

Table 1 Soll Analytical Results Saratoga Springs Non-Owned (Lake Ave.) MGP site Saratoga Springs, NY

Chemical Name	NYS Soll Cleanup Objective (TAGM4046)	GP-05 15- 16 GP-05(15-16) 11/17/2004	GP-15 13-15 GP-15(13-15) 11(17/2004	GP-15 24-25 GP-15(24-25) 11/17/2004	GP-20 12-13 GP-20(12-13) 11/17/2004	GP-20 24-25 GP-20(24-25) 11/17/2004	GP-20 24- 25 GP-DUP1 11/17/2004
Volatjie Organic Compounds (mg/kg) by EPA Method	6260						
BTEX	1 000	89	0.0057 U	0.0063 U	11.2 U	0.0066 U	To 00007 1
Benzene Ethylbenzene	0.06 5.5	34	0.0057 U	0.0083 U	1.2 U	0.0066 U	0.00067 J 0.0065 U
Toluene	1.5	240	0.00061 J	0.0063 U	1.2 U	0.00093 J	0,00097 J
Xylene, Total Total BTEX	1.2	400	0.0057 U	0.0063 U	1.9	0.0066 U	0.0065 U
	NE	400 770	0.00061	ND	1.9	0.00093	0.00164
Other VOC's							
Methylene Chloride Semf.volafile Organic Compounds (mg/kg) by RPA M Non-carcinogenic PAHs (mg/kg)	0.1 ethod 8270	NA_	NA .	NA	NA -	NA	NA
Acenaphthene	50	38 J	0.37 U	0.4 UJ	44 J	0.42 U	0.41 U
Acenaphthylene	41	240	0.37 U	0.071 J	140 J		0.41 U
Anthracene	50	170.J	0.37 Ü	0.4 U	130 J	0.42 U	0.41 Ü
Senzo(g, h,i perylene Fluoranthene	50 50	32 J 240 J	0.37 U 0.37 U	0.4 U 0.4 U	52 J 380 J	0.42 U 0.072 J	0.41 U 0.41 U
Fluorene	50	260	0.37 U		160 J	0.42 U	0.41 U
Methylnaphthalene,2-	36.4	520 J	0.37 U	0.4 U	750 J	0.42 U	0.41 U
vaphthalene	13	1200	0.37 U	0.4 U	400	0.42 U	0.41 U
Phenanthrene	50	360		0.4 U	550	0.071 J	0.41 U
yrene	50	170 J	0.37 U	0.4 U	229	0.42 U	0.41 U
otal Noncarcinogenic PAHs	NE	3430	ND	0.071	2816	0.202	ND
Carcinogenic PAHs (mg/kg)	0.224	130 J	0.37 U	0.4 U	170 4	0.42 U	0.41 U
Benz[a]anthracene	0.224	130 J	0.37 U	0.4 U	97 J	0.42 U	0.41 U
Benzo[b]fluoranthene	1.1	624	0.37 U	0.4 U	87 J		0.41 U
Benzo[k]fluoranthene	1,1	713	0.37 U	0.4 U	110 J		0.41 U
Chrysene	0.4	110 J	0.37 U	0.4 U	150 J	0.42 U	0.41 U
Dibenz[a,h]anthracene	0.014	190 U	0.37 U	0.4 U	200 U	0.42 U	0.41 U
ndeno[1,2,3-cd]pyrene	3.2						0.41 U
Total Carcinogenic PAHs	NE	461		ND	652	NO	ND
otal PAHs (mg/kg)	NÉ	3891	NÖ	0.071	3468	0.202	ND
otal PAHs Other SVOC's (mg/kg)	IAE	3691	NO	0.071	3400	0.202	140
Siphenyl, 1,1-	NE	NA NA	NA	NA NA	NA	NA NA	NA.
Dibenzofuran	6.2	NA NA	NA	NA	NA	NA.	NA
Dimethylphenol, 2,4-	NE	NA	NA	NA.	NA .	NA	NA
Methylphenol, 4-	0.9	NA	NA.	NA	NA NA	NA	NA .
Methylphenol, 2-	0.1	NA .	NA	NA	NA	NA	NA NA
henol	0.03	NA	NA	NA	NA	NA .	NA
olychlodnated Biphenyls (mg/kg) by EPA Method 30 CB's		NA	NA NA	NA	NA	NA NA	NA
Pesticides (mg/kg) by EPA Method 8681							
Pesticides Wetals (mg/kg) by EPA Method 6010		NA	NA .	NA	NA	NA .	NA
Aluminum Antimony	SB SB	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
Antimony	7.5 or SB	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
Barium	300 or SB	NA NA	NA NA	NA ·	NA NA	NA NA	NA NA
Calcium	\$6	NA NA	NA NA	NA NA	NA NA	ŇÁ	NA NA
Chromium	10 or SB	NA	NA	NA	NA	NA.	NA
Cobalt	30 or SB	NA	NA	NA	NA .	NA NA	NA
Copper	25 or SB	NA	NA	NA	NA .	NA.	NA.
on _	2000 or SB	NA NA	NA NA	NA	NA .	NA	NA.
ead	SB SB	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
fagnesium fanganese	SB	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
lickel	13 or SB	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
otassium	88	NA NA	NA NA	NA NA	NA	NA NA	NA.
anadium (anadium	150 or \$B	NA	NA	NA .	NA	NA .	NA.
inc	20 or SB	NA NA	NA	NA	NA NA	NA	NA
otal Cyanida (ug/kg) by EPA 9012	NF						<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>
Cyanide, Total	NE	NA	NA	NA	NA	NA	NA.
Offrer (%) Fotal Organic Carbon	NE	NA NA	NA NA	NA NA	NA NA	NA NA	NA
otal Organic Carbon	INC	IVA		NA.	INA	140	NA
Only detached analytes are shown on the table. 16 - not shabshed 1A - satimated value 1- indicates not detacted to the reporting limit for organic analysis: method detaction limit for inorganic analysis 1J - estimated detection fimil (dup) - indicates shabshed is sample 1- indicates that compaund concentration was obtained from a dilu Shadingbotding indicates an exceedance of established few York Recommended Sell Cleanup Opticatives for readential swits	ted sample						
molkg - miligramskildigisam or parts per milion (ppm) ugkig - microgramskildigisam or parts per bilion (ppb) SB- ste background		Dags 2 of 2				натеснач	ojec(Wimo\Sar

Table 1 Soil Analytical Results Saratoga Springs Non-Owned (Lake Ave.) MGP site Saratoga Springs, NY

