerry Rawcliffe

PORT2007022w.mac

SOIL BORING LOG

Project: Erdle Perforating		Boring/Well No.: GS-33	Project No.: 3612072094
Client: NYSDEC	Site: Erdle property		Sheet No.: 1 of 1
Logged By: J. Rawcliffe	Ground Elevation: NA	Start Date: 9/23/08	Finish Date: 9/23/08
Drilling Contractor: Nothnagle	Driller's Name: Jeff Schwietzer		Rig Type: Geoprobe 6610 DT
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): 10.0	Casing Size: 2.125" OD / Auger Size: —
Soil Drilled: 13.8	Rock Drilled: —	Total Depth: 13.8	Depth to Groundwater/Date: NA

Piez ☐ Well ☐ Boring ☒

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
1–4	2.6/4.0			0-0.6 Brown to dark brown fine sand with silt and a little medium to coarse sand and organic debris. Dry. 0.6-1.6 Dark brown fine sand with some silt. Dry to moist. 1.6-2.2 Brown to slightly reddish brown fine sand with some silt and medium sand. Moist. 2.2-2.6 Reddish brown silt with some fine sand		0 0 0 0		
5–8	3.4/4.0			4-8 Reddish brown silt with clay and traces of coarser material. Moist from some stratification with gray colored layers.		0 0 0 0 0		
9–11	2.7/3.0			8-11 Reddish brown silt and clay to fine ~~trace~~ coarse sand. Middle is mottled with gray colored layers, more coarse material at bottom of sample. Moist. Change @ 11' to Gray material		0 0 0		
12–13				11-13 Gray silt with some clay, fine sand and a little medium-coarse sand and trace of gravel. Wet, loose to soft, no apparent structure		0 0 1.5		828072-GS033013
13.8				~~Collected GW sample 828072-GW033013~~ Bottom of boring = 13.8 Refusal at 13.8' BGS				

MACTEC
511 Congress Steet
Portland, ME 04101

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

PORT2007022w.mac

SOIL BORING LOG

Project: Erdle Perforating		Boring/Well No.: GS-34	Project No.: 361207.2094
Client: NYSDEC	Site: Erdle Perforating		Sheet No.: 1 of 1
Logged By: J. Rawcliffe	Ground Elevation: NA	Start Date: 9/23/08	Finish Date: 9/23/08
Drilling Contractor: Nothnagle	Driller's Name: Jeff Schwietzer		Rig Type: Geoprobe 6610 DT
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): 10.0	Casing Size: 2.125" OD
Auger Size: —	Soil Drilled: 14.0	Rock Drilled: —	Total Depth: 14.0
Depth to Groundwater/Date: NA	Piez ☐ Well ☐ Boring ☒		

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
1	1.9 / 4.0			0-0.4 Dark brown fine sand with silt and organic debris		0		
2				0.4-1.4 Dark brown to very dark brown silt with some fine sand		5.1		
3				1.4-1.9 Reddish brown to brown fine sand with some silt and traces of medium sand. Wet.		7.6		828072-GS034003 1435 VOA % Moisture
4						0.3		
5	3.6 / 4.0		4-8	Reddish brown silt with clay and traces of fine sand and occasional traces of med-coarse sand and gravel. Moist, stiff.		2.1		
6						1.9		828072-GS034006 1455 VOA % Moisture
7						3.1		
8						1.9		
9	3.1 / 3.0			8-11 Reddish brown silt and clay with traces of f-c sand and gravel. layers of gray colored soils well stratified. Very moist, plastic.		0.6		
10						3.0		
11						2.4		
12	1.9 / 3.0			11-12 Reddish brown silt and clay. similar to above		1.8		
13				12-14 Gray silt with a little clay and a little fine sand with traces of med-coarse sand and gravel. Wet loose/soft.		0		
14				Collected GW sample 828072-GW034013 1425		0		

MACTEC
511 Congress Steet
Portland, ME 04101

Bottom of boring = 14.0' Refusal at 14.0' BGS

checked by CRS 11/1/09

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

PORT2007022w.mac

SOIL BORING LOG

Project: Erdle Perforating		Boring/Well No.: GS-35	Project No.: 3612072054
Client: NYSDEC	Site: Erdle Property		Sheet No.: 1 of 1
Logged By: J. Rawcliffe	Ground Elevation: NA	Start Date: 9/23/08	Finish Date: 9/23/08
Drilling Contractor: Nothnagle	Driller's Name: Jeff Schweitzer		Rig Type: Geoprobe 6610 DT
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): 10.0	Casing Size: 2.125" OD / Auger Size: —
Soil Drilled: 13.0	Rock Drilled: —	Total Depth: 13.0	Depth to Groundwater/Date: NA

Piez ☐ Well ☐ Boring ☒

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm): PI Meter Field Scan	Monitoring (ppm): PI Meter Head Space	Lab Tests ID Sample
1	2.6/4.0			0-1.1 Very dark brown organic silt with a little fine sand and silt. Moist		0		
2				1.1-2.0 Gray to brown fine sand with some silt. Very moist to wet.		0		
3				2.0-2.6 Reddish brown silt with some clay and traces of fine to coarse sand. Moist, massive.		0		
4						0		
5	3.8/4.0			4-7.8 Reddish brown silt and clay with traces of f-c sand and gravel! Moist, massive.		0		
6						0		
7				7.8-8.0 Reddish brown silt and clay with gray colored layers. Stratified. Moist!		0		
8						0		
9	2.8/3.0			8-11 Reddish brown silt and clay Similar to 7.8-8.0 Stratified moist to wet.		0		828072-GS035009 VOA (MeOH). 4 oz Mason 1520
10						0		
11						0		
12	0/2.0			Brown silty sand wet does not appear to be actual recovery but came in.		0		
13								

828072-GW035013 VOA 1540

Bottom of boring = 13.0' Refusal at 13.0' BGS

MACTEC
511 Congress Steet
Portland, ME 04101

checked by CRS 11/1/08

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

PORT2007022w.mac

SOIL BORING LOG

Project: Erdle Perforating		Boring/Well No.: GS-36	Project No.: 36120022054
Client: NYSDEC	Site: Erdle Property		Sheet No.: 1 of 1
Logged By: J. Rawcliffe	Ground Elevation: NA	Start Date: 9/23/08	Finish Date: 9/23/08
Drilling Contractor: Northnagle	Driller's Name: Jeff Schwietzer		Rig Type: Geoprobe
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): 10.0	Casing Size: 2.125" OD / Auger Size: —
Soil Drilled: 13.8	Rock Drilled:	Total Depth: 13.8	Depth to Groundwater/Date: NA

Piez ☐ Well ☐ Boring ☒

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
1	1.9 / 4.0			0-1.1 Very dark brown organic silt with some fine sand and silt. (Organic peaty topsoil.) Moist.		0		
2				1.1-1.9 light brown fine sand grading to brown fine sand and silt. Moist.		0		
3						0		
4						0.6		
5	3.8 / 4.0			4-8 Reddish brown silt with clay and traces of fine to coarse sand and occasional pieces of gravel. Moist, stiff some mottling stratification at top otherwise massive.		9.1		8250072-036005 (MeOH) VOA % Moist. 1600
6						7.6		
7						13.4		
8						27		
9	2.6 / 3.0			8-9' Similar to above.		141		
10				9-11' Reddish brown silt and clay with traces of fine sand. Stratified with gray colored layers. Very moist, soft.		5.8		
11						34		
12	1.9 / 2.8			11-13.8 Gray silt with fine sand and traces to a little medium to coarse sand and gravel. Faint organic odor. Wet, massive.		119		
13						208		
						730		
						260		8250072-636012 VOA (MeOH) % Moist. 1620
						1880		
						190		

13.8

Bottom of boring = 13.8' Refusal at 13.8' BGS.

MACTEC
511 Congress Steet
Portland, ME 04101

Checked by CRT 11/1/08

Jerry Rawcliffe

PORT2007022w.mac

SOIL BORING LOG

Project: ERDLE Perforating	Boring/Well No.: GS-37	Project No.: 361207209.4
Client: NYSDEC	Site: Erdle Property	Sheet No.: 1 of 1
Logged By: J. Rawcliffe	Ground Elevation: NA	Start Date: 9/24/08 — Finish Date: 9/24/08
Drilling Contractor: Northeagle	Driller's Name: Jeff Schwietzer	Rig Type: Geoprobe 6610 DT
Drilling Method: Direct Push	Protection Level: D — P.I.D. (eV): 10.0	Casing Size: 2.125" OD — Auger Size: —
Soil Drilled: 13.0 — Rock Drilled:	Total Depth: 13.0 — Depth to Groundwater/Date: NA	Piez ☐ Well ☐ Boring ☒

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
1–4	2.3/4.0			0-1.0' Very dark brown to dark brown Organic silt with silt and fine sand (peaty texture w/ fine sand) Moist. 1.0-1.5 Brown to slightly reddish brown fine sand and silt. 1.5-2.3 Reddish brown silt with some to a little fine sand. Moist stratified with some mottling.		1.8 4.2 15.6 118		525072-GS037003 VOA (Medium) % Moist, 0870
5–8	4.0/4.0			Reddish brown silt with clay and traces of fine to coarse sand and occational gravel pieces. Moist, massive -		370 420 850 2400		
9–11	2.9/3.0			Reddish brown silt and clay with traces of fine sand. Moist, well stratified with frequent gray colored layers. Bottom of sample becomes gray. Moist to very moist - clay and silt with f-coarse sand and gravel		400 850 2400 680		
12–13	0.3/2.0			Gray silt with some clay, f-coarse sand and a little gravel. Very moist to wet massive.		350 400		

MACTEC
511 Congress Steet
Portland, ME 04101

Bottom of boring = 13.0' Refusal at 13.0' BGS

checked by CRT 11/1/08

PORT2007022w.mac

SOIL BORING LOG

Project: Erdle Perforating		Boring/Well No.: GS-38	Project No.: 3612072099
Client: NYSDEC	Site: Erdle Property		Sheet No.: 1 of 1
Logged By: J. Rawcliffe	Ground Elevation: NA	Start Date: 9/24/08 0830	Finish Date:
Drilling Contractor: Nothnagle	Driller's Name: Jeff Schmietzer		Rig Type: Geoprobe 6610DT
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): 10.0	Casing Size: 2.125" OD / Auger Size:
Soil Drilled: 13.0	Rock Drilled:	Total Depth: 13.0	Depth to Groundwater/Date: NA — Piez ☐ Well ☐ Boring ☒

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm): PI Meter Field Scan	Monitoring (ppm): PI Meter Head Space	Lab Tests ID Sample
1	1.7/4.0			0-0.5 Dark brown to very dark brown silt and fine sand with organics. Peaty soil. Moist.		4.0		
2				0.5-1.1 Grayish brown to brown to reddish brown fine sand with some silt and some silt clay layers		23		
3				1.1-1.7 Reddish brown clay and silt with a little fine sand stratified moist.		105		
4								
5	3.6/4.0			Reddish brown silt and clay with traces of fine-coarse sand and gravel Moist, massive, firm to stiff Clayey to clay silt with gray layers at ≈ 7.5'.		500		
6						900		
7						2400		
8						600		
9	2.7/3.0			Reddish brown silt and clay with traces of fine sand. Very moist to wet, well stratified with gray colored layers. Soft.		400		
10						450		
11						2200		
12	1.7/2.0			Gray silt with a little clay and fine to coarse sand and gravel. Wet, massive. soft		1500		
13						500		
						150		

No analytical samples collected

MACTEC
511 Congress Steet
Portland, ME 04101

Bottom of boring 13.0' Refusal @ 13.0' BGS

Checked by CRJ 11/1/08

PORT2007022w.mac

SOIL BORING LOG

Project: ERDLE Perforating	Boring/Well No.: GS-39	Project No.: 3612072094
Client: NYSDEC	Site: Erdle Property	Sheet No. 1 of 1
Logged By: J. Rawcliffe	Ground Elevation: NA	Start Date: 9/24/08 0915 — Finish Date: 9/24/08
Drilling Contractor: Nothnagle	Driller's Name: Jeff Schwietzer	Rig Type: Geoprobe 6610DT
Drilling Method: Direct Push	Protection Level: D — P.I.D. (eV): 10.0	Casing Size: 2.125" OD — Auger Size: —
Soil Drilled: 13.0 — Rock Drilled: —	Total Depth: 13.0	Depth to Groundwater/Date: NA — Piez ☐ Well ☐ Boring ☒

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
0–4	2.2 / 4.0			0-0.4 Dark brown fine sand and silt with organic material. Organic topsoil. Moist. 0.4-1.1 Gray to brown to reddish brown fine sand with traces of silt. Very moist stratified 1.1-2.2 Reddish brown silt with clay and a trace of fine sand. Moist.		2.1 4.8 15 87		
4–8	3.8 / 4.0			4-7.5 Reddish brown clay and silt with traces of fine-coarse sand and gravel. Moist, massive, stiff to firm. 7.5-8 Reddish brown silt & clay very moist, stratified with gray colored layers. soft. Faint organic odor		180 680 850 3000		828072-GS039008 VOA/% Moisture 0920
8–11	3.0 / 3.0			8-10.2 Reddish brown clay/silt with traces of fine sand. Very moist stratified with gray colored layers. soft. 10.2-11.0 Gray clay silt with some fine sand very moist to wet, soft.		650 1400 240 230		
11–13.0	1.1 / 2.0			Gray silt and fine sand with some clay and a little to traces of medium to coarse sand and gravel. Organic odor		450 900		

Bottom of boring = 13.0' Refusal @ 13.0' bgs

Checked by CRJ 11/1/08

Jerry Rawcliffe

MACTEC
511 Congress Steet
Portland, ME 04101

SOIL BORING LOG

Project	Boring/Well No.	Project No.
ERDLE Perforating	GS-40	3612072094

Client	Site	Sheet No.
NYSDEC	Erdle Property	1 of 1

Logged By	Ground Elevation	Start Date	Finish Date
J. Rawcliffe	NA	9/24/08 0945	9/24/08

Drilling Contractor	Driller's Name	Rig Type
Nothnagle	Jeff Schwretzer	Geoprobe 6610 DT

Drilling Method	Protection Level	P.I.D. (eV)	Casing Size	Auger Size
Direct Push	D	10.0	2.125" OD	—

Soil Drilled	Rock Drilled	Total Depth	Depth to Groundwater/Date	Piez	Well	Boring
8	—	8	NA	☐	☐	☒

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
0–1				0-0.6 Brown to dark brown fine sand with some silt and some organic debris. (Topsoil)		4		
1–2	2.9 / 4.0			0.6-1.5 Brown to reddish brown to dark gray fine sand and silt. Trace of medium sand. Stratified with silt layers and sand layers.		4		(2.5')
2–3				1.5-2.9 Reddish brown silt with clay and trace of fine to coarse sand. Stratified with mottled appearance.		56		8280720~~4~~ -GS040002 LOA (metals) % Moisture 0950
3–4						80		
4–5	4.0 / 4.0			Reddish brown silt and clay with traces of fine to coarse sand and gravel. Moist, massive, firm to stiff.		110		
5–6						113		
6–7						90		
7–8						~~3470~~ (OR) 2470		
8–13								

Adjacent to GS-024

MACTEC
511 Congress Steet
Portland, ME 04101

Bottom of boring = 8.0' No refusal

Jerry Rawcliffe

PORT2007022w.mac

Checked by CRS. 11/1/08

SOIL BORING LOG

Project: Erdle Perforating	Boring/Well No.: GS-41	Project No.: 361207209 4
Client: NYSDEC	Site: Erdle Property	Sheet No.: 1 of 1
Logged By: J. Rawcliffe	Ground Elevation: NA	Start Date: 9/24/08 1006 — Finish Date: 9/24/08
Drilling Contractor: Northeagle	Driller's Name: Jeff Schweitzer	Rig Type: Geoprobe 6610 DT
Drilling Method: Direct Push	Protection Level: D — P.I.D. (eV): 10.0	Casing Size: 2.125" OD — Auger Size: —
Soil Drilled: 12.0 — Rock Drilled: —	Total Depth: 12.0 — Depth to Groundwater/Date: NA	Piez ☐ Well ☐ Boring ☒

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests ID Sample
1	3.4 / 4.0			0-0.4 Dark brown fine sand with some silt and some organics - wood fragment at top. Dry.		0		
2				0.4-3.0 Reddish brown silt with some clay and traces of fine-coarse sand/ gravel. Stratified with sandy layers grey layers and mottled appearance (green)		0		
3						0.6		
4				3.0-3.4 Reddish brown silt with clay + fine sand/gravel.		0.3		
5	3.9 / 4.0			4-6.2 Reddish brown silt with clay and traces of fine to coarse sand and gravel. Moist, massive, firm to stiff.		2.0		836072-GS04/005 VOA (no PID) % Moisture 1025
6				6.2-8.0 Reddish brown silt and clay with traces of fine sand. Stratified with some grey colored layers. Very moist. Soft plastic		4.1		
7						1.8		
8						0		
9	3.0 / 3.0			8.0-8.9 Similar to 6.2-8.0 with traces of fine to coarse sand.		0		
10				8.9-10.5 Grey to reddish grey silt with some clay and a little fine sand traces of m-coarse sand and wet, soft, stratified		0		
11				10.5-11 Grey silt with a little clay and fine to coarse sand and gravel. Wet. massive.		0		
12				Grey silt and fine sand with a little clay, medium to coarse sand and gravel. Wet, loose/soft, massive.		0		

Bottom of boring = 12.0' Refusal @ 12.0' BGS

MACTEC
511 Congress Steet
Portland, ME 04101

Located near east bank of culvert.

Jerry Rawcliffe

PORT2007022w.mac

Checked by CRI 11/1/08

SOIL BORING LOG

Project: Erole Perforating		Boring/Well No.: GS-42	Project No.: 36120728Q4
Client: NYSDEC	Site: Erdle Property		Sheet No.: 1 of 1
Logged By: J. Rawcliffe	Ground Elevation: NA	Start Date: 9/24/08 1045	Finish Date: 9/24/08
Drilling Contractor: Northeagle	Driller's Name: Jeff Schwietzer		Rig Type: Geoprobe 6610 DT
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): 10.0	Casing Size: 2.125" OD / Auger Size: —
Soil Drilled: 7.5	Rock Drilled: —	Total Depth: 7.5	Depth to Groundwater/Date: NA

Piez ☐ Well ☐ Boring ☒

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Sample Description	USCS Group Symbol	Monitoring (ppm): PI Meter Field Scan	Monitoring (ppm): PI Meter Head Space	Lab Tests ID Sample
1–4	2.0 / 4.0			0-0.8 Brown fine sand and silt (topsoil.) Dry with some organic debris roots etc. 0.8-2.0 Brown to grayish brown fine to coarse sand and gravel with a little silt. (Ground backfill)		0 0 1.3 1.9		
5–7	0 / 3.5			No Recovery				
8–12				Refusal on concrete at 7.5'				

MACTEC
511 Congress Steet
Portland, ME 04101

Bottom of boring = 7.5' Refusal @ 7.5' on concrete
located ≈ 3-4' from building is possible former tank grave. between GS-001 and GS-002

PORT2007022w.mac

checked by CRT 11/1/08

Test Boring Log

Project: Erdle Perforated		Boring/Well No.: GS-43	Project No.: 361267296
Client: NYSDEC	Site: Rochester, NY		Sheet No.: 1 of 2
Logged By: B. Shaw / J. Rawcliffe	Ground Elevation: ~~561.5~~ 559 ± 2.5	Start Date: 03-09-2004	Finish Date: 03-09-2004
Drilling Contractor: MACTEC	Driller's Name: J. Rawcliffe	Rig Type: Geoprobe Hand tool	
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV) ppb Rae	Casing Size: 1.5"	Auger Size:
Soil Drilled: 7.8'	Rock Drilled: NA	Total Depth: 7.8'	Depth to Groundwater/Date: unknown	Piez ☐ Well ☐ Boring ☑

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	Sample Type	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Graphic Log	Sample Description	USCS Group Symbol	Notes on Drilling	Monitoring (ppm) PID PI Meter Field Scan	Monitoring (ppm) PID PI Meter Head Space	Lab Tests
						0 – 0.7' – concrete core					
1	S1 @ 0946 1.1/2.0	0.7 / 1 / 2.7				Brown to slight reddish brown gravel with some fine to coarse sand and a little silt. Moist. Slight odor.			105 ppb; 548 ppb; 685 ppb		
3	S2 @ 1002 0.5/2.0	4.7				Brown to slight reddish brown similar to above slightly wet to very moist at bottom.			3570 ppb; 1585 ppb		
5	S3 @ 1016 0.1/2.1	6.8				* pushed a cobble No to minimal recovery – Saturated					
6.7											

FIGURE 4-6
TYPICAL TEST BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

ABB Environmental Services, Inc.

9404014D(z) L33

Test Boring Log

Project: Erdle Perforated		Boring/Well No.: GS-~~42~~43	Project No.: 361207296
Client: NYSDEC	Site: Rochester, NY		Sheet No.: 2 of 2
Logged By: B. Shaw, J. Rawcliffe	Ground Elevation: ~~+2.5~~ 561.5 (CRR)	Start Date: 03-09-2009	Finish Date: 03-09-2009
Drilling Contractor: MACTEC	Driller's Name: J. Rawcliff	Rig Type: Geoprobe Hand Tools	
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): ppb	Casing Size: 1.5"	Auger Size:
Soil Drilled: 7.8	Rock Drilled: N/A	Total Depth: 7.8	Depth to Groundwater/Date	Piez ☐ Well ☐ Boring ☑

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	Sample Type	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Graphic Log	Sample Description	USCS Group Symbol	Notes on Drilling	Monitoring (ppb) PI Meter Field Scan	Monitoring (ppb) PI Meter Head Space	Lab Tests
7	0.7/1.0	6.8 / 7.8				LT olive brown, silty Sand, saturated, SP, loose			6000 ppb		SB072-GS 042008 1045 VOAs (5035) % Solids
8	~~2.0~~					Refusal @ 7.8 bgs					
9											
10											
11											
12											

SP @ 1029

checked by CRR 4/13/09

FIGURE 4-6
TYPICAL TEST BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

GS-44

Test Boring Log

Project: Endle Perforated		Boring/Well No.: GS-~~44~~	Project No.: 361207.2096
Client: NYSDEC	Site: Rochester, NY		Sheet No.: 1 of 1
Logged By: JRawcliff / BShaw	Ground Elevation: 561.5 ~~+2.5~~	Start Date: 03-09-2009	Finish Date: 3-9-2009
Drilling Contractor: MACTEC	Driller's Name: J. Rawcliff	Rig Type: Geoprobe Hand tools	
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): PPB Rae	Casing Size: 1 1/2"	Auger Size:
Soil Drilled: 3.6	Rock Drilled: NA	Total Depth: 3.6	Depth to Groundwater/Date:	Piez ☐ Well ☐ Boring ☑

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	Sample Type	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Graphic Log	Sample Description	USCS Group Symbol	Notes on Drilling	Monitoring (ppb) PI Meter Field Scan	Monitoring (ppb) PI Meter Head Space	Monitoring (ppb)	Lab Tests
						0-0.6 concrete core						
1	0.9 / 2.0	0.6				Brown to reddish brown fine to coarse sand and gravel (Fill?). Moist, massive.			122 ppb			
2		2.6							93 ppb			
3	0.8					Brown medium to coarse sand with some fine sand and gravel w lenses of silt. Moist to very moist.			922 ppb			K
4	~~2.0~~ 1.2	~~4.6~~ 3.8							458 ppb			8280726-043004 1705 WA % Solids
5						Refusal @ 3.6 on what appears to be concrete.						
6												

S1 @ 1107

S2 @ 1135

checked by CAS 7/13/09

FIGURE 4-6
TYPICAL TEST BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

GS-45

Test Boring Log

Project: Erdle perforated		Boring/Well No.: GS-45	Project No.: 362072096
Client: NYSDEC	Site: Rochester, NY		Sheet No.: 1 of 3
Logged By: BShea / J Rawcliff	Ground Elevation: +2.5'	Start Date: 03-09-2009	Finish Date: 3/9/09
Drilling Contractor: MACTEC	Driller's Name: J. Rawcliff		Rig Type: Geoprobe Handtools
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): ppb Rae	Casing Size: 7.5" Auger Size: —
Soil Drilled: 15.2	Rock Drilled: NA	Total Depth: 15.2	Depth to Groundwater/Date: — Piez ☐ Well ☐ Boring ☑

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	Sample Type	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Graphic Log	Sample Description	USCS Group Symbol	Notes on Drilling	Monitoring (ppb) PI Meter Field Scan	Monitoring (ppb) PI Meter Head Space	Lab Tests
						0-0.7' concrete core					
1	1.1 / 2.0	0.7				Brown to reddish brown, fine to medium sand with some coarse sand and gravel and traces of silt. Slightly moist, massive (Fill)	SP/SG		331 ppb		
2		2.7							1190 ppb		
3						Very little recovery reddish brown sand.					
4	0.1 / 2.0	4.7				*Pushed a cobble down.			76.0 ppb		
5									1390 ppb		X (23)
6	0.9 / 2.0	6.7				Brown to dark reddish brown fine to medium sand with some coarse sand and gravel with a little silt. Moist, massive (Fill).			714 ppb		

S1 @ 1150 — S2 @ 1201 — S3 @ 1216

FIGURE 4-6
TYPICAL TEST BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

GS-45

Test Boring Log

Project: Erdle Perforated		Boring/Well No.: GS-~~5445~~	Project No.: 3612072096
Client: NYSDEC	Site: Rochester, NY		Sheet No.: 2 of 3
Logged By: BShaw / JRawcliff	Ground Elevation: ≈ 561.5'	Start Date: 03-09-2009	Finish Date: 3-9-2009
Drilling Contractor: MACTEC	Driller's Name: J. Rawcliff	Rig Type: Geo Probe Hand tools	
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): PID Rae	Casing Size: 1.5"	Auger Size: /
Soil Drilled: 15.2	Rock Drilled: NA	Total Depth: 15.2	Depth to Groundwater/Date:	Piez ☐ Well ☐ Boring ☑

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	Sample Type	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Graphic Log	Sample Description	USCS Group Symbol	Notes on Drilling	Monitoring (ppb) ppm: PI Meter Field Scan	Monitoring (ppb) ppm: PI Meter Head Space	Lab Tests
		6.7									
7	S4 @ 1225 1.6/20					Dark reddish brown to brown to dark brown fine sand with a little medium sand and some silt layers. Wet, layered.	SM		73.1 ppm		X
8		8.7							105 ppm		(S28072GS044 005 (VOA % Moist 1825)
									74 ppm		
9	S5 @ 1239 1.9/20					Reddish brown clay/silt with traces of fine sand. Very moist to wet, some grey mottling. (and slight fuel) Strong odor (Solvent like)			45 ppm		
10		10.8							799 ppm ↓		
									173 ppm		
11	S6 @ 1300 1.9/20					Reddish brown clay/silt moist to wet, stiff to very firm. Strong odor			799		X S28072-GS-044012 1830 VOAs (5035) % Solids
12									~~799~~ ppm		

FIGURE 4-6
TYPICAL TEST BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

GS-45

Test Boring Log

Project: Eddle Perforated	Boring/Well No.: GS-~~44~~45	Project No.: 561207296
Client: NYSDEC	Site: Rochester, NY	Sheet No.: 3 of 3
Logged By: BShaw / J Randall	Ground Elevation: ~561.5' ~~575'~~	Start Date: 03-09-09
Finish Date: 3-9-09		
Drilling Contractor: MACTEC	Driller's Name: J Ranciliff	Rig Type: Geoprobe Hand tool
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV):
Casing Size: 1.5"	Auger Size:	
Soil Drilled: 15.2	Rock Drilled: NA	Total Depth: 15.2
Depth to Groundwater/Date:	Piez ☐ Well ☐ Boring ☑	

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	Sample Type	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Graphic Log	Sample Description	USCS Group Symbol	Notes on Drilling	Monitoring (ppm): PI Meter Field Scan	Monitoring (ppm): PI Meter Head Space	Monitoring (ppm):	Lab Tests
13	1.9 / 2.4			12.8		Reddish brown clay/silt grading to gray clay/silt becomes very moist to wet soft with some gravel fragment.				>199 ppm		
14												
15				15.2						≥ 30.7 ppm ~~1999~~		
						run out of rods @ 15.2' bgs						

checked by CRS 4/15/09

S7 C 1325

FIGURE 4-6
TYPICAL TEST BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

ABB Environmental Services, Inc.

9404014D(z) L33

Test Boring Log

Project: Erdle Perforated		Boring/Well No.: GS-46	Project No.: 361207096
Client: NYSDEC	Site: Rochester, NY		Sheet No.: 1 of 1
Logged By: B Shaw	Ground Elevation: 561.5' ~~+2.5~~	Start Date: 03-10-09	Finish Date: 03-10-09
Drilling Contractor: MACTEC	Driller's Name: J. Rawdiff		Rig Type: Geoprobe Hand Tools
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): ppb Rae	Casing Size: 1.5" Auger Size:
Soil Drilled: 3.8' Rock Drilled: NA	Total Depth: 3.8'	Depth to Groundwater/Date:	Piez ☐ Well ☐ Boring ☑

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	Sample Type	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Graphic Log	Sample Description	USCS Group Symbol	Notes on Drilling	Monitoring (ppb) PI Meter Field Scan	Monitoring (ppb) PI Meter Head Space	Lab Tests
0		0.6				0–0.6' concrete core					
1	S1 @ 0834 1.1/2.0	2.6				Sandy gravelly fill material	Fill			~2000 ppb	
2											
3	S2 @ 0843 0.5/1.2	3.8				Refusal @ 3.8' b-toC; -soils are similar to GS-43	Fill			5000 ppb 6000 ppb	
4											
5											
6											

checked by CRS - 4/13/09

FIGURE 4-6
TYPICAL TEST BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

ABB Environmental Services, Inc.

9404014D(z) L33

Test Boring Log

Project: Erdle Perforated		Boring/Well No. GS-~~40~~ 4A	Project No. 3G12072096
Client: NYSDEC	Site: Rochester, NY		Sheet No. 1 of 2
Logged By: B Shaw	Ground Elevation: 561.5	Start Date: 03-10-09	Finish Date: 03-10-09
Drilling Contractor: MATEC	Driller's Name: J Rawcliff		Rig Type: Geoprobe Hand tools
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): ppb Rae	Casing Size: 1.5" / Auger Size: —
Soil Drilled: 12.7	Rock Drilled: NA	Total Depth: 12.7	Depth to Groundwater/Date: — Piez ☐ Well ☐ Boring ☑

	Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	Sample Type	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Graphic Log	Sample Description	USCS Group Symbol	Notes on Drilling	Monitoring (ppm) PI Meter Field Scan	PI Meter Head Space		Lab Tests
	0		0.7				0-0.7 Concrete Core						
S1 @ 0914	1–2	0.6 / 2.0	2.7				olive brown silty fine sand w/ trace coarse sand, damp, SP, very strong petroleum odor / sheen, ~~PG~~ P sorted	Fill		30 ppm 26 ppm 35 ppm			
S2 @ 0935	3–4	0.7 / 2.0	4.7				olive brown to silver/black silty sand, large piece of wood @ ~3.5', wet SP, V. strong odor	Fill		66.1 ppm 58.7 ppm			8280720 GS04 ~~[illegible]~~ cat P 0720
S3 @ 0941	5–6	0.6 / 2.0	6.7				olive brown silty sand w/ wood fragments wet, SP, very strong odor + sheen @ 6.7'	Fill		68 ppm 81 ppm 125 ppm			

FIGURE 4-6
TYPICAL TEST BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

ABB Environmental Services, Inc.