0.06 5.5 1.5 1.2 NE 0.1 thad 3270 50 41 50	0.01 U 0.01 U 0.002 J 0.01 U 0.002	NA NA NA NA NA	71 24	16 1.7	I	
5.5 1.5 1.2 NE 0.1 thod 3270 50 41	0.01 U 0.002 J 0.01 U 0.002	NA NA NA	2.4			
5.5 1.5 1.2 NE 0.1 thod 3270 50 41	0.01 U 0.002 J 0.01 U 0.002	NA NA NA	2.4		0.02471	
1.5 1.2 NE 0.1 thad \$270 50 41	0.002 J 0.01 U 0.002	NA NA			0.011 U 0.011 U	NA NA
1.2 NE 0.1 thod \$270 50 41	0.01 U 0.002	NA	24		0.002 J	NA NA
0.1 thad 8270 50 41 50	0.002		43	26 30	0.011 U	NA NA
50 41 50	NA NA	1974	76.5	73.7	0.002	NA.
50 41 50	NA NA					
41 50		NA NA	NA.	NA	NA	N/A
41 50	0.38 U	NA	33 J	420	3.6 U	NA NA
50	0.038 J	NA NA	340	1800 DJ	3.6 U	NA NA
	0.031 J	NA.	130	1500 CJ	3.6 U	NA.
	0.12 J	ŊA	19 J	E0000000000000000000000000000000000000	3,6 U	NA
50	0.35 J	NA NA	180 180	2100 CU 2206 CU	3.6 U	NA
50	0.015 J	NA	180	2206 DJ	3.6 U	NA
36.4	0.091 J	NA .	290	4100 D	3.6 ∪	NA
13	0.32 J	NA	650 D	880010	3.6 U	NA
			290	#2UU D		NA NA
			2022	26248	3.0 U	NA NA
NE	1.300	INFA.	2032	20310	NU	IVA
0.224	0.24.1	NA	136	1100 0	3.6 U	NA
	0211		64 J	57.0		NA NA
1.1	0.18 J	NA.	68 J	480.CJ	3.6 U	NA.
1.1	0.15 J	NA	53.1	460 QJ	3.6 U	NA
0.4	0.2 J	NA	86	880 DJ	3.6 U	NA
0.014		NA NA	18.J	110	3.6 U	NA .
3.2				130		NA
NE	1.17	NA .	401	3740	ND	NA
NE	2.525	NA	2433	30056	NO	NA
NE	N/A	AIA.		NA	NA 1	NA
						NA NA
						NA.
0.9		NA NA	NA.			NA.
0.1	NA	NA.	NA.	NA	NA NA	NA
0.03	NA.	NA	NA.	NA	NA NA	NA
2						
***	NA	NA	NA	NA	NA	NA
			N. A. C.	11A		
	NA .	NA NA	NA J	NA NA	NA J	NA
CD	NA	NΛ	N/A	NΑ	NA I	NA
	NA.					NA NA
	NA.				NA.	NA
	NA.	NA		NA.	NA.	NA
\$B	NA NA	NA	NA.	NA.	NA.	NA
10 or SB	NA.	NA			NA NA	NA
				NA NA		
30 or SB	NA.	NA	NA.	NA NA	NA NA	NA_
25 or SB	NA	NA NA	NA NA	NA NA NA	NA NA	NA
25 or SB 2000 or SB	NA NA	NA NA NA	NA NA NA	NA NA NA	NA NA NA	NA NA
25 or SB 2000 or SB SB	NA NA NA	NA NA NA NA	NA NA NA NA	NA NA NA NA	NA NA NA NA	NA NA NA
25 or SB 2000 or SB SB SB	NA NA NA NA	NA NA NA NA NA	NA NA NA NA	NA NA NA NA NA NA	NA NA NA NA	NA NA NA NA
25 or SB 2000 or SB SB SB SB	NA NA NA NA NA	NA NA NA NA NA	NA NA NA NA NA	NA NA NA NA NA NA	NA NA NA NA NA	NA NA NA NA
25 or SB 2000 or SB SB SB SB SB 13 or SB	NA NA NA NA NA NA NA	NA NA NA NA NA NA	NA NA NA NA NA NA	NA NA NA NA NA NA NA	NA NA NA NA NA NA NA	NA NA NA NA NA
25 or SB 2000 or SB SB SB SB SB 13 or SB SB	NA NA NA NA NA NA	NA NA NA NA NA NA NA	NA NA NA NA NA NA NA NA	NA NA NA NA NA NA	NA NA NA NA NA NA NA	NA NA NA NA NA
25 or SB 2000 or SB SB SB SB 13 or SB SB 150 or SB	NA N	NA N	NA NA NA NA NA NA NA NA NA NA	NA N	NA NA NA NA NA NA NA NA	AN AN AN AN AN AN AN AN
25 or SB 2000 or SB SB SB SB SB 13 or SB SB	NA NA NA NA NA NA	NA NA NA NA NA NA NA	NA NA NA NA NA NA NA NA	NA NA NA NA NA NA NA NA	NA NA NA NA NA NA NA	NA AN AN AN AN AN
25 or SB 2000 or SB SB SB SB 13 or SB SB 150 or SB	NA N	NA N	NA NA NA NA NA NA NA NA NA NA	NA N	NA NA NA NA NA NA NA NA	AN AN AN AN AN AN AN AN
25 or SB 2000 or SB SB SB SB 13 or SB SB 150 or SB 20 or SB	NA N	NA N	NA NA NA NA NA NA NA NA NA NA NA	NA N	NA NA NA NA NA NA NA NA NA	NA NA NA NA NA NA NA NA NA
	50 S0 NE 0.224 0.061 1.1 1.1 0.4 0.014 3.2 NE NE NE 0.2 NE 0.9 0.1 0.03 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	50 0.12 J 50 0.27 J NE 1.355 0.224 0.34 3 0.061 0.32 J 1.1 0.18 J	50 0.12 J NA 50 0.27 J NA NE 1.355 NA 0.224 0.24 NA 0.61 0.21 J NA 1.1 0.18 J NA 1.1 0.18 J NA 1.1 0.18 J NA 0.4 0.2 J NA 0.014 0.00 NA NE 1.17 NA NE 2.525 NA NE NA NA NA NA NA NA 0.9 NA NA NA 0.1 NA NA 0.1 NA NA 0.1 NA NA 0.3 NA N	50 0.12 J NA 286 50 0.27 J NA 2032 NE 1.355 NA 2032 NA 3.30 NE 1.355 NA 2032 NA 3.30 NE 1.355 NA 2032 NA 3.30 NE 1.1 0.18 J NA 3.30 NE 1.1 0.18 J NA 3.30 NE 1.17 NA 3.30 NA 3.2 0.12 J NA 22.30 NE 1.17 NA 3.30 NE 1.17 NA	SO	SO

Table 1 Soil Analytical Results Saratoga Springs Non-Owned (Lake Ave.) MGP site Saratoga Springs, NY

Chemical Name	NYS Soil Cleanup Objective (TAGM4046)	SB-03 24- 26 SB-03 (24-26) 11/19/2003	SB-03 28-30 SB-03 (28-30) 11/19/2003	SB-04 12- 14 SB-04 (12-14) 11/20/2003	8B-04 12- 14 (dup) SB-11/20/03A 11/20/2003	8B-04 14- 16 SB-04(14-16) 11/20/2003	SB-05 13-15 SB-05(13-15) 11/21/2003	SB-05 15- 17 SB-05(15-17) 11/21/2003
Volatile Organic Compounds (mg/kg) by EPA Metho	d #260							800000000000000000000000000000000000000
BTEX								1000
Benzene	0.06	0.016	0.002 J	0.013 U	0.013 U	NA.	NA NA	0.012 U
Ethylbenzene	5.5	0.012 U	0.013 U	0.013 U	0.013 U	NA.	NA	0.012 U
Toluene	1.5	0.015	0.002 J	0.013 U	0.013 U	NA	NA NA	0.012 U
Xylene, Total	1.2	0.014	0.013 U	0.013 U	0.013 U	NA .	NA.	0.012 U
Total BTEX	NE	0.045	0.004	ND _	NO	NA	NA	ND
Other VOC's								
Methylene Chloride	0.1	NA NA	0.008 J	NA NA	NA	NA .	NA .	NA
Semi-volatile Organic Compounds (mg/kg) by EPA t	tethod 8270			****	<u> </u>			
Non-carcinogenic PAHs (mg/kg)		0.011 J	0.044 J	0.43 U	0.42 U	NIA.	A14	0.40.11
Acenaphthene Acenaphthylene	50	0.011 J	0.044 J	0.43 U	0.42 U	NA NA	NA NA	0.42 U 0.42 U
Anthracene Anthracene	50	0.076 J	0.20 J	0.43 U	0.42 U	NA NA	NA NA	0.42 U
Benzo[g,h,i]perylene	50	0.025 J	0.037 J	0.43 U	0.42 U	NA NA	NA NA	0.42 U
Fluoranthene	50	0.0233 0.17 J	0.036 J	0.018 J	0.42 U	NA.	NA NA	0.42 U
Fluorene	50	0.12 J	0.0303 0.13 J	0.43 U	0.42 U	NA NA	NA NA	0.42 U
Methylnaphthalene,2-	36.4	0.12 J	1.8	0.43 U	0.42 U	NA.	NA NA	0.42 U
Naphthalene	13	0.43	5.8 D	0.43 U	0.42 U	NA NA	NA.	0.42 U
Phenanthrene	50	0.28 J	0.11 J	0.014 J	0.42 U	NA	NA.	0.42 U
Pyrene	50	0.13 J	0.022 J	0.012 J	0.42 U	NA	NA	0.42 U
Total Noncarcinogenic PAHs	NĒ	1.524	8.259	0.044	ND	NA.	NA	ND
Carcinogenic PAHs (mg/kg)				•				
Benz[a]anthracene	0.224	0.099 J	0.019 J	0.43 U	0.42 U	NA.	NA	0.42 U
Benzo[a]pyrene	0.061	0.055 J	0.4 U	0.43 U	0.42 U	NA	NA	0.42 ∪
Benzo billuoranthene	1.1	0.049 J	0.4 U	0.43 U	0.42 U	NA .	NA NA	0.42 U
Benzo[k]fluoranthene	1.1	0.037 J	0.4 U	0.43 U	0.42 U	NA	NA	0.42 U
Chrysene	0.4	0.072 J	0.013 J	0.43 U	0.42 U	NA	NA .	0.42 U
Dibenz[a,h]anthracene	0.014	0.011 J	04U	0.43 U	0.42 U	NA	NA	0.42 U
Indeno[1,2,3-cd]pyrene	3.2	0.024 J	0.4 U	0.43 U	0.42 U	NA	NA	0.42 U
Total Carcinogenic PAHs	NE	0.347	0.032	ND	ND	NA	NA NA	ND
Total PAHs (mg/kg)	1	1 077	0.004	004	ND			N/O
Total PAHs Other SVOC's (mg/kg)	NE	1.871	8.291	0.044	NU	NA	NA.	ND
Biphenyl,1,1-	T NE	NA NA	0.13 J	NA NA	NA NA	NA	NA	NA
Dibenzofuran	6.2	NA NA	0.13 J	NA -	NA NA	NA NA	NA NA	NA I
Dimethylphenol, 2,4-	NE	NA NA	0.143	NA.	NA NA	NA NA	NA -	NA -
Methylphenol, 4-	0.9	NA NA	0.94	NA.	NA NA	NA NA	NA	NA NA
Methylphenol, 2-	0.1	NA.	0.58	NA.	NA NA	NA	NA.	NA NA
Phenoi	0.03	NA.	111	NA	NA NA	NA	NA.	NA NA
Polychiatmated Biphenyis (mg/kg) by EPA Method 8								
PCB's		NA	NO	NA NA	NA NA	NA	NA NA	NA NA
Pesticides (mg/kg) by BPA Method 1081								
Pesticides		NA	ND	NA.	NΑ	NA	NA.	NA
Metals (mg/kg) by EPA Method 8018								
Aluminum	SB	NA	3420	NA	NA	NA	NA	NA
Antimony	SB	NA	0.59 J	NA	NA	NA	NA	NA
Arsenic	7.5 or SB	NA	1.2	NA.	NA	NA	NA	NA
Barium	300 or SB	NA	22.5 J	ΝA	NA .	NA NA	NA .	NA
Calcium	SB	NA	20100 J	NA.	NA .	NA NA	NA NA	NA .
Chromium	10 or SB	NA	4.3 J	NA.	NA NA	NA	NA NA	NA .
Cobalt	30 or \$B	NA NA	3.5 J	NA NA	NA NA	NA NA	NA NA	NA NA
Copper	25 or SB	NA NA	7.0	NA NA	NA NA	NA NA	NA NA	NA NA
Iron	2000 or SB SB	NA NA	B130 J 2.2	NA NA	NA NA	NA NA	NA NA	NA NA
Lead	SB	NA NA	6550 J	NA NA	NA NA	NA NA	NA NA	NA NA
Magnesium	SB	NA NA	204 J	NA NA	NA NA	NA NA	NA NA	NA NA
Manganese Nickel	13 or SB	NA NA	5.8 J	NA NA	NA NA	NA NA	NA NA	NA NA
	SB	NA NA	5.8 J 655	NA NA	NA NA	NA ·	NA NA	NA NA
Potassium Vanadium	150 or SB	NA NA	9.6 J	NA NA	NA NA	NA NA	NA NA	NA NA
Zinc	20 or SB	NA NA	24.7	NA NA	NA NA	NA NA	NA NA	NA NA
zinc Total Cyanide (ug/kg) by EPA 9012	1 20 01 90	IVA	241) NO	IVA.	13/5	13/0	INA.
Cyanide, Total	NE NE	4.5 ∪	4.8 U	4.9 UJ	5.2 U	NA	4.0 UJ	4.9 U
Other (%)	<u> </u>							
	name o construction of the first of the firs	Carrier and Car	20000000000000000000000000000000000000	ar management and a second			menone in the contract of the	
Total Organic Carbon	NE	NA	NA	NA.	NA	0.050 U	0.13	NA

| Total Organic Carbon | Ne |
Notas: Only discled analytes are shown on the lable. |
NE - not established | NA - not analyzed |
ND - not desected |
J - satimated value |
U - indicates not detected to the reporting limit for organic analysis and the method detection fimit for inorganic analysis |
UJ - estimated detection fimit for inorganic analysis |
UJ - estimated detection fimit for inorganic analysis |
UJ - estimated detection fimit |
(alp) - indicates duplicate sample |
D - indicates that compound concentration was obtained from a diluted sample |
Shadingholding indicates are exceedance of established New York State |
Recommended Sad Cleanup Objectives for residential soits. |
Report - militagens/allogram or parts per million (ppm) |
ug/kg - micrograms/allogram or parts per million (ppb) |
SB- sits background

Data Usability Summary Report

Project:

Saratoga Springs Site Characterization/IRMS, Saratoga Springs, NY

Laboratory:

Severn Trent Laboratories, Shelton, CT

Report No.:

208100

Reviewer:

Lorie MacKinnon/GEI Consultants

Date:

December 18, 2004

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
GP-05(15-16)	208100-01	BTEX, PAH
GP-15(24-25)	208100-02	BTEX, PAH
GP-15(13-15)	208100-03	BTEX, PAH
GP-20(12-13)	208100-04	BTEX, PAH
GP-20(24-25)	208100-05	BTEX, PAH
GP-DUP1	208100-06	BTEX, PAH
FB111704	208100-07	BTEX, PAH
TB111704	208100-08	BTEX

Associated QC Samples:

Field/Trip Blanks:

FB111704, TB111704

Field Duplicate pair: GP-20(24-25)/GP-DUP1

The above listed samples were collected on November 17, 2004 and were analyzed for BTEX volatile organic compounds (VOCs) by SW-846 method 8260B and polynuclear aromatic hydrocarbon (PAH) semivolatile organic compounds (SVOCs) by SW-846 method 8270C. The data validation was based on the USEPA Region II Standard Operating Procedure (SOP) for the Validation of Organic Data Acquired using SW-846 Method 8260B, SOP No. HW-24, Revision 1, June 1999 and USEPA Region II Standard Operating Procedure (SOP) for the Validation of Organic Data Acquired using SW-846 Method 8270C, SOP No. HW-22, Revision 2, June 2001.

The organic data were evaluated based on the following parameters:

- Data Completeness
- Holding Times and Sample Preservation
- Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
 - Initial and Continuing Calibrations
 - Blanks
 - Surrogate Recoveries
 - Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results

Laboratory Job 208100, Organics, Page 1of 6

- * Internal Standards
- Laboratory Control Sample (LCS) Results
- Field Duplicate Results
- Moisture Content
 - · Quantitation Limits and Data Assessment
- Sample Quantitation and Compound Identification
- All criteria were met.

All results are usable for project objectives.

Qualifications were not applied as a result of sampling error. Qualifications applied to the data as a result of analytical error are discussed below.

- Potential uncertainty exists for select VOC and SVOC results which were below the lowest
 calibration standard and quantitation limit. These results were qualified as estimated (J) in
 the associated samples by the laboratory. These results can be used for project objectives as
 estimated values which may have a minor impact on the data usability.
- The positive result for toluene in sample GP20(12-13) was qualified as nondetect (U) due
 to method blank contamination. This result can be used for project objectives as an elevated
 quantitation limit which may have a minor impact on the data usability.
- The positive results for 2-methylnaphthalene and benzo(k)fluoranthene in samples GP-05(15-16) and GP-20(12-13) and fluoranthene in samples GP-05(15-16), GP-20(12-13), and GP-20(24-25) were qualified as estimated (J) due to initial calibration nonconformances. The direction of the bias cannot be determined from this nonconformance. The results can be used for project objectives as estimated values. This qualification may have a minor impact on the data usability.
- The nondetect result for acenaphthene in sample GP-15(24-25) was qualified as estimated
 (UJ) due to high relative percent difference (RPD) in the MS/MSD analysis. The direction
 of the bias cannot be determined from this nonconformance. The results can be used for
 project objectives as a nondetect with estimated quantitation limit. This qualification may
 have a minor impact on the data usability.

The validation findings were based on the following information.

Data Completeness

The data package was complete as defined under the requirements for the NYSDEC ASP Category B deliverables for the VOC and SVOC analyses.

Laboratory Job 208100, Organics, Page 2of 6

Holding Times and Sample Preservation

All criteria were met in the VOC and SVOC analyses.

GC/MS Tunes

All criteria were met in the VOC and SVOC analyses.

Initial and Continuing Calibrations

All criteria were met in the VOC analyses.

Compounds that did not meet criteria in the SVOC initial calibrations are summarized in the following tables.

Instrument ID MSQ Compound	1C 11/30/04
2-methylnaphthalene	X (18.9%)
fluorene	X (16.3%)
anthracene	X (17.1%)
fluoranthene	X (16.3%)
chrysene	X (15.5%)
benzo(b)fluoranthene	X (19.7%)
dibenzo(ah)anthracene	X (16.5%)
Samples Affected	GP-15(24-25), GP-15(13-15), GP-DUP1

Instrument ID MSQ Compound	TC 42/01/04
2-methylnaphthalene	X (16.4%)
fluoranthene	X (15.8%)
benzo(k)fluoranthene	X (17.2%)
dibenzo(ah)anthracene	X (15.5%)
Samples Affected	GP-05(15-16), GP-20(12-13), GP-20(24-25)

Laboratory Job 208100, Organics, Page 3of 6

- X = Initial calibration (IC) relative standard deviation (%RSD) > 15; estimate (J) positive and (UJ) blank-qualified nondetect results.
- XX = Continuing calibration (CC) percent difference (%D) > 20; estimate (J/UJ) positive and nondetect results.
- XXX = Continuing calibration (CC) percent difference (%D) > 90; estimate (I) positive results and reject (1) nondetect results.
- + = Response factor (RRF) < 0.05; Estimate (J) positive results and reject (R) nondetect results.