9404014D(z) L33

Test Boring Log

Project: Eddie Perforated		Boring/Well No.: GS-~~1647~~	Project No.: 361207.096
Client: NYSDEC	Site: Rochester, NY		Sheet No.: 2 of 2
Logged By: BShaw	Ground Elevation: 561.5 +2.5	Start Date: 03-10-09	Finish Date: 03-10-09
Drilling Contractor: MACTEC	Driller's Name: J Rawcliff		Rig Type: Geoprobe Hand tools
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): ppb	Casing Size: 1.5"	Auger Size:
Soil Drilled: 12.7	Rock Drilled: NA	Total Depth: 12.7	Depth to Groundwater/Date:	Piez ☐ Well ☐ Boring ☑

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	Sample Type	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Graphic Log	Sample Description	USCS Group Symbol	Notes on Drilling	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests
		6.7									
7	0.9/2.0					olive brown sandy silt, wet, v. strong odor/sheen, wood fragment over silty clay	Fill			25 ppm	
8		8.7					wood clay			83 ppm	
										15 ppm	
9	1.4/2.0					olive brown clay/silt chip, PS, MP, stiff	ML CL			29 ppm	9260265 046 010
10		10.7								80 ppm ~~XXXX~~	
										19 ppm	C1030
11	1.5/2.0					olive/green silty clay MP, PS				12.1 ppm	
										10.1 ppm	
12		12.7				gray, M soft clay/till, MP, PS				6000 ppb	
										20 ppb	
										40 ppb	
13											

checked by CRS 7/13/09

FIGURE 4-6
TYPICAL TEST BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

ABB Environmental Services, Inc.

9404014D(z) L33

Test Boring Log

Project: Erdle Perforated		Boring/Well No.: GS-4748	Project No.: 361207.2096
Client: NYSDEC	Site: Rochester, NY		Sheet No.: 1 of 2
Logged By: BShaw	Ground Elevation: 559.5 ~~+0.5~~	Start Date: 3/10/09	Finish Date: 3/10/09
Drilling Contractor: MACTEC	Driller's Name: J Rewcliff		Rig Type: NA
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): ppb Rae	Casing Size: 1.5"	Auger Size: —
Soil Drilled: 12	Rock Drilled: NA	Total Depth: 12	Depth to Groundwater/Date: —	Piez ☐ Well ☐ Boring ☑

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	Sample Type	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Graphic Log	Sample Description	USCS Group Symbol	Notes on Drilling	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests
1	6.6/2.0					0-0.5 Brown Loam w/ Sand & grass 0.5-2 Lt grayish brown fine Sand, PS, NP, Loose odor	Fill		0.1 63 ppm 68 ppm		
2											
3	1.4/2.0					olive brown fine Sandy silt, damp, PS, NP Lt yellowish brown WG Sand, damp, NP, loose	Fill		3 ppm 400 ppb 600 ppb		
4						DK Brown fine Sand, Loam, damp PS, NP, roots, wood frags			1400 ppb		
5	1.3/2.0					4-5.4 same as (3.5 to 4.) 5.4-6 greyish olive fine Sand, damp, PS, NP, mottled			1600 ppb 2800 ppb 7 ppm 3 ppm 2 ppm		
6											

FIGURE 4-6
TYPICAL TEST BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

ABB Environmental Services, Inc.

9404014D(z) L33

Test Boring Log

Project: Erdle Perforated		Boring/Well No.: GS-4/48	Project No.: 341207.2096
Client: NYSDEC	Site: Rochester, NY		Sheet No.: 2 of 2
Logged By: BShaw	Ground Elevation: 559.5 ~~±0.5~~	Start Date: 3/10/09	Finish Date: 3/10/09
Drilling Contractor: MACTEC	Driller's Name: J Rawcliff	Rig Type: NA - Hand tools	
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): ppb Rae	Casing Size: 1.5"	Auger Size:
Soil Drilled: 12	Rock Drilled: NA	Total Depth: 12	Depth to Groundwater/Date:	Piez ☐ Well ☐ Boring ☑

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	Sample Type	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Graphic Log	Sample Description	USCS Group Symbol	Notes on Drilling	Monitoring (ppm): PI Meter Field Scan	Monitoring (ppm): PI Meter Head Space	Lab Tests
7	1.5/2.0	6.0				6-6.2 Same as above 6.2-7.4 Reddish Brown silty clay, mSHH, PS, MP 7.4-8 Red to reddish Brown silty clay / clay, HP, VSHH, dry, PS, Cobbles			30 ppm 80 >199 >199	↓	8250726547 ~~8250726547~~ 008 0130
8		8.0									
9	1.9/2.0					8-10 Same as (7.4 (to 8), reddish/brown brownish red clay, HP, SHH			>199 ppm		VOAs %Solids
10											
11	1.8/2.0					10-11 reddish/olive brown clay, wet, HP, PS, SHH 11-12 Grey / Brownish grey silty clay, wet, HP, mSHH			>199 ppm		
12		12.0				▽ 10' @ 12.0'					

Checked by CRS

FIGURE 4-6
TYPICAL TEST BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

APPENDIX C

SUPPLEMENTAL SOIL SAMPLING REPORT

Appendix C contains the Supplemental Soil Sampling Report issued in June 2010 which presents results from additional soil samples collected on-site and nearby the Erdle Perforating Company Site in April of 2010. This information is being offered for consideration when planning the remedial work.

MACTEC
engineering and constructing a better tomorrow

June 18, 2010

New York State Department of Environmental Conservation
Division of Environmental Remediation
12th Floor, 625 Broadway
Albany, New York 12233-7013

Attention: Ms. Nicole Bonsteel

Subject: **Supplemental Soil Sampling Report**
Erdle Perforating, Site ID # 8-28-072, D004434-20
MACTEC Engineering and Consulting, P.C., Project No. 3612072094

Dear Ms. Bonsteel,

MACTEC Engineering and Consulting, P.C., (MACTEC), under contract to the New York State Department of Environmental Conservation (NYSDEC) has prepared this report for supplemental soil sampling conducted at the Erdle Perforating site (Site), Site # 8-28-072, located at 100 Pixley Industrial Avenue, Town of Gates, Monroe County, New York. This letter report describes field activities and analytical results for the Site. Field activities were conducted on April 15, 2010.

Introduction

The Site is located at 100 Pixley Industrial Parkway in the Town of Gates, Monroe County. The Site is approximately 9.2 acres and is bounded on the south by a marsh and Conrail railroad tracks and an undeveloped wooded area further south of the railroad tracks, on the north and east by light industry and on the west by open land and Interstate 490. A townhouse development (Hidden Valley Development) is located south of the Site (south of the wooded area). The Site is currently

zoned for industrial purposes including manufacturing and processing. The Site and surrounding developed areas are serviced by public water.

Field Activities

Previous investigations conducted by MACTEC indicate that soil and groundwater at the Site are contaminated with volatile organic compounds (VOCs); specifically chlorinated solvents. To evaluate the potential presence of other contaminants in site soils to complete the remedial investigation and feasibility study for the Site, the NYSDEC requested additional soil samples be collected from the Site.

To evaluate the potential presence of semi-volatile organic compounds (SVOCs), pesticides, polychlorinated biphenyl's (PCBs), and metals in Site soil above regulatory criteria, a total of seven soil samples were collected from:

1) Three background locations (SS-1 to SS-3);
2) Two from the vicinity of the highest detected VOC contamination in soil (SS-4 and SS-5) to the rear (south) of the Erdle Facility (source area); and
3) Two from the wooded wetland south of the source area (SS-6 and SS-7).

Sample locations are included on Figure 1.

Because the VOC contamination was primarily detected at depths greater than two feet below ground surface (bgs), the three background samples and the two source area samples (SS-4 and SS-5) were collected from two to three feet bgs. The two samples from the wetland area south of the Site facility (SS-6 and SS-7) were collected from between zero and one foot bgs, to evaluate the wetland soils.

Samples were collected with a shovel after digging the holes to the required depths. Sample descriptions were recorded on field data records (field data records included as Attachment 1). The shovel and other tools used to collect the samples (stainless steel bowl and spoon) were decontaminated with Liquinox and deionized water between sample locations.

Samples were submitted to Accutest Laboratories for analyses of SVOCs by USEPA Method 8270C, pesticides (with the exception of background samples SS-2 and SS-3) by USEPA Method 8081, PCBs

by Method 8082, and metals by methods 6010B and 7471A. In addition, the two wetland samples, SS-6 and SS-7, were analyzed for VOCs by Method 8260B.

Results

Upon receipt of the analytical laboratory data, a Data Usability Summary Report (DUSR) was completed following NYSDEC guidance (NYSDEC, 2010). Based on chemist review, MACTEC determined that the laboratory data met the project specific criteria for data quality and data use. The DUSR and validated Form 1's are presented as Attachment 2.

Soil Sampling Results. A summary of analytes detected in the soil samples collected are presented in Table 1. Table 1 also includes the 6 New York Codes, Rules and Regulations Part 375 Soil Cleanup Objectives (SCO) for Unrestricted Use and Restricted Industrial Use (NYS, 2006). SVOCs, primarily polyaromatic hydrocarbons (PAHs), were detected in one sample, SS-4, collected from the source area. One SVOC, benzo(a)pyrene was detected at a concentration of 3.09 milligrams per kilogram (mg/Kg), slightly above the SCO for Industrial Use of 1.1 mg/Kg. The remaining of the SVOCs were not detected above their respective SCO for Industrial Use. Pesticides, and PCBs, were not detected in the samples (the individual pesticide and PCB analytical reporting limits were below the SCOs for Residential and Industrial Use and below, or only slightly above, the SCOs for unrestricted use). Metals were not detected in samples collected at, and downgradient of, the source area at concentrations above the three background/upgradient samples (SS-1 to SS-3) or above the SCOs for either Unrestricted Use or Industrial Use. Metals, including mercury, were detected in soil sample locations both upgradient (background) and downgradient of the source area indicating the historic occurrence of these compounds at and in the vicinity of the site. Acetone was detected in sample SS-6 and cis-1,2-dichloroethene and trichloroethene were detected in sample SS-7; detected concentrations were well below their respective SCOs for Unrestricted Use.

Although one SVOC was detected at a concentration above the SCO for Industrial Use, the sample results do not appear to indicate high concentrations of SVOCs on the Site that would be indicative of a large source/spill area. SVOCs are fairly common in industrial and urban environments, and additional investigations would not be warranted based on these results.

If you have any questions or concerns, please feel free to call myself at 207-828-3644 or Chuck Staples at 207-828-3571.

Sincerely,

MACTEC Engineering and Consulting, P.C.

John W. Peterson
Project Manager

Charles R. Staples
Site Manager

Enclosures (2)

REFERENCES

New York State (NYS), 2006. New York Codes, Rules, and Regulations, Title 6, Part 375-Environmental Remediation Programs. December, 2006.

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

Table 1: Hits Only

			Location	SS-01		SS-02		SS-03		SS-04		SS-05		SS-06		SS-07	
			Sample Depth	2.0-2.5		2.0-2.6		2.0-2.8		2.0-2.6		2.0-2.5		0-0.9		0-0.8	
			Sample Date	4/15/2010		4/15/2010		4/15/2010		4/15/2010		4/15/2010		4/15/2010		4/15/2010	
			Sample ID	828072SS-01		828072SS-02		828072SS-03		828072SS-04		828072SS-05		828072SS-06		828072SS-07	
Parameter Name	**Unrestricted**	**Industrial**		Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Volatile Organic Compounds by USEPA Mehtod 8260B																	
Acetone	0.05	1000		--		--		--		--		--		**0.011**	**J**	0.0037	UJ
Cis-1,2-Dichloroethene	0.25	1000		--		--		--		--		--		0.0032	U	**0.0027**	
Trichloroethene	0.47	400		--		--		--		--		--		0.0032	U	**0.0069**	
Semi Volatile Organic Compounds by USEPA 8270C																	
Anthracene	100	1000		0.29	U	0.37	U	0.3	U	**2.89**		0.28	U	0.49	U	0.33	U
Benzo(a)anthracene	1	11		0.29	U	0.37	U	0.3	U	**4.92**		0.28	U	0.49	U	0.33	U
Benzo(a)pyrene	1	1.1		0.29	U	0.37	U	0.3	U	**3.09**		0.28	U	0.49	U	0.33	U
Benzo(b)fluoranthene	1	11		0.29	U	0.37	U	0.3	U	**3.49**		0.28	U	0.49	U	0.33	U
Benzo(ghi)perylene	100	1000		0.29	U	0.37	U	0.3	U	**1.82**		0.28	U	0.49	U	0.33	U
Benzo(k)fluoranthene	0.8	110		0.29	U	0.37	U	0.3	U	**2.94**		0.28	U	0.49	U	0.33	U
Carbazole	NA	NA		0.29	U	0.37	U	0.3	U	**0.681**		0.28	U	0.49	U	0.33	U
Chrysene	1	110		0.29	U	0.37	U	0.3	U	**4.36**		0.28	U	0.49	U	0.33	U
Dibenz(a,h)anthracene	0.33	1.1		0.29	U	0.37	U	0.3	U	**0.649**		0.28	U	0.49	U	0.33	U
Fluoranthene	100	1000		0.29	U	0.37	U	0.3	U	**12.3**		0.28	U	0.49	U	0.33	U
Fluorene	30	1000		0.29	U	0.37	U	0.3	U	**0.456**		0.28	U	0.49	U	0.33	U
Indeno(1,2,3-cd)pyrene	0.5	11		0.29	U	0.37	U	0.3	U	**1.82**		0.28	U	0.49	U	0.33	U
Phenanthrene	100	1000		0.29	U	0.37	U	0.3	U	**8.73**		0.28	U	0.49	U	0.33	U
Pyrene	100	1000		0.29	U	0.37	U	0.3	U	**8.59**		0.28	U	0.49	U	0.33	U
Pesticides by USEPA Method 8081																	
				All ND		--		--		All ND		All ND		All ND		All ND	
PCBs by USEPA Method 8082																	
				All ND		All ND		All ND		All ND		All ND		All ND		All ND	
Metals by USEPA Method 6010B																	
Aluminum	NA	NA		**6,310**		**17,400**		**9,140**		**3,940**		**4,000**		**5,950**		**9,340**	
Arsenic	13	16		**2.4**		**4.6**		**2.8**		**2.7**		2	U	**4**		**3.6**	
Barium	350	10000		**41.4**		**101**		**52.7**		**20.9**		**21.4**		19	U	**65.5**	
Beryllium	7.2	2700		0.38	U	**0.84**		**0.6**		0.4	U	0.41	U	0.38	U	**0.46**	
Calcium	NA	NA		**2,030**		**5,330**		**5,070**		**61,900**		**21,300**		**3,970**		**32,700**	
Chromium	30	6800		**11.1**		**17.7**		**13.7**		**6.9**		**5.9**		**7.2**		**12.6**	
Cobalt	NA	NA		4.7	U	**5.6**		**5.1**		5	U	5.1	U	4.8	U	**6.2**	
Copper	50	10000		**8.3**		**9.7**		**11**		**8.6**		**6.3**		**7.2**		**11.1**	
Iron	NA	NA		**16,100**		**19,700**		**19,100**		**9,110**		**8,100**		**9,060**		**16,300**	
Lead	63	3900		**3.1**		**13.7**		**6.9**		**10.4**		**4.9**		**16.1**		**8.9**	
Magnesium	NA	NA		**1,890**		**2,850**		**3,350**		**18,100**		**5,690**		**833**		**8,440**	
Manganese	1600	10000		**338**		**221**		**139**		**224**		**216**		**118**		**387**	
Nickel	30	10000		**9.8**		**14**		**15.3**		**8**		**5.8**		**4.4**		**15.7**	
Potassium	NA	NA		**597**		**1430**		**760**		**912**		**606**		480	U	**1440**	
Vanadium	NA	NA		**22.7**		**29.9**		**28.7**		**9**		**11.6**		**16.7**		**18.2**	
Zinc	109	10000		**21.3**		**91.3**		**328**		**31.9**		**40.6**		**70.9**		**95.6**	
Mercury by USEPA Method 7471A																	
Mercury	0.18	5.7		0.036	U	**0.098**		**0.046**		0.037	U	0.036	U	**0.087**		0.04	U
Percent Sollids by ASTM Method SM212540B modified																	
Percent Solids				83.3		65.7		81.8		79.3		86.1		50		75.5	

Notes:
Sample Depth = feet below ground surface
Results in milligram per kilogram
Only detected compounds shown; detections in**bold; shaded values exceed criteria**
6 NYCRR Part 375 Soil Cleanup Objectives: Unrestricted = for unrestricted use; Industrial = restricted for industrial use
Shaded values exceed Soil Cleanup Objective for Industrial Use
-- = Not analyzed
U = not detected
J = estimated value
ND = not detected

Created by WDC 6/4/2010
Checked by CRS 6/7/2010

Aerial Photo - 2005 from NYS GIS Clearinghouse.
Samples collected by MACTEC on April 15, 2010.
Lines from Lu Engineers 1996 Survey.

Prepared/Date: CRS 06/09/10
Checked/Date: JKR 06/09/10

NYSDEC
Erdle Perforating Company
Gates, New York

MACTEC

Surface Soil Sample Locations
Project 3612-07-2094
Figure 1

ATTACHMENT 1

FIELD DATA RECORDS

SURFACE SOIL SAMPLE FIELD DATA RECORD

Project: ERDLC Perforating
Project Number: 36120720 94 - 05.1
Sample Location ID: S 2 S 0 7 2 S S - 0 1
SS-01

Site: —
Date: 4/15/10
Time: Start: 0850 End: 1000
Signature of Sampler:

Sample time 0930

SOIL SAMPLE

DEPTH OF SAMPLE INTERVAL: 2.0 - 2.5'
(Feet below ground surface)
reported to 1/10 foot

0 - 1.8 Dark brown organic soils
1.8 - 2.0 Yellowish brown fine sandy silt
GW at 1.4' BGS

EQUIPMENT USED FOR COLLECTION:
- [X] HAND AUGER
- [ ] S.S. SPLIT SPOON
- [X] SHOVEL
- [ ] HAND SPOON
- [ ] ALUMINUM PANS
- [X] SS ~~BUCKET~~ BOWL
- [ ] _____

TYPE OF SAMPLE COLLECTED:
- [ ] DISCRETE
- [X] COMPOSITE

SAMPLE OBSERVATIONS:
- [X] ODOR Slight organic decay
- [X] COLOR Dark brown
- [ ] _____

DECONTAMINATION FLUIDS USED:
- ✓ ALL USED
- [ ] ETHYL ALCOHOL
- [ ] 25% METHANOL/ 75% ASTM TYPE II WATER
- [X] DEIONIZED WATER
- [X] LIQUINOX SOLUTION
- [ ] HEXANE
- [ ] HNO_3 SOLUTION
- [ ] POTABLE WATER
- [ ] NONE

SOIL TYPE:
- [X] CLAY/silt
- [X] SAND gravel
- [ ] ORGANIC
- [ ] GRAVEL

FIELD GC DATA: [ ] FIELD DUPLICATE COLLECTED
DUPLICATE ID: _____

SAMPLE LOCATION SKETCH:
- [X] YES
- [ ] NO

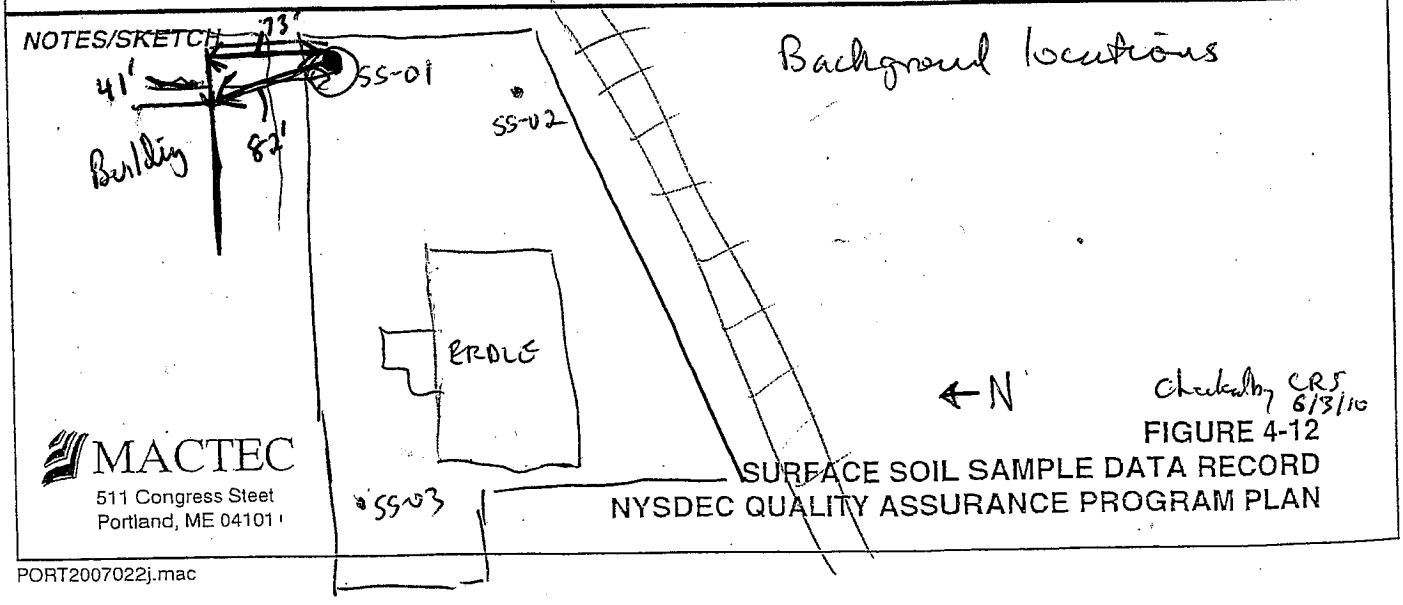
PID Reading NA

SAMPLES COLLECTED

MATRIX

✓ IF REQUIRED AT THIS LOCATION	SURFACE SOIL	✓ IF SAMPLE COLLECTED	✓ IF PRESERVED	VOLUME COLLECTED/NOTES
[ ] VOC	[ ]	[ ]	[ ]	1x500ml amber glass
[X] SVOC	[X]	[X]	[ ]	
[ ] PEST	[ ]	[ ]	[ ]	
[X] PCB	[X]	[X]	[ ]	
[X] INORGANICS	[X]	[X]	[ ]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	

NOTES/SKETCH:



Checked by CRS 6/3/10

MACTEC
511 Congress Steet
Portland, ME 04101

FIGURE 4-12
SURFACE SOIL SAMPLE DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

PORT2007022j.mac

SURFACE SOIL SAMPLE FIELD DATA RECORD

Project: ERDLE - NYSDEC
Project Number: 361207209 4-05.1
Sample Location ID: S 2 S 0 7 2 S S - 0 2
SS-02

Site: —
Date: 4/15/10
Time: Start: 1005 End: 1110
Signature of Sampler: Jerry Randolph

Sample time 1050

SOIL SAMPLE

DEPTH OF SAMPLE INTERVAL: 2.0 - 2.6
(Feet below ground surface)
reported to 1/10 foot

0 - 1.5 Dark brown organic sandy silt
1.5 - 1.9 Reddish brown clay silt with fine sand
1.5 - 2.9 Dark brown sandy silt with organics
GW at ≈ 1.3' BGS

EQUIPMENT USED FOR COLLECTION:
[X] HAND AUGER
[ ] S.S. SPLIT SPOON
[X] SHOVEL
[ ] HAND SPOON
[ ] ALUMINUM PANS
[X] SS ~~BUCKET~~ BOWL
[ ] _____

TYPE OF SAMPLE COLLECTED:
[ ] DISCRETE
[X] COMPOSITE

SAMPLE OBSERVATIONS:
[ ] ODOR _____
[X] COLOR light reddish brown
[ ] _____

DECONTAMINATION FLUIDS USED:
✓ ALL USED
[ ] ETHYL ALCOHOL
[ ] 25% METHANOL/ 75% ASTM TYPE II WATER
[X] DEIONIZED WATER
[X] LIQUINOX SOLUTION
[ ] HEXANE
[ ] HNO_3 SOLUTION
[ ] POTABLE WATER
[ ] NONE

SOIL TYPE:
[X] CLAY
[X] SAND/SILT
[ ] ORGANIC
[ ] GRAVEL

FIELD GC DATA: [ ] FIELD DUPLICATE COLLECTED
DUPLICATE ID: _____

PID Reading NA

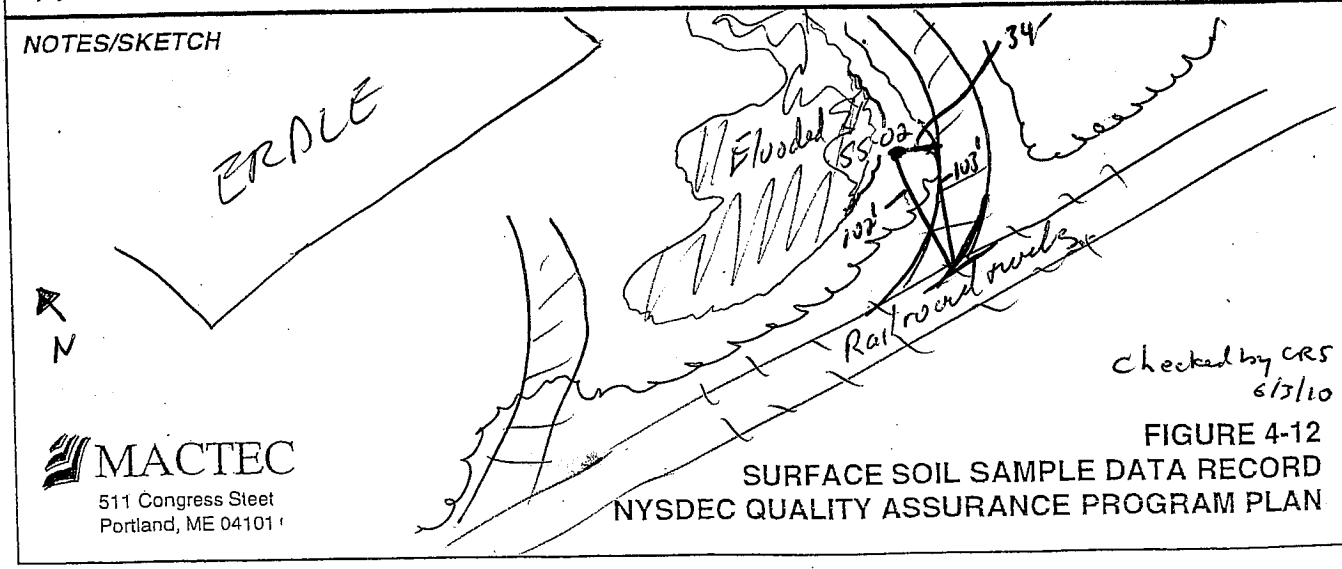
SAMPLE LOCATION SKETCH:
[X] YES
[ ] ~~NO~~

SAMPLES COLLECTED

MATRIX

✓ IF REQUIRED AT THIS LOCATION	SURFACE SOIL 2-2.6'	✓ IF SAMPLE COLLECTED	✓ IF PRESERVED	VOLUME COLLECTED/NOTES
[ ] VOC	[ ]	[ ]	[ ]	500 ml (90)
[X] SVOC	[X]	[X]	[ ]	1 x 8oz amberglass jar
[ ] PEST	[ ]	[ ]	[ ]	
[X] PCB	[X]	[X]	[ ]	
[X] INORGANICS	[X]	[X]	[ ]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	

NOTES/SKETCH



Checked by CRS 6/3/10

MACTEC
511 Congress Steet
Portland, ME 04101

FIGURE 4-12
SURFACE SOIL SAMPLE DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

PORT2007022j.mac

SURFACE SOIL SAMPLE FIELD DATA RECORD

Project: ERDLE-NYSDEC
Project Number: 361207209 4-051
Sample Location ID: 82807255-03
SS-03

Site:
Date: 4/15/10
Time: Start: 1145 End: 1235
Signature of Sampler: Jerry Ruffle

Sample time 1215

SOIL SAMPLE

DEPTH OF SAMPLE INTERVAL: 2-2.8'
(Feet below ground surface)
reported to 1/10 foot

EQUIPMENT USED FOR COLLECTION:
- [X] HAND AUGER
- [ ] ~~S.S.~~ SPLIT SPOON
- [X] SHOVEL
- [ ] HAND SPOON
- [ ] ALUMINUM PANS
- [X] SS ~~BUCKET~~ Bowl
- [ ] _____

TYPE OF SAMPLE COLLECTED:
- [ ] DISCRETE
- [X] COMPOSITE

SAMPLE OBSERVATIONS:
- [ ] ODOR No unusual odors
- [X] COLOR Red/brown
- [ ] _____

DECONTAMINATION FLUIDS USED:
- ✓ ALL USED
- [ ] ETHYL ALCOHOL
- [ ] 25% METHANOL/ 75% ASTM TYPE II WATER
- [X] DEIONIZED WATER
- [X] LIQUINOX SOLUTION
- [ ] HEXANE
- [ ] HNO_3 SOLUTION
- [ ] POTABLE WATER
- [ ] NONE

SOIL TYPE:
- [X] CLAY/silt
- [X] SAND Fine
- [ ] ORGANIC
- [ ] GRAVEL

FIELD GC DATA: [ ] FIELD DUPLICATE COLLECTED
DUPLICATE ID: _____

PID Reading NA

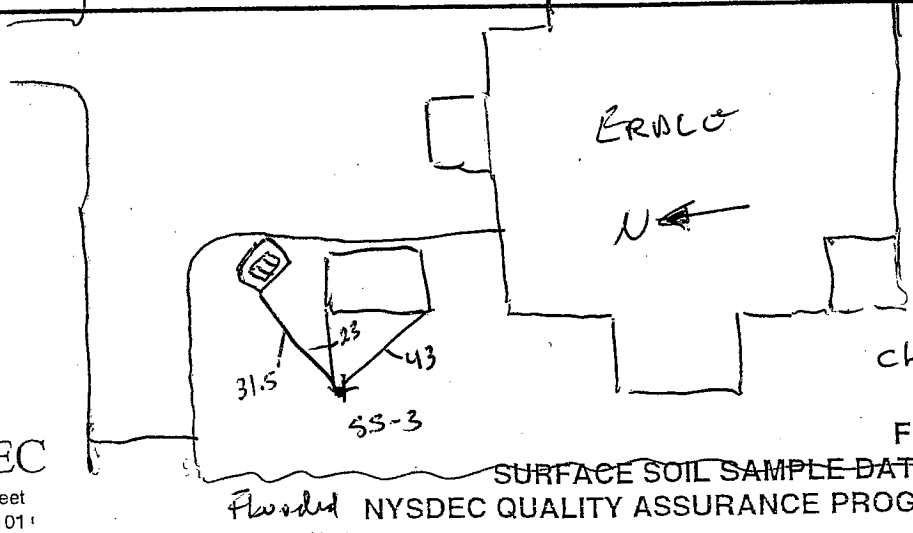
SAMPLE LOCATION SKETCH:
- [X] YES
- [ ] NO

SAMPLES COLLECTED

✓ IF REQUIRED AT THIS LOCATION	MATRIX: SURFACE SOIL	✓ IF SAMPLE COLLECTED	✓ IF PRESERVED
[ ] VOC	[ ]	[ ]	[ ]
[X] SVOC	[X]	[X]	[ ]
[ ] PEST	[ ]	[ ]	[ ]
[X] PCB	[X]	[X]	[ ]
[X] INORGANICS	[X]	[X]	[ ]
[ ]	[ ]	[ ]	[ ]
[ ]	[ ]	[ ]	[ ]
[ ]	[ ]	[ ]	[ ]
[ ]	[ ]	[ ]	[ ]
[ ]	[ ]	[ ]	[ ]
[ ]	[ ]	[ ]	[ ]

VOLUME COLLECTED/NOTES: (500ml) 1x8oz amber glass

NOTES/SKETCH



Checked by CRS 6/3/10

MACTEC
511 Congress Steet
Portland, ME 04101

FIGURE 4-12
SURFACE SOIL ~~SAMPLE DATA~~ RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

PORT2007022j.mac

SURFACE SOIL SAMPLE FIELD DATA RECORD

Project: ERDLE - NYSDEC
Project Number: 361207209405.1
Sample Location ID: 828072SS-04
SS-04

Site: —
Date: 4/15/10
Time: Start: 1250 End: 1345
Signature of Sampler: Jerry Rudloff
September 1335

SOIL SAMPLE

DEPTH OF SAMPLE INTERVAL: 2-2.6
(Feet below ground surface)
reported to 1/10 foot

0 - 2.2 Brown gravel, sand and cobbles.

2.2 - 2.5 Brown to reddish brown sand with a trace of clay/silt.

GW at 1.2' BGS

EQUIPMENT USED FOR COLLECTION:
- [X] HAND AUGER
- [ ] S.S. SPLIT SPOON
- [X] SHOVEL
- [ ] HAND SPOON
- [ ] ALUMINUM PANS
- [X] SS ~~BUCKET~~ BOWL
- [ ] _____

TYPE OF SAMPLE COLLECTED:
- [ ] DISCRETE
- [X] COMPOSITE

SAMPLE OBSERVATIONS:
- [ ] ODOR None obvious
- [ ] COLOR BROWN
- [ ] _____

DECONTAMINATION FLUIDS USED:
- ✓ ALL USED
- [ ] ETHYL ALCOHOL
- [ ] 25% METHANOL/ 75% ASTM TYPE II WATER
- [X] DEIONIZED WATER
- [X] LIQUINOX SOLUTION
- [ ] HEXANE
- [ ] HNO_3 SOLUTION
- [ ] POTABLE WATER
- [ ] NONE

SOIL TYPE:
- [ ] CLAY
- [X] SAND
- [ ] ORGANIC
- [X] GRAVEL

FIELD GC DATA: [ ] FIELD DUPLICATE COLLECTED
DUPLICATE ID: _____

SAMPLE LOCATION SKETCH:
- [X] YES
- [ ] NO

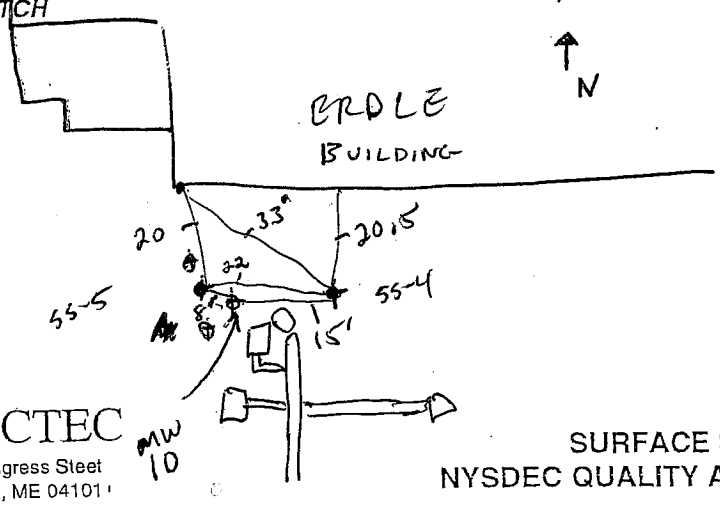
PID Reading NA

SAMPLES COLLECTED

✓ IF REQUIRED AT THIS LOCATION	MATRIX: SURFACE SOIL	✓ IF SAMPLE COLLECTED	✓ IF PRESERVED
[ ] VOC	[ ]	[ ]	[ ]
[X] SVOC	[X]	[X]	[ ]
[ ] PEST	[ ]	[ ]	[ ]
[X] PCB	[X]	[X]	[ ]
[X] INORGANICS	[X]	[X]	[ ]
[ ]	[ ]	[ ]	[ ]
[ ]	[ ]	[ ]	[ ]
[ ]	[ ]	[ ]	[ ]
[ ]	[ ]	[ ]	[ ]
[ ]	[ ]	[ ]	[ ]
[ ]	[ ]	[ ]	[ ]

VOLUME COLLECTED/NOTES: 1 x 500 ml amber glass jar

NOTES/SKETCH



Checked by CRS
6/3/10

MACTEC
511 Congress Steet
Portland, ME 04101

FIGURE 4-12
SURFACE SOIL SAMPLE DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

PORT2007022j.mac

SURFACE SOIL SAMPLE FIELD DATA RECORD

Project: ERDLE - NYSDEC
Project Number: 361207209 4-05.1
Sample Location ID: 8280725S-05
SS-05

Site: —
Date: 4/15/10
Time: Start: 1345 End: 1445
Signature of Sampler: Jerry Sandiffe

Sample Time = 1430

SOIL SAMPLE

DEPTH OF SAMPLE INTERVAL: 2 - 2.5'
(Feet below ground surface)
reported to 1/10 foot

0 - 1.8' Dark brown to gray gravel, cobbles, and sand.
1.8 - 2.6' Gray to light reddish gray fine sand and silt with roots or wood fragments.

EQUIPMENT USED FOR COLLECTION:
- [X] HAND AUGER
- [ ] ~~S~~S. SPLIT SPOON
- [X] SHOVEL
- [ ] HAND SPOON
- [ ] ALUMINUM PANS
- [X] SS ~~BUCKET~~BOWL
- [ ] _____

TYPE OF SAMPLE COLLECTED:
- [ ] DISCRETE
- [X] COMPOSITE

SAMPLE OBSERVATIONS:
- [X] ODOR Sweet
- [ ] COLOR light reddish gray
- [ ] _____

DECONTAMINATION FLUIDS USED:
- ✓ ALL USED
- [ ] ETHYL ALCOHOL
- [ ] 25% METHANOL/ 75% ASTM TYPE II WATER
- [X] DEIONIZED WATER
- [X] LIQUINOX SOLUTION
- [ ] HEXANE
- [ ] HNO_3 SOLUTION
- [ ] POTABLE WATER
- [ ] NONE

SOIL TYPE:
- [X] ~~CLAY~~ - silt
- [X] SAND
- [ ] ORGANIC
- [ ] GRAVEL

FIELD GC DATA: [ ] FIELD DUPLICATE COLLECTED
DUPLICATE ID: _____

SAMPLE LOCATION SKETCH:
- [X] YES
- [ ] NO

PID Reading NA

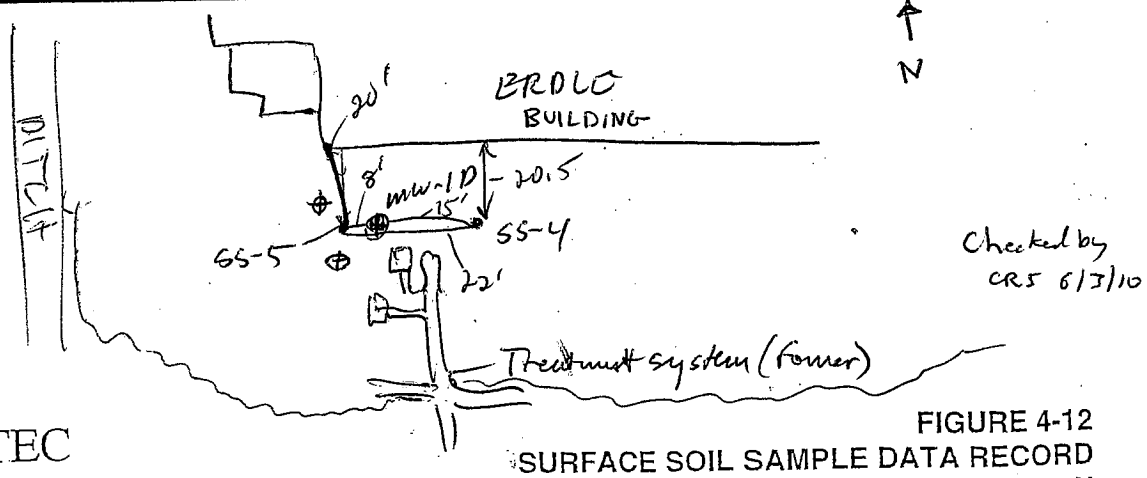
SAMPLES COLLECTED

MATRIX

✓ IF REQUIRED AT THIS LOCATION	SURFACE SOIL	✓ IF SAMPLE COLLECTED	✓ IF PRESERVED
[ ] VOC	[ ]	[ ]	[ ]
[X] SVOC	[X]	[X]	[ ]
[ ] PEST	[ ]	[ ]	[ ]
[X] PCB	[X]	[X]	[ ]
[X] INORGANICS	[X]	[X]	[ ]
[ ]	[ ]	[ ]	[ ]
[ ]	[ ]	[ ]	[ ]
[ ]	[ ]	[ ]	[ ]
[ ]	[ ]	[ ]	[ ]
[ ]	[ ]	[ ]	[ ]
[ ]	[ ]	[ ]	[ ]

VOLUME COLLECTED/NOTES: 500ml (MS) 1 x ~~8oz~~ amberglass jar

NOTES/SKETCH



Checked by CRS 6/3/10

MACTEC
511 Congress Steet
Portland, ME 04101

FIGURE 4-12
SURFACE SOIL SAMPLE DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

PORT2007022j.mac

SURFACE SOIL SAMPLE FIELD DATA RECORD

Project: ERDLE-NYSDEC
Project Number: 361207209 4-0521
Sample Location ID: 8280 7255-06
SS-06

Site: —
Date: 4/15/10
Time: Start: 1455 End: 1535
Signature of Sampler: Jerry Renfro
Sample time 1515

SOIL SAMPLE

DEPTH OF SAMPLE INTERVAL: 0 - 0.9'
(Feet below ground surface)
reported to 1/10 foot

EQUIPMENT USED FOR COLLECTION:
- [X] HAND AUGER
- [ ] S.S. SPLIT SPOON
- [ ] SHOVEL
- [ ] HAND SPOON
- [ ] ALUMINUM PANS
- [X] SS ~~BUCKET~~ Bowl
- [ ] _____

TYPE OF SAMPLE COLLECTED:
- [X] DISCRETE VOA
- [X] COMPOSITE

SAMPLE OBSERVATIONS:
- [ ] ODOR Organic decay
- [ ] COLOR Dark brown
- [ ] _____

DECONTAMINATION FLUIDS USED:
- ✓ ALL USED
- [ ] ETHYL ALCOHOL
- [ ] 25% METHANOL/ 75% ASTM TYPE II WATER
- [X] DEIONIZED WATER
- [X] LIQUINOX SOLUTION
- [ ] HEXANE
- [ ] HNO_3 SOLUTION
- [ ] POTABLE WATER
- [ ] NONE

SOIL TYPE:
- [ ] CLAY
- [ ] SAND
- [X] ORGANIC
- [ ] GRAVEL

FIELD GC DATA: [ ] FIELD DUPLICATE COLLECTED
DUPLICATE ID: _____

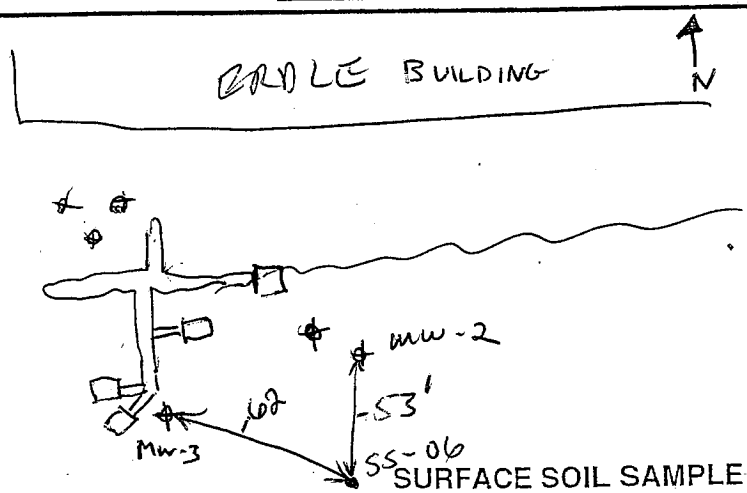
SAMPLE LOCATION SKETCH:
- [X] YES
- [ ] NO

PID Reading _____

SAMPLES COLLECTED

✓ IF REQUIRED AT THIS LOCATION	MATRIX: SURFACE SOIL	✓ IF SAMPLE COLLECTED	✓ IF PRESERVED	VOLUME COLLECTED/NOTES
[X] VOC	[X]	[X]	[ ]	1 x 500ml Amber glass jar
[X] SVOC	[X]	[X]	[ ]	1 x 40ml 10m WBOH
[ ] PEST	[ ]	[ ]	[ ]	2 x 40ml 5m DF
[X] PCB	[X]	[X]	[ ]	
[X] INORGANICS	[X]	[X]	[ ]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	

NOTES/SKETCH



checked by C Staples 6/7/10

MACTEC
511 Congress Steet
Portland, ME 04101

FIGURE 4-12
SURFACE SOIL SAMPLE DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

PORT2007022j.mac

SURFACE SOIL SAMPLE FIELD DATA RECORD

Project: ERDLE-NYSDEC
Project Number: 36120722094-05.1
Sample Location ID: 82807235-07 (SS-07)
Site: —
Date: 4/15/10
Time: Start: 1535 End: 1605
Signature of Sampler: Jerry Rambo
Sample time 1550

SOIL SAMPLE

DEPTH OF SAMPLE INTERVAL: 0-0.8
(Feet below ground surface) reported to 1/10 foot

Reddish brown clay silt

EQUIPMENT USED FOR COLLECTION:
- [X] HAND AUGER
- [ ] S.S. SPLIT SPOON
- [ ] SHOVEL
- [ ] HAND SPOON
- [ ] ALUMINUM PANS
- [X] SS ~~BUCKET~~ Bowl
- [ ] _____

TYPE OF SAMPLE COLLECTED:
- [X] DISCRETE VOA
- [X] COMPOSITE

SAMPLE OBSERVATIONS:
- [ ] ODOR none obvious
- [ ] COLOR Reddish brown
- [ ] _____

DECONTAMINATION FLUIDS USED:
- ✓ ALL USED
- [ ] ETHYL ALCOHOL
- [ ] 25% METHANOL/ 75% ASTM TYPE II WATER
- [X] DEIONIZED WATER
- [X] LIQUINOX SOLUTION
- [ ] HEXANE
- [ ] HNO_3 SOLUTION
- [ ] POTABLE WATER
- [ ] NONE

SOIL TYPE:
- [X] CLAY
- [ ] SAND
- [X] ~~ORGANIC~~ OR
- [ ] GRAVEL

FIELD GC DATA: [ ] FIELD DUPLICATE COLLECTED
DUPLICATE ID: _____

SAMPLE LOCATION SKETCH:
- [X] YES
- [ ] NO

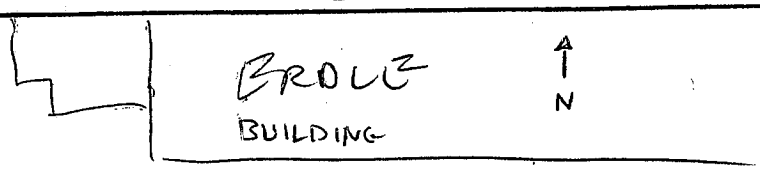
PID Reading _____

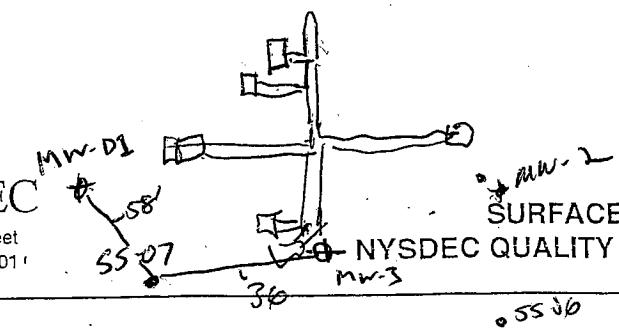
SAMPLES COLLECTED

MATRIX

✓ IF REQUIRED AT THIS LOCATION	SURFACE SOIL	✓ IF SAMPLE COLLECTED	✓ IF PRESERVED	VOLUME COLLECTED/NOTES
[X] VOC	[X]	[X]	[ ]	1x500ml amber glass
[X] SVOC	[X]	[X]	[ ]	1x40ml 10ml MeOH
[ ] PEST	[ ]	[ ]	[ ]	2x40ml 5ml DI
[X] PCB	[X]	[X]	[ ]	
[X] INORGANICS	[X]	[X]	[ ]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	

NOTES/SKETCH





Checked by C. Staples 6/3/10

MACTEC
511 Congress Steet
Portland, ME 04101

FIGURE 4-12
SURFACE SOIL SAMPLE DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

PORT2007022j.mac

ATTACHMENT 2

DATA USABITILITY SUMMARY REPORT

DATA USABILITY SUMMARY REPORT
2010 SOIL SAMPLING
ERDLE PERFORATING SITE
GATES, NEW YORK

1.0 INTRODUCTION

Seven direct push soil samples were collected on April 15, 2010 at the Erdle Perforating Site (Site) in Gates, New York and submitted to Accutest Laboratories located in Marlborough, Massachusetts. Results were reported in Sample Delivery Groups (SDGs): M90665 and M90665R.

A listing of samples included in this Data Usability Summary Report is presented in Table 1. A summary of the analytical results is presented in Table 2. Samples were analyzed by the following methods:

- Volatile organic compounds (VOCs) by USEPA Method 8260B,
- Semi volatile compounds (SVOCs) by USEPA Method 8270C,
- Pesticides by USEPA Method 8081,
- Polychlorinated biphenyls (PCBs) by USEPA Method 8082,
- Metals and Mercury by USEPA Methods 6010B and 7471A,
- Percent Solids by Standard Methods 212540B Modified.

Deliverables for the off-site laboratory analyses included a Category B deliverable as defined in the New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocols (NYSDEC, 2005) for SDGs M90665 and M90665R. Tentatively Identified Compounds (TICs) were reported by the laboratory and are presented in Table 3. TICs were not evaluated as part of the DUSR.

A project chemist review was completed based on NYSDEC Division of Environmental Remediation guidance for Data Usability Summary Reports (NYSDEC, 2010) for SDGs M90665 and M90665R. Laboratory quality control (QC) limits were used during the data evaluation unless noted otherwise. The project chemist review included evaluations of sample collection, data package completeness, holding times, QC data (blanks, instrument calibrations, duplicates, lab control samples, and surrogate recovery), data transcription, electronic data reporting, calculations, and data qualification.

Table 1

SDG	Media	Location	Sample ID	Sample Date	Class Method Fraction Qc Code	VOC SW8260B T	SVOC SW8270C T	Metals SW6010B T	Metals SW7471A T	PCBs SW8082 T	Solids SM212540 T	Pesticides SW8081 T
M90665	SOIL	SS-01	828072SS-01	4/15/2010	FS		X	X	X	X	X	X
M90665	SOIL	SS-02	828072SS-02	4/15/2010	FS		X	X	X	X	X	
M90665	SOIL	SS-03	828072SS-03	4/15/2010	FS		X	X	X	X	X	
M90665	SOIL	SS-04	828072SS-04	4/15/2010	FS		X	X	X	X	X	X
M90665	SOIL	SS-05	828072SS-05	4/15/2010	FS		X	X	X	X	X	X
M90665	SOIL	SS-06	828072SS-06	4/15/2010	FS	X	X	X	X	X	X	X
M90665	SOIL	SS-07	828072SS-07	4/15/2010	FS	X	X	X	X	X	X	X

The following laboratory or data validation qualifiers are used in the final data presentation.

U = target analyte is not detected at the reported detection limit
J = concentration is estimated

2.0 VOLATILE ORGANIC COMPOUNDS (VOCS)

Instrument Calibration

In the initial calibration, the percent relative standard deviation (RSD) for methyl tert butyl ether (21), carbon disulfide (27), 2-butanone (30), 1,1,1-trichloroethane (22), carbon tetrachloride (26), bromodichloromethane (24), cis-1,3-dichloropropene (50), trans-1,3-dichloropropene (44), 2-hexanone (21), bromoform (37), 1,2-dibromo-3-chloropropane (37), and 1,2,4-trichlorobenzene (32) exceeded the QC limit of 20. Sample results for methyl tert butyl ether, carbon disulfide, 2-butanone, 1,1,1-trichloroethane, carbon tetrachloride, bromodichloromethane, cis-1,3-dichloropropene, trans-1,3-dichloropropene, 2-hexanone, bromoform, 1,2-dibromo-3-chloropropane, and 1,2,4-trichlorobenzene were non detect and were qualified estimated (UJ).

In the continuing calibration analyzed on April 20, 2010 had a percent difference greater than the control limit of 20 for acetone (37) and 2-butanone (21). Sample results for 2-butanone were qualified previously under the initial calibration criteria. Sample result for acetone were qualified estimated (J/UJ).

Surrogate Recovery

The percent recovery of 4-bromofluorobenzene in sample 828072SS-06 (134 and 131) exceeded the upper QC limit o f 130. Reported detections in sample 828072SS-06 were qualified estimated (J).

3.0 SEMI VOLATILE ORGANIC COMPOUNDS (SVOCS)

Instrument Calibration

In the initial calibration, the percent RSD for hexachlorocyclopentadiene (17), 2,4-dinitrophenol (19), 4,6-dinitro-2-methyl phenol (20), pentachlorophenol (18), butyl benzyl phthalate (15.5), bis (2-ethylhexyl) phthalate (26), and di-n-octyl phthalate (25) exceeded the QC limit of 15. Sample results for hexachlorocyclopentadiene, 2,4-dinitrophenol, 4,6-dinitro-2-methyl phenol, pentachlorophenol, butyl benzyl phthalate, bis (2-ethylhexyl) phthalate, and di-n-octyl phthalate were non detect and were qualified estimated (UJ).

Laboratory Control Sample Results

The LCS percent recovery of acetophenone (157), 2-chloronaphthalene (164), 2,4-dinitrotoluene (176), 2,6-dinitro toluene (176), hexachlorobenzene (164), hexachlorobutadiene (159), hexachlorocyclopentadiene (187), hexachloroethane (160), and nitrobenzene (148) exceeded the upper QC limits. Sample results were non detect, no further action required.

Matrix Spike

Sample 828072SS-05 was analyzed as an MS/MSD by the laboratory. The MS percent recovery of 2,4-dinitrophenol (27) was less than the lower QC limit. The MS and/or MSD percent

recoveries of acetophenone (143), 2-chloronaphthalene (143 and 160), 2,4-dinitrotoluene (162 and 176), 2,6-dinitro toluene (161 and 175), hexachlorobenzene (154 and 166), and hexachlorobutadiene (145) exceeded the upper QC limits. The result for 2,4-dinitirophenol in the unspiked sample was non detect and was qualified estimated (UJ). The result for acetophenone, 2-chloronaphthalene, 2,4-dinitrotoluene, 2,6-dinitro toluene, hexachlorobenzene, and hexachlorobutadiene in the unspiked sample were non detect, no further action required.

4.0 PESTICIDES

Holding Time and Sample Collection

The laboratory extracted the samples two days beyond technical hold time. All sample results were non detect and were qualified estimated (UJ).

Instrument Calibration

In the initial calibration, the percent RSD for 4,4'-DDD (21),endrin aldehyde (39), endosulfan sulfate (25), and methoxychlor (27) exceeded the QC limit of 20. Sample results for 4,4'-DDD,endrin aldehyde, endosulfan sulfate, and methoxychlor were non detect and were qualified estimated (UJ).

In the continuing calibration, the percent difference for heptachlor (-23), 4,4'-DDT (-27), and methoxychlor (-28) exceeded the QC limit of 20. Sample results for methoxychlor were qualified previously under the initial calibration criteria. Sample results for heptachlor and 4,4'-DDT were non detect and were qualified estimated (UJ).

Laboratory Control Sample Results

Most of the LCS analyte percent recoveries exceeded the upper QC limits. LCS percent recoveries ranged from 144 to 212. Sample results were non detect, no further action required.

5.0 POLYCHLORINATED BIPEHNYLS (PCBs)

No quality control issues were identified and results are interpreted to be usable as reported by the laboratory.

6.0 METALS AND MERCURY

No quality control issues were identified and results are interpreted to be usable as reported by the laboratory.

7.0 PERCENT SOLIDS

No quality control issues were identified and results are interpreted to be usable as reported by the laboratory.

Reference:

New York State Department of Environmental Conservation (NYSDEC), 2005. "Analytical Services Protocols"; July 2005.

New York State Department of Environmental Conservation (NYSDEC), 2002. "Technical Guidance for Site Investigation and Remediation-Appendix 2B"; Draft DER-10; Division of Environmental Remediation; December 2002.

Data Validator: Wolfgang Calicchio

Date: June 4, 2010

Reviewed by: Jayme Connolly

Date: June 4, 2010

DUSR TABLE 2
Results Summary
SDG M90665 and M90665R
Erdle Perforating

		Location	SS-01		SS-02	
		Sample Date	4/15/2010		4/15/2010	
		Sample ID	828072SS-01		828072SS-02	
		Qc Code	FS		FS	
Analysis	Param Name	Units	Result	Qualifier	Result	Qualifier
SW8260	1,1,1-Trichloroethane	ug/kg				
SW8260	1,1,2,2-Tetrachloroethane	ug/kg				
SW8260	1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/kg				
SW8260	1,1,2-Trichloroethane	ug/kg				
SW8260	1,1-Dichloroethane	ug/kg				
SW8260	1,1-Dichloroethene	ug/kg				
SW8260	1,2,4-Trichlorobenzene	ug/kg				
SW8260	1,2-Dibromo-3-chloropropane	ug/kg				
SW8260	1,2-Dibromoethane	ug/kg				
SW8260	1,2-Dichlorobenzene	ug/kg				
SW8260	1,2-Dichloroethane	ug/kg				
SW8260	1,2-Dichloropropane	ug/kg				
SW8260	1,3-Dichlorobenzene	ug/kg				
SW8260	1,4-Dichlorobenzene	ug/kg				
SW8260	2-Butanone	ug/kg				
SW8260	2-Hexanone	ug/kg				
SW8260	4-Methyl-2-pentanone	ug/kg				
SW8260	Acetic acid, methyl ester	ug/kg				
SW8260	Acetone	ug/kg				
SW8260	Benzene	ug/kg				
SW8260	Bromodichloromethane	ug/kg				
SW8260	Bromoform	ug/kg				
SW8260	Bromomethane	ug/kg				
SW8260	Carbon disulfide	ug/kg				
SW8260	Carbon tetrachloride	ug/kg				
SW8260	Chlorobenzene	ug/kg				
SW8260	Chlorodibromomethane	ug/kg				
SW8260	Chloroethane	ug/kg				
SW8260	Chloroform	ug/kg				
SW8260	Chloromethane	ug/kg				
SW8260	Cis-1,2-Dichloroethene	ug/kg				
SW8260	cis-1,3-Dichloropropene	ug/kg				
SW8260	Cyclohexane	ug/kg				
SW8260	Dichlorodifluoromethane	ug/kg				
SW8260	Ethyl benzene	ug/kg				
SW8260	Isopropylbenzene	ug/kg				
SW8260	Methyl cyclohexane	ug/kg				
SW8260	Methyl Tertbutyl Ether	ug/kg				
SW8260	Methylene chloride	ug/kg				
SW8260	Styrene	ug/kg				
SW8260	Tetrachloroethene	ug/kg				
SW8260	Toluene	ug/kg				
SW8260	trans-1,2-Dichloroethene	ug/kg				
SW8260	trans-1,3-Dichloropropene	ug/kg				
SW8260	Trichloroethene	ug/kg				
SW8260	Trichlorofluoromethane	ug/kg				
SW8260	Vinyl chloride	ug/kg				

produced by: BJS 6/3/10
reveiwed by: WDC 6/3/10

DUSR TABLE 2
Results Summary
SDG M90665 and M90665R
Erdle Perforating

		Location	SS-01		SS-02	
		Sample Date	4/15/2010		4/15/2010	
		Sample ID	828072SS-01		828072SS-02	
		Qc Code	FS		FS	
Analysis	Param Name	Units	Result	Qualifier	Result	Qualifier
SW8260	Xylenes, Total	ug/kg				
SW8468270C	2,4,5-Trichlorophenol	ug/kg	590	U	740	U
SW8468270C	2,4,6-Trichlorophenol	ug/kg	590	U	740	U
SW8468270C	2,4-Dichlorophenol	ug/kg	590	U	740	U
SW8468270C	2,4-Dimethylphenol	ug/kg	590	U	740	U
SW8468270C	2,4-Dinitrophenol	ug/kg	1,200	UJ	1,500	UJ
SW8468270C	2,4-Dinitrotoluene	ug/kg	590	U	740	U
SW8468270C	2,6-Dinitrotoluene	ug/kg	590	U	740	U
SW8468270C	2-Chloronaphthalene	ug/kg	290	U	370	U
SW8468270C	2-Chlorophenol	ug/kg	290	U	370	U
SW8468270C	2-Methylnaphthalene	ug/kg	290	U	370	U
SW8468270C	2-Methylphenol	ug/kg	590	U	740	U
SW8468270C	2-Nitroaniline	ug/kg	590	U	740	U
SW8468270C	2-Nitrophenol	ug/kg	590	U	740	U
SW8468270C	3 & 4 Methylphenol	ug/kg	590	U	740	U
SW8468270C	3,3`-Dichlorobenzidine	ug/kg	290	U	370	U
SW8468270C	3-Nitroaniline	ug/kg	590	U	740	U
SW8468270C	4,6-Dinitro-2-methylphenol	ug/kg	590	UJ	740	UJ
SW8468270C	4-Bromophenyl phenyl ether	ug/kg	290	U	370	U
SW8468270C	4-Chloro-3-methylphenol	ug/kg	590	U	740	U
SW8468270C	4-Chloroaniline	ug/kg	590	U	740	U
SW8468270C	4-Chlorophenyl phenyl ether	ug/kg	290	U	370	U
SW8468270C	4-Nitroaniline	ug/kg	590	U	740	U
SW8468270C	4-Nitrophenol	ug/kg	1,200	U	1,500	U
SW8468270C	Acenaphthene	ug/kg	290	U	370	U
SW8468270C	Acenaphthylene	ug/kg	290	U	370	U
SW8468270C	Acetophenone	ug/kg	590	U	740	U
SW8468270C	Anthracene	ug/kg	290	U	370	U
SW8468270C	Atrazine	ug/kg	590	U	740	U
SW8468270C	Benzaldehyde	ug/kg	1,200	U	1,500	U
SW8468270C	Benzo(a)anthracene	ug/kg	290	U	370	U
SW8468270C	Benzo(a)pyrene	ug/kg	290	U	370	U
SW8468270C	Benzo(b)fluoranthene	ug/kg	290	U	370	U
SW8468270C	Benzo(ghi)perylene	ug/kg	290	U	370	U
SW8468270C	Benzo(k)fluoranthene	ug/kg	290	U	370	U
SW8468270C	Biphenyl	ug/kg	590	U	740	U
SW8468270C	Bis(2-Chloroethoxy)methane	ug/kg	290	U	370	U
SW8468270C	Bis(2-Chloroethyl)ether	ug/kg	290	U	370	U
SW8468270C	Bis(2-Chloroisopropyl)ether	ug/kg	290	U	370	U
SW8468270C	Bis(2-Ethylhexyl)phthalate	ug/kg	290	UJ	370	UJ
SW8468270C	Butylbenzylphthalate	ug/kg	290	UJ	370	UJ
SW8468270C	Caprolactum	ug/kg	590	U	740	U
SW8468270C	Carbazole	ug/kg	290	U	370	U
SW8468270C	Chrysene	ug/kg	290	U	370	U
SW8468270C	Di-n-butylphthalate	ug/kg	290	U	370	U
SW8468270C	Di-n-octylphthalate	ug/kg	290	UJ	370	UJ
SW8468270C	Dibenz(a,h)anthracene	ug/kg	290	U	370	U