The positive results for 2-methylnaphthalene and benzo(k)fluoranthene in samples GP-05(15-16) and GP-20(12-13) and fluoranthene in samples GP-05(15-16), GP-20(12-13), and GP-20(24-25) were estimated (J) due to initial calibration nonconformances. Validation actions were not required for the remaining samples due to initial calibration nonconformances as the results were nondetect.

Blanks

Target compounds were not detected in the SVOC method blank samples. Target compounds were not detected in the VOC and SVOC field blank samples and trip blank sample. The following table summarizes the VOC method blank contamination detected.

Compound	Type of Blank	Associated Samples	Maximum Concentration	Blank Action: Level
Acetone	Medium level Method	Medium level analyses GP-05(15-16) and GP- 20(12-13)	84.9 ug/kg	849 ug/kg

Blank Actions

If the sample concentration \leq QL and \leq blank action level, qualify the result as not detected (U) at the QL. If the sample concentration \geq QL and \leq blank action level, qualify the result as not detected (U) at the reported value. If the sample concentration \geq blank action level, report the value unqualified.

Based on the action levels determined and the analyses which were reported, the positive result for toluene in sample GP20(12-13) were qualified as nondetect (U) due to method blank contamination.

Surrogate Recoveries

All criteria were met in the SVOC analyses for samples analyzed without dilution.

The following table summarizes the surrogate recoveries that failed to meet the acceptance criteria in the VOC analyses:

Laboratory Job 208100, Organics, Page 4of 6

Samplö-iD	100	Percent DBFM 60-130	Recovery BEB 361131	DCE.	Action 5
GP-15(24-25)MS	•	59%	-	-	No action required, surrogate recoveries were within control limits in the unspiked sample analysis.

- Within control limits

Tol-d8 - Toluene-d8

DBFM - Dibromofluoromethane BFB - Bromofluorobenzene

DCE - 1,2-Dichloroethane-d4

MS/MSD Results

MS/MSD analyses were performed on sample GP-15(24-25) for the VOC and SVOC analyses. All criteria were met in the VOC analyses. The following table lists the analyte MS/MSD recoveries and/or %RPDs which were outside of the laboratory established control limits in the SVOC analyses.

Compound	MS/MSD %R	nep	OC Limita	Action:
acenaphthone	•	34	55-101/19	Estimate (UJ) the nondetect result for acenaphthene in sample GP-15(24-25).

- Within control limits

Internal Standards

All criteria were met in the VOC and SVOC analyses

LCS Results

All criteria were met in the VOC and SVOC analyses.

Field Duplicate Results

Samples GP-20(24-25) and GP-DUP1 were submitted as the field duplicate pair with this sample set. The following table summarizes the relative percent differences (RPDs) of the detected analytes, all of which were within the acceptance criteria or not calculable (NC) due to a nondetect result in the original or field duplicate sample. Qualification of the data on the basis of the field duplicate results was not required.

Laboratory Job 208100, Organics, Page 5of 6

Compound	GP-20(24-25) (ug/kg)	(ug/lg)	RPD 5 (%)
toluene	0.93	0.97	4.2
benzene	6.5 U	0.67	NC, Within QL
accnaphthylene	59	410 U	NC, Within QL
phenanthrene	71	410 U	NC, Within QL
fluoranthene	72	410 U	NC, Within QL

NC - Not calculable

QL- Quantitation Limit

Moisture Content

All criteria were met.

Quantitation Limits and Data Assessment

Results were reported which were below the lowest calibration standard level (RL) and above the method detection limit (MDL) in the VOC and SVOC analyses. These results were qualified by the laboratory (J). These results were qualified as estimated (J) due to uncertainty at the low end of calibration.

The following table lists the sample dilutions which were performed and reported. Quantitation limits were elevated accordingly.

Sample	VGCAnalysis Reported	SVOC Analysis Reported
GP-05(15-16)	Medium Level analysis and 20-fold dilution was performed. QLs elevated by factor of 2000.	Final extract volume of I ml and 250-fold dilution performed. QLs elevated by factor of 500.
GP-20(12-13)	Medium Level analysis and 2-fold dilution was performed. QLs elevated by factor of 200.	Final extract volume of 1 ml and 250-fold dilution performed. QLs elevated by factor of 500.

Sample Quantitation and Compound Identification

Calculations were spot-checked; no discrepancies were noted.

Laboratory Job 208100, Organics, Page 6of 6



SOIL BORING LOG (GP-01)

Boring/Well ID: GP-01

034400 Dan Burke

Project Number: Logged By: Date Started: 11/16/04 Date Completed: 11/16/04

Total Depth: 10.0 Client:

Niagara Mohawk

Saratoga Springs Non-owned (Lake Ave.) Project Name:

MGP Site

Location: See map

Aquifer Drilling and Testing Contractor:

Driller: Mark Larabie Geoprobe 6600 Drilling Method:

Ground Surface Elevation:

Measuring Point Elevation: Not Applicable

Depth (feet)	Blow Counts	Recovery (feet)	PID (ppm)	Soil Description	Lithology (not to scale)	Well Construction
0 - 5	NA	2.8	2.0 0.1 0.0 0.0	0.0'-0.4' – Asphalt. 0.4'-2.8' – Brown to dark brown, FINE to MEDIUM SAND, some fine, sub-angular gravel, well sorted, non-cohesive, medium dense. Brick and clinker/ash between 2.1' and 2.5'. No odors or visual contamination. (FILL)		
5 - 10	NA	2.3	0.0 0.0 1.5 1.9	0.0°-2.3° – Black, CINDERS and BRICK FRAGMENTS, some fine, sub-angular gravel and coarse sand. Slight naphthalenelike odor. No visual contamination. (FILL)		
				End of boring at 10 feet below ground surface with NYSDEC concurrence that boring was located outside suspected holder.		



SOIL BORING LOG (GP-02)

Boring/Well ID: GP-02

Project Number: 034400

Dan Burke Logged By:

Date Started: 11/17/04 Date Completed: 11/17/04

Total Depth: 25.0'

Client: Niagara Mohawk

Project Name: Saratoga Springs Non-owned (Lake Ave.)

MGP Site

Location:

See map Aquifer Drilling and Testing Contractor:

Driller: Mark Larabie

Geoprobe 6600 **Drilling Method:**

Ground Surface Elevation: Measuring Point Elevation:

289.5

Not Applicable

Depth (feet)	Blow Counts	Recovery (feet)	P1D (ppm)	Soli Description	Lithology (not to scale)	Well Construction
0 - 5	NA	2.2	0.0 0.9 0.8 0.0	0.0'-0.3' - Asphalt. 0.3'-2.2' - Brown, FINE to MEDIUM SAND, some fine, well-rounded gravel, coal fragments between 1.0' and 1.2', medium dense, non-cohesive, dry. No odors or visual contamination. (FILL)		
5 - 10	NA	1.6	0.5 0.6 0.0 0.0	0.0'-1.6' - Brown, FINE to MEDIUM SAND, trace fine, sub- angular gravel, non-cohesive, medium dense, dry. No odors or visual contamination. (FILL)		
10-15	NA	1.4	0.0 0.0 0.0 0.0	0.0'-1.4' – Same as above. No odors or visual contamination. (FILL)		
15-20	NA	4.0	0.0 0.0 0.0 0.0 0.0 0.0	0.0'-4.0' – Same as above. Dark brown, organic material towards bottom of core. No odors or visual contamination.		
20-25	NA	3.4	0.0 0.0 0.0 0.0 0.0	0.0'-3.4' – Same as above. No organic material. No odors or visual contamination.		
				End of boring at 25 feet below ground surface. Target depth,		



SOIL BORING LOG (GP-03)

Boring/Well ID: GP-03

Project Number: 034400

Logged By: Dan Burke

Date Started: 11/17/04 Date Completed: 11/17/04

Total Depth: 25.0'

289.4

Client: Niagara Mohawk

Project Name: Saratoga Springs Non-owned (Lake Ave.)