DUSR TABLE 2
Results Summary
SDG M90665 and M90665R
Erdle Perforating

		Location	SS-01		SS-02	
		Sample Date	4/15/2010		4/15/2010	
		Sample ID	828072SS-01		828072SS-02	
		Qc Code	FS		FS	
Analysis	Param Name	Units	Result	Qualifier	Result	Qualifier
SW8468270C	Dibenzofuran	ug/kg	290	U	370	U
SW8468270C	Diethylphthalate	ug/kg	290	U	370	U
SW8468270C	Dimethylphthalate	ug/kg	290	U	370	U
SW8468270C	Fluoranthene	ug/kg	290	U	370	U
SW8468270C	Fluorene	ug/kg	290	U	370	U
SW8468270C	Hexachlorobenzene	ug/kg	290	U	370	U
SW8468270C	Hexachlorobutadiene	ug/kg	290	U	370	U
SW8468270C	Hexachlorocyclopentadiene	ug/kg	590	UJ	740	UJ
SW8468270C	Hexachloroethane	ug/kg	290	U	370	U
SW8468270C	Indeno(1,2,3-cd)pyrene	ug/kg	290	U	370	U
SW8468270C	Isophorone	ug/kg	290	U	370	U
SW8468270C	N-Nitrosodi-n-propylamine	ug/kg	290	U	370	U
SW8468270C	N-Nitrosodiphenylamine	ug/kg	290	U	370	U
SW8468270C	Naphthalene	ug/kg	290	U	370	U
SW8468270C	Nitrobenzene	ug/kg	290	U	370	U
SW8468270C	Pentachlorophenol	ug/kg	590	UJ	740	UJ
SW8468270C	Phenanthrene	ug/kg	290	U	370	U
SW8468270C	Phenol	ug/kg	290	U	370	U
SW8468270C	Pyrene	ug/kg	290	U	370	U
SW8468081	4,4`-DDD	ug/kg	7.6	UJ		
SW8468081	4,4`-DDE	ug/kg	7.6	UJ		
SW8468081	4,4`-DDT	ug/kg	7.6	UJ		
SW8468081	Aldrin	ug/kg	7.6	UJ		
SW8468081	Alpha-BHC	ug/kg	7.6	UJ		
SW8468081	Beta-BHC	ug/kg	7.6	UJ		
SW8468081	Chlordane (technical)	ug/kg	76	UJ		
SW8468081	Delta-BHC	ug/kg	7.6	UJ		
SW8468081	Dieldrin	ug/kg	7.6	UJ		
SW8468081	Endosulfan I	ug/kg	7.6	UJ		
SW8468081	Endosulfan II	ug/kg	7.6	UJ		
SW8468081	Endosulfan sulfate	ug/kg	7.6	UJ		
SW8468081	Endrin	ug/kg	7.6	UJ		
SW8468081	Endrin aldehyde	ug/kg	7.6	UJ		
SW8468081	Gamma-BHC/Lindane	ug/kg	7.6	UJ		
SW8468081	Heptachlor	ug/kg	7.6	UJ		
SW8468081	Heptachlor epoxide	ug/kg	7.6	UJ		
SW8468081	Methoxychlor	ug/kg	7.6	UJ		
SW8468081	Toxaphene	ug/kg	76	UJ		
SW8468082	Aroclor-1016	ug/kg	120	U	150	U
SW8468082	Aroclor-1221	ug/kg	120	U	150	U
SW8468082	Aroclor-1232	ug/kg	120	U	150	U
SW8468082	Aroclor-1242	ug/kg	120	U	150	U
SW8468082	Aroclor-1248	ug/kg	120	U	150	U
SW8468082	Aroclor-1254	ug/kg	120	U	150	U
SW8468082	Aroclor-1260	ug/kg	120	U	150	U
SW8466010B	Aluminum	mg/kg	6,310		17,400	
SW8466010B	Antimony	mg/kg	1.9	U	2.2	U

produced by: BJS 6/3/10
reveiwed by: WDC 6/3/10

DUSR TABLE 2
Results Summary
SDG M90665 and M90665R
Erdle Perforating

		Location	SS-01		SS-02	
		Sample Date	4/15/2010		4/15/2010	
		Sample ID	828072SS-01		828072SS-02	
		Qc Code	FS		FS	
Analysis	**Param Name**	**Units**	Result	Qualifier	Result	Qualifier
SW8466010B	Arsenic	mg/kg	2.4		4.6	
SW8466010B	Barium	mg/kg	41.4		101	
SW8466010B	Beryllium	mg/kg	0.38	U	0.84	
SW8466010B	Cadmium	mg/kg	0.38	U	0.44	U
SW8466010B	Calcium	mg/kg	2,030		5,330	
SW8466010B	Chromium	mg/kg	11.1		17.7	
SW8466010B	Cobalt	mg/kg	4.7	U	5.6	
SW8466010B	Copper	mg/kg	8.3		9.7	
SW8466010B	Iron	mg/kg	16,100		19,700	
SW8466010B	Lead	mg/kg	3.1		13.7	
SW8466010B	Magnesium	mg/kg	1,890		2,850	
SW8466010B	Manganese	mg/kg	338		221	
SW8466010B	Nickel	mg/kg	9.8		14	
SW8466010B	Potassium	mg/kg	597		1430	
SW8466010B	Selenium	mg/kg	1.9	U	2.2	U
SW8466010B	Silver	mg/kg	0.47	U	0.55	U
SW8466010B	Sodium	mg/kg	470	U	550	U
SW8466010B	Thallium	mg/kg	1.9	U	2.2	U
SW8466010B	Vanadium	mg/kg	22.7		29.9	
SW8466010B	Zinc	mg/kg	21.3		91.3	
SW8467471A	Mercury	mg/kg	0.036	U	0.098	
SM212540BMOD	Percent Solids	Percent	83.3		65.7	

Notes:
ug/kg = microgram per kilogram
mg/kg = milligram per kilogram
FS = field sample
U = not detected
J = estimated value

produced by: BJS 6/3/10
reveiwed by: WDC 6/3/10

DUSR TABLE 2
Results Summary
SDG M90665 and M90665R
Erdle Perforating

		Location	SS-03		SS-04	
		Sample Date	4/15/2010		4/15/2010	
		Sample ID	828072SS-03		828072SS-04	
		Qc Code	FS		FS	
Analysis	Param Name	Units	Result	Qualifier	Result	Qualifier
SW8260	1,1,1-Trichloroethane	ug/kg				
SW8260	1,1,2,2-Tetrachloroethane	ug/kg				
SW8260	1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/kg				
SW8260	1,1,2-Trichloroethane	ug/kg				
SW8260	1,1-Dichloroethane	ug/kg				
SW8260	1,1-Dichloroethene	ug/kg				
SW8260	1,2,4-Trichlorobenzene	ug/kg				
SW8260	1,2-Dibromo-3-chloropropane	ug/kg				
SW8260	1,2-Dibromoethane	ug/kg				
SW8260	1,2-Dichlorobenzene	ug/kg				
SW8260	1,2-Dichloroethane	ug/kg				
SW8260	1,2-Dichloropropane	ug/kg				
SW8260	1,3-Dichlorobenzene	ug/kg				
SW8260	1,4-Dichlorobenzene	ug/kg				
SW8260	2-Butanone	ug/kg				
SW8260	2-Hexanone	ug/kg				
SW8260	4-Methyl-2-pentanone	ug/kg				
SW8260	Acetic acid, methyl ester	ug/kg				
SW8260	Acetone	ug/kg				
SW8260	Benzene	ug/kg				
SW8260	Bromodichloromethane	ug/kg				
SW8260	Bromoform	ug/kg				
SW8260	Bromomethane	ug/kg				
SW8260	Carbon disulfide	ug/kg				
SW8260	Carbon tetrachloride	ug/kg				
SW8260	Chlorobenzene	ug/kg				
SW8260	Chlorodibromomethane	ug/kg				
SW8260	Chloroethane	ug/kg				
SW8260	Chloroform	ug/kg				
SW8260	Chloromethane	ug/kg				
SW8260	Cis-1,2-Dichloroethene	ug/kg				
SW8260	cis-1,3-Dichloropropene	ug/kg				
SW8260	Cyclohexane	ug/kg				
SW8260	Dichlorodifluoromethane	ug/kg				
SW8260	Ethyl benzene	ug/kg				
SW8260	Isopropylbenzene	ug/kg				
SW8260	Methyl cyclohexane	ug/kg				
SW8260	Methyl Tertbutyl Ether	ug/kg				
SW8260	Methylene chloride	ug/kg				
SW8260	Styrene	ug/kg				
SW8260	Tetrachloroethene	ug/kg				
SW8260	Toluene	ug/kg				
SW8260	trans-1,2-Dichloroethene	ug/kg				
SW8260	trans-1,3-Dichloropropene	ug/kg				
SW8260	Trichloroethene	ug/kg				
SW8260	Trichlorofluoromethane	ug/kg				
SW8260	Vinyl chloride	ug/kg				

produced by: BJS 6/3/10
reveiwed by: WDC 6/3/10

DUSR TABLE 2
Results Summary
SDG M90665 and M90665R
Erdle Perforating

		Location	SS-03		SS-04	
		Sample Date	4/15/2010		4/15/2010	
		Sample ID	828072SS-03		828072SS-04	
		Qc Code	FS		FS	
Analysis	Param Name	Units	Result	Qualifier	Result	Qualifier
SW8260	Xylenes, Total	ug/kg				
SW8468270C	2,4,5-Trichlorophenol	ug/kg	600	U	620	U
SW8468270C	2,4,6-Trichlorophenol	ug/kg	600	U	620	U
SW8468270C	2,4-Dichlorophenol	ug/kg	600	U	620	U
SW8468270C	2,4-Dimethylphenol	ug/kg	600	U	620	U
SW8468270C	2,4-Dinitrophenol	ug/kg	1,200	UJ	1,200	UJ
SW8468270C	2,4-Dinitrotoluene	ug/kg	600	U	620	U
SW8468270C	2,6-Dinitrotoluene	ug/kg	600	U	620	U
SW8468270C	2-Chloronaphthalene	ug/kg	300	U	310	U
SW8468270C	2-Chlorophenol	ug/kg	300	U	310	U
SW8468270C	2-Methylnaphthalene	ug/kg	300	U	310	U
SW8468270C	2-Methylphenol	ug/kg	600	U	620	U
SW8468270C	2-Nitroaniline	ug/kg	600	U	620	U
SW8468270C	2-Nitrophenol	ug/kg	600	U	620	U
SW8468270C	3 & 4 Methylphenol	ug/kg	600	U	620	U
SW8468270C	3,3`-Dichlorobenzidine	ug/kg	300	U	310	U
SW8468270C	3-Nitroaniline	ug/kg	600	U	620	U
SW8468270C	4,6-Dinitro-2-methylphenol	ug/kg	600	UJ	620	UJ
SW8468270C	4-Bromophenyl phenyl ether	ug/kg	300	U	310	U
SW8468270C	4-Chloro-3-methylphenol	ug/kg	600	U	620	U
SW8468270C	4-Chloroaniline	ug/kg	600	U	620	U
SW8468270C	4-Chlorophenyl phenyl ether	ug/kg	300	U	310	U
SW8468270C	4-Nitroaniline	ug/kg	600	U	620	U
SW8468270C	4-Nitrophenol	ug/kg	1,200	U	1,200	U
SW8468270C	Acenaphthene	ug/kg	300	U	310	U
SW8468270C	Acenaphthylene	ug/kg	300	U	310	U
SW8468270C	Acetophenone	ug/kg	600	U	620	U
SW8468270C	Anthracene	ug/kg	300	U	2890	
SW8468270C	Atrazine	ug/kg	600	U	620	U
SW8468270C	Benzaldehyde	ug/kg	1,200	U	1,200	U
SW8468270C	Benzo(a)anthracene	ug/kg	300	U	4920	
SW8468270C	Benzo(a)pyrene	ug/kg	300	U	3090	
SW8468270C	Benzo(b)fluoranthene	ug/kg	300	U	3490	
SW8468270C	Benzo(ghi)perylene	ug/kg	300	U	1820	
SW8468270C	Benzo(k)fluoranthene	ug/kg	300	U	2940	
SW8468270C	Biphenyl	ug/kg	600	U	620	U
SW8468270C	Bis(2-Chloroethoxy)methane	ug/kg	300	U	310	U
SW8468270C	Bis(2-Chloroethyl)ether	ug/kg	300	U	310	U
SW8468270C	Bis(2-Chloroisopropyl)ether	ug/kg	300	U	310	U
SW8468270C	Bis(2-Ethylhexyl)phthalate	ug/kg	300	UJ	310	UJ
SW8468270C	Butylbenzylphthalate	ug/kg	300	UJ	310	UJ
SW8468270C	Caprolactum	ug/kg	600	U	620	U
SW8468270C	Carbazole	ug/kg	300	U	681	
SW8468270C	Chrysene	ug/kg	300	U	4360	
SW8468270C	Di-n-butylphthalate	ug/kg	300	U	310	U
SW8468270C	Di-n-octylphthalate	ug/kg	300	UJ	310	UJ
SW8468270C	Dibenz(a,h)anthracene	ug/kg	300	U	649	

DUSR TABLE 2
Results Summary
SDG M90665 and M90665R
Erdle Perforating

		Location	SS-03		SS-04	
		Sample Date	4/15/2010		4/15/2010	
		Sample ID	828072SS-03		828072SS-04	
		Qc Code	FS		FS	
Analysis	Param Name	Units	Result	Qualifier	Result	Qualifier
SW8468270C	Dibenzofuran	ug/kg	300	U	310	U
SW8468270C	Diethylphthalate	ug/kg	300	U	310	U
SW8468270C	Dimethylphthalate	ug/kg	300	U	310	U
SW8468270C	Fluoranthene	ug/kg	300	U	12300	
SW8468270C	Fluorene	ug/kg	300	U	456	
SW8468270C	Hexachlorobenzene	ug/kg	300	U	310	U
SW8468270C	Hexachlorobutadiene	ug/kg	300	U	310	U
SW8468270C	Hexachlorocyclopentadiene	ug/kg	600	UJ	620	UJ
SW8468270C	Hexachloroethane	ug/kg	300	U	310	U
SW8468270C	Indeno(1,2,3-cd)pyrene	ug/kg	300	U	1820	
SW8468270C	Isophorone	ug/kg	300	U	310	U
SW8468270C	N-Nitrosodi-n-propylamine	ug/kg	300	U	310	U
SW8468270C	N-Nitrosodiphenylamine	ug/kg	300	U	310	U
SW8468270C	Naphthalene	ug/kg	300	U	310	U
SW8468270C	Nitrobenzene	ug/kg	300	U	310	U
SW8468270C	Pentachlorophenol	ug/kg	600	UJ	620	UJ
SW8468270C	Phenanthrene	ug/kg	300	U	8730	
SW8468270C	Phenol	ug/kg	300	U	310	U
SW8468270C	Pyrene	ug/kg	300	U	8590	
SW8468081	4,4`-DDD	ug/kg			8.3	UJ
SW8468081	4,4`-DDE	ug/kg			8.3	UJ
SW8468081	4,4`-DDT	ug/kg			8.3	UJ
SW8468081	Aldrin	ug/kg			8.3	UJ
SW8468081	Alpha-BHC	ug/kg			8.3	UJ
SW8468081	Beta-BHC	ug/kg			8.3	UJ
SW8468081	Chlordane (technical)	ug/kg			83	UJ
SW8468081	Delta-BHC	ug/kg			8.3	UJ
SW8468081	Dieldrin	ug/kg			8.3	UJ
SW8468081	Endosulfan I	ug/kg			8.3	UJ
SW8468081	Endosulfan II	ug/kg			8.3	UJ
SW8468081	Endosulfan sulfate	ug/kg			8.3	UJ
SW8468081	Endrin	ug/kg			8.3	UJ
SW8468081	Endrin aldehyde	ug/kg			8.3	UJ
SW8468081	Gamma-BHC/Lindane	ug/kg			8.3	UJ
SW8468081	Heptachlor	ug/kg			8.3	UJ
SW8468081	Heptachlor epoxide	ug/kg			8.3	UJ
SW8468081	Methoxychlor	ug/kg			8.3	UJ
SW8468081	Toxaphene	ug/kg			83	UJ
SW8468082	Aroclor-1016	ug/kg	120	U	120	U
SW8468082	Aroclor-1221	ug/kg	120	U	120	U
SW8468082	Aroclor-1232	ug/kg	120	U	120	U
SW8468082	Aroclor-1242	ug/kg	120	U	120	U
SW8468082	Aroclor-1248	ug/kg	120	U	120	U
SW8468082	Aroclor-1254	ug/kg	120	U	120	U
SW8468082	Aroclor-1260	ug/kg	120	U	120	U
SW8466010B	Aluminum	mg/kg	9,140		3,940	
SW8466010B	Antimony	mg/kg	2	U	2	U

produced by: BJS 6/3/10
reveiwed by: WDC 6/3/10

DUSR TABLE 2
Results Summary
SDG M90665 and M90665R
Erdle Perforating

		Location	SS-03		SS-04	
		Sample Date	4/15/2010		4/15/2010	
		Sample ID	828072SS-03		828072SS-04	
		Qc Code	FS		FS	
Analysis	**Param Name**	**Units**	Result	Qualifier	Result	Qualifier
SW8466010B	Arsenic	mg/kg	2.8		2.7	
SW8466010B	Barium	mg/kg	52.7		20.9	
SW8466010B	Beryllium	mg/kg	0.6		0.4	U
SW8466010B	Cadmium	mg/kg	0.4	U	0.4	U
SW8466010B	Calcium	mg/kg	5,070		61,900	
SW8466010B	Chromium	mg/kg	13.7		6.9	
SW8466010B	Cobalt	mg/kg	5.1		5	U
SW8466010B	Copper	mg/kg	11		8.6	
SW8466010B	Iron	mg/kg	19,100		9,110	
SW8466010B	Lead	mg/kg	6.9		10.4	
SW8466010B	Magnesium	mg/kg	3,350		18,100	
SW8466010B	Manganese	mg/kg	139		224	
SW8466010B	Nickel	mg/kg	15.3		8	
SW8466010B	Potassium	mg/kg	760		912	
SW8466010B	Selenium	mg/kg	2	U	2	U
SW8466010B	Silver	mg/kg	0.51	U	0.5	U
SW8466010B	Sodium	mg/kg	510	U	500	U
SW8466010B	Thallium	mg/kg	2	U	2	U
SW8466010B	Vanadium	mg/kg	28.7		9	
SW8466010B	Zinc	mg/kg	328		31.9	
SW8467471A	Mercury	mg/kg	0.046		0.037	U
SM212540BMOD	Percent Solids	Percent	81.8		79.3	

Notes:
ug/kg = microgram per kilogram
mg/kg = milligram per kilogram
FS = field sample
U = not detected
J = estimated value

DUSR TABLE 2
Results Summary
SDG M90665 and M90665R
Erdle Perforating

		Location	SS-05		SS-06	
		Sample Date	4/15/2010		4/15/2010	
		Sample ID	828072SS-05		828072SS-06	
		Qc Code	FS		FS	
Analysis	Param Name	Units	Result	Qualifier	Result	Qualifier
SW8260	1,1,1-Trichloroethane	ug/kg			3.2	UJ
SW8260	1,1,2,2-Tetrachloroethane	ug/kg			3.2	U
SW8260	1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/kg			7.9	U
SW8260	1,1,2-Trichloroethane	ug/kg			3.2	U
SW8260	1,1-Dichloroethane	ug/kg			3.2	U
SW8260	1,1-Dichloroethene	ug/kg			3.2	U
SW8260	1,2,4-Trichlorobenzene	ug/kg			7.9	UJ
SW8260	1,2-Dibromo-3-chloropropane	ug/kg			7.9	UJ
SW8260	1,2-Dibromoethane	ug/kg			3.2	U
SW8260	1,2-Dichlorobenzene	ug/kg			3.2	U
SW8260	1,2-Dichloroethane	ug/kg			3.2	U
SW8260	1,2-Dichloropropane	ug/kg			3.2	U
SW8260	1,3-Dichlorobenzene	ug/kg			3.2	U
SW8260	1,4-Dichlorobenzene	ug/kg			3.2	U
SW8260	2-Butanone	ug/kg			7.9	UJ
SW8260	2-Hexanone	ug/kg			7.9	UJ
SW8260	4-Methyl-2-pentanone	ug/kg			7.9	U
SW8260	Acetic acid, methyl ester	ug/kg			7.9	U
SW8260	Acetone	ug/kg			11	J
SW8260	Benzene	ug/kg			0.79	U
SW8260	Bromodichloromethane	ug/kg			3.2	UJ
SW8260	Bromoform	ug/kg			3.2	U
SW8260	Bromomethane	ug/kg			3.2	U
SW8260	Carbon disulfide	ug/kg			7.9	UJ
SW8260	Carbon tetrachloride	ug/kg			3.2	UJ
SW8260	Chlorobenzene	ug/kg			3.2	U
SW8260	Chlorodibromomethane	ug/kg			3.2	U
SW8260	Chloroethane	ug/kg			7.9	U
SW8260	Chloroform	ug/kg			3.2	U
SW8260	Chloromethane	ug/kg			7.9	U
SW8260	Cis-1,2-Dichloroethene	ug/kg			3.2	U
SW8260	cis-1,3-Dichloropropene	ug/kg			3.2	UJ
SW8260	Cyclohexane	ug/kg			7.9	U
SW8260	Dichlorodifluoromethane	ug/kg			3.2	U
SW8260	Ethyl benzene	ug/kg			3.2	U
SW8260	Isopropylbenzene	ug/kg			7.9	U
SW8260	Methyl cyclohexane	ug/kg			7.9	U
SW8260	Methyl Tertbutyl Ether	ug/kg			3.2	UJ
SW8260	Methylene chloride	ug/kg			3.2	U
SW8260	Styrene	ug/kg			7.9	U
SW8260	Tetrachloroethene	ug/kg			3.2	U
SW8260	Toluene	ug/kg			7.9	U
SW8260	trans-1,2-Dichloroethene	ug/kg			3.2	U
SW8260	trans-1,3-Dichloropropene	ug/kg			3.2	UJ
SW8260	Trichloroethene	ug/kg			3.2	U
SW8260	Trichlorofluoromethane	ug/kg			3.2	U
SW8260	Vinyl chloride	ug/kg			3.2	U

produced by: BJS 6/3/10
reveiwed by: WDC 6/3/10

DUSR TABLE 2
Results Summary
SDG M90665 and M90665R
Erdle Perforating

		Location	SS-05		SS-06	
		Sample Date	4/15/2010		4/15/2010	
		Sample ID	828072SS-05		828072SS-06	
		Qc Code	FS		FS	
Analysis	Param Name	Units	Result	Qualifier	Result	Qualifier
SW8260	Xylenes, Total	ug/kg			3.2	U
SW8468270C	2,4,5-Trichlorophenol	ug/kg	570	U	980	U
SW8468270C	2,4,6-Trichlorophenol	ug/kg	570	U	980	U
SW8468270C	2,4-Dichlorophenol	ug/kg	570	U	980	U
SW8468270C	2,4-Dimethylphenol	ug/kg	570	U	980	U
SW8468270C	2,4-Dinitrophenol	ug/kg	1,100	UJ	2,000	UJ
SW8468270C	2,4-Dinitrotoluene	ug/kg	570	U	980	U
SW8468270C	2,6-Dinitrotoluene	ug/kg	570	U	980	U
SW8468270C	2-Chloronaphthalene	ug/kg	280	U	490	U
SW8468270C	2-Chlorophenol	ug/kg	280	U	490	U
SW8468270C	2-Methylnaphthalene	ug/kg	280	U	490	U
SW8468270C	2-Methylphenol	ug/kg	570	U	980	U
SW8468270C	2-Nitroaniline	ug/kg	570	U	980	U
SW8468270C	2-Nitrophenol	ug/kg	570	U	980	U
SW8468270C	3 & 4 Methylphenol	ug/kg	570	U	980	U
SW8468270C	3,3`-Dichlorobenzidine	ug/kg	280	U	490	U
SW8468270C	3-Nitroaniline	ug/kg	570	U	980	U
SW8468270C	4,6-Dinitro-2-methylphenol	ug/kg	570	UJ	980	UJ
SW8468270C	4-Bromophenyl phenyl ether	ug/kg	280	U	490	U
SW8468270C	4-Chloro-3-methylphenol	ug/kg	570	U	980	U
SW8468270C	4-Chloroaniline	ug/kg	570	U	980	U
SW8468270C	4-Chlorophenyl phenyl ether	ug/kg	280	U	490	U
SW8468270C	4-Nitroaniline	ug/kg	570	U	980	U
SW8468270C	4-Nitrophenol	ug/kg	1,100	U	2,000	U
SW8468270C	Acenaphthene	ug/kg	280	U	490	U
SW8468270C	Acenaphthylene	ug/kg	280	U	490	U
SW8468270C	Acetophenone	ug/kg	570	U	980	U
SW8468270C	Anthracene	ug/kg	280	U	490	U
SW8468270C	Atrazine	ug/kg	570	U	980	U
SW8468270C	Benzaldehyde	ug/kg	1,100	U	2,000	U
SW8468270C	Benzo(a)anthracene	ug/kg	280	U	490	U
SW8468270C	Benzo(a)pyrene	ug/kg	280	U	490	U
SW8468270C	Benzo(b)fluoranthene	ug/kg	280	U	490	U
SW8468270C	Benzo(ghi)perylene	ug/kg	280	U	490	U
SW8468270C	Benzo(k)fluoranthene	ug/kg	280	U	490	U
SW8468270C	Biphenyl	ug/kg	570	U	980	U
SW8468270C	Bis(2-Chloroethoxy)methane	ug/kg	280	U	490	U
SW8468270C	Bis(2-Chloroethyl)ether	ug/kg	280	U	490	U
SW8468270C	Bis(2-Chloroisopropyl)ether	ug/kg	280	U	490	U
SW8468270C	Bis(2-Ethylhexyl)phthalate	ug/kg	280	UJ	490	UJ
SW8468270C	Butylbenzylphthalate	ug/kg	280	UJ	490	UJ
SW8468270C	Caprolactum	ug/kg	570	U	980	U
SW8468270C	Carbazole	ug/kg	280	U	490	U
SW8468270C	Chrysene	ug/kg	280	U	490	U
SW8468270C	Di-n-butylphthalate	ug/kg	280	U	490	U
SW8468270C	Di-n-octylphthalate	ug/kg	280	UJ	490	UJ
SW8468270C	Dibenz(a,h)anthracene	ug/kg	280	U	490	U

DUSR TABLE 2
Results Summary
SDG M90665 and M90665R
Erdle Perforating

		Location	SS-05		SS-06	
		Sample Date	4/15/2010		4/15/2010	
		Sample ID	828072SS-05		828072SS-06	
		Qc Code	FS		FS	
Analysis	Param Name	Units	Result	Qualifier	Result	Qualifier
SW8468270C	Dibenzofuran	ug/kg	280	U	490	U
SW8468270C	Diethylphthalate	ug/kg	280	U	490	U
SW8468270C	Dimethylphthalate	ug/kg	280	U	490	U
SW8468270C	Fluoranthene	ug/kg	280	U	490	U
SW8468270C	Fluorene	ug/kg	280	U	490	U
SW8468270C	Hexachlorobenzene	ug/kg	280	U	490	U
SW8468270C	Hexachlorobutadiene	ug/kg	280	U	490	U
SW8468270C	Hexachlorocyclopentadiene	ug/kg	570	UJ	980	UJ
SW8468270C	Hexachloroethane	ug/kg	280	U	490	U
SW8468270C	Indeno(1,2,3-cd)pyrene	ug/kg	280	U	490	U
SW8468270C	Isophorone	ug/kg	280	U	490	U
SW8468270C	N-Nitrosodi-n-propylamine	ug/kg	280	U	490	U
SW8468270C	N-Nitrosodiphenylamine	ug/kg	280	U	490	U
SW8468270C	Naphthalene	ug/kg	280	U	490	U
SW8468270C	Nitrobenzene	ug/kg	280	U	490	U
SW8468270C	Pentachlorophenol	ug/kg	570	UJ	980	UJ
SW8468270C	Phenanthrene	ug/kg	280	U	490	U
SW8468270C	Phenol	ug/kg	280	U	490	U
SW8468270C	Pyrene	ug/kg	280	U	490	U
SW8468081	4,4`-DDD	ug/kg	7.5	UJ	13	UJ
SW8468081	4,4`-DDE	ug/kg	7.5	UJ	13	UJ
SW8468081	4,4`-DDT	ug/kg	7.5	UJ	13	UJ
SW8468081	Aldrin	ug/kg	7.5	UJ	13	UJ
SW8468081	Alpha-BHC	ug/kg	7.5	UJ	13	UJ
SW8468081	Beta-BHC	ug/kg	7.5	UJ	13	UJ
SW8468081	Chlordane (technical)	ug/kg	75	UJ	130	UJ
SW8468081	Delta-BHC	ug/kg	7.5	UJ	13	UJ
SW8468081	Dieldrin	ug/kg	7.5	UJ	13	UJ
SW8468081	Endosulfan I	ug/kg	7.5	UJ	13	UJ
SW8468081	Endosulfan II	ug/kg	7.5	UJ	13	UJ
SW8468081	Endosulfan sulfate	ug/kg	7.5	UJ	13	UJ
SW8468081	Endrin	ug/kg	7.5	UJ	13	UJ
SW8468081	Endrin aldehyde	ug/kg	7.5	UJ	13	UJ
SW8468081	Gamma-BHC/Lindane	ug/kg	7.5	UJ	13	UJ
SW8468081	Heptachlor	ug/kg	7.5	UJ	13	UJ
SW8468081	Heptachlor epoxide	ug/kg	7.5	UJ	13	UJ
SW8468081	Methoxychlor	ug/kg	7.5	UJ	13	UJ
SW8468081	Toxaphene	ug/kg	75	UJ	130	UJ
SW8468082	Aroclor-1016	ug/kg	110	U	200	U
SW8468082	Aroclor-1221	ug/kg	110	U	200	U
SW8468082	Aroclor-1232	ug/kg	110	U	200	U
SW8468082	Aroclor-1242	ug/kg	110	U	200	U
SW8468082	Aroclor-1248	ug/kg	110	U	200	U
SW8468082	Aroclor-1254	ug/kg	110	U	200	U
SW8468082	Aroclor-1260	ug/kg	110	U	200	U
SW8466010B	Aluminum	mg/kg	4,000		5,950	
SW8466010B	Antimony	mg/kg	2	U	1.9	U

produced by: BJS 6/3/10
reveiwed by: WDC 6/3/10

DUSR TABLE 2
Results Summary
SDG M90665 and M90665R
Erdle Perforating

		Location	SS-05		SS-06	
		Sample Date	4/15/2010		4/15/2010	
		Sample ID	828072SS-05		828072SS-06	
		Qc Code	FS		FS	
Analysis	**Param Name**	**Units**	Result	Qualifier	Result	Qualifier
SW8466010B	Arsenic	mg/kg	2	U	4	
SW8466010B	Barium	mg/kg	21.4		19	U
SW8466010B	Beryllium	mg/kg	0.41	U	0.38	U
SW8466010B	Cadmium	mg/kg	0.41	U	0.38	U
SW8466010B	Calcium	mg/kg	21,300		3,970	
SW8466010B	Chromium	mg/kg	5.9		7.2	
SW8466010B	Cobalt	mg/kg	5.1	U	4.8	U
SW8466010B	Copper	mg/kg	6.3		7.2	
SW8466010B	Iron	mg/kg	8,100		9,060	
SW8466010B	Lead	mg/kg	4.9		16.1	
SW8466010B	Magnesium	mg/kg	5,690		833	
SW8466010B	Manganese	mg/kg	216		118	
SW8466010B	Nickel	mg/kg	5.8		4.4	
SW8466010B	Potassium	mg/kg	606		480	U
SW8466010B	Selenium	mg/kg	2	U	1.9	U
SW8466010B	Silver	mg/kg	0.51	U	0.48	U
SW8466010B	Sodium	mg/kg	510	U	480	U
SW8466010B	Thallium	mg/kg	2	U	1.9	U
SW8466010B	Vanadium	mg/kg	11.6		16.7	
SW8466010B	Zinc	mg/kg	40.6		70.9	
SW8467471A	Mercury	mg/kg	0.036	U	0.087	
SM212540BMOD	Percent Solids	Percent	86.1		50	

Notes:
ug/kg = microgram per kilogram
mg/kg = milligram per kilogram
FS = field sample
U = not detected
J = estimated value

produced by: BJS 6/3/10
reveiwed by: WDC 6/3/10

DUSR TABLE 2
Results Summary
SDG M90665 and M90665R
Erdle Perforating

		Location	SS-07	
		Sample Date	4/15/2010	
		Sample ID	828072SS-07	
		Qc Code	FS	
Analysis	Param Name	Units	Result	Qualifier
SW8260	1,1,1-Trichloroethane	ug/kg	1.5	UJ
SW8260	1,1,2,2-Tetrachloroethane	ug/kg	1.5	U
SW8260	1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/kg	3.7	U
SW8260	1,1,2-Trichloroethane	ug/kg	1.5	U
SW8260	1,1-Dichloroethane	ug/kg	1.5	U
SW8260	1,1-Dichloroethene	ug/kg	1.5	U
SW8260	1,2,4-Trichlorobenzene	ug/kg	3.7	UJ
SW8260	1,2-Dibromo-3-chloropropane	ug/kg	3.7	UJ
SW8260	1,2-Dibromoethane	ug/kg	1.5	U
SW8260	1,2-Dichlorobenzene	ug/kg	1.5	U
SW8260	1,2-Dichloroethane	ug/kg	1.5	U
SW8260	1,2-Dichloropropane	ug/kg	1.5	U
SW8260	1,3-Dichlorobenzene	ug/kg	1.5	U
SW8260	1,4-Dichlorobenzene	ug/kg	1.5	U
SW8260	2-Butanone	ug/kg	3.7	UJ
SW8260	2-Hexanone	ug/kg	3.7	UJ
SW8260	4-Methyl-2-pentanone	ug/kg	3.7	U
SW8260	Acetic acid, methyl ester	ug/kg	3.7	U
SW8260	Acetone	ug/kg	3.7	UJ
SW8260	Benzene	ug/kg	0.37	U
SW8260	Bromodichloromethane	ug/kg	1.5	UJ
SW8260	Bromoform	ug/kg	1.5	U
SW8260	Bromomethane	ug/kg	1.5	U
SW8260	Carbon disulfide	ug/kg	3.7	UJ
SW8260	Carbon tetrachloride	ug/kg	1.5	UJ
SW8260	Chlorobenzene	ug/kg	1.5	U
SW8260	Chlorodibromomethane	ug/kg	1.5	U
SW8260	Chloroethane	ug/kg	3.7	U
SW8260	Chloroform	ug/kg	1.5	U
SW8260	Chloromethane	ug/kg	3.7	U
SW8260	Cis-1,2-Dichloroethene	ug/kg	2.7	
SW8260	cis-1,3-Dichloropropene	ug/kg	1.5	UJ
SW8260	Cyclohexane	ug/kg	3.7	U
SW8260	Dichlorodifluoromethane	ug/kg	1.5	U
SW8260	Ethyl benzene	ug/kg	1.5	U
SW8260	Isopropylbenzene	ug/kg	3.7	U
SW8260	Methyl cyclohexane	ug/kg	3.7	U
SW8260	Methyl Tertbutyl Ether	ug/kg	1.5	UJ
SW8260	Methylene chloride	ug/kg	1.5	U
SW8260	Styrene	ug/kg	3.7	U
SW8260	Tetrachloroethene	ug/kg	1.5	U
SW8260	Toluene	ug/kg	3.7	U
SW8260	trans-1,2-Dichloroethene	ug/kg	1.5	U
SW8260	trans-1,3-Dichloropropene	ug/kg	1.5	UJ
SW8260	Trichloroethene	ug/kg	6.9	
SW8260	Trichlorofluoromethane	ug/kg	1.5	U
SW8260	Vinyl chloride	ug/kg	1.5	U

produced by: BJS 6/3/10
reveiwed by: WDC 6/3/10

DUSR TABLE 2
Results Summary
SDG M90665 and M90665R
Erdle Perforating

		Location	SS-07	
		Sample Date	4/15/2010	
		Sample ID	828072SS-07	
		Qc Code	FS	
Analysis	Param Name	Units	Result	Qualifier
SW8260	Xylenes, Total	ug/kg	1.5	U
SW8468270C	2,4,5-Trichlorophenol	ug/kg	660	U
SW8468270C	2,4,6-Trichlorophenol	ug/kg	660	U
SW8468270C	2,4-Dichlorophenol	ug/kg	660	U
SW8468270C	2,4-Dimethylphenol	ug/kg	660	U
SW8468270C	2,4-Dinitrophenol	ug/kg	1,300	UJ
SW8468270C	2,4-Dinitrotoluene	ug/kg	660	U
SW8468270C	2,6-Dinitrotoluene	ug/kg	660	U
SW8468270C	2-Chloronaphthalene	ug/kg	330	U
SW8468270C	2-Chlorophenol	ug/kg	330	U
SW8468270C	2-Methylnaphthalene	ug/kg	330	U
SW8468270C	2-Methylphenol	ug/kg	660	U
SW8468270C	2-Nitroaniline	ug/kg	660	U
SW8468270C	2-Nitrophenol	ug/kg	660	U
SW8468270C	3 & 4 Methylphenol	ug/kg	660	U
SW8468270C	3,3`-Dichlorobenzidine	ug/kg	330	U
SW8468270C	3-Nitroaniline	ug/kg	660	U
SW8468270C	4,6-Dinitro-2-methylphenol	ug/kg	660	UJ
SW8468270C	4-Bromophenyl phenyl ether	ug/kg	330	U
SW8468270C	4-Chloro-3-methylphenol	ug/kg	660	U
SW8468270C	4-Chloroaniline	ug/kg	660	U
SW8468270C	4-Chlorophenyl phenyl ether	ug/kg	330	U
SW8468270C	4-Nitroaniline	ug/kg	660	U
SW8468270C	4-Nitrophenol	ug/kg	1,300	U
SW8468270C	Acenaphthene	ug/kg	330	U
SW8468270C	Acenaphthylene	ug/kg	330	U
SW8468270C	Acetophenone	ug/kg	660	U
SW8468270C	Anthracene	ug/kg	330	U
SW8468270C	Atrazine	ug/kg	660	U
SW8468270C	Benzaldehyde	ug/kg	1,300	U
SW8468270C	Benzo(a)anthracene	ug/kg	330	U
SW8468270C	Benzo(a)pyrene	ug/kg	330	U
SW8468270C	Benzo(b)fluoranthene	ug/kg	330	U
SW8468270C	Benzo(ghi)perylene	ug/kg	330	U
SW8468270C	Benzo(k)fluoranthene	ug/kg	330	U
SW8468270C	Biphenyl	ug/kg	660	U
SW8468270C	Bis(2-Chloroethoxy)methane	ug/kg	330	U
SW8468270C	Bis(2-Chloroethyl)ether	ug/kg	330	U
SW8468270C	Bis(2-Chloroisopropyl)ether	ug/kg	330	U
SW8468270C	Bis(2-Ethylhexyl)phthalate	ug/kg	330	UJ
SW8468270C	Butylbenzylphthalate	ug/kg	330	UJ
SW8468270C	Caprolactum	ug/kg	660	U
SW8468270C	Carbazole	ug/kg	330	U
SW8468270C	Chrysene	ug/kg	330	U
SW8468270C	Di-n-butylphthalate	ug/kg	330	U
SW8468270C	Di-n-octylphthalate	ug/kg	330	UJ
SW8468270C	Dibenz(a,h)anthracene	ug/kg	330	U

DUSR TABLE 2
Results Summary
SDG M90665 and M90665R
Erdle Perforating

		Location	SS-07	
		Sample Date	4/15/2010	
		Sample ID	828072SS-07	
		Qc Code	FS	
Analysis	Param Name	Units	Result	Qualifier
SW8468270C	Dibenzofuran	ug/kg	330	U
SW8468270C	Diethylphthalate	ug/kg	330	U
SW8468270C	Dimethylphthalate	ug/kg	330	U
SW8468270C	Fluoranthene	ug/kg	330	U
SW8468270C	Fluorene	ug/kg	330	U
SW8468270C	Hexachlorobenzene	ug/kg	330	U
SW8468270C	Hexachlorobutadiene	ug/kg	330	U
SW8468270C	Hexachlorocyclopentadiene	ug/kg	660	UJ
SW8468270C	Hexachloroethane	ug/kg	330	U
SW8468270C	Indeno(1,2,3-cd)pyrene	ug/kg	330	U
SW8468270C	Isophorone	ug/kg	330	U
SW8468270C	N-Nitrosodi-n-propylamine	ug/kg	330	U
SW8468270C	N-Nitrosodiphenylamine	ug/kg	330	U
SW8468270C	Naphthalene	ug/kg	330	U
SW8468270C	Nitrobenzene	ug/kg	330	U
SW8468270C	Pentachlorophenol	ug/kg	660	UJ
SW8468270C	Phenanthrene	ug/kg	330	U
SW8468270C	Phenol	ug/kg	330	U
SW8468270C	Pyrene	ug/kg	330	U
SW8468081	4,4`-DDD	ug/kg	8.6	UJ
SW8468081	4,4`-DDE	ug/kg	8.6	UJ
SW8468081	4,4`-DDT	ug/kg	8.6	UJ
SW8468081	Aldrin	ug/kg	8.6	UJ
SW8468081	Alpha-BHC	ug/kg	8.6	UJ
SW8468081	Beta-BHC	ug/kg	8.6	UJ
SW8468081	Chlordane (technical)	ug/kg	86	UJ
SW8468081	Delta-BHC	ug/kg	8.6	UJ
SW8468081	Dieldrin	ug/kg	8.6	UJ
SW8468081	Endosulfan I	ug/kg	8.6	UJ
SW8468081	Endosulfan II	ug/kg	8.6	UJ
SW8468081	Endosulfan sulfate	ug/kg	8.6	UJ
SW8468081	Endrin	ug/kg	8.6	UJ
SW8468081	Endrin aldehyde	ug/kg	8.6	UJ
SW8468081	Gamma-BHC/Lindane	ug/kg	8.6	UJ
SW8468081	Heptachlor	ug/kg	8.6	UJ
SW8468081	Heptachlor epoxide	ug/kg	8.6	UJ
SW8468081	Methoxychlor	ug/kg	8.6	UJ
SW8468081	Toxaphene	ug/kg	86	UJ
SW8468082	Aroclor-1016	ug/kg	130	U
SW8468082	Aroclor-1221	ug/kg	130	U
SW8468082	Aroclor-1232	ug/kg	130	U
SW8468082	Aroclor-1242	ug/kg	130	U
SW8468082	Aroclor-1248	ug/kg	130	U
SW8468082	Aroclor-1254	ug/kg	130	U
SW8468082	Aroclor-1260	ug/kg	130	U
SW8466010B	Aluminum	mg/kg	9,340	
SW8466010B	Antimony	mg/kg	2	U

produced by: BJS 6/3/10
reveiwed by: WDC 6/3/10

DUSR TABLE 2
Results Summary
SDG M90665 and M90665R
Erdle Perforating

		Location	SS-07	
		Sample Date	4/15/2010	
		Sample ID	828072SS-07	
		Qc Code	FS	
Analysis	**Param Name**	**Units**	Result	Qualifier
SW8466010B	Arsenic	mg/kg	3.6	
SW8466010B	Barium	mg/kg	65.5	
SW8466010B	Beryllium	mg/kg	0.46	
SW8466010B	Cadmium	mg/kg	0.39	U
SW8466010B	Calcium	mg/kg	32,700	
SW8466010B	Chromium	mg/kg	12.6	
SW8466010B	Cobalt	mg/kg	6.2	
SW8466010B	Copper	mg/kg	11.1	
SW8466010B	Iron	mg/kg	16,300	
SW8466010B	Lead	mg/kg	8.9	
SW8466010B	Magnesium	mg/kg	8,440	
SW8466010B	Manganese	mg/kg	387	
SW8466010B	Nickel	mg/kg	15.7	
SW8466010B	Potassium	mg/kg	1440	
SW8466010B	Selenium	mg/kg	2	U
SW8466010B	Silver	mg/kg	0.49	U
SW8466010B	Sodium	mg/kg	490	U
SW8466010B	Thallium	mg/kg	2	U
SW8466010B	Vanadium	mg/kg	18.2	
SW8466010B	Zinc	mg/kg	95.6	
SW8467471A	Mercury	mg/kg	0.04	U
SM212540BMOD	Percent Solids	Percent	75.5	

Notes:
ug/kg = microgram per kilogram
mg/kg = milligram per kilogram
FS = field sample
U = not detected
J = estimated value

produced by: BJS 6/3/10
reveiwed by: WDC 6/3/10

Sample ID	CAS #	Chemical Name	Result	Qual	Units
828072SS-02	103-82-2	Benzeneacetic acid	340	JN	ug/kg
828072SS-02	1604-34-8	2-Undecanone, 6,10-dimethyl-	370	JN	ug/kg
828072SS-02	55320-06-4	Heneicosane, 11-decyl-	450	JN	ug/kg
828072SS-02	57-10-3	Hexadecanoic acid	390	JN	ug/kg
828072SS-02	593-45-3	Octadecane	470	JN	ug/kg
828072SS-02	629-96-9	1-Eicosanol	550	JN	ug/kg
828072SS-02	6624-79-9	1-Dotriacontanol	680	JN	ug/kg
828072SS-02	7390-81-0	Oxirane, hexadecyl-	450	JN	ug/kg
828072SS-03	103-82-2	Benzeneacetic acid	480	JN	ug/kg
828072SS-04	123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	2000	JN	ug/kg
828072SS-04	195-19-7	Benzo[c]phenanthrene	610	JN	ug/kg
828072SS-04	198-55-0	Perylene	1100	JN	ug/kg
828072SS-04	203-64-5	4H-Cyclopenta[def]phenanthrene	620	JN	ug/kg
828072SS-04	238-84-6	11H-Benzo[a]fluorene	1300	JN	ug/kg
828072SS-04	243-17-4	11H-Benzo[b]fluorene	960	JN	ug/kg
828072SS-04	3353-12-6	Pyrene, 4-methyl-	760	JN	ug/kg
828072SS-04	35465-71-5	2-Phenylnaphthalene	310	JN	ug/kg
828072SS-04	TIC8	5,6-Dimethyl-4-phenyl-3-cyanopyrid	800	JN	ug/kg
828072SS-05	103-82-2	Benzeneacetic acid	800	JN	ug/kg
828072SS-05	111-73-9	1-Butanol, 4-ethoxy-	750	JN	ug/kg
828072SS-05	5737-13-3	Cyclopenta(def)phenanthrenone	3600	JN	ug/kg
828072SS-05	59-02-9	Vitamin E	1100	JN	ug/kg
828072SS-05	593-08-8	2-Tridecanone	1100	JN	ug/kg
828072SS-05	6175-49-1	2-Dodecanone	1000	JN	ug/kg
828072SS-05	629-96-9	1-Eicosanol	1100	JN	ug/kg
828072SS-05	630-07-9	Pentatriacontane	770	JN	ug/kg
828072SS-05	638-66-4	Octadecanal	700	JN	ug/kg
828072SS-05	7019-01-4	4-Aminodiphenylsulphone	1300	JN	ug/kg
828072SS-05	83-47-6	.gamma.-Sitosterol	940	JN	ug/kg
828072SS-05	TIC10	Isoquinoline, 6,7,8-trimethoxy-	1700	JN	ug/kg
828072SS-06	1454-84-8	1-Nonadecanol	1400	JN	ug/kg
828072SS-06	1599-67-3	1-Docosene	1700	JN	ug/kg
828072SS-06	1953-54-4	1H-Indol-5-ol	1000	JN	ug/kg
828072SS-06	3386-33-2	Octadecane, 1-chloro-	1200	JN	ug/kg
828072SS-06	54644-27-8	1,2,4-Cyclopentanetrione, 3-(2-pen	1100	JN	ug/kg
828072SS-06	54832-82-5	Tricyclo[4.3.0.07,9]nonane, 2,2,5,	1800	JN	ug/kg
828072SS-06	54889-60-0	Hexanoic acid, 2-ethyl-2-propyl-,	1300	JN	ug/kg
828072SS-06	59-02-9	Vitamin E	1300	JN	ug/kg
828072SS-06	630-07-9	Pentatriacontane	1100	JN	ug/kg
828072SS-06	638-66-4	Octadecanal	1600	JN	ug/kg
828072SS-06	77899-10-6	(Z)14-Tricosenyl formate	1700	JN	ug/kg
828072SS-06	77899-10-6	(Z)14-Tricosenyl formate	1200	JN	ug/kg
828072SS-06	83-47-6	.gamma.-Sitosterol	1500	JN	ug/kg
828072SS-06	83-48-7	Stigmasterol	2500	JN	ug/kg
828072SS-07	112-95-8	Eicosane	270	JN	ug/kg
828072SS-07	1454-85-9	1-Heptadecanol	340	JN	ug/kg
828072SS-07	18435-45-5	1-Nonadecene	310	JN	ug/kg
828072SS-07	630-07-9	Pentatriacontane	330	JN	ug/kg
828072SS-07	7225-64-1	Heptadecane, 9-octyl-	280	JN	ug/kg
828072SS-07	TIC5	1-Hexacosanal	300	JN	ug/kg

Raw Data: S14639.D

Accutest Laboratories

Report of Analysis

Client Sample ID:	828072SS-01		
Lab Sample ID:	M90665-1	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
Method:	SW846 8270C SW846 3545	Percent Solids:	83.3
Project:	ERDLE-NYSDEC Gates NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	S14639.D	1	04/26/10	AA	04/21/10	OP21143	MSS527
Run #2							

	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

ABN TCL List (CLP4.2 list)

CAS No.	Compound	Result		RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND		290	16	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND		590	21	ug/kg	
120-83-2	2,4-Dichlorophenol	ND		590	35	ug/kg	
105-67-9	2,4-Dimethylphenol	ND		590	59	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	J	1200	290	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	J	590	290	ug/kg	
95-48-7	2-Methylphenol	ND		590	17	ug/kg	
	3&4-Methylphenol	ND		590	31	ug/kg	
88-75-5	2-Nitrophenol	ND		590	35	ug/kg	
100-02-7	4-Nitrophenol	ND		1200	290	ug/kg	
87-86-5	Pentachlorophenol	ND	J	590	55	ug/kg	
108-95-2	Phenol	ND		290	49	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND		590	44	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND		590	41	ug/kg	
83-32-9	Acenaphthene	ND		290	25	ug/kg	
208-96-8	Acenaphthylene	ND		290	22	ug/kg	
98-86-2	Acetophenone	ND		590	26	ug/kg	
120-12-7	Anthracene	ND		290	23	ug/kg	
1912-24-9	Atrazine	ND		590	590	ug/kg	
100-52-7	Benzaldehyde	ND		1200	1200	ug/kg	
56-55-3	Benzo(a)anthracene	ND		290	11	ug/kg	
50-32-8	Benzo(a)pyrene	ND		290	18	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND		290	34	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND		290	19	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND		290	8.7	ug/kg	
92-52-4	1,1'-Biphenyl	ND		590	590	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND		290	24	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	J	290	13	ug/kg	
105-60-2	Caprolactam	ND		590	590	ug/kg	
91-58-7	2-Chloronaphthalene	ND		290	25	ug/kg	
106-47-8	4-Chloroaniline	ND		590	150	ug/kg	
86-74-8	Carbazole	ND		290	23	ug/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

5/24/10

3.1

3

Client Sample ID:	828072SS-01		
Lab Sample ID:	M90665-1	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
Method:	SW846 8270C SW846 3545	Percent Solids:	83.3
Project:	ERDLE-NYSDEC Gates NY		

ABN TCL List (CLP4.2 list)

CAS No.	Compound	Result	RL	MDL	Units	Q
218-01-9	Chrysene	ND	290	9.6	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	290	23	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	290	6.3	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	290	28	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	290	26	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	590	150	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	590	28	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	290	7.1	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	290	19	ug/kg	
132-64-9	Dibenzofuran	ND	290	25	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	290	27	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	290	16	ug/kg	
84-66-2	Diethyl phthalate	ND	290	26	ug/kg	
131-11-3	Dimethyl phthalate	ND	290	21	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	290	20	ug/kg	
206-44-0	Fluoranthene	ND	290	10	ug/kg	
86-73-7	Fluorene	ND	290	6.5	ug/kg	
118-74-1	Hexachlorobenzene	ND	290	25	ug/kg	
87-68-3	Hexachlorobutadiene	ND	290	23	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	590	4.0	ug/kg	
67-72-1	Hexachloroethane	ND	290	24	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	290	18	ug/kg	
78-59-1	Isophorone	ND	290	29	ug/kg	
91-57-6	2-Methylnaphthalene	ND	290	25	ug/kg	
88-74-4	2-Nitroaniline	ND	590	150	ug/kg	
99-09-2	3-Nitroaniline	ND	590	150	ug/kg	
100-01-6	4-Nitroaniline	ND	590	22	ug/kg	
91-20-3	Naphthalene	ND	290	6.8	ug/kg	
98-95-3	Nitrobenzene	ND	290	8.7	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	290	19	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	290	16	ug/kg	
85-01-8	Phenanthrene	ND	290	7.6	ug/kg	
129-00-0	Pyrene	ND	290	9.5	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	90%		30-130%
4165-62-2	Phenol-d5	84%		30-130%
118-79-6	2,4,6-Tribromophenol	95%		30-130%
4165-60-0	Nitrobenzene-d5	78%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

5/24/10

Report of Analysis

Client Sample ID:	828072SS-01		
Lab Sample ID:	M90665-1	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
Method:	SW846 8270C SW846 3545	Percent Solids:	83.3
Project:	ERDLE-NYSDEC Gates NY		

ABN TCL List (CLP4.2 list)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	84%		30-130%
1718-51-0	Terphenyl-d14	100%		30-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

5/24/10

Raw Data: YZ56660.D

Accutest Laboratories

Report of Analysis

Client Sample ID:	828072SS-01		
Lab Sample ID:	M90665-1	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
Method:	SW846 8082 SW846 3545	Percent Solids:	83.3
Project:	ERDLE-NYSDEC Gates NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ56660.D	1	04/21/10	CZ	04/20/10	OP21131	GYZ2417
Run #2							

	Initial Weight	Final Volume
Run #1	15.4 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	120	29	ug/kg	
11104-28-2	Aroclor 1221	ND	120	7.6	ug/kg	
11141-16-5	Aroclor 1232	ND	120	16	ug/kg	
53469-21-9	Aroclor 1242	ND	120	10	ug/kg	
12672-29-6	Aroclor 1248	ND	120	31	ug/kg	
11097-69-1	Aroclor 1254	29.4	120	13	ug/kg	J
11096-82-5	Aroclor 1260	ND	120	23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	98%		30-150%
877-09-8	Tetrachloro-m-xylene	97%		30-150%
2051-24-3	Decachlorobiphenyl	103%		30-150%
2051-24-3	Decachlorobiphenyl	105%		30-150%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

5/24/10

Accutest Laboratories

Report of Analysis

Client Sample ID:	828072SS-01		
Lab Sample ID:	M90665-1	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
		Percent Solids:	83.3
Project:	ERDLE-NYSDEC Gates NY		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	6310	19	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Antimony	<1.9 J	1.9 J	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Arsenic	2.4	1.9	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Barium	41.4	19	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Beryllium	<0.38	0.38	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Cadmium	<0.38	0.38	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Calcium	2030 J	470	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Chromium	11.1	0.95	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Cobalt	<4.7	4.7	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Copper	8.3	2.4	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Iron	16100	9.5	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Lead	3.1	1.9	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Magnesium	1890	470	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Manganese	338	1.4	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Mercury	<0.036	0.036	mg/kg	1	04/21/10	04/21/10	MA	SW846 7471A [1]	SW846 7471A [4]
Nickel	9.8	3.8	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Potassium	597	470	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Selenium	<1.9	1.9	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Silver	<0.47	0.47	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Sodium	<470	470	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Thallium	<1.9	1.9	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Vanadium	22.7	2.8	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Zinc	21.3	1.9	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]

(1) Instrument QC Batch: MA11669
(2) Instrument QC Batch: MA11674
(3) Prep QC Batch: MP15103
(4) Prep QC Batch: MP15105

RL = Reporting Limit

5/24/10

Accutest Laboratories

Report of Analysis

Client Sample ID:	828072SS-02		
Lab Sample ID:	M90665-2	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
Method:	SW846 8270C SW846 3545	Percent Solids:	65.7
Project:	ERDLE-NYSDEC Gates NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	S14640.D	1	04/26/10	AA	04/21/10	OP21143	MSS527
Run #2							

	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

ABN TCL List (CLP4.2 list)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	370	20	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	740	26	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	740	44	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	740	74	ug/kg	
51-28-5	2,4-Dinitrophenol	ND J	1500	370	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND J	740	370	ug/kg	
95-48-7	2-Methylphenol	ND	740	21	ug/kg	
	3&4-Methylphenol	ND	740	39	ug/kg	
88-75-5	2-Nitrophenol	ND	740	45	ug/kg	
100-02-7	4-Nitrophenol	ND	1500	370	ug/kg	
87-86-5	Pentachlorophenol	ND J	740	69	ug/kg	
108-95-2	Phenol	ND	370	62	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	740	55	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	740	51	ug/kg	
83-32-9	Acenaphthene	ND	370	31	ug/kg	
208-96-8	Acenaphthylene	ND	370	28	ug/kg	
98-86-2	Acetophenone	ND	740	33	ug/kg	
120-12-7	Anthracene	ND	370	29	ug/kg	
1912-24-9	Atrazine	ND	740	740	ug/kg	
100-52-7	Benzaldehyde	ND	1500	1500	ug/kg	
56-55-3	Benzo(a)anthracene	ND	370	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	370	22	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	370	44	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	370	24	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	370	11	ug/kg	
92-52-4	1,1'-Biphenyl	ND	740	740	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	370	30	ug/kg	
85-68-7	Butyl benzyl phthalate	ND J	370	16	ug/kg	
105-60-2	Caprolactam	ND	740	740	ug/kg	
91-58-7	2-Chloronaphthalene	ND	370	31	ug/kg	
106-47-8	4-Chloroaniline	ND	740	190	ug/kg	
86-74-8	Carbazole	ND	370	29	ug/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

5/24/10

Report of Analysis

Client Sample ID:	828072SS-02		
Lab Sample ID:	M90665-2	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
Method:	SW846 8270C SW846 3545	Percent Solids:	65.7
Project:	ERDLE-NYSDEC Gates NY		

ABN TCL List (CLP4.2 list)

CAS No.	Compound	Result	RL	MDL	Units	Q
218-01-9	Chrysene	ND	370	12	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	370	29	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	370	8.0	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	370	35	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	370	33	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	740	190	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	740	36	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	370	8.9	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	370	24	ug/kg	
132-64-9	Dibenzofuran	ND	370	32	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	370	34	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	370	20	ug/kg	
84-66-2	Diethyl phthalate	ND	370	32	ug/kg	
131-11-3	Dimethyl phthalate	ND	370	26	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	370	26	ug/kg	
206-44-0	Fluoranthene	ND	370	13	ug/kg	
86-73-7	Fluorene	ND	370	8.2	ug/kg	
118-74-1	Hexachlorobenzene	ND	370	32	ug/kg	
87-68-3	Hexachlorobutadiene	ND	370	29	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	740	5.0	ug/kg	
67-72-1	Hexachloroethane	ND	370	30	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	370	23	ug/kg	
78-59-1	Isophorone	ND	370	37	ug/kg	
91-57-6	2-Methylnaphthalene	ND	370	31	ug/kg	
88-74-4	2-Nitroaniline	ND	740	190	ug/kg	
99-09-2	3-Nitroaniline	ND	740	190	ug/kg	
100-01-6	4-Nitroaniline	ND	740	28	ug/kg	
91-20-3	Naphthalene	ND	370	8.6	ug/kg	
98-95-3	Nitrobenzene	ND	370	11	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	370	24	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	370	20	ug/kg	
85-01-8	Phenanthrene	ND	370	9.6	ug/kg	
129-00-0	Pyrene	ND	370	12	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	73%		30-130%
4165-62-2	Phenol-d5	73%		30-130%
118-79-6	2,4,6-Tribromophenol	75%		30-130%
4165-60-0	Nitrobenzene-d5	66%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

5/24/10

Report of Analysis

Client Sample ID:	828072SS-02		
Lab Sample ID:	M90665-2	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
Method:	SW846 8270C SW846 3545	Percent Solids:	65.7
Project:	ERDLE-NYSDEC Gates NY		

ABN TCL List (CLP4.2 list)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	67%		30-130%
1718-51-0	Terphenyl-d14	79%		30-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
103-82-2	Benzeneacetic acid	7.32	340	ug/kg	JN
57-10-3	Hexadecanoic acid	12.25	390	ug/kg	JN
10544-50-0	Sulfur, mol. (S8)	13.27	350	ug/kg	JN
629-96-9	1-Eicosanol	16.57	550	ug/kg	JN
7390-81-0	Oxirane, hexadecyl-	17.23	450	ug/kg	JN
593-45-3	Octadecane	17.49	470	ug/kg	JN
6624-79-9	1-Dotriacontanol	17.61	680	ug/kg	JN
55320-06-4	Heneicosane, 11-decyl-	18.40	450	ug/kg	JN
1604-34-8	2-Undecanone, 6,10-dimethyl-	18.53	370	ug/kg	JN
	Total TIC, Semi-Volatile		4050	ug/kg	J

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

5/24/10

Raw Data: YZ56661.D

Accutest Laboratories

Report of Analysis

Client Sample ID:	828072SS-02		
Lab Sample ID:	M90665-2	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
Method:	SW846 8082 SW846 3545	Percent Solids:	65.7
Project:	ERDLE-NYSDEC Gates NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ56661.D	1	04/21/10	CZ	04/20/10	OP21131	GYZ2417
Run #2							