MGP Site

Location: See map

Contractor: Aquifer Drilling and Testing

Driller: Mark Larabie

Geoprobe 6600 **Drilling Method:**

Ground Surface Elevation:

Measuring Point Elevation: Not Applicable

Depth (feet)	Blow Counts	Recovery (feet)	PID (ppm)	Soil Description	Lithology (not to scale)	Well Construction
0 - 5	NA	2.9	0.0	0.0'-0.3' - Asphalt.	XXXX	_
	' ' '		0.0	0.3'-2.9' - Brown, FINE to MEDIUM SAND, some coarse sand		
			0.0	and fine, well-rounded gravel, trace brick fragments, intermitent	[XXXX]	
			0.0	layers of slag, well sorted, dry. No odors or visual contamination. (FILL)		
5 - 10	NA NA	1.3	0.0	0.0'-1.3' - Same as above. No brick fragments or slag. Black	$K\!\!\times\!\!X\!\!\!\times\!$	
5 10	(17)	''"	0.0	cinders throughout. Slight naphthalene-like and burnt odor at	KXXXXX	
			0.0	1.0'. No visual contamination. (FILL)		
			0.0			
10-15	NA	2.3	0.0	0.0'-2.3' – Brown, FINE to MEDIUM SAND, some coarse		
			0.0	sand, trace fine, well-rounded gravel, medium dense, moist to	$\mathbb{K} \times \mathbb{K} \times \mathbb{K}$	
			0.0	wet. Brick fragments between 1.0' and 1.1'. (FILL)	$\mathbb{K}\!\!\times\!\!\!\times\!\!\!\times\!$	
	}		0.0		KXXXXI	
15-20	NA	3.3	0.3	0.0'-3.3' - Brown, FINE to MEDIUM SAND, some coarse	$\mathbb{K}\!\!\times\!\!\!\times\!$	
			1.9	sand, well sorted, non-cohesive, loose, wet. Moderate	$\mathbb{K} \times \mathbb{K} \times \mathbb{M}$	
			1.4	naphthalene-like odor and black staining between 1.1' and 2.1'.		
			0.5			
20-25	NA	4.0	0.0	0.0'-4.0' - Same as above. No odors or visual contamination.		
			0.0		[, , , , , , ,]	
			0.0			
			0.0		/	
			0.0			
			0.0		[
				End of boring at 25 feet below ground surface. Target depth.		
					17 250	



SOIL BORING LOG (GP-04)

Boring/Well ID: GP-04 Project Number:

034400

Logged By: Dan Burke

Date Started: 11/17/04 Date Completed: 11/17/04

Total Depth: 10.0'

Client: Niagara Mohawk

Project Name: Saratoga Springs Non-owned (Lake Ave.)

MGP Site

Location:

See map Aquifer Drilling and Testing Contractor:

Mark Larabie Driller:

Geoprobe 6600 **Drilling Method:**

Ground Surface Elevation:

Measuring Point Elevation:

Not Applicable

Depth	Blow	Recovery	PID	Soil Description	Lithology	Well
(feet)	Counts	(feet)	(ppm)		(not to scale)	Construction
0 - 5	NA NA	2.2	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0'-1.1' – Brown, FINE to MEDIUM SAND, trace fine, well-rounded gravel, dense, well sorted, non-cohesive, dry. 1.1'-2.2' – Coal, brick fragments, and clinker. No odors or visual contamination. (FILL) 0.0'-1.4' – Brown, FINE to MEDIUM SAND, some fine to medium gravel, brick and coal fragments. No odors or visual contamination. 1.4'-2.6' – Pulverized rock. (FILL) End of boring at 10 feet below ground surface due to hamner refusal.		



SOIL BORING LOG (GP-05)

Boring/Well ID: **GP-05**

Project Number: 034400

Logged By: Dan Burke

Date Started: 11/17/04 Date Completed: 11/17/04

> Total Depth: 25.0

Client:

Niagara Mohawk

Project Name:

Saratoga Springs Non-owned (Lake Ave.)

MGP Site

Location: See map

Contractor:

Aquifer Drilling and Testing

Driller:

Mark Larabie

Drilling Method:

Geoprobe 6600

Ground Surface Elevation:

Measuring Point Elevation:

Not Applicable

Notes: Analytical sample GP-05 (13-15) collected and analyzed for BTEX and PAHs.

Lithology Well Depth Blow Recovery PID (not to scale) Construction (ppm) Soil Description (feet) Counts (feet) 0 - 5 NA 2.1 0.0 0.0'-1.4' - Brown, FINE to MEDIUM SAND with organics, 0.0 trace silt, loose, well sorted, non-cohesive, dry. No odors or 0.0 visual contamination. 0.0 1.4'-2.1' - Layers of coal fragments and white clinker/ash, dense. No odors or visual contamination. (FILL) 5 - 10 NA 1.9 0.0 0.0'-0.3' -- Crushed stone. 0.0 0.3'-1.9' - Brown, FINE to MEDIUM SAND, some fine, well-0.0 rounded gravel, medium dense, well sorted, non-cohesive, dry. 0.0 No odors or visual contamination. (FILL) 4.0 10-15 2.9 0.0'-2.6' - Brown, FINE to MEDIUM SAND, well sorted, non-NA 0.0 cohesive, moist. Slight oder towards bottom. 0.0 2.6'-2.9' - Black, FINE to MEDIUM SAND, dense, semi-0.0 cohesive, wet. Strong naphthalene-like odor. Black staining and slight sheen throughout. 0.0'-0.7' - Brown, FINE to MEDIUM SAND, medium dense, 15-20 1.3 NA 29.1 well sorted, wet. Slight naphthalene-like odor. No visual 14.1 contamination. 0.7'-1.3' - Black, FINE to MEDIUM SAND. Strong naphthalene-like odor. Sheen. Analytical sample GP-05 (15-16) collected. 0.0 0.0'-5.0' - Brown, FINE to MEDIUM SAND, well sorted, wet. 20-25 NA 5.0 0.0 No odors or visual contamination. 0.0 0.0

End of boring at 25 feet below ground surface. Target depth.



SOIL BORING LOG (GP-06)

Boring/Well ID:

GP-06

Client:

Niagara Mohawk

Project Number:

034400

Project Name:

Saratoga Springs Non-owned (Lake Ave.)

Logged By:

Dan Burke Date Started: 11/17/04

Location: Contractor: See map Aquifer Drilling and Testing

Date Completed: 11/17/04

Total Depth: 20.0'

Driller:

Mark Larabie

Geoprobe 6600 Drilling Method:

MGP Site

Ground Surface Elevation:

Measuring Point Elevation: Not Applicable

Depth (feet)	Blow Counts	Recovery (feet)	PID (ppm)	Soil Description	Lithology (not to scale)	Well Construction
0 - 5	NA	2.2	0.0 0.1 0.0 0.0	0.0'-2.2' – Brown, FINE to MEDIUM SAND, some fine, well-rounded to sub-angular gravel, trace coarse sand, brick fragments throughout, slag layer at 1.3', medium dense, non-cohesive, dry. No odors or visual contamination. (FILL)		
5 - 10	NA	2.3	0.0 0.0 0.4 0.0	0.0'-2.3' – Same as above. Black cinders between 0.5' and 0.9'. Slight naphthalene-like odor. No visual contamination. (FILL)		
10-15	NA	2.9	191 40.9 20.1 5.1	0.0'-2.3' - Brown, FINE to MEDIUM SAND, trace coarse sand and fine, sub-angular gravel, medium dense, non-cohesive, moist. Slight naphthalene-like odor towards bottom. 2.3'-2.9' - Black, FINE to MEDIUM SAND, dense, non-cohesive, wet. Strong naphthalene-like odor. Sheen and black staining throughout. (FILL)		
15-20	NA	5.0	15.7 25.1 300 47.4	0.0'-2.8' - Black, FINE to MEDIUM SAND, brick and weathered concrete at 1.5'. Strong naphthalene-like odor. Tar blebs, sheen, and black staining throughout. (FILL) 2.8'-5.0' - Brown, FINE to MEDIUM SAND, well sorted, non-cohesive, wet. Band of black staining with sheen and naphthalene-like odor at 3.1'. No odors or visual contamination elsewhere. End of boring at 20 feet below ground surface. Bottom of holder encountered.		



SOIL BORING LOG (GP-07)

Boring/Well ID: GP-07

Project Number: 034400

Logged By: Dan Burke

Date Started: 11/16/04 Date Completed: 11/16/04

Total Depth: 10.0'

Client: Niagara Mohawk

Project Name: Saratoga Springs Non-owned (Lake Ave.)

MGP Site

Location: See map

Aquifer Drilling and Testing Contractor:

Driller: Mark Larabie

Geoprobe 6600 Drilling Method:

Ground Surface Elevation:

Measuring Point Elevation:

Not Applicable

Depth (feet)	Blow Counts	Recovery (feet)	PID (ppm)	Soil Description	Lithology (not to scale)	Well Construction
0 - 5	NA	2.5	0.6 2.6 0.3 0.2	0.0'-0.5' - Asphalt. 0.5'-2.5' - Brown, FINE to MEDIUM SAND, trace fine gravel, coal and brick fragments throughout, clinker and slag throughout, poorly sorted, medium dense, dry. No odors or visual contamination. (FILL)		
5 - 10	NA	2.5	1.4 3.6 29.1 86.2	0.0'-1.9' – Same as above. 1.9'-2.5' – Same as above. Strong naphthalene-like odor, tar coated grains, sheen. (FILL) End of boring at 10 feet below ground surface with NYSDEC concurrence that boring was located inside suspected holder.		



SOIL BORING LOG (GP-08)

Boring/Well ID: **GP-08**

034400 Project Number:

Logged By: Dan Burke

11/16/04 Date Started: Date Completed:

Total Depth:

11/16/04

20.0

Client:

Niagara Mohawk

Project Name: Saratoga Springs Non-owned (Lake Ave.)