	Initial Weight	Final Volume
Run #1	15.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	150	38	ug/kg	
11104-28-2	Aroclor 1221	ND	150	9.8	ug/kg	
11141-16-5	Aroclor 1232	ND	150	21	ug/kg	
53469-21-9	Aroclor 1242	ND	150	13	ug/kg	
12672-29-6	Aroclor 1248	ND	150	40	ug/kg	
11097-69-1	Aroclor 1254	ND	150	17	ug/kg	
11096-82-5	Aroclor 1260	ND	150	29	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	104%		30-150%
877-09-8	Tetrachloro-m-xylene	103%		30-150%
2051-24-3	Decachlorobiphenyl	121%		30-150%
2051-24-3	Decachlorobiphenyl	123%		30-150%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

5/24/10

Accutest Laboratories

Report of Analysis

3.2
3

Client Sample ID:	828072SS-02		
Lab Sample ID:	M90665-2	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
		Percent Solids:	65.7
Project:	ERDLE-NYSDEC Gates NY		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	17400	22	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Antimony	<2.2 J	2.2	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Arsenic	4.6	2.2	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Barium	101	22	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Beryllium	0.84	0.44	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Cadmium	<0.44	0.44	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Calcium	5330 J	550	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Chromium	17.7	1.1	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Cobalt	5.6	5.5	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Copper	9.7	2.8	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Iron	19700	11	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Lead	13.7	2.2	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Magnesium	2850	550	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Manganese	221	1.7	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Mercury	0.098	0.032	mg/kg	1	04/21/10	04/21/10	MA	SW846 7471A [1]	SW846 7471A [4]
Nickel	14.0	4.4	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Potassium	1430	550	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Selenium	<2.2	2.2	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Silver	<0.55	0.55	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Sodium	<550	550	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Thallium	<2.2	2.2	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Vanadium	29.9	3.3	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Zinc	91.3	2.2	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]

(1) Instrument QC Batch: MA11669
(2) Instrument QC Batch: MA11674
(3) Prep QC Batch: MP15103
(4) Prep QC Batch: MP15105

RL = Reporting Limit

5/24/10

Accutest Laboratories

Report of Analysis

Client Sample ID:	828072SS-03		
Lab Sample ID:	M90665-3	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
Method:	SW846 8270C SW846 3545	Percent Solids:	81.8
Project:	ERDLE-NYSDEC Gates NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	S14641.D	1	04/26/10	AA	04/21/10	OP21143	MSS527
Run #2							

	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

ABN TCL List (CLP4.2 list)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	300	16	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	600	21	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	600	35	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	600	60	ug/kg	
51-28-5	2,4-Dinitrophenol	ND J	1200	300	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND J	600	300	ug/kg	
95-48-7	2-Methylphenol	ND	600	17	ug/kg	
	3&4-Methylphenol	ND	600	32	ug/kg	
88-75-5	2-Nitrophenol	ND	600	36	ug/kg	
100-02-7	4-Nitrophenol	ND	1200	300	ug/kg	
87-86-5	Pentachlorophenol	ND J	600	56	ug/kg	
108-95-2	Phenol	ND	300	50	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	600	45	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	600	41	ug/kg	
83-32-9	Acenaphthene	ND	300	25	ug/kg	
208-96-8	Acenaphthylene	ND	300	23	ug/kg	
98-86-2	Acetophenone	ND	600	27	ug/kg	
120-12-7	Anthracene	ND	300	24	ug/kg	
1912-24-9	Atrazine	ND	600	600	ug/kg	
100-52-7	Benzaldehyde	ND	1200	1200	ug/kg	
56-55-3	Benzo(a)anthracene	ND	300	11	ug/kg	
50-32-8	Benzo(a)pyrene	ND	300	18	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	300	35	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	300	19	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	300	8.9	ug/kg	
92-52-4	1,1'-Biphenyl	ND	600	600	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	300	24	ug/kg	
85-68-7	Butyl benzyl phthalate	ND J	300	13	ug/kg	
105-60-2	Caprolactam	ND	600	600	ug/kg	
91-58-7	2-Chloronaphthalene	ND	300	25	ug/kg	
106-47-8	4-Chloroaniline	ND	600	150	ug/kg	
86-74-8	Carbazole	ND	300	24	ug/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

5/24/10

Report of Analysis

Client Sample ID:	828072SS-03		
Lab Sample ID:	M90665-3	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
Method:	SW846 8270C SW846 3545	Percent Solids:	81.8
Project:	ERDLE-NYSDEC Gates NY		

ABN TCL List (CLP4.2 list)

CAS No.	Compound	Result	RL	MDL	Units	Q
218-01-9	Chrysene	ND	300	9.8	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	300	23	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	300	6.4	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	300	29	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	300	27	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	600	150	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	600	29	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	300	7.2	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	300	19	ug/kg	
132-64-9	Dibenzofuran	ND	300	26	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	300	27	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	300	16	ug/kg	
84-66-2	Diethyl phthalate	ND	300	26	ug/kg	
131-11-3	Dimethyl phthalate	ND	300	21	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	300	21	ug/kg	
206-44-0	Fluoranthene	76.2	300	10	ug/kg	J
86-73-7	Fluorene	ND	300	6.6	ug/kg	
118-74-1	Hexachlorobenzene	ND	300	26	ug/kg	
87-68-3	Hexachlorobutadiene	ND	300	24	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	600	4.0	ug/kg	
67-72-1	Hexachloroethane	ND	300	24	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	300	18	ug/kg	
78-59-1	Isophorone	ND	300	30	ug/kg	
91-57-6	2-Methylnaphthalene	ND	300	25	ug/kg	
88-74-4	2-Nitroaniline	ND	600	150	ug/kg	
99-09-2	3-Nitroaniline	ND	600	150	ug/kg	
100-01-6	4-Nitroaniline	ND	600	22	ug/kg	
91-20-3	Naphthalene	ND	300	7.0	ug/kg	
98-95-3	Nitrobenzene	ND	300	8.9	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	300	19	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	300	16	ug/kg	
85-01-8	Phenanthrene	73.6	300	7.7	ug/kg	J
129-00-0	Pyrene	52.4	300	9.7	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	76%		30-130%
4165-62-2	Phenol-d5	72%		30-130%
118-79-6	2,4,6-Tribromophenol	79%		30-130%
4165-60-0	Nitrobenzene-d5	69%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

6/24/10

3.3

Client Sample ID:	828072SS-03		
Lab Sample ID:	M90665-3	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
Method:	SW846 8270C SW846 3545	Percent Solids:	81.8
Project:	ERDLE-NYSDEC Gates NY		

ABN TCL List (CLP4.2 list)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	70%		30-130%
1718-51-0	Terphenyl-d14	81%		30-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
103-82-2	Benzeneacetic acid	7.32	480	ug/kg	JN
	Total TIC, Semi-Volatile		480	ug/kg	J

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

5/24/10

Raw Data: YZ56662.D

Accutest Laboratories

Report of Analysis

Client Sample ID:	828072SS-03		
Lab Sample ID:	M90665-3	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
Method:	SW846 8082 SW846 3545	Percent Solids:	81.8
Project:	ERDLE-NYSDEC Gates NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ56662.D	1	04/21/10	CZ	04/20/10	OP21131	GYZ2417
Run #2							

	Initial Weight	Final Volume
Run #1	15.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	120	30	ug/kg	
11104-28-2	Aroclor 1221	ND	120	7.8	ug/kg	
11141-16-5	Aroclor 1232	ND	120	17	ug/kg	
53469-21-9	Aroclor 1242	ND	120	10	ug/kg	
12672-29-6	Aroclor 1248	ND	120	32	ug/kg	
11097-69-1	Aroclor 1254	25.1	120	14	ug/kg	J
11096-82-5	Aroclor 1260	ND	120	23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	99%		30-150%
877-09-8	Tetrachloro-m-xylene	99%		30-150%
2051-24-3	Decachlorobiphenyl	111%		30-150%
2051-24-3	Decachlorobiphenyl	113%		30-150%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

5/24/10

Accutest Laboratories

Report of Analysis

Client Sample ID:	828072SS-03		
Lab Sample ID:	M90665-3	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
		Percent Solids:	81.8
Project:	ERDLE-NYSDEC Gates NY		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	9140	20	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Antimony	<2.0 J	2.0	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Arsenic	2.8	2.0	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Barium	52.7	20	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Beryllium	0.60	0.40	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Cadmium	<0.40	0.40	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Calcium	5070 J	510	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Chromium	13.7	1.0	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Cobalt	5.1	5.1	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Copper	11.0	2.5	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Iron	19100	10	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Lead	6.9	2.0	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Magnesium	3350	510	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Manganese	139	1.5	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Mercury	0.046	0.039	mg/kg	1	04/21/10	04/21/10	MA	SW846 7471A [1]	SW846 7471A [4]
Nickel	15.3	4.0	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Potassium	760	510	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Selenium	<2.0	2.0	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Silver	<0.51	0.51	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Sodium	<510	510	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Thallium	<2.0	2.0	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Vanadium	28.7	3.0	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Zinc	328	2.0	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]

(1) Instrument QC Batch: MA11669
(2) Instrument QC Batch: MA11674
(3) Prep QC Batch: MP15103
(4) Prep QC Batch: MP15105

RL = Reporting Limit

5/24/10

Raw Data: S14642.D

Accutest Laboratories

Report of Analysis

Client Sample ID:	828072SS-04		
Lab Sample ID:	M90665-4	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
Method:	SW846 8270C SW846 3545	Percent Solids:	79.3
Project:	ERDLE-NYSDEC Gates NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	S14642.D	1	04/26/10	AA	04/21/10	OP21143	MSS527
Run #2							

	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

ABN TCL List (CLP4.2 list)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	310	17	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	620	22	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	620	36	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	620	62	ug/kg	
51-28-5	2,4-Dinitrophenol	ND J	1200	310	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND J	620	310	ug/kg	
95-48-7	2-Methylphenol	ND	620	18	ug/kg	
	3&4-Methylphenol	ND	620	33	ug/kg	
88-75-5	2-Nitrophenol	ND	620	37	ug/kg	
100-02-7	4-Nitrophenol	ND	1200	310	ug/kg	
87-86-5	Pentachlorophenol	ND J	620	57	ug/kg	
108-95-2	Phenol	ND	310	51	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	620	46	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	620	43	ug/kg	
83-32-9	Acenaphthene	219	310	26	ug/kg	J
208-96-8	Acenaphthylene	ND	310	23	ug/kg	
98-86-2	Acetophenone	ND	620	28	ug/kg	
120-12-7	Anthracene	2890	310	24	ug/kg	
1912-24-9	Atrazine	ND	620	620	ug/kg	
100-52-7	Benzaldehyde	ND	1200	1200	ug/kg	
56-55-3	Benzo(a)anthracene	4920	310	11	ug/kg	
50-32-8	Benzo(a)pyrene	3090	310	18	ug/kg	
205-99-2	Benzo(b)fluoranthene	3490	310	36	ug/kg	
191-24-2	Benzo(g,h,i)perylene	1820	310	20	ug/kg	
207-08-9	Benzo(k)fluoranthene	2940	310	9.1	ug/kg	
92-52-4	1,1'-Biphenyl	ND	620	620	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	310	25	ug/kg	
85-68-7	Butyl benzyl phthalate	ND J	310	13	ug/kg	
105-60-2	Caprolactam	ND	620	620	ug/kg	
91-58-7	2-Chloronaphthalene	ND	310	26	ug/kg	
106-47-8	4-Chloroaniline	ND	620	150	ug/kg	
86-74-8	Carbazole	681	310	24	ug/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

5/24/10

Report of Analysis

Client Sample ID:	828072SS-04		
Lab Sample ID:	M90665-4	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
Method:	SW846 8270C SW846 3545	Percent Solids:	79.3
Project:	ERDLE-NYSDEC Gates NY		

ABN TCL List (CLP4.2 list)

CAS No.	Compound	Result	RL	MDL	Units	Q
218-01-9	Chrysene	4360	310	10	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	310	24	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	310	6.6	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	310	29	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	310	28	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	620	150	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	620	30	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	310	7.4	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	649	310	20	ug/kg	
132-64-9	Dibenzofuran	97.6	310	26	ug/kg	J
84-74-2	Di-n-butyl phthalate	ND	310	28	ug/kg	
117-84-0	Di-n-octyl phthalate	ND J	310	16	ug/kg	
84-66-2	Diethyl phthalate	ND	310	27	ug/kg	
131-11-3	Dimethyl phthalate	ND	310	22	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND J	310	21	ug/kg	
206-44-0	Fluoranthene	12300	310	10	ug/kg	
86-73-7	Fluorene	456	310	6.8	ug/kg	
118-74-1	Hexachlorobenzene	ND	310	27	ug/kg	
87-68-3	Hexachlorobutadiene	ND	310	24	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND J	620	4.2	ug/kg	
67-72-1	Hexachloroethane	ND	310	25	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	1820	310	19	ug/kg	
78-59-1	Isophorone	ND	310	31	ug/kg	
91-57-6	2-Methylnaphthalene	ND	310	26	ug/kg	
88-74-4	2-Nitroaniline	ND	620	150	ug/kg	
99-09-2	3-Nitroaniline	ND	620	150	ug/kg	
100-01-6	4-Nitroaniline	ND	620	23	ug/kg	
91-20-3	Naphthalene	ND	310	7.2	ug/kg	
98-95-3	Nitrobenzene	ND	310	9.1	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	310	20	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	310	16	ug/kg	
85-01-8	Phenanthrene	8730	310	8.0	ug/kg	
129-00-0	Pyrene	8590	310	9.9	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	78%		30-130%
4165-62-2	Phenol-d5	75%		30-130%
118-79-6	2,4,6-Tribromophenol	73%		30-130%
4165-60-0	Nitrobenzene-d5	69%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

5/24/10

Report of Analysis

Client Sample ID:	828072SS-04		
Lab Sample ID:	M90665-4	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
Method:	SW846 8270C SW846 3545	Percent Solids:	79.3
Project:	ERDLE-NYSDEC Gates NY		

ABN TCL List (CLP4.2 list)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	72%		30-130%
1718-51-0	Terphenyl-d14	79%		30-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	4.02	2000	ug/kg	JN
203-64-5	4H-Cyclopenta[def]phenanthrene	12.35	620	ug/kg	JN
35465-71-5	2-Phenylnaphthalene	12.65	310	ug/kg	JN
238-84-6	11H-Benzo[a]fluorene	14.26	1300	ug/kg	JN
243-17-4	11H-Benzo[b]fluorene	14.36	960	ug/kg	JN
3353-12-6	Pyrene, 4-methyl-	14.42	760	ug/kg	JN
195-19-7	Benzo[c]phenanthrene	15.34	610	ug/kg	JN
	5,6-Dimethyl-4-phenyl-3-cyanopyrid	16.61	800	ug/kg	J
198-55-0	Perylene	17.78	1100	ug/kg	JN
	Total TIC, Semi-Volatile		8460	ug/kg	J

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

5/24/10

Raw Data: YZ56663.D

Accutest Laboratories

Report of Analysis

Client Sample ID:	828072SS-04		
Lab Sample ID:	M90665-4	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
Method:	SW846 8082 SW846 3545	Percent Solids:	79.3
Project:	ERDLE-NYSDEC Gates NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ56663.D	1	04/21/10	CZ	04/20/10	OP21131	GYZ2417
Run #2							

	Initial Weight	Final Volume
Run #1	15.8 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	120	30	ug/kg	
11104-28-2	Aroclor 1221	ND	120	7.8	ug/kg	
11141-16-5	Aroclor 1232	ND	120	17	ug/kg	
53469-21-9	Aroclor 1242	ND	120	10	ug/kg	
12672-29-6	Aroclor 1248	ND	120	32	ug/kg	
11097-69-1	Aroclor 1254	16.0	120	14	ug/kg	J
11096-82-5	Aroclor 1260	ND	120	23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	106%		30-150%
877-09-8	Tetrachloro-m-xylene	108%		30-150%
2051-24-3	Decachlorobiphenyl	126%		30-150%
2051-24-3	Decachlorobiphenyl	103%		30-150%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

5/24/10

Accutest Laboratories

Report of Analysis

3.4
3

Client Sample ID:	828072SS-04		
Lab Sample ID:	M90665-4	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
		Percent Solids:	79.3
Project:	ERDLE-NYSDEC Gates NY		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	3940	20	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Antimony	< 2.0 J	2.0	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Arsenic	2.7	2.0	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Barium	20.9	20	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Beryllium	< 0.40	0.40	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Cadmium	< 0.40	0.40	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Calcium	61900 J	990	mg/kg	2	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Chromium	6.9	0.99	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Cobalt	< 5.0	5.0	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Copper	8.6	2.5	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Iron	9110	9.9	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Lead	10.4	2.0	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Magnesium	18100	500	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Manganese	224	1.5	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Mercury	< 0.037	0.037	mg/kg	1	04/21/10	04/21/10	MA	SW846 7471A [1]	SW846 7471A [4]
Nickel	8.0	4.0	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Potassium	912	500	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Selenium	< 2.0	2.0	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Silver	< 0.50	0.50	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Sodium	< 500	500	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Thallium	< 2.0	2.0	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Vanadium	9.0	3.0	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Zinc	31.9	2.0	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]

(1) Instrument QC Batch: MA11669
(2) Instrument QC Batch: MA11674
(3) Prep QC Batch: MP15103
(4) Prep QC Batch: MP15105

RL = Reporting Limit

5/24/10

Raw Data: S14643.D

Accutest Laboratories

Report of Analysis

Client Sample ID:	828072SS-05		
Lab Sample ID:	M90665-5	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
Method:	SW846 8270C SW846 3545	Percent Solids:	86.1
Project:	ERDLE-NYSDEC Gates NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	S14643.D	1	04/26/10	AA	04/21/10	OP21143	MSS527
Run #2							

	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

ABN TCL List (CLP4.2 list)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	280	15	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	570	20	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	570	33	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	570	57	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	280	ug/kg	J
534-52-1	4,6-Dinitro-o-cresol	ND	570	280	ug/kg	J
95-48-7	2-Methylphenol	ND	570	16	ug/kg	
	3&4-Methylphenol	ND	570	30	ug/kg	
88-75-5	2-Nitrophenol	ND	570	34	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	280	ug/kg	
87-86-5	Pentachlorophenol	ND	570	53	ug/kg	J
108-95-2	Phenol	ND	280	47	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	570	42	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	570	39	ug/kg	
83-32-9	Acenaphthene	ND	280	24	ug/kg	
208-96-8	Acenaphthylene	ND	280	21	ug/kg	
98-86-2	Acetophenone	ND	570	26	ug/kg	
120-12-7	Anthracene	ND	280	22	ug/kg	
1912-24-9	Atrazine	ND	570	570	ug/kg	
100-52-7	Benzaldehyde	ND	1100	1100	ug/kg	
56-55-3	Benzo(a)anthracene	ND	280	10	ug/kg	
50-32-8	Benzo(a)pyrene	ND	280	17	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	280	33	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	280	18	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	280	8.4	ug/kg	
92-52-4	1,1'-Biphenyl	ND	570	570	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	280	23	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	280	12	ug/kg	J
105-60-2	Caprolactam	ND	570	570	ug/kg	
91-58-7	2-Chloronaphthalene	ND	280	24	ug/kg	
106-47-8	4-Chloroaniline	ND	570	140	ug/kg	
86-74-8	Carbazole	ND	280	22	ug/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

5/24/10

3.5
3

Client Sample ID:	828072SS-05		
Lab Sample ID:	M90665-5	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
Method:	SW846 8270C SW846 3545	Percent Solids:	86.1
Project:	ERDLE-NYSDEC Gates NY		

ABN TCL List (CLP4.2 list)

CAS No.	Compound	Result	RL	MDL	Units	Q
218-01-9	Chrysene	ND	280	9.3	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	280	22	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	6.1	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	27	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	26	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	570	140	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	570	27	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	280	6.8	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	280	18	ug/kg	
132-64-9	Dibenzofuran	ND	280	24	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	280	26	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	280	15	ug/kg	J
84-66-2	Diethyl phthalate	ND	280	25	ug/kg	
131-11-3	Dimethyl phthalate	ND	280	20	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	280	20	ug/kg	J
206-44-0	Fluoranthene	ND	280	9.7	ug/kg	
86-73-7	Fluorene	ND	280	6.3	ug/kg	
118-74-1	Hexachlorobenzene	ND	280	25	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	22	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	570	3.8	ug/kg	J
67-72-1	Hexachloroethane	ND	280	23	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	280	17	ug/kg	
78-59-1	Isophorone	ND	280	28	ug/kg	
91-57-6	2-Methylnaphthalene	ND	280	24	ug/kg	
88-74-4	2-Nitroaniline	ND	570	140	ug/kg	
99-09-2	3-Nitroaniline	ND	570	140	ug/kg	
100-01-6	4-Nitroaniline	ND	570	21	ug/kg	
91-20-3	Naphthalene	ND	280	6.6	ug/kg	
98-95-3	Nitrobenzene	ND	280	8.4	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	280	18	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	280	15	ug/kg	
85-01-8	Phenanthrene	ND	280	7.3	ug/kg	
129-00-0	Pyrene	ND	280	9.2	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	83%		30-130%
4165-62-2	Phenol-d5	77%		30-130%
118-79-6	2,4,6-Tribromophenol	88%		30-130%
4165-60-0	Nitrobenzene-d5	70%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

5/24/10

Report of Analysis

Client Sample ID:	828072SS-05		
Lab Sample ID:	M90665-5	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
Method:	SW846 8270C SW846 3545	Percent Solids:	86.1
Project:	ERDLE-NYSDEC Gates NY		

ABN TCL List (CLP4.2 list)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	75%		30-130%
1718-51-0	Terphenyl-d14	79%		30-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
103-82-2	Benzeneacetic acid	7.33	800	ug/kg	JN
~~10544-50-0~~	~~Sulfur, mol. (S8)~~	~~13.28~~	~~720~~	~~ug/kg~~	~~JN~~
5737-13-3	Cyclopenta(def)phenanthrenone	17.22	3600	ug/kg	JN
629-96-9	1-Eicosanol	17.56	1100	ug/kg	JN
638-66-4	Octadecanal	18.18	700	ug/kg	JN
630-07-9	Pentatriacontane	18.40	770	ug/kg	JN
6175-49-1	2-Dodecanone	18.53	1000	ug/kg	JN
59-02-9	Vitamin E	18.76	1100	ug/kg	JN
111-73-9	1-Butanol, 4-ethoxy-	19.02	750	ug/kg	JN
	Isoquinoline, 6,7,8-trimethoxy-	19.13	1700	ug/kg	J
593-08-8	2-Tridecanone	19.53	1100	ug/kg	JN
83-47-6	.gamma.-Sitosterol	19.96	940	ug/kg	JN
7019-01-4	4-Aminodiphenylsulphone	20.05	1300	ug/kg	JN
	Total TIC, Semi-Volatile		15580	ug/kg	J

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

5/24/10

Raw Data: YZ56664.D

Accutest Laboratories

Report of Analysis

Client Sample ID:	828072SS-05		
Lab Sample ID:	M90665-5	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
Method:	SW846 8082 SW846 3545	Percent Solids:	86.1
Project:	ERDLE-NYSDEC Gates NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ56664.D	1	04/21/10	CZ	04/20/10	OP21131	GYZ2417
Run #2							

	Initial Weight	Final Volume
Run #1	15.4 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	110	29	ug/kg	
11104-28-2	Aroclor 1221	ND	110	7.4	ug/kg	
11141-16-5	Aroclor 1232	ND	110	16	ug/kg	
53469-21-9	Aroclor 1242	ND	110	9.7	ug/kg	
12672-29-6	Aroclor 1248	ND	110	30	ug/kg	
11097-69-1	Aroclor 1254	ND	110	13	ug/kg	
11096-82-5	Aroclor 1260	ND	110	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	69%		30-150%
877-09-8	Tetrachloro-m-xylene	70%		30-150%
2051-24-3	Decachlorobiphenyl	84%		30-150%
2051-24-3	Decachlorobiphenyl	86%		30-150%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

5/24/10

Accutest Laboratories

Report of Analysis

Client Sample ID:	828072SS-05		
Lab Sample ID:	M90665-5	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
		Percent Solids:	86.1
Project:	ERDLE-NYSDEC Gates NY		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	4000	20	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Antimony	< 2.0 J	2.0	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Arsenic	< 2.0	2.0	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Barium	21.4	20	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Beryllium	< 0.41	0.41	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Cadmium	< 0.41	0.41	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Calcium	21300 J	510	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Chromium	5.9	1.0	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Cobalt	< 5.1	5.1	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Copper	6.3	2.5	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Iron	8100	10	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Lead	4.9	2.0	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Magnesium	5690	510	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Manganese	216	1.5	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Mercury	< 0.036	0.036	mg/kg	1	04/21/10	04/21/10	MA	SW846 7471A [1]	SW846 7471A [4]
Nickel	5.8	4.1	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Potassium	606	510	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Selenium	< 2.0	2.0	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Silver	< 0.51	0.51	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Sodium	< 510	510	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Thallium	< 2.0	2.0	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Vanadium	11.6	3.1	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Zinc	40.6	2.0	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]

(1) Instrument QC Batch: MA11669
(2) Instrument QC Batch: MA11674
(3) Prep QC Batch: MP15103
(4) Prep QC Batch: MP15105

RL = Reporting Limit

5/24/10

Accutest Laboratories

Report of Analysis

Client Sample ID:	828072SS-06		
Lab Sample ID:	M90665-6	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
Method:	SW846 8260B	Percent Solids:	50.0
Project:	ERDLE-NYSDEC Gates NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P44890.D	1	04/20/10	AMY	n/a	n/a	MSP1480
Run #2 [a]	P44908.D	1	04/23/10	AMY	n/a	n/a	MSP1481

	Initial Weight	Final Volume
Run #1	6.30 g	1.0 ml
Run #2	6.50 g	1.0 ml

VOA TCL 4.2 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	11.0 J	7.9	2.1	ug/kg	
71-43-2	Benzene	ND	0.79	0.77	ug/kg	
75-27-4	Bromodichloromethane	ND J	3.2	0.32	ug/kg	
75-25-2	Bromoform	ND J	3.2	1.4	ug/kg	
74-83-9	Bromomethane	ND	3.2	0.52	ug/kg	
78-93-3	2-Butanone (MEK)	ND J	7.9	2.6	ug/kg	
75-15-0	Carbon disulfide	ND J	7.9	0.66	ug/kg	
56-23-5	Carbon tetrachloride	ND J	3.2	0.57	ug/kg	
108-90-7	Chlorobenzene	ND	3.2	1.1	ug/kg	
75-00-3	Chloroethane	ND	7.9	1.3	ug/kg	
67-66-3	Chloroform	ND	3.2	0.48	ug/kg	
74-87-3	Chloromethane	ND	7.9	1.4	ug/kg	
110-82-7	Cyclohexane	ND	7.9	0.49	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND J	7.9	5.2	ug/kg	
124-48-1	Dibromochloromethane	ND	3.2	0.20	ug/kg	
106-93-4	1,2-Dibromoethane	ND	3.2	0.31	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	3.2	0.59	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	3.2	0.45	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	3.2	0.85	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	3.2	0.43	ug/kg	
75-34-3	1,1-Dichloroethane	ND	3.2	0.46	ug/kg	
107-06-2	1,2-Dichloroethane	ND	3.2	0.40	ug/kg	
75-35-4	1,1-Dichloroethene	ND	3.2	1.2	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	3.2	0.93	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	3.2	1.1	ug/kg	
78-87-5	1,2-Dichloropropane	ND	3.2	0.40	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND J	3.2	0.29	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND J	3.2	0.24	ug/kg	
100-41-4	Ethylbenzene	ND	3.2	0.26	ug/kg	
76-13-1	Freon 113	ND	7.9	1.5	ug/kg	
591-78-6	2-Hexanone	ND J	7.9	0.69	ug/kg	
98-82-8	Isopropylbenzene	ND	7.9	0.23	ug/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

5/24/10

Report of Analysis

Client Sample ID:	828072SS-06		
Lab Sample ID:	M90665-6	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
Method:	SW846 8260B	Percent Solids:	50.0
Project:	ERDLE-NYSDEC Gates NY		

VOA TCL 4.2 List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	7.9	1.7	ug/kg	
108-87-2	Methylcyclohexane	ND	7.9	0.39	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND J	3.2	0.39	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	7.9	1.6	ug/kg	
75-09-2	Methylene chloride	ND	3.2	0.70	ug/kg	
100-42-5	Styrene	ND	7.9	1.3	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	3.2	0.34	ug/kg	
127-18-4	Tetrachloroethene	ND	3.2	0.26	ug/kg	
108-88-3	Toluene	ND	7.9	0.42	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND J	7.9	1.2	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND J	3.2	0.51	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	3.2	0.30	ug/kg	
79-01-6	Trichloroethene	ND	3.2	0.54	ug/kg	
75-69-4	Trichlorofluoromethane	ND	3.2	0.84	ug/kg	
75-01-4	Vinyl chloride	ND	3.2	0.95	ug/kg	
1330-20-7	Xylene (total)	ND	3.2	0.42	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%	99%	70-130%
2037-26-5	Toluene-D8	91%	90%	70-130%
460-00-4	4-Bromofluorobenzene	131% b	134% b	70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/kg	

(a) Confirmation run.
(b) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

5/24/10

Raw Data: S14644.D

Accutest Laboratories

Report of Analysis

3.6

Client Sample ID:	828072SS-06		
Lab Sample ID:	M90665-6	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
Method:	SW846 8270C SW846 3545	Percent Solids:	50.0
Project:	ERDLE-NYSDEC Gates NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	S14644.D	1	04/26/10	AA	04/21/10	OP21143	MSS527
Run #2							

	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

ABN TCL List (CLP4.2 list)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	490	26	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	980	34	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	980	58	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	980	98	ug/kg	
51-28-5	2,4-Dinitrophenol	ND J	2000	490	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND J	980	490	ug/kg	
95-48-7	2-Methylphenol	ND	980	28	ug/kg	
	3&4-Methylphenol	ND	980	52	ug/kg	
88-75-5	2-Nitrophenol	ND	980	59	ug/kg	
100-02-7	4-Nitrophenol	ND	2000	490	ug/kg	
87-86-5	Pentachlorophenol	ND J	980	91	ug/kg	
108-95-2	Phenol	ND	490	82	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	980	73	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	980	68	ug/kg	
83-32-9	Acenaphthene	ND	490	41	ug/kg	
208-96-8	Acenaphthylene	ND	490	37	ug/kg	
98-86-2	Acetophenone	ND	980	44	ug/kg	
120-12-7	Anthracene	ND	490	39	ug/kg	
1912-24-9	Atrazine	ND	980	980	ug/kg	
100-52-7	Benzaldehyde	ND	2000	2000	ug/kg	
56-55-3	Benzo(a)anthracene	ND	490	18	ug/kg	
50-32-8	Benzo(a)pyrene	ND	490	29	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	490	57	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	490	32	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	490	15	ug/kg	
92-52-4	1,1'-Biphenyl	ND	980	980	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	490	40	ug/kg	
85-68-7	Butyl benzyl phthalate	ND J	490	21	ug/kg	
105-60-2	Caprolactam	ND	980	980	ug/kg	
91-58-7	2-Chloronaphthalene	ND	490	41	ug/kg	
106-47-8	4-Chloroaniline	ND	980	250	ug/kg	
86-74-8	Carbazole	ND	490	38	ug/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

5/24/10

Client Sample ID:	828072SS-06		
Lab Sample ID:	M90665-6	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
Method:	SW846 8270C SW846 3545	Percent Solids:	50.0
Project:	ERDLE-NYSDEC Gates NY		

ABN TCL List (CLP4.2 list)