MGP Site

See map

Location:

Aquifer Drilling and Testing Contractor: Driller:

Mark Larabie

Geoprobe 6600 Drilling Method:

Ground Surface Elevation:

Measuring Point Elevation:

Not Applicable

Depth (feet)	Blow Counts	Recovery (feet)	PID (ppm)	Soll Description	Lithology (not to scale)	Well Construction
0 - 5	NA	3.2	0.0 0.0 0.5 0.0	0.0'-0.7' – Asphalt. 0.7'-3.2' – Brown, FINE to MEDIUM SAND, some fine well-rounded gravel, brick fragments in bottom 0.6', poorly sorted, medium dense, dry. No odors or visual contamination. (FILL)		
5 - 10	NA	3.1	297 67.1 10.1	0.01-2.21 – Brown, FINE to MEDIUM SAND, some fine well- rounded gravel, poorly sorted, medium dense, brick fragments throughout, wet. Naphthalene-like odor.		
			6.2 1.9	2.2'-3.1' – Same as above. Strong napthalene-like odor. Sheen and few tar coated grains. (FILL)		
10 - 15	NA	2.2	90 140 471 599	0.0'-2.2' – Black stained, FINE to MEDIUM SAND with brick fragments, trace fine well-rounded gravel, poorly sorted, wet. Strong naphthalene-like odor. Bottom 1.2' heavily tar saturated, slightly plastic because of tar, sheen. (FILL)		
15 - 20	NA	2.7	160 1470 2661	0.0'-0.7' – Same as above, tar saturated, strong naphthalene-like odor, sheen. 0.7'-1.4' – Light brown sand with weathered black cobbles. (FILL) 1.4'-2.7' – Brown, FINE to MEDIUM SAND, well sorted, medium dense, moist. No odors or visual contamination.		
				End of horing at 20 feet below ground surface. Bottom of holder encountered.		



SOIL BORING LOG (GP-09)

Boring/Well ID: GP-09

Client:

Niagara Mohawk

Project Number:

034400

Project Name:

Saratoga Springs Non-owned (Lake Ave.)

Logged By: Dan Burke

Location:

MGP Site

Date Started: 11/16/04 Date Completed: 11/16/04

See map Aquifer Drilling and Testing Contractor:

Driller:

Mark Larabie

Total Depth: 15.0 Drilling Method:

Geoprobe 6600

Ground Surface Elevation:

Measuring Point Elevation: Not Applicable

Depth (feet)	Blow Counts	Recovery (feet)	PID (ppm)	Soil Description	Lithology (not to scale)	Well Construction
0 - 5	NA	3.2	0.1 0.0 0.1 0.0	0.0°-0.4° - Asphalt. 0.4°-2.2° - Brown, FINE to MEDIUM SAND, some fine, subangular gravel, well sorted, non-cohesive, medium dense, dry. No odors or visual contamination. 2.2°-3.2° - Red brick and gray stone fragments. No odors or visual contamination. (FILL)		
5 - 10	NA	2.9	51.3 43.4 16.1 0.5	0.0'-0.6' – Red brick fragments. 0.6'-2.1' – Brown, FINE to MEDIUM SAND, some fine, subangular gravel, well sorted, incdium dense, wet. 2.1'-2.9' – Red brick and gray stone fragments, some dense fine to medium brown sand. Slight naphthalene-like odor. (FILL)		
10-15	NA	2.3	192 64.8 47.5	0.0°-1.6° – Dark brown, FINE to MEDIUM SAND, some sub- angular gravel, well sorted, non-cohesive, wet. 1.6°-2.3° – Red BRICK FRAGMENTS and brown, FINE to MEDIUM SAND, well sorted, dense, wet. Moderate naphthalene-like odor. Tar blebs in bottom of core liner. (FILL) End of boring at 15 feet below ground surface with NYSDEC concurrence that boring was located outside suspected holder.		



SOIL BORING LOG (GP-10)

Boring/Well ID: GP-10

Project Number: 034400

Logged By: Dan Burke

Date Started: 11/16/04

Date Completed: 11/16/04 Total Depth:

10.0

Client: Niagara Mohawk

Project Name: Saratoga Springs Non-owned (Lake Ave.)

MGP Site

Location: See map

Aquifer Drilling and Testing Contractor:

Mark Larabie Driller: Geoprobe 6600

Drilling Method:

Ground Surface Elevation:

Measuring Point Elevation: Not Applicable

Depth (feet)	Blow Counts	Recovery (feet)	PID (ppm)	Soll Description	Lithology (not to scale)	Well Construction
0 - 5	NA	2.9	0.0 0.0 0.0 0.0	0.0'-2.9' — Brown to dark brown, FINE to MEDIUM SAND, some fine, well-rounded gravel, well sorted, non-cohesive, wet. No odors or visual contamination.		
5 - 10	5-10 NA	2.5	0.0 0.0 0.0 0.0	0.0'-2.5' — Dark brown, FINE to MEDIUM SAND, some fine, sub-angular gravel, few cobbles. No odors or visual contamination.		
				End of boring at 10 feet below ground surface with NYSDEC concurrence that boring was located outside suspected holder.		



SOIL BORING LOG (GP-11)

Boring/Well ID: GP-11

Client:

Niagara Mohawk

Project Number:

Measuring Point Elevation:

034400 Dan Burke Project Name:

Saratoga Springs Non-owned (Lake Ave.)

Logged By: Date Started:

11/17/04

Location: Contractor: See map Aquifer Drilling and Testing

Date Completed: 11/17/04 Total Depth:

Driller:

Mark Larabie

MGP Site

Drilling Method:

Geoprobe 6600

Ground Surface Elevation: 289.6

Not Applicable

Depth (feet)	Blow Counts	Recovery (feet)	PID (ppm)	Soil Description	Lithology (not to scale)	Weil Construction
0 - 5	NA	2.6	0.0 0.0 0.0 0.0	0.0'-0.3' - Asphalt. 0.3'-2.6' Brown, FINE to MEDIUM SAND with brick fragments, some ash and coal fragments and fine, well rounded gravel, dense, well sorted, non-cohesive, dry. No odors or visual contamination. (FILL)		
5 - 10	NA	2.9	0.0 0.0 0.0 0.0	0.0'-2.9' – Brown, FINE to MEDIUM SAND, trace fine, well-rounded gravel, dense, well-sorted, non-cohesive, dry. No odors or visual contamination. (FILL)		
10-15	NA	2.8	0.0 0.0 0.0 0.0	0.0'-1.4' - Same as above. Some coal fragments near top. Wet at 1.2'. No odors or visual contamination. (FILL)		
15-20	NA	4.8	0.0 0.0 0.0 0.0 0.0	0.0'-4.8' – Same as above. No coal fragments. Wet throughout. No odors or visual contamination.		
20-25	NA	5.0	0.0 0.0 0.0 0.0 0.0	0.0*-5.0* – Same as above. No odors or visual contamination.		
				End of boring at 25 feet below ground surface. Target depth.		



SOIL BORING LOG (GP-12)

Boring/Well ID: GP-12

Project Number: 034400

Dan Burke Logged By:

Date Started: 11/17/04 Date Completed: 11/17/04

Total Depth: 25.0

Client:

Niagara Mohawk

Project Name:

Saratoga Springs Non-owned (Lake Ave.)

MGP Site

Location: See map

Contractor:

Aquifer Drilling and Testing

Driller: Mark Larabie

Geoprobe 6600 **Drilling Method:**

Ground Surface Elevation:

Measuring Point Elevation:

Not Applicable

Depth (feet)	Blow Counts	Recovery (feet)	PID (ppm)	Soil Description	Lithology (not to scale)	Well Construction
0 - 5	NA	NA	NΛ	Not sampled. Immediately adjacent to GP-17.		
5 - 10	NA	NA	NA	Not sampled, Immediately adjacent to GP-17.		
10-15	NA ,	5.0	0.0 0.0 0.0 0.0	0.0'-5.0' – Brown, FINE to MEDIUM SAND, some coarse sand, trace fine, well-rounded gravel, medium dense, well sorted, non-cohesive, wet at 2.0'. No odors or visual contamination.		
15-20	NA	5.0	0.0 0.0 0.0 0.0 0.0	0.0'-5.0' – Same as above. Wet throughout, No odors or visual contamination.		
20-25	NA	5.0	0.0 0.0 0.0 0.0 0.0	0.0*-5.0* Same as above. No odors or visual contamination.		
				End of boring at 25 feet below ground surface. Target depth.		