CAS No.	Compound	Result	RL	MDL	Units	Q
218-01-9	Chrysene	ND	490	16	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	490	38	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	490	11	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	490	47	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	490	44	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	980	250	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	980	47	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	490	12	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	490	32	ug/kg	
132-64-9	Dibenzofuran	ND	490	42	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	490	45	ug/kg	
117-84-0	Di-n-octyl phthalate	ND J	490	26	ug/kg	
84-66-2	Diethyl phthalate	ND	490	43	ug/kg	
131-11-3	Dimethyl phthalate	ND	490	34	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND J	490	34	ug/kg	
206-44-0	Fluoranthene	92.1	490	17	ug/kg	J
86-73-7	Fluorene	ND	490	11	ug/kg	
118-74-1	Hexachlorobenzene	ND	490	42	ug/kg	
87-68-3	Hexachlorobutadiene	ND	490	38	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND J	980	6.6	ug/kg	
67-72-1	Hexachloroethane	ND	490	40	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	490	30	ug/kg	
78-59-1	Isophorone	ND	490	49	ug/kg	
91-57-6	2-Methylnaphthalene	ND	490	41	ug/kg	
88-74-4	2-Nitroaniline	ND	980	250	ug/kg	
99-09-2	3-Nitroaniline	ND	980	250	ug/kg	
100-01-6	4-Nitroaniline	ND	980	36	ug/kg	
91-20-3	Naphthalene	ND	490	11	ug/kg	
98-95-3	Nitrobenzene	ND	490	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	490	31	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	490	26	ug/kg	
85-01-8	Phenanthrene	55.0	490	13	ug/kg	J
129-00-0	Pyrene	72.5	490	16	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	75%		30-130%
4165-62-2	Phenol-d5	72%		30-130%
118-79-6	2,4,6-Tribromophenol	86%		30-130%
4165-60-0	Nitrobenzene-d5	67%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

5/24/10

Report of Analysis

Client Sample ID:	828072SS-06		
Lab Sample ID:	M90665-6	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
Method:	SW846 8270C SW846 3545	Percent Solids:	50.0
Project:	ERDLE-NYSDEC Gates NY		

ABN TCL List (CLP4.2 list)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	70%		30-130%
1718-51-0	Terphenyl-d14	80%		30-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
54644-27-8	1,2,4-Cyclopentanetrione, 3-(2-pen	10.91	1100	ug/kg	JN
1454-84-8	1-Nonadecanol	16.55	1400	ug/kg	JN
77899-10-6	(Z)14-Tricosenyl formate	17.23	1200	ug/kg	JN
1599-67-3	1-Docosene	17.55	1700	ug/kg	JN
638-66-4	Octadecanal	18.18	1600	ug/kg	JN
630-07-9	Pentatriacontane	18.40	1100	ug/kg	JN
54889-60-0	Hexanoic acid, 2-ethyl-2-propyl-,	18.64	1300	ug/kg	JN
59-02-9	Vitamin E	18.76	1300	ug/kg	JN
1953-54-4	1H-Indol-5-ol	18.89	1000	ug/kg	JN
77899-10-6	(Z)14-Tricosenyl formate	19.13	1700	ug/kg	JN
3386-33-2	Octadecane, 1-chloro-	19.35	1200	ug/kg	JN
83-48-7	Stigmasterol	19.62	2500	ug/kg	JN
83-47-6	.gamma.-Sitosterol	19.96	1500	ug/kg	JN
54832-82-5	Tricyclo[4.3.0.07,9]nonane, 2,2,5,	20.05	1800	ug/kg	JN
	Total TIC, Semi-Volatile		20400	ug/kg	J

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

5/24/10

Raw Data: YZ56666.D

Accutest Laboratories

Report of Analysis

Client Sample ID:	828072SS-06		
Lab Sample ID:	M90665-6	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
Method:	SW846 8082 SW846 3545	Percent Solids:	50.0
Project:	ERDLE-NYSDEC Gates NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ56666.D	1	04/21/10	CZ	04/20/10	OP21131	GYZ2417
Run #2							

	Initial Weight	Final Volume
Run #1	15.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	200	49	ug/kg	
11104-28-2	Aroclor 1221	ND	200	13	ug/kg	
11141-16-5	Aroclor 1232	ND	200	28	ug/kg	
53469-21-9	Aroclor 1242	ND	200	17	ug/kg	
12672-29-6	Aroclor 1248	ND	200	52	ug/kg	
11097-69-1	Aroclor 1254	ND	200	23	ug/kg	
11096-82-5	Aroclor 1260	ND	200	38	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	111%		30-150%
877-09-8	Tetrachloro-m-xylene	112%		30-150%
2051-24-3	Decachlorobiphenyl	129%		30-150%
2051-24-3	Decachlorobiphenyl	132%		30-150%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

5/24/10

Accutest Laboratories

Report of Analysis

Client Sample ID:	828072SS-06		
Lab Sample ID:	M90665-6	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
		Percent Solids:	50.0
Project:	ERDLE-NYSDEC Gates NY		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	5950	19	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Antimony	<1.9 J	1.9	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Arsenic	4.0	1.9	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Barium	<19	19	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Beryllium	<0.38	0.38	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Cadmium	<0.38	0.38	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Calcium	3970 J	480	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Chromium	7.2	0.96	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Cobalt	<4.8	4.8	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Copper	7.2	2.4	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Iron	9060	9.6	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Lead	16.1	1.9	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Magnesium	833	480	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Manganese	118	1.4	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Mercury	0.087	0.029	mg/kg	1	04/21/10	04/21/10	MA	SW846 7471A [1]	SW846 7471A [4]
Nickel	4.4	3.8	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Potassium	<480	480	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Selenium	<1.9	1.9	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Silver	<0.48	0.48	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Sodium	<480	480	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Thallium	<1.9	1.9	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Vanadium	16.7	2.9	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Zinc	70.9	1.9	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]

(1) Instrument QC Batch: MA11669
(2) Instrument QC Batch: MA11674
(3) Prep QC Batch: MP15103
(4) Prep QC Batch: MP15105

RL = Reporting Limit

5/24/10

Accutest Laboratories

Report of Analysis

Client Sample ID:	828072SS-07		
Lab Sample ID:	M90665-7	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
Method:	SW846 8260B	Percent Solids:	75.5
Project:	ERDLE-NYSDEC Gates NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P44891.D	1	04/20/10	AMY	n/a	n/a	MSP1480
Run #2							

	Initial Weight	Final Volume
Run #1	9.02 g	1.0 ml
Run #2		

VOA TCL 4.2 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	3.2 J	3.7	0.95	ug/kg	J
71-43-2	Benzene	ND	0.37	0.36	ug/kg	
75-27-4	Bromodichloromethane	ND J	1.5	0.15	ug/kg	
75-25-2	Bromoform	ND J	1.5	0.64	ug/kg	
74-83-9	Bromomethane	ND	1.5	0.24	ug/kg	
78-93-3	2-Butanone (MEK)	ND J	3.7	1.2	ug/kg	
75-15-0	Carbon disulfide	ND J	3.7	0.31	ug/kg	
56-23-5	Carbon tetrachloride	ND J	1.5	0.26	ug/kg	
108-90-7	Chlorobenzene	ND	1.5	0.50	ug/kg	
75-00-3	Chloroethane	ND	3.7	0.59	ug/kg	
67-66-3	Chloroform	ND	1.5	0.22	ug/kg	
74-87-3	Chloromethane	ND	3.7	0.65	ug/kg	
110-82-7	Cyclohexane	ND	3.7	0.22	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND J	3.7	2.4	ug/kg	
124-48-1	Dibromochloromethane	ND	1.5	0.094	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.5	0.14	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.5	0.27	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.5	0.21	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.5	0.39	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	1.5	0.20	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.5	0.21	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.5	0.19	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.5	0.57	ug/kg	
156-59-2	cis-1,2-Dichloroethene	2.7 J	1.5	0.43	ug/kg	
156-60-5	trans-1,2-Dichloroethene	0.92 J	1.5	0.52	ug/kg	J
78-87-5	1,2-Dichloropropane	ND	1.5	0.19	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.5	0.13	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.5	0.11	ug/kg	
100-41-4	Ethylbenzene	ND	1.5	0.12	ug/kg	
76-13-1	Freon 113	ND	3.7	0.68	ug/kg	
591-78-6	2-Hexanone	ND J	3.7	0.32	ug/kg	
98-82-8	Isopropylbenzene	ND	3.7	0.11	ug/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

5/24/10

Report of Analysis

Client Sample ID:	828072SS-07		
Lab Sample ID:	M90665-7	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
Method:	SW846 8260B	Percent Solids:	75.5
Project:	ERDLE-NYSDEC Gates NY		

VOA TCL 4.2 List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	3.7	0.81	ug/kg	
108-87-2	Methylcyclohexane	ND	3.7	0.18	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.5	0.18	ug/kg	J
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	3.7	0.73	ug/kg	
75-09-2	Methylene chloride	ND	1.5	0.32	ug/kg	
100-42-5	Styrene	ND	3.7	0.58	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.5	0.16	ug/kg	
127-18-4	Tetrachloroethene	ND	1.5	0.12	ug/kg	
108-88-3	Toluene	ND	3.7	0.19	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	3.7	0.53	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	1.5	0.24	ug/kg	J
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.14	ug/kg	
79-01-6	Trichloroethene	6.9	1.5	0.25	ug/kg	
75-69-4	Trichlorofluoromethane	ND	1.5	0.39	ug/kg	
75-01-4	Vinyl chloride	ND	1.5	0.44	ug/kg	
1330-20-7	Xylene (total)	ND	1.5	0.20	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		70-130%
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	119%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

5/24/10

Accutest Laboratories

Report of Analysis

Client Sample ID:	828072SS-07		
Lab Sample ID:	M90665-7	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
Method:	SW846 8270C SW846 3545	Percent Solids:	75.5
Project:	ERDLE-NYSDEC Gates NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	S14645.D	1	04/26/10	AA	04/21/10	OP21143	MSS527
Run #2							

	Initial Weight	Final Volume
Run #1	20.0 g	1.0 ml
Run #2		

ABN TCL List (CLP4.2 list)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	330	18	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	660	23	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	660	39	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	660	66	ug/kg	
51-28-5	2,4-Dinitrophenol	ND J	1300	330	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND J	660	330	ug/kg	
95-48-7	2-Methylphenol	ND	660	19	ug/kg	
	3&4-Methylphenol	ND	660	35	ug/kg	
88-75-5	2-Nitrophenol	ND	660	40	ug/kg	
100-02-7	4-Nitrophenol	ND	1300	330	ug/kg	
87-86-5	Pentachlorophenol	ND	660	61	ug/kg	
108-95-2	Phenol	ND	330	55	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	660	49	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	660	46	ug/kg	
83-32-9	Acenaphthene	ND	330	28	ug/kg	
208-96-8	Acenaphthylene	ND	330	25	ug/kg	
98-86-2	Acetophenone	ND	660	30	ug/kg	
120-12-7	Anthracene	ND	330	26	ug/kg	
1912-24-9	Atrazine	ND	660	660	ug/kg	
100-52-7	Benzaldehyde	ND	1300	1300	ug/kg	
56-55-3	Benzo(a)anthracene	ND	330	12	ug/kg	
50-32-8	Benzo(a)pyrene	ND	330	20	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	330	39	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	330	21	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	330	9.8	ug/kg	
92-52-4	1,1'-Biphenyl	ND	660	660	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	330	27	ug/kg	
85-68-7	Butyl benzyl phthalate	ND J	330	14	ug/kg	
105-60-2	Caprolactam	ND	660	660	ug/kg	
91-58-7	2-Chloronaphthalene	ND	330	28	ug/kg	
106-47-8	4-Chloroaniline	ND	660	170	ug/kg	
86-74-8	Carbazole	ND	330	26	ug/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

5/28/10

Report of Analysis

Client Sample ID:	828072SS-07		
Lab Sample ID:	M90665-7	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
Method:	SW846 8270C SW846 3545	Percent Solids:	75.5
Project:	ERDLE-NYSDEC Gates NY		

ABN TCL List (CLP4.2 list)

CAS No.	Compound	Result	RL	MDL	Units	Q
218-01-9	Chrysene	ND	330	11	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	330	26	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	330	7.1	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	330	31	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	330	30	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	660	170	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	660	32	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	330	7.9	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	330	21	ug/kg	
132-64-9	Dibenzofuran	ND	330	28	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	330	30	ug/kg	
117-84-0	Di-n-octyl phthalate	ND J	330	17	ug/kg	
84-66-2	Diethyl phthalate	ND	330	29	ug/kg	
131-11-3	Dimethyl phthalate	ND	330	23	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	134 J	330	23	ug/kg	J
206-44-0	Fluoranthene	ND	330	11	ug/kg	
86-73-7	Fluorene	ND	330	7.3	ug/kg	
118-74-1	Hexachlorobenzene	ND	330	29	ug/kg	
87-68-3	Hexachlorobutadiene	ND	330	26	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND J	660	4.5	ug/kg	
67-72-1	Hexachloroethane	ND	330	27	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	330	20	ug/kg	
78-59-1	Isophorone	ND	330	33	ug/kg	
91-57-6	2-Methylnaphthalene	ND	330	28	ug/kg	
88-74-4	2-Nitroaniline	ND	660	170	ug/kg	
99-09-2	3-Nitroaniline	ND	660	170	ug/kg	
100-01-6	4-Nitroaniline	ND	660	25	ug/kg	
91-20-3	Naphthalene	ND	330	7.7	ug/kg	
98-95-3	Nitrobenzene	ND	330	9.8	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	330	21	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	330	18	ug/kg	
85-01-8	Phenanthrene	ND	330	8.5	ug/kg	
129-00-0	Pyrene	ND	330	11	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	79%		30-130%
4165-62-2	Phenol-d5	74%		30-130%
118-79-6	2,4,6-Tribromophenol	83%		30-130%
4165-60-0	Nitrobenzene-d5	66%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

5/24/10

Report of Analysis

Client Sample ID:	828072SS-07		
Lab Sample ID:	M90665-7	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
Method:	SW846 8270C SW846 3545	Percent Solids:	75.5
Project:	ERDLE-NYSDEC Gates NY		

ABN TCL List (CLP4.2 list)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	71%		30-130%
1718-51-0	Terphenyl-d14	81%		30-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
630-07-9	Pentatriacontane	15.47	330	ug/kg	JN
18435-45-5	1-Nonadecene	16.56	310	ug/kg	JN
112-95-8	Eicosane	17.49	270	ug/kg	JN
1454-85-9	1-Heptadecanol	17.56	340	ug/kg	JN
	1-Hexacosanal	18.18	300	ug/kg	J
7225-64-1	Heptadecane, 9-octyl-	18.40	280	ug/kg	JN
	Total TIC, Semi-Volatile		1830	ug/kg	J

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

5/24/10

Raw Data: YZ56667.D

Accutest Laboratories

Report of Analysis

Client Sample ID:	828072SS-07		
Lab Sample ID:	M90665-7	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
Method:	SW846 8082 SW846 3545	Percent Solids:	75.5
Project:	ERDLE-NYSDEC Gates NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ56667.D	1	04/21/10	CZ	04/20/10	OP21131	GYZ2417
Run #2							

	Initial Weight	Final Volume
Run #1	15.8 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	130	32	ug/kg	
11104-28-2	Aroclor 1221	ND	130	8.2	ug/kg	
11141-16-5	Aroclor 1232	ND	130	18	ug/kg	
53469-21-9	Aroclor 1242	ND	130	11	ug/kg	
12672-29-6	Aroclor 1248	ND	130	33	ug/kg	
11097-69-1	Aroclor 1254	ND	130	14	ug/kg	
11096-82-5	Aroclor 1260	ND	130	24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	103%		30-150%
877-09-8	Tetrachloro-m-xylene	104%		30-150%
2051-24-3	Decachlorobiphenyl	126%		30-150%
2051-24-3	Decachlorobiphenyl	128%		30-150%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

5/24/10

Report of Analysis

Client Sample ID:	828072SS-07		
Lab Sample ID:	M90665-7	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
		Percent Solids:	75.5
Project:	ERDLE-NYSDEC Gates NY		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	9340	20	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Antimony	<2.0 J	2.0	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Arsenic	3.6	2.0	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Barium	65.5	20	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Beryllium	0.46	0.39	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Cadmium	<0.39	0.39	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Calcium	32700 J	490	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Chromium	12.6	0.98	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Cobalt	6.2	4.9	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Copper	11.1	2.5	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Iron	16300	9.8	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Lead	8.9	2.0	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Magnesium	8440	490	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Manganese	387	1.5	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Mercury	<0.040	0.040	mg/kg	1	04/21/10	04/21/10	MA	SW846 7471A [1]	SW846 7471A [4]
Nickel	15.7	3.9	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Potassium	1440	490	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Selenium	<2.0	2.0	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Silver	<0.49	0.49	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Sodium	<490	490	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Thallium	<2.0	2.0	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Vanadium	18.2	2.9	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]
Zinc	95.6	2.0	mg/kg	1	04/20/10	04/22/10	DA	SW846 6010B [2]	SW846 3050B [3]

(1) Instrument QC Batch: MA11669
(2) Instrument QC Batch: MA11674
(3) Prep QC Batch: MP15103
(4) Prep QC Batch: MP15105

RL = Reporting Limit

5/24/10

Accutest Laboratories

Report of Analysis

Client Sample ID:	828072SS-01		
Lab Sample ID:	M90665-1R	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
Method:	SW846 8081 SW846 3545	Percent Solids:	83.3
Project:	ERDLE-NYSDEC Gates NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BE19301.D	1	05/05/10	SL	05/01/10	OP21238	GBE1249
Run #2							

	Initial Weight	Final Volume
Run #1	15.9 g	10.0 ml
Run #2		

Pesticide PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	7.6	2.5	ug/kg	
319-84-6	alpha-BHC	ND	7.6	2.3	ug/kg	
319-85-7	beta-BHC	ND	7.6	2.6	ug/kg	
319-86-8	delta-BHC	ND	7.6	5.9	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	7.6	2.9	ug/kg	
12789-03-6	Chlordane	ND	76	29	ug/kg	
60-57-1	Dieldrin	ND	7.6	2.6	ug/kg	
72-54-8	4,4'-DDD	ND	7.6	3.1	ug/kg	
72-55-9	4,4'-DDE	ND	7.6	2.7	ug/kg	
50-29-3	4,4'-DDT	ND	7.6	3.0	ug/kg	
72-20-8	Endrin	ND	7.6	3.1	ug/kg	
1031-07-8	Endosulfan sulfate	ND	7.6	2.7	ug/kg	
7421-93-4	Endrin aldehyde	ND	7.6	2.0	ug/kg	
959-98-8	Endosulfan-I	ND	7.6	7.1	ug/kg	
33213-65-9	Endosulfan-II	ND	7.6	1.8	ug/kg	
76-44-8	Heptachlor	ND	7.6	2.7	ug/kg	
1024-57-3	Heptachlor epoxide	ND	7.6	3.0	ug/kg	
72-43-5	Methoxychlor	ND	7.6	3.9	ug/kg	
8001-35-2	Toxaphene	ND	76	45	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	99%		30-150%
877-09-8	Tetrachloro-m-xylene	98%		30-150%
2051-24-3	Decachlorobiphenyl	115%		30-150%
2051-24-3	Decachlorobiphenyl	115%		30-150%

(a) Analysis requested after recommended holding time.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

5/24/10

Accutest Laboratories

Report of Analysis

Client Sample ID:	828072SS-04		
Lab Sample ID:	M90665-4R	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
Method:	SW846 8081 SW846 3545	Percent Solids:	79.3
Project:	ERDLE-NYSDEC Gates NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BE19302.D	1	05/05/10	SL	05/01/10	OP21238	GBE1249
Run #2							

	Initial Weight	Final Volume
Run #1	15.1 g	10.0 ml
Run #2		

Pesticide PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	8.3	2.8	ug/kg	
319-84-6	alpha-BHC	ND	8.3	2.5	ug/kg	
319-85-7	beta-BHC	ND	8.3	2.9	ug/kg	
319-86-8	delta-BHC	ND	8.3	6.6	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	8.3	3.2	ug/kg	
12789-03-6	Chlordane	ND	83	32	ug/kg	
60-57-1	Dieldrin	ND	8.3	2.9	ug/kg	
72-54-8	4,4'-DDD	ND	8.3	3.4	ug/kg	
72-55-9	4,4'-DDE	ND	8.3	3.0	ug/kg	
50-29-3	4,4'-DDT	ND	8.3	3.4	ug/kg	
72-20-8	Endrin	ND	8.3	3.5	ug/kg	
1031-07-8	Endosulfan sulfate	ND	8.3	3.0	ug/kg	
7421-93-4	Endrin aldehyde	ND	8.3	2.2	ug/kg	
959-98-8	Endosulfan-I	ND	8.3	7.9	ug/kg	
33213-65-9	Endosulfan-II	ND	8.3	2.0	ug/kg	
76-44-8	Heptachlor	ND	8.3	3.0	ug/kg	
1024-57-3	Heptachlor epoxide	ND	8.3	3.3	ug/kg	
72-43-5	Methoxychlor	ND	8.3	4.3	ug/kg	
8001-35-2	Toxaphene	ND	83	49	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	100%		30-150%
877-09-8	Tetrachloro-m-xylene	109%		30-150%
2051-24-3	Decachlorobiphenyl	83%		30-150%
2051-24-3	Decachlorobiphenyl	89%		30-150%

(a) Analysis requested after recommended holding time.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

5/24/10

Accutest Laboratories

Report of Analysis

Client Sample ID:	828072SS-05		
Lab Sample ID:	M90665-5R	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
Method:	SW846 8081 SW846 3545	Percent Solids:	86.1
Project:	ERDLE-NYSDEC Gates NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BE19303.D	1	05/05/10	SL	05/01/10	OP21238	GBE1249
Run #2							

	Initial Weight	Final Volume
Run #1	15.6 g	10.0 ml
Run #2		

Pesticide PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	7.5	2.5	ug/kg	
319-84-6	alpha-BHC	ND	7.5	2.2	ug/kg	
319-85-7	beta-BHC	ND	7.5	2.6	ug/kg	
319-86-8	delta-BHC	ND	7.5	5.9	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	7.5	2.8	ug/kg	
12789-03-6	Chlordane	ND	75	28	ug/kg	
60-57-1	Dieldrin	ND	7.5	2.6	ug/kg	
72-54-8	4,4'-DDD	ND	7.5	3.0	ug/kg	
72-55-9	4,4'-DDE	ND	7.5	2.7	ug/kg	
50-29-3	4,4'-DDT	ND	7.5	3.0	ug/kg	
72-20-8	Endrin	ND	7.5	3.1	ug/kg	
1031-07-8	Endosulfan sulfate	ND	7.5	2.7	ug/kg	
7421-93-4	Endrin aldehyde	ND	7.5	1.9	ug/kg	
959-98-8	Endosulfan-I	ND	7.5	7.0	ug/kg	
33213-65-9	Endosulfan-II	ND	7.5	1.8	ug/kg	
76-44-8	Heptachlor	ND	7.5	2.7	ug/kg	
1024-57-3	Heptachlor epoxide	ND	7.5	2.9	ug/kg	
72-43-5	Methoxychlor	ND	7.5	3.9	ug/kg	
8001-35-2	Toxaphene	ND	75	44	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	62%		30-150%
877-09-8	Tetrachloro-m-xylene	77%		30-150%
2051-24-3	Decachlorobiphenyl	80%		30-150%
2051-24-3	Decachlorobiphenyl	83%		30-150%

(a) Analysis requested after recommended holding time.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

5/24/10

Raw Data: BE19304.D

Accutest Laboratories

Report of Analysis

Client Sample ID:	828072SS-06		
Lab Sample ID:	M90665-6R	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
Method:	SW846 8081 SW846 3545	Percent Solids:	50.0
Project:	ERDLE-NYSDEC Gates NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BE19304.D	1	05/05/10	SL	05/01/10	OP21238	GBE1249
Run #2							

	Initial Weight	Final Volume
Run #1	15.7 g	10.0 ml
Run #2		

Pesticide PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	13	4.2	ug/kg	
319-84-6	alpha-BHC	ND	13	3.8	ug/kg	
319-85-7	beta-BHC	ND	13	4.4	ug/kg	
319-86-8	delta-BHC	ND	13	10	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	13	4.8	ug/kg	
12789-03-6	Chlordane	ND	130	49	ug/kg	
60-57-1	Dieldrin	ND	13	4.3	ug/kg	
72-54-8	4,4'-DDD	ND	13	5.2	ug/kg	
72-55-9	4,4'-DDE	ND	13	4.5	ug/kg	
50-29-3	4,4'-DDT	ND	13	5.1	ug/kg	
72-20-8	Endrin	ND	13	5.3	ug/kg	
1031-07-8	Endosulfan sulfate	ND	13	4.5	ug/kg	
7421-93-4	Endrin aldehyde	ND	13	3.3	ug/kg	
959-98-8	Endosulfan-I	ND	13	12	ug/kg	
33213-65-9	Endosulfan-II	ND	13	3.0	ug/kg	
76-44-8	Heptachlor	ND	13	4.6	ug/kg	
1024-57-3	Heptachlor epoxide	ND	13	5.0	ug/kg	
72-43-5	Methoxychlor	ND	13	6.6	ug/kg	
8001-35-2	Toxaphene	ND	130	75	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	96%		30-150%
877-09-8	Tetrachloro-m-xylene	109%		30-150%
2051-24-3	Decachlorobiphenyl	117%		30-150%
2051-24-3	Decachlorobiphenyl	131%		30-150%

(a) Analysis requested after recommended holding time.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

5/24/10

Accutest Laboratories

Report of Analysis

Client Sample ID:	828072SS-07		
Lab Sample ID:	M90665-7R	Date Sampled:	04/15/10
Matrix:	SO - Soil	Date Received:	04/16/10
Method:	SW846 8081 SW846 3545	Percent Solids:	75.5
Project:	ERDLE-NYSDEC Gates NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BE19305.D	1	05/05/10	SL	05/01/10	OP21238	GBE1249
Run #2							

	Initial Weight	Final Volume
Run #1	15.4 g	10.0 ml
Run #2		

Pesticide PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	8.6	2.9	ug/kg	
319-84-6	alpha-BHC	ND	8.6	2.6	ug/kg	
319-85-7	beta-BHC	ND	8.6	3.0	ug/kg	
319-86-8	delta-BHC	ND	8.6	6.8	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	8.6	3.3	ug/kg	
12789-03-6	Chlordane	ND	86	33	ug/kg	
60-57-1	Dieldrin	ND	8.6	2.9	ug/kg	
72-54-8	4,4'-DDD	ND	8.6	3.5	ug/kg	
72-55-9	4,4'-DDE	ND	8.6	3.1	ug/kg	
50-29-3	4,4'-DDT	ND	8.6	3.5	ug/kg	
72-20-8	Endrin	ND	8.6	3.6	ug/kg	
1031-07-8	Endosulfan sulfate	ND	8.6	3.1	ug/kg	
7421-93-4	Endrin aldehyde	ND	8.6	2.2	ug/kg	
959-98-8	Endosulfan-I	ND	8.6	8.1	ug/kg	
33213-65-9	Endosulfan-II	ND	8.6	2.1	ug/kg	
76-44-8	Heptachlor	ND	8.6	3.1	ug/kg	
1024-57-3	Heptachlor epoxide	ND	8.6	3.4	ug/kg	
72-43-5	Methoxychlor	ND	8.6	4.5	ug/kg	
8001-35-2	Toxaphene	ND	86	51	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	107%		30-150%
877-09-8	Tetrachloro-m-xylene	118%		30-150%
2051-24-3	Decachlorobiphenyl	115%		30-150%
2051-24-3	Decachlorobiphenyl	134%		30-150%

(a) Analysis requested after recommended holding time.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

5/24/10

APPENDIX D

SITE PHOTOS

Appendix D contains the two aerial images of the Erdle Perforating Company Site showing some site features. This information is offered for consideration when planning the remedial work.


WATER
ELEVATION
TBM on HYD.
WELLS 5 & 5W

APPENDIX E

UNDERGROUND TANK AND SOIL EXCAVATION

Appendix E contains a report describing the removal of underground storage tank removal from the Erdle Perforating Company Site in April in 1987. This information is being offered for consideration when planning the remedial work.

ERDLE PERFORATING COMPANY, INC.

Underground Tank and Soil Excavation

July, 1987

DAT

TABLE OF CONTENTS

FIGURES:

I. INTRODUCTION

A soil and groundwater sampling project was conducted January 6-9, 1987 at Erdle Perforating Company, Inc., located at 100 Pixley Industrial Parkway in Rochester, New York. This study revealed that chlorinated solvents were present in the soil and groundwater in the area around Erdle's two underground waste accumulation tanks. These results are discussed in a report dated February, 1987, entitled "Soil and Groundwater Sampling Report." A copy of this report was submitted to the New York State Department of Environmental Conservation (DEC).

An incident involving Erdle's underground waste trichloroethene tank occurred on February 5, 1987. Water was found in the trichloroethene waste tank by the waste hauler. It did not appear that the presence of the water was process-related; therefore, an initial integrity test was conducted on the solvent waste tank using air pressure. The results of the pressure test indicated that the tank was unfit for use. This was reported by telephone and in writing to the DEC and to the United States Environmental Protection Agency on February 5, 1987.

A meeting was held February 24, 1987, with representatives from Erdle Perforating Company, Inc.; Day Engineering, P.C.; and the DEC in attendance. At this meeting, it was decided to remove the underground waste trichloroethene tank as soon as possible and to implement the other recommendations presented in the "Soil and Groundwater Sampling Report." It was also acknowledged that it would probably be best to remove the underground waste oil tank at the same time, as it was known to be at least partially blocking access to the waste trichloroethene tank. Erdle personnel also decided to remove the underground fresh oil storage tank in order to completely discontinue the practice of underground storage.

A bid document was prepared by Day Engineering for the removal and disposal of the tanks and excavated soils. Bids were solicited from three contractors. American Environmental Services Company, Inc. was selected to conduct the work.

In addition to the removal and disposal of the waste tanks and excavated soils, surface water and sediment sampling was recommended in the "Soil and Groundwater Sampling Report." This sampling was conducted on February 27, 1987. The results are discussed in Section IV of this report.

A literature search was also conducted to obtain as much information as possible regarding the geology in the vicinity of the Erdle Perforating facility. Specifically, information was sought regarding the depth to bedrock and the thickness of the clay layer encountered during the January sampling program. The results of this effort are discussed in Section IV of this report.