SOIL BORING LOG (GP-13)

Boring/Well ID: GP-13

Project Number: 034400

Logged By: Dan Burke

Date Started: 11/16/04 Date Completed: 11/16/04

Total Depth: 20.0'

Client:

Niagara Mohawk

Saratoga Springs Non-owned (Lake Ave.) Project Name:

MGP Site

Location: See map

Aquifer Drilling and Testing Contractor:

Driller: Mark Larabie

Geoprobe 6600 Drilling Method:

Ground Surface Elevation:

Measuring Point Elevation: Not Applicable

Depth (feet)	Blow Counts	Recovery (feet)	PID (ppm)	Soil Description	Lithology (not to scale)	Well Construction
0-5	NA	2.6	0.6 0.3 0.4	0.0*-0.6* - Asphalt and crushed stone. 0.6*-1.5* - Brown, FINE to MEDIUM SAND, trace coarse sand, trace silt, well sorted, medium dense, dry. 1.5*-2.2* - Crushed rock. 2.2-2.6* - Same as 0.6*-1.5* interval. No odors or visual contamination. (FILL)		
5 - 10	NA	2.0	0.0 0.0 0.6	0.0'-1.2' - Black to brown, FINE to MEDIUM SAND, some sub-angular gravel, trace silt, well sorted, medium dense. 1.2'-1.4' - Red brick fragments. 1.4'-2.0' - Black, FINE to MEDIUM SAND, some silt and wood chips/pulp, well sorted. Slight naphthalene-like odor. No visual contamination. (FILL)		
10 - 15	NA	1.8	1784 210.1 0.0	0.0*-1.8* - Brown to black, FINE to MEDIUM SAND, brick fragments throughout. Strong naphthalene-like odor throughout. Sheen throughout. Bottom 0.2* tar saturated. (FILL)		
15-20	NA .	0.5	1607 1150	0.0°-0.5° – Red brick fragments with gray weathered cement/mortar. Strong naphthalene-like odor. Tar coated. (FILL)		
				End of boring at 20 feet below ground surface. Bottom of holder encountered.		



SOIL BORING LOG (GP-14)

Boring/Well ID: **GP-14**

Project Number: 034400

Logged By: Dan Burke

Date Started: 11/16/04

Date Completed: 11/16/04

Total Depth: 10.0' Client:

Niagara Mohawk

Project Name: Saratoga Springs Non-owned (Lake Ave.)

MGP Site

Location: See map

Contractor: Aquifer Drilling and Testing

Driller: Mark Larabie

Geoprobe 6600 **Drilling Method:**

Ground Surface Elevation:

Measuring Point Elevation: Not Applicable

Depth	Blow	Recovery	PLD	Soil Description	Lithology	Well
(fcct)	Counts	(feet)	(ppm)		(not to scale)	Construction
0 - 5	NA NA	3.6	0.0 0.0 0.0 0.0 0.0 0.0 10.6 1.6 0.6	0.0'-0.4' – Asphalt. 0.4'-2.1' – Brown to dark brown, FINE to MEDIUM SAND, some fine, sub-angular gravel, well sorted, dense, dry. No odors or visual contamination. 2.1'-3.6' – Red brick fragments, some brown, fine to medium sand, dense. No odors or visual contamination. (FILL) 0.0'-0.7' – Same ns 2.1'-3.6' interval above. 0.7'-3.0' – Dark brown to black, FINE to MEDIUM SAND and fine, sub-angular gravel, well sorted, dense, wet. Strong naphthalene-like odor throughout. Black staining. (FILL) End of boring at 10 feet below ground surface with NYSDEC concurrence that boring was located inside suspected holder.		



SOIL BORING LOG (GP-15)

Boring/Well ID:

Project Number: 034400

Logged By: Dan Burke

Date Started: 11/17/04

Date Completed: 11/17/04

Total Depth: 25.0 Client:

Niagara Mohawk

Project Name: Saratoga Springs Non-owned (Lake Ave.)

MGP Site

Location: See map

Contractor: Aquifer Drilling and Testing

Driller: Mark Larabie

Geoprobe 6600 Drilling Method:

Ground Surface Elevation:

Measuring Point Elevation: Not Applicable

Notes: Analytical samples GP-15 (13-15) and GP-15 (24-25) collected and analyzed for BTEX

and PAHs.

Depth (feet)	Blow Counts	Recovery (feet)	PID (ppm)	Soil Description	Lithology (not to scale)	Well Construction
0 - 5	NA	3.1	0.0 0.0 0.0 0.0 0.0	0.0°-1.2° – Brown, FINE to COARSE SAND with organics, some fine to medium gravel, well sorted, non-cohesive, dry. 1.2°-1.7° – Black, FINE to MEDIUM SAND with cinders, well sorted, non-cohesive, dry. No odors or visual contamination. 1.7°-3.1° – Brown, FINE to MEDIUM SAND, some fine, well rounded gravel, well sorted, non-cohesive, dry. No odors or visual contamination.		
5 - 10	NA	3.8	0.0 0.0 0.0 0.0	0.0°-3.8° – Same as 1.7°-3.1° interval above. One black fine to medium sand band at 0.7°. No odors or visual contamination.		
10-15	NA	5.0	0.0 0.0 0.0 0.0 0.0	0.0'-5.0' – Same as above. No black sand band. Wet at 2.0'. No odors or visual contamination. Analytical sample GP-15 (13-15) collected.		
15-20	NA	5.0	0.0 0.0 0.0 0.0	0.0°-5.0° – Same as above. Wet throughout. No odors or visual contamination.		
20-25	NA	5.0	0,0 0,0 0.0 0.0	0.0*-5.0* – Same as above. No odors or visual contamination. Analytical sample GP-15 (24-25) collected.		
				End of boring at 25 feet below ground surface. Target depth.		



SOIL BORING LOG (GP-16)

Boring/Well ID: **GP-16**

Project Number: 034400

Logged By: Dan Burke Date Started: 11/16/04

Date Completed: 11/16/04

Total Depth: 15.0'

Client: Niagara Mohawk

Project Name: Saratoga Springs Non-owned (Lake Ave.)

MGP Site

Location: See map

Contractor: **Aquifer Drilling and Testing**

Driller: Mark Larabie Geoprobe 6600 Drilling Method:

Ground Surface Elevation:

290.2 Measuring Point Elevation:

Not Applicable

Depth (feet)	Blow Counts	Recovery (feet)	PID (ppm)	Soil Description	Lithology (not to scale)	Well Construction
0 - 5	NA	2.0	1.1 0.0 0.1	0.0'-0.9' – Brown, FINE to MEDIUM SAND, some silt, fine, well-rounded gravel and organic material, well sorted, medium dense, dry.		
			0.6	0.9'-2.0' – Brown, FINE to MEDIUM SAND, intermittent layers of coal/clinker/slag, rock fragments throughout. No odors or visual contamination. (FILL)		
5 - 10	NA	1.8	0.3 0.4 0.0	0.0'-1.8' Brown, FINE to MEDIUM SAND, rock fragments throughout, trace silt, well sorted, medium dense, dry. No odors or visual contamination. (FILL)		
10 - 15	NA	3.2	0.0 0.0 1.0 0.0	0-3.2' – Same as above. No rock fragments.		
			0.0	End of boring at 15 feet below ground surface with NYSDEC concurrence that boring was located outside suspected holder.		



SOIL BORING LOG (GP-17)

Boring/Well ID:

GP-17

034400

Client: Project Name:

Niagara Mohawk

Project Number:

Logged By: Dan Burke

Saratoga Springs Non-owned (Lake Ave.)

11/16/04

See map

Date Started: Date Completed:

Location:

Aquifer Drilling and Testing

11/16/04

Contractor: Driller: Mark Larabie

Total Depth: 10.0'

Geoprobe 6600 **Drilling Method:**

Ground Surface Elevation: 290.0

Measuring Point Elevation: Not Applicable

Depth (feet)	Blow Counts	Recovery (feet)	PID (ppm)	Soil Description	Lithology (not to scale)	Well Construction
0 - 5	NA	3.3	0.0 0.0 0.0 0.0 0.0	0.0'-0.3' - Asphalt. 0.3'-3.3' - Brown, FINE to MEDIUM SAND, some fine, subangular gravel, trace silt, pulverized rock at 1.7', dry. No odors or visual contamination. (FILL)		
5 - 10	NA	3.7	0.0 0.0 0.0 0.0 0.0	0.0'-3.7' – Same as above. No odors or visual contamination. (FILL)		
				End of boring at 10 feet below ground surface with NYSDEC concurrence that boring was located outside suspected holder	,	



SOIL BORING LOG (GP-18)

Boring/Well ID: GP-18

Project Number: 034400

Logged By: Dan Burke

Date Started: 11/16/04 Date Completed: 11/16/04

Total Depth:

Client:

Niagara Mohawk

Saratoga Springs Non-owned (Lake Ave.) Project Name:

MGP Site

Location:

See map

Aquifer Drilling and Testing Contractor:

Driller: Mark Larabie

Geoprobe 6600 **Drilling Method:**

Ground Surface Elevation: 289.8

Measuring Point Elevation: Not Applicable

Depth (feet)	Blow Counts	Recovery (feet)	PID (ppm)	Soil Description	Lithology (not to scale)	Well Construction
0 - 5	NA	2.9	0.1 0.0 0.0 0.0	0.0'-0.6' — Asphalt. 0.6'-2.9' — Brown, FINE to MEDIUM SAND, some fine, subangular gravel, trace silt. Brick fragments at 1.4' and 2.1'. No odors or visual contamination. (FILL)		
5 - 10	NA	2.0	0.0 0.0 0.0 0.0	0.0'-2.0' – Brown, FINE to MEDIUM SAND, well sorted, medium dense, dry. No odors or visual contamination.		
				End of boring at 10 feet below ground surface with NYSDEC concurrence that boring was located outside suspected holder.		