II. FIELD WORK DESCRIPTION

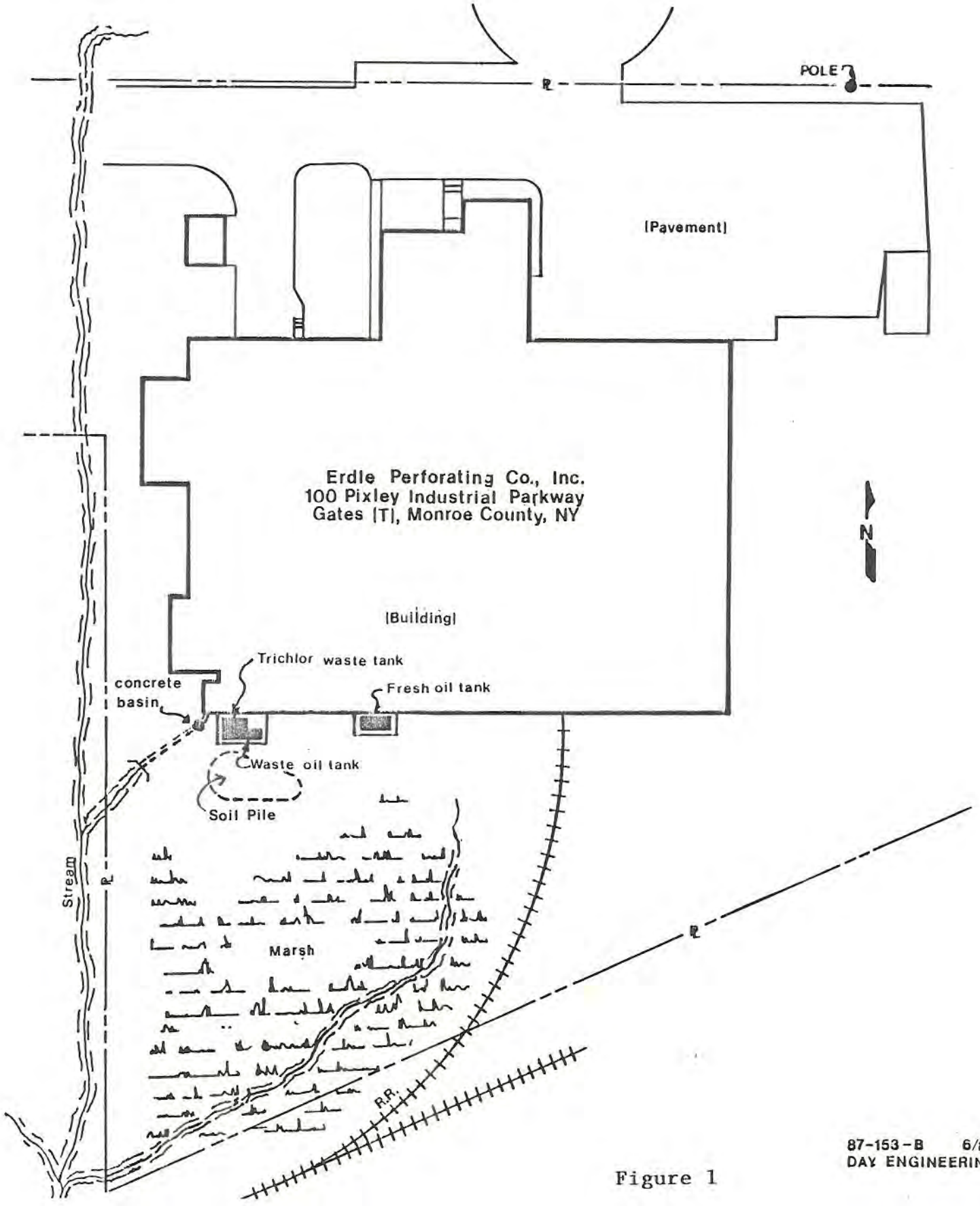
American Environmental Services, Inc., was retained to remove the tanks and excavated soils, and prepare the wastes for off-site disposal. Waste Technology Services, Inc., arranged for the disposal of all waste materials resulting from this project. Personnel from Day Engineering, P.C., acted as Project Manager.

Refer to Figure 1 for a plot plan showing the location of the tanks that were removed from the ground.

Work commenced the morning of April 13, 1987. A vacuum truck was used for the pumping and transport of liquid wastes resulting from this project. An excavator was used to excavate soil and remove the tanks from the ground. A 6-mil polyethylene sheet was placed south of the excavated area, and all excavated soil and debris were piled on this sheet to await off-site disposal as a hazardous waste. (Refer to Figure 1 for the location of the stockpiled soil.)

The waste oil tank was removed first. All aboveground piping associated with this tank, except two standpipes, was cut and removed. No spillage occurred during the removal of the piping. Residual liquid from the tank was pumped into the vacuum truck. Dry ice was then added to the tank through a standpipe as a precautionary measure to create an inert atmosphere within the tank. The concrete diking surrounding the waste tank area was removed. The diking was approximately one foot above grade and extended one foot into the ground. Also, the soil surrounding the waste oil tank was excavated. The tank was then removed from the ground using the excavator and a chain, and was placed southwest of the excavation area to await dismantlement.

SITE PLOT PLAN SHOWING TANK LOCATIONS
ERDLE PERFORATING CO., INC.
Scale: 1in = 80ft.



87-153-B 6/87
DAY ENGINEERING

Figure 1

DD105

The waste trichloroethene accumulation tank was full of groundwater and solvent sludge when the excavation began. This tank had been left full to prevent the tank from being buoyed prematurely by groundwater during the excavation process. After the removal of the waste oil tank, it was clear that buoying would not be a problem. The groundwater table was below the floor of the excavated pit, which was approximately 6.5 feet below grade. The decision was then made to pump the liquid in the waste trichloroethene tank into the vacuum truck prior to excavation of the soils around the tank. This liquid was later transported to Frontier Chemical Process, Inc., for disposal as a hazardous waste.

The soil surrounding the tank was excavated, and the tank was removed and placed next to the waste oil tank. No spillage occurred during the removal of the tank. The two waste tanks were later cleaned with a power washer. The rinse water was pumped into the vacuum truck for off-site disposal as a hazardous waste. The tanks were cut and dismantled on-site using oxy-acetylene torches, and the tank sections were added to the soil pile for disposal as a hazardous waste.

The excavation of the pit was continued to the north as close as possible to the building wall without running the risk of undermining the building support. On the other three walls of the pit, the excavation was continued to beyond the point where the concrete diking had been located. Additional soil was removed from the southwest corner of the pit because prior sampling had revealed the presence of chlorinated solvents in that area.

Thirteen soil samples were taken from the walls and floor of the excavation (see Figure 2 in Section IV). The sampling methodology consisted of exposing a fresh soil surface through hand digging, and then placing the soil sample directly into a

sample container. In accordance with EPA and DEC protocol, the samples were stored in pre-cleaned 40-ml. glass vials with teflon septums and plastic caps. They were preserved in the field by cooling and handled via chain-of-custody with proper documentation. The samples were sent to General Testing Corporation of Rochester, New York for analysis. General Testing has a NYS Laboratory Certification ID# 10145, and is also certified by the State of New Jersey.

After the soil samples were obtained, the excavated pit was backfilled with Crusher Run #2 gravel. This material was chosen because it compacts well and will provide good support for the building. Each load (approximately 10 tons) was compacted before the next load was applied. This procedure was continued until the remaining depth below grade was approximately one foot. One 10-ton load of topsoil was then applied and the entire slope behind the building was graded evenly and compacted.

The removal of the two waste tanks was completed on April 14, 1987, and the removal of the fresh oil tank from the ground began in the late morning of April 15, 1987.

The fresh oil tank was cleaned in place using the power washer. The resulting rinse water was pumped into the vacuum truck for off-site disposal. Excavation then began around the tank, starting with the concrete diking. During the excavation, dark soil was observed south of the tank along the inside of the diking. This soil had a distinct oil odor. The presence of oil in this soil could have resulted from spillage during past oil deliveries. This condition was immediately reported to Bruce Finster of the DEC, and he completed a notification form.

During a subsequent telephone call to Mr. Finster, the matter was turned over to Mike Khalil of the DEC because of his involvement in the project to remove the waste trichloroethene tank. A

decision was then made with DEC concurrence to add the soil that was heavily contaminated with oil to the stockpile of material awaiting transportation off-site for disposal as a hazardous waste. The lightly contaminated soil was to be left in place and the pit filled in and graded over. The determination of the level of contamination was to be based on visual observation in the field. Mr. Khalil also requested that some samples be obtained of the soils from the walls of this excavation.

Approximately two cubic yards of oil-contaminated soil were removed from the pit and added to the stockpiled material. Three samples were then taken, one each from the north, east and west walls of the excavated pit. The south side of the pit was not sampled, as it was a mix of excavated soils and was not representative of undisturbed soils. These soil samples were transported to General Testing and analyzed for total petroleum hydrocarbons and total solids. The analytical results are presented in Section IV of this report.

The concrete diking material that had surrounded the fresh oil tank was then placed in the excavation, and the pit was filled in with the remaining excavated soil. The area was then graded and compacted with a bulldozer.

A section (approximately 3' x 3') was cut out of each end of the fresh oil tank and the tank was hauled off-site as scrap.

The entire work area was skimmed with a front-end loader and the resulting soil was added to the stockpile. Approximately 135 tons of soil and debris (tank sections, piping, concrete) were shipped off-site for disposal as a F001 hazardous waste on April 24, 1987. The manifest documentation is included in Appendix F.

Eighteen photographs depicting various stages of this project are presented in Appendix E.

III. FIELD OBSERVATIONS

The pit excavated for the removal of the underground waste accumulation tanks was approximately 6.5 feet deep. This pit did not fill in with groundwater as expected. Some water seeped into the pit from the surrounding soils, but the groundwater table appeared to be below the floor of the pit. The floor of the pit consisted of a concrete slab (approximately 8' x 18') surrounded by hard red clay.

Upon removal of the waste oil tank, it was observed that its north side had been close to or in contact with the south side of the waste trichloroethene tank. Neither tank appeared to have been physically damaged as a result of this.

The waste oil tank measured 5 1/4 feet in diameter and 18 1/4 feet in length, and had a volume of about 3000 gallons. The integrity of the tank appeared sound. No weak spots or holes were observed in the tank sides.

The waste trichloroethene tank was about 2000 gallons in volume, with a diameter of 5 1/4 feet and a length of 12 1/4 feet. Visual inspection of the tank revealed six holes that appeared to have been caused by corrosion. These holes varied in size from about 1/4" to 1". Their elevations above the floor of the tank ranged from approximately three to four feet. The holes were located on the north side of the tank near the west end.

The trichloroethene tank had filled with groundwater subsequent to the last time it was emptied in late January, 1987. The groundwater table had been much higher at that time. The tank was still full at the time of this project even though the groundwater table was below the bottom of the tank. This means that the groundwater in the tank apparently did not leak out of the tank into the surrounding soil after the groundwater table

dropped. This indicates that compacted soils in the vicinity of the holes in the tank may have inhibited the seepage of liquid out of the tank.

The fresh oil tank was in excellent condition. No holes or weak spots were observed, and it appeared unlikely that the tank had leaked while in use. This tank was also a 3000 gallon tank, measuring 5 1/4 feet in diameter and 18 1/4 feet long.

IV. DISCUSSION OF RESULTS

The "parameters of concern" for this soil sampling program have been identified as trichloroethene; 1,2-dichloroethene; and tetrachlorethene. Erdle Perforating used trichloroethene as a degreasing solvent. Tetrachloroethene is most likely present as a by-product in the fresh trichloroethene. 1,2-Dichloroethene could be a by-product in the fresh trichloroethene, and also a breakdown product of trichloroethene in the soils. The complete laboratory reports listing the results of all compounds and the quality control data can be found in Appendix A and Appendix C of this report.

Waste Tank Excavation Pit Sampling

The waste tank pit samples were analyzed by General Testing Corporation. These samples were analyzed using Method 8010, outlined in EPA Manual SW-846, "Test Methods for Evaluating Solid Waste." The analytical results for the "parameters of concern" are presented in Table 1. The complete laboratory report is included in Appendix A.

The sampling locations are shown in Figure 2. Next to each location is shown the total chlorinated solvent concentration in ug/g (ppm). Sample locations D, G, and F, are on the bottom of the excavated pit. Samples H, I, and K were collected from the west wall of the excavated pit, and samples E and J were obtained from the east wall. Sample locations L, M, N, O, and P are on the south wall of the excavated pit.

The highest concentration of solvent was found in the southwest region of the excavated pit. This is illustrated in Figure 2 on the "South Wall." Location O (two-foot depth on the south wall) contained the highest total chlorinated solvent concentration encountered (7600 ppm); however, Location N, just two feet below Location O, contained a total chlorinated solvent concentration

Table 1

Waste Tank Excavation Pit Sampling Results

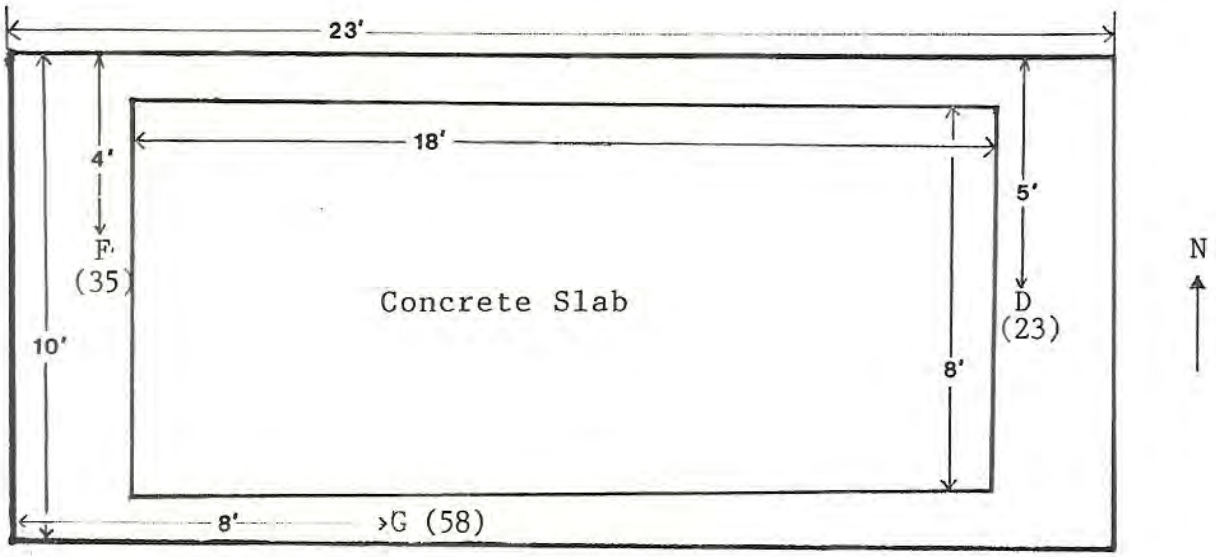
Samp. Loc.	Parameters of Concern (ug/g) Trichloroethene	1,2-Dichloroethene	Tetrachloroethene	Total*
D	1.6	20.6	0.27	23
E	<0.01	0.66	<0.01	0.7
F	32.5	1.8	0.73	35
G	26	31.4	0.17	58
H	8.99	16.3	0.091	25
I	0.082	0.074	<0.01	0.2
J	0.18	3.5	0.11	4
K	1.65	1.86	<0.05	3.5
L	<0.05	33.9	<0.05	34
M	0.52	2.4	<0.05	3
N	6.2	10.5	<0.05	17
O	6618	354	600	7600
P	0.053	0.17	0.0063	0.2

* This value represents the sum of all the parameters of concern, and represents an approximate total concentration of the chlorinated solvents present in the soils.

Figure 2

Waste Tank Excavation Pit Sampling Locations

(distances are approximate)



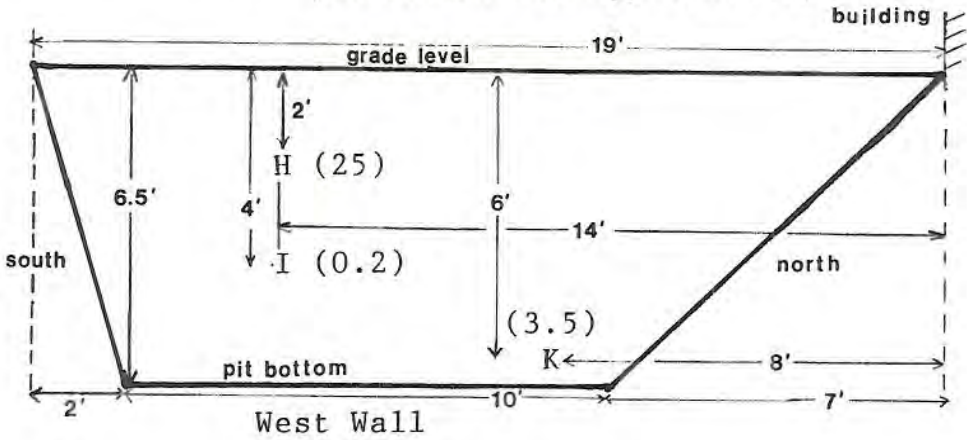
Plan View

Bottom of Excavated Pit

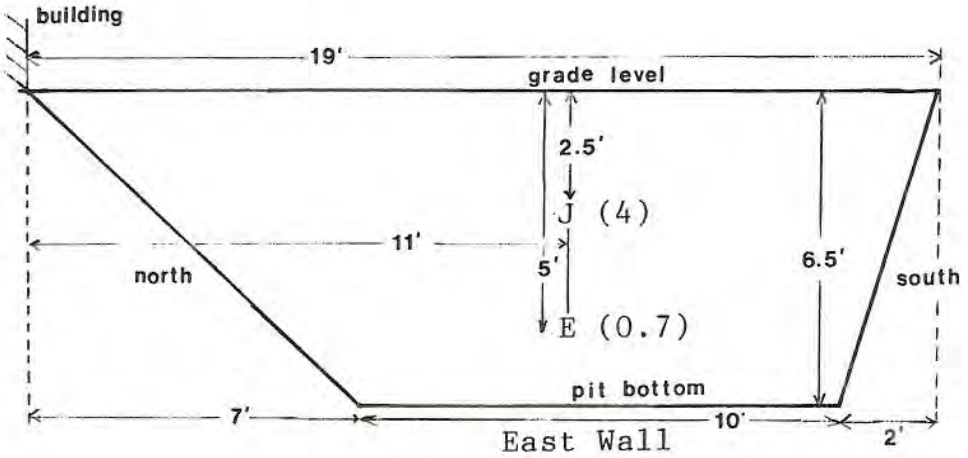
(approx. 6.5' below grade)

Values in parentheses are total chlorinated solvent concentrations in ug/g (ppm) - See Table 1

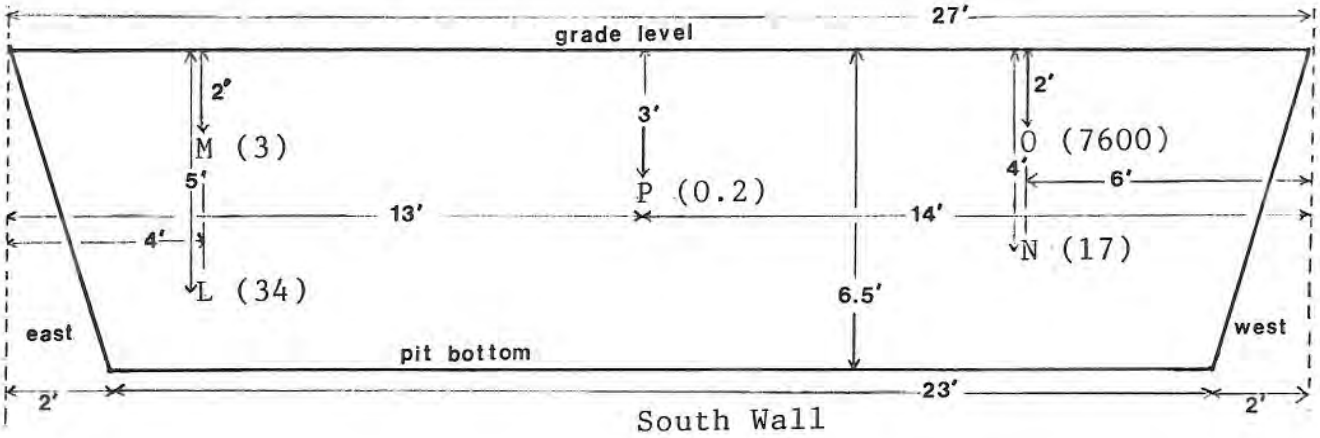
Figure 2 (cont.)
Waste Tank Excavation Pit Sampling Locations
(distances are approximate)



West Wall



East Wall



South Wall

Values in parentheses are total chlorinated solvent concentrations in ug/g (ppm) - See Table 1

of only 17 ppm. This concentration is lower than the concentration encountered at Location O by a factor of 450. Location P, eight feet east of Location O and one foot deeper, has a total chlorinated solvent concentration of only 0.2 ppm. This level is lower than that at Location O by a factor of 40,000.

The solvent concentration found at Location O is much higher than at any other sampling location, and this location is actually higher in elevation than the holes in the waste solvent tank. Therefore, it can be concluded that the chlorinated solvents present at this location may have been the result of spillage during pick-up of the waste solvent, and are probably confined to a small localized region around Location O.

The analytical results ranged from 0.2 ppm to 58 ppm for the other sampling locations. The three samples collected from the clay in the bottom of the pit ranged from 23 ppm to 58 ppm. Refer to the "Plan View" in Figure 2. These samples were obtained just off the edge of the concrete slab, and could represent spillage during pickup and/or leakage from the tank.

Fresh Oil Tank Excavation Pit Sampling

The fresh oil tank excavation pit samples were analyzed by General Testing for total petroleum hydrocarbons and total solids. They were analyzed in accordance with EPA Manual EPA-600/4-79-020, entitled "EPA Methods for Chemical Analysis of Water and Wastes." Specifically, EPA Method 418.1 was used to determine petroleum hydrocarbon levels.

The analytical results are summarized in Table 2. The complete laboratory report is included in Appendix B to this report.

Table 2

Fresh Oil Tank Excavation Pit Sampling Results

	Total Petroleum Hydrocarbons		
	Wet Wt.(ug/g)	Dry Wt.(ug/g)	Total Solids
North Wall	1,810	2,220	81.5%
West Wall	34,900	41,400	84.2%
East Wall	3,940	4,770	82.6%

DD105

Surface Water and Sediment Sampling

Surface water samples and sediment samples were collected on February 27, 1987. The sampling locations are shown in Figure 3. The samples were sent to General Testing Corporation for analysis.

The surface water samples were analyzed in accordance with Federal Regulations: 40 CFR Part 136 - Appendix A "Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater." Specifically, Method 601 "Purgeable Halocarbons" was used to determine unknown concentrations using the gas chromatograph. The sediment samples were analyzed using Method 8010, outlined in EPA Manual SW-846, "Test Methods for Evaluating Solid Waste."

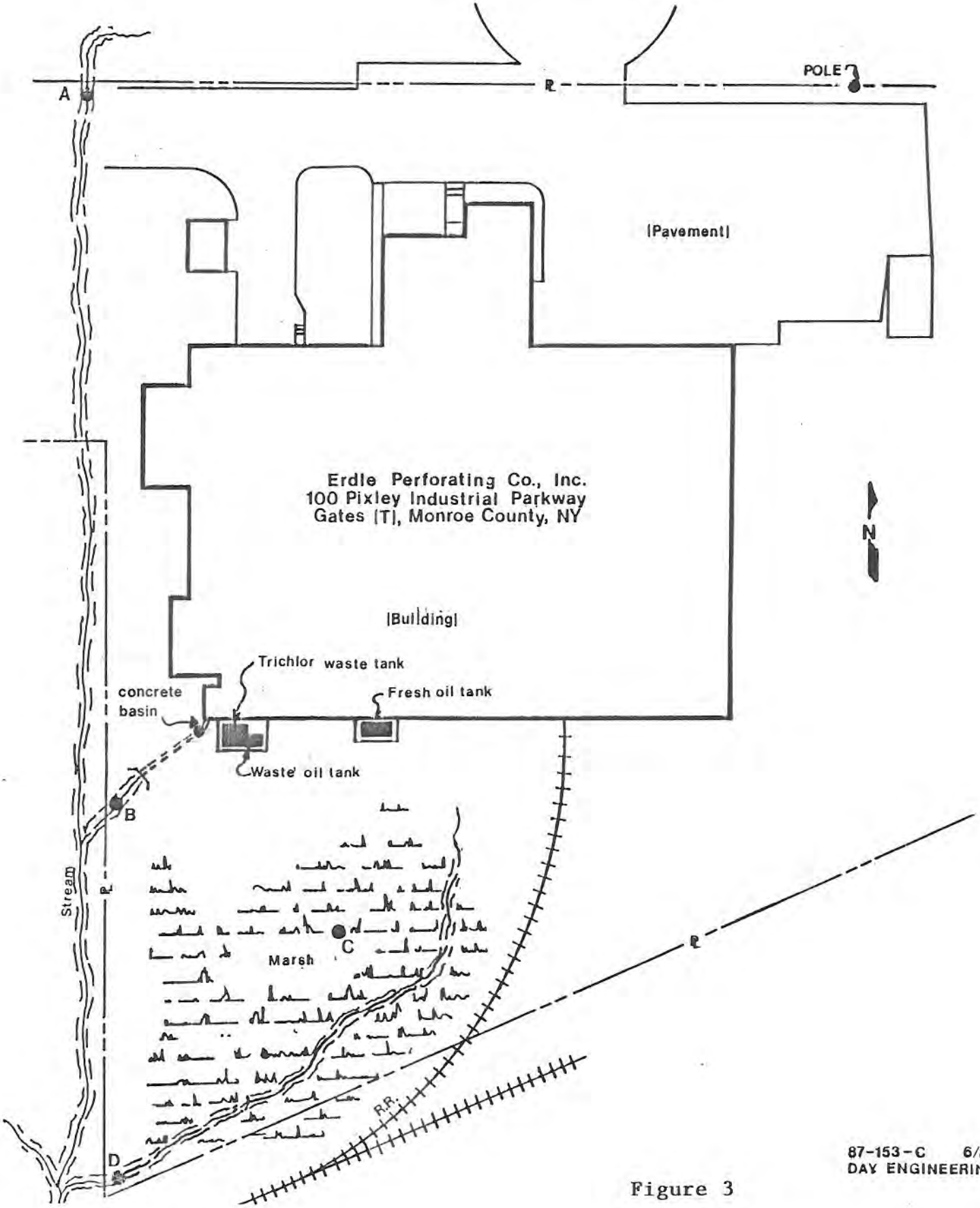
The laboratory report, including quality control data, for the surface water and sediment sampling is included in Appendix C. The results are summarized in Table 3 and Table 4.

Location A (upstream of the building), Location C (in the marshy area south of the building), and Location D (where the marsh water leaves the property) showed no detectable levels of the "parameters of concern" in the water or sediment.

Location B, where a tributary of the stream leaves the Erdle property, showed the presence of chlorinated solvents in both the water and sediment.

A concrete cooling water basin is located near the area where the underground waste tanks were located. This basin discharges to Location B via an underground pipe. Basins of this type are usually not constructed to be watertight. Soil Sample H, which was collected from the excavated pit wall near this basin (refer to Figure 2 - West Wall) showed the presence of 25 ppm of

SURFACE WATER/SEDIMENT SAMPLING LOCATIONS
ERDLE PERFORATING CO., INC.
Scale: 1in = 80ft.



87-153-C 6/87
DAY ENGINEERING

Figure 3

DD105

Table 3

Surface Water Sampling Results

(mg/l)

Samp. Loc.	Trichloroethene	1,2-Dichloroethene	Tetrachloroethene
A	<0.001	<0.001	<0.001
B	0.75	<0.032	<0.01
C	<0.001	<0.001	<0.001
D	<0.001	<0.001	<0.001

Table 4

Surface Sediment Sampling Results

(ug/g) PPM

Samp. Loc.	Trichloroethene	1,2-Dichloroethene	Tetrachloroethene
A	<0.005	<0.005	<0.005
B	1.74	1.39	0.019
C	<0.005	<0.005	<0.005
D	<0.005	<0.005	<0.005

DD105

chlorinated solvents in the soil. The potential exists for groundwater containing chlorinated solvents to infiltrate into this basin and to be discharged directly to the stream. The water and sediment sample collected at Location B tends to support this theory. In addition, the porous soils surrounding the discharge pipe may be acting as a conduit for the migration of solvent constituents from the underground tank storage area.

Geologic Information

Information was sought regarding the geology in the area where the underground tanks were located to assist in determining the fate of the chlorinated solvents found in the soil. Of particular interest are the depth to bedrock, the number of separate groundwater aquifers, and the characteristics of the clay layer encountered during the January sampling program.

Many sources were pursued to obtain this information, including Erdle's files, contractors that had done work relating to building construction for Erdle, the DEC, the New York State Department of Transportation, the Monroe County Department of Health, and the Environmental Management Council. The most site-specific information was found in a report written by FACT Technical Service, Inc., on soil investigations that were performed for Erdle in October, 1969 as part of a building expansion. A copy of this report is included in Appendix D. The report indicates that bedrock (refusal) appears to be at a depth of approximately 10 to 12 feet in this area and that groundwater was found at depths ranging from about 5 to 8 feet. FACT Technical Service was contacted but has no other information on this project.

Three geologic maps that were developed for the Monroe County Environmental Management Council by Young (2/80) were obtained. These maps cover all of Monroe County, and are entitled "Generalized Groundwater Contour Map," "Overburden Thickness

Map," and "Subsurface Bedrock Contour Map." The approximate location of the Erdle facility on these maps was determined. These maps indicate that typical overburden thickness in this general area is 20 to 30 feet, and that groundwater depths range from 0 to 15 feet.

A New York State Department of Transportation map was also obtained. This map contains some soil characteristic information generated during the construction of Route 490. In addition, a book entitled Soil Survey of Monroe County, New York, by Heffner and Goodman, which contains information on prevailing soils in the area was reviewed. Unfortunately, the information in these resources was too general in nature to be useful in determining the particular geology prevailing in the specific area of Erdle's waste tanks. Therefore, site-specific information must be generated to fully evaluate this situation.

Observations of the pit floor indicate that the clay layer was not completely penetrated during installation or removal of the tanks. The pit floor was approximately 6.5 feet below grade, and consisted of an 8' x 18' concrete slab surrounded by hard clay. During the soil sampling conducted in January, 1987, this clay layer was found to extend to a depth of at least eight feet (refer to February, 1987 report entitled "Soil and Groundwater Sampling Report"). This clay layer may assist in impeding vertical migration of the solvent toward bedrock.

V. ACTION ITEMS

The potential exists for solvent migration through or along the discharge pipe from the cooling water basin to the stream tributary. Therefore, the following action items should be implemented immediately to mitigate the potential for movement of solvent through this preferred path of migration.

1. Redirect the cooling water directly to the stream. The cooling water is presently discharged to the cooling water basin near the former waste tank area.

2. Remove the cooling water basin and pipeline from the ground. The basin and pipe should be sent to a sanitary landfill for disposal. Excavated soils should be replaced and compacted. Soil samples from the excavated trench should be collected and analyzed to determine if solvent migration actually occurred along this path.

VI. SUMMARY:

Three underground tanks were removed from service at Erdle Perforating Company. A waste trichloroethene accumulation tank and a waste oil accumulation tank were removed from a common pit at the southwest corner of the building. A fresh oil storage tank located east of the waste tanks was also removed.

Six holes were found in the west end of the north side of the waste trichloroethene tank. The holes were three to four feet above the bottom of the tank. The waste oil and fresh oil tanks appeared in good condition. The clay layer below the waste tanks appeared to be intact, and an 8' x 18' concrete slab was found in the floor of the pit.

Approximately one hundred cubic yards of soil were excavated from the waste tank pit, and two cubic yards were removed from the fresh oil tank pit. All soils, debris, and liquids were transported off-site for disposal as F001 hazardous wastes.

Sampling conducted in the waste tank pit revealed that chlorinated solvents are present in the soils surrounding the pit.

Surface water and sediment samples were collected at the facility. Chlorinated solvents were found only at the location nearest the waste tanks (Location B, Figure 3). A cooling water basin is located next to the waste trichloroethene tank location. This basin discharges to the stream tributary and through stream sampling Location B. Infiltration of groundwater into this basin may have provided a direct route for solvents to migrate from the waste tank area to the stream tributary. In order to mitigate this potential problem, the cooling water should be piped directly to the stream, and the cooling water basin and discharge pipe should be removed from the ground.