SOIL BORING LOG (GP-19)

Boring/Well ID: GP-19 Client:

Project Number: 034400 Project Name: Logged By: Dan Burke

Logged By: Dan Burke
Date Started: 11/16/04
Date Completed: 11/16/04
Date Completed: 11/16/04
Contractor: Aquifer Drilling and Testing

Total Depth: 10.0' Driller: Mark Larabie

Drilling Method: Geoprobe 6600

Ground Surface Elevation: 289.3

Measuring Point Elevation: Not Applicable

Depth (feet)	Blow Counts	Recovery (feet)	PID (ppm)	Soil Description	Lithology (not to scale)	Well Construction
0 - 5	NA	2.6	0.0 0.0 0.0 0.0	0.0'-2.6' - Brown, FINE to MEDIUM SAND, some coarse sand, fine, sub-angular gravel, and brick fragments, well sorted, medium dense, moist. No odors or visual contamination. (FILL)		
5 - 10	NA	3.3	51.3 24.4 3.6 0.9	0.0'-3.3' – Brown, FINE to MEDIUM SAND, some fine, sub- angular gravel, well sorted, dense, wet. Brick fragments at 2.9'. Strong naphthalene-like odor. Sheen and tar coated grains in bottom 0.7'. (FILL)		
				End of boring at 10 feet below ground surface with NYSDEC concurrence that boring was located inside suspected holder.		I

Niagara Mohawk

Notes:

Saratoga Springs Non-owned (Lake Ave.)



SOIL BORING LOG (GP-20)

Boring/Well ID: GP-20 Client: Niagara Mohawk

Project Number: 034400 Project Name: Saratoga Springs Non-owned (Lake Ave.)

Logged By: Dan Burke MGP Site Date Started: 11/17/04 Location: See map

Date Completed: 11/17/04 Contractor: Aquifer Drilling and Testing

Total Depth: 25.0° Driller: Mark Larabie Geoprobe 6600

Ground Surface Elevation: 288.6 Notes: Analytical samples GP-20 (12-13) and Measuring Point Elevation: Not Applicable GP-20 (24-25) collected for BTEX and PAHs.

Depth (feet)	Blow Counts	Recovery (feet)	PID (ppm)	Soil Description	Lithology (not to scale)	Well Construction
0 - 5	NA	2.5	0.0 0.0 0.0 1.3	0.0'-0.7' – Organic topsoil. 0.7'-2.5' - Brown, FINE to MEDIUM SAND, trace fine, well rounded gravel, slag, medium dense, non-cohesive, dry. No odors or visual contamination.		
5 - 10	NA	3.6	0.0 0.0 0.0 0.0	0.0'-2.0' – Same as 0.7'-2.5' interval above. 2.0'-3.6' – Same as above. Dark brown in color.		
10-15	NA	5.0	1.2 2.7 5.4 3.6	0.0'-5.0' – Same as 2.0'-3.6' interval above. Wet. Strong fuel oil-like/solvent-like odor mixed with slight naphthalene-like odor throughout. Dark brown staining. Analytical sample GP-20 (12-13) collected.		
15-20	NA	5.0	1.3 2.7 6.4	0.02-3.33 - Black, FINE to MEDIUM SAND, medium dense, well sorted, wet. Strong fuel oil-like/solvent-like odor mixed with naphthalene-like odor. Black staining.		
			3.5	3.3*-5.0* – Brown, FINE to MEDIUM SAND, trace coarse sand, medium dense, well sorted. Slight odor from above. No visual contamination.		
20-25	NA	4.0	0.1 0.0 0.2 0.1	0.0'-4.0' – Same as 3.3'-5.0' interval above. No odors or visual contamination. Analytical sample GP-20 (24-25) collected.		
				End of boring at 25 feet below ground surface. Target depth.		

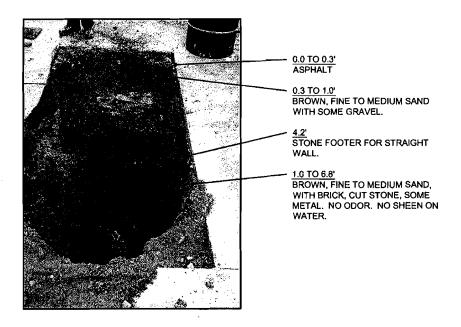


255 Winding Brook Drive Suite 201 Glastonbury, CT 06033

Ph: (860) 368-5300 Fax: (860) 368-5307

TEST PIT DESCRIPTION SHEET

PROJECT NUMBER: 034400 CALL BEFORE YOU DIG CASE NO .: __ OBSERVER: JOHN RIPP TEST PIT NUMBER: TP-1 ASSISTANT: DAN BURKE GENERAL LOCATION AND/OR PURPOSE: _ NORTHERN EDGE OF PARKING LOT OTHERS: _ CONTRACTOR: AQUIFER DRILLING & TESTING DATE: 11/18/04 TIME OPENED: 0815 TIME CLOSED: 1310 EQUIPMENT: BACKHOE EXCAVATOR



VIDEO DOCUMENTED: YES ____ __ NO__X YES X NO ___ PHOTOGRAPHED:

DEPTH TO WATER:

6.7 FT BGS

ANALYTICAL SAMPLES: NONE

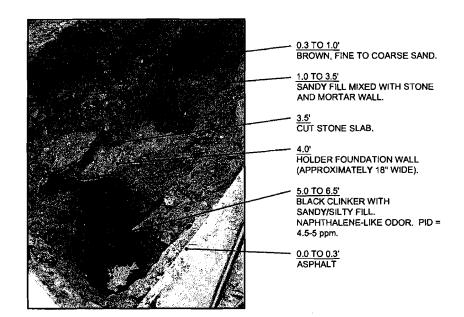
NAPL SEEPAGE: YES _____ NO __X_



255 Winding Brook Drive Suite 201 Glastonbury, CT 06033 Ph: (860) 368-5300 Fax: (860) 368-5307

TEST PIT DESCRIPTION SHEET

PROJECT NUMBER: 034400	CALL BEFORE YOU DIG CASE NO.:		
TEST PIT NUMBER: TP-2	OBSERVER: JOHN RIPP		
GENERAL LOCATION AND/OR PURPOSE:	ASSISTANT: DAN BURKE		
MIDDLE OF PARKING LOT	OTHERS:		
DATE: 11/18/04	CONTRACTOR: AQUIFER DRILLING & TESTING		
TIME OPENED: 0920 TIME CLOSED: 1310	EQUIPMENT: BACKHOE EXCAVATOR		



VIDEO DOCUMENTED:	YES_		NO X	_
PHOTOGRAPHED:	YES_	X	.NO	_
DEDTH TO WATER.		6.5	ET BGS	

ANALYTICAL SAM	PLES:		NONE	
NAPL SEEPAGE:	YES_	X	NO	
	(INSIE	E HO	LDER)	

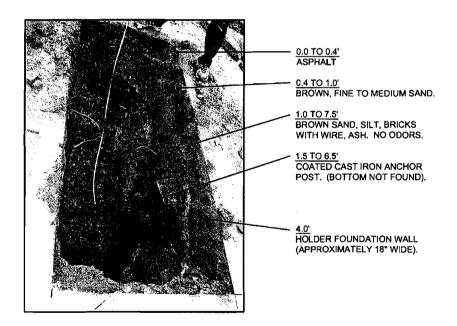


255 Winding Brook Drive Suite 201 Glastonbury, CT 06033

Ph: (860) 368-5300 Fax: (860) 368-5307

TEST PIT DESCRIPTION SHEET

PROJECT NUMBER: 034400	CALL BEFORE YOU DIG CASE NO.:
TEST PIT NUMBER: TP-3	OBSERVER: JOHN RIPP
GENERAL LOCATION AND/OR PURPOSE:	ASSISTANT: DAN BURKE
WESTERN EDGE OF PARKING LOT	OTHERS:
DATE: 11/18/04	CONTRACTOR: AQUIFER DRILLING & TESTING
TIME OPENED: 1205 TIME CLOSED: 1310	EQUIPMENT: BACKHOE EXCAVATOR



VIDEO DOCUMENTED: YES__ __ NO___X___ YES X NO PHOTOGRAPHED:

DEPTH TO WATER:

NA FT BGS

NONE ANALYTICAL SAMPLES: _____ NAPL SEEPAGE: YES _____NO __X

GENSARATOGAI034400SUMMARYISARATOGA-TP LOGS.omg