GTE Operations Support Incorporated

Basking Ridge, New Jersey

Former Sylvania Electric Products Incorporated Facility Hicksville, NY Voluntary Cleanup Program Site No. V00089-1

Data Report P118, MWP110-355, MWP110-440, MWP114-170, and MWP114-290

April 2008

Report Prepared By:

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17-17 Route 208 North
Fair Lawn, New Jersey 07410
201.797.7400

4563001

MALCOLM PIRNIE

LEGEND

- PROFILE LOCATION - DATA INCLUDED IN THE MALCOLM PIRNIE DATA REPORT DATED JANUARY 2008.
- PROFILE LOCATION
- MONITORING WELL LOCATION

NOTES

1. AERIAL IMAGE FROM NYS GIS CLEARINGHOUSE HIGH RESOLUTION DIGITAL ORTHOIMAGERY (6-INCH RESOLUTION - 2004).

SCALE IN FEET

0 250 500 1000

MALCOLM PIRNIE

GTE OPERATIONS SUPPORT, INC.
HICKSVILLE, NY
FORMER SYLVANIA ELECTRIC PRODUCTS FACILITY

PROFILE AND MONITORING WELL LOCATIONS COMPLTED IN 2007

APRIL 2008

FIGURE 1

STONE ENVIRONMENTAL INC

Mobile Laboratory Results Sheet

Client: GTEOSI
Location: Hicksville, NY
Date Sampled: 10/16/2007-11/16/2007
Date Analyzed: 10/16/2007-11/16/2007

Matrix: Water

HOLE ID = P-118

VOC DATA, ug/L

	Vinyl Chloride			t-Dichloroethene			c-Dichloroethene			Trichloroethene			Tetrachloroethene			% SS
Depth	Value	Q	DF	Value	Q	DF	Value	Q	DF	Value	Q	DF	Value	Q	DF	
75.00	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	100
85.00	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	123
98.00	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	122
105.00	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	116
114.85	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	125
125.00	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	129
135.00	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	113
157.85	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	115
165.00	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	111
175.00	1	U	1	1	U	1	2		1	42		1	1		1	108
185.00	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	111
195.00	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	115
204.15	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	121
215.00	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	115
223.80	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	105
233.38	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	113
241.50	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	115
252.15	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	108
259.60	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	120
286.50	1	U	1	1	U	1	1	U	1	1	U	1	7		1	113
294.35	1	U	1	1	U	1	1	U	1	4		1	2		1	111
322.45	1	U	1	1	U	1	1	U	1	1	U	1	1		1	112
331.10	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	114
340.00	1	U	1	1	U	1	1	U	1	1	U	1	1		1	118
350.00	1	U	1	1	U	1	1	U	1	1	U	1	1		1	109
361.55	1	U	1	1	U	1	1		1	1	U	1	5		1	109
370.00	1	U	1	1	U	1	1	U	1	3		1	4		1	102
380.00	1	U	1	1	U	1	1	U	1	2		1	1		1	110
389.85	1	U	1	1	U	1	1	U	1	21		1	4		1	116
401.50	1	U	1	1	U	1	1	U	1	22		1	4		1	101
409.55	1	U	1	1	U	1	1	U	1	36		1	7		1	107
418.70	1	U	1	1	U	1	1	U	1	49		1	13		1	105
426.40	1	U	1	1	U	1	2		1	150		1	59		1	106
441.70	1	U	1	1	U	1	1		1	120		1	48		1	110
450.00	1	U	1	1	U	1	10		1	620		24	130		1	104
458.70	1	U	1	1	U	1	1		1	180		1	99		1	104
491.60	1	U	1	1	U	1	1	U	1	160		1	120		1	105
501.00	1	U	1	1	U	1	1		1	220		1	170		1	111
511.50	1	U	1	1	U	1	1		1	220		1	280		1	112
519.10	1	U	1	1	U	1	3		1	370		1	310		1	113
531.50	1	U	1	1	U	1	2		1	230		1	280		1	109
537.40	1	U	1	1	U	1	1	U	1	57		1	64		1	112
550.10	1	U	1	1	U	1	1	U	1	100		10	140		10	112
570.85	1	U	1	1	U	1	1	U	1	92		1	110		1	110
580.70	1	U	1	1	U	1	1	U	1	29		1	41		1	125

INORGANIC DATA, mg/L

Fe^{+2}	Fe, Total	Ammonia	Chloride	Chlorine, Total
0.26	0.56	0.15	56	0.08
0.21	0.61	0.17	44	ND
0.34	0.52	0.15	50	0.04
0.39	0.55	0.11	58	0.06
0.14	0.20	0.04	43	0.02
0.17	0.23	0.08	36	0.08
0.24	0.43	0.06	60	0.08
0.09	0.18	0.05	46	ND
0.21	0.58	0.15	42	0.13
0.17	0.36	0.07	31	ND
0.11	0.16	0.06	28	ND
0.45	0.54	0.11	29	ND
1.15	9.40	1.20	33	0.57
0.18	0.67	0.26	40	0.60
0.33	0.43	0.09	52	0.04
0.36	0.38	0.12	57	0.04
0.15	0.33	0.11	64	0.04
0.51	0.76	0.23	60	0.15
0.74	0.78	0.08	52	ND
0.15	0.22	0.07	39	0.05
2.00	2.07	0.14	32	ND
0.83	1.98	0.37	37	0.04
0.25	0.29	0.04	38	ND
0.35	0.35	0.02	45	ND
0.54	0.58	0.04	33	ND
0.14	0.16	0.09	45	ND
0.29	0.32	0.13	55	ND
0.23	0.25	0.15	50	ND
0.16	0.16	0.12	56	0.07
0.66	0.39	0.18	41	0.12
0.33	0.54	0.21	33	0.14
0.59	0.93	0.58	25	0.12
0.78	0.81	0.08	29	ND
ND	0.04	0.04	34	ND
0.20	0.23	2.00	80	ND
0.61	0.61	0.12	69	0.11
0.12	0.18	0.08	43	0.02
0.42	0.48	0.13	62	ND
0.04	0.05	0.04	49	ND
0.32	0.37	0.09	42	ND
0.06	0.10	0.09	47	0.05
0.09	0.31	0.17	25	ND
0.36	0.54	0.14	23	ND
0.67	2.03	0.21	20	0.15
0.04	0.23	0.07	16	0.15

Freons

Freon 113			Freon 123			Freon 123A		
Value	Q	DF	Value	Q	DF	Value	Q	DF
1	U	1	1	U	1	1	U	1
1	U	1	1	U	1	1	U	1
1	U	1	1	U	1	1	U	1
1	U	1	1	U	1	1	U	1
1	U	1	1	U	1	1	U	1
1	U	1	1	U	1	1	U	1
1	U	1	1	U	1	1	U	1
1	U	1	1	U	1	1	U	1
1	U	1	1	U	1	1	U	1
1	U	1	1	U	1	1	U	1
1	U	1	1	U	1	1	U	1
1	U	1	1	U	1	1	U	1
1	U	1	1	U	1	1	U	1
1	U	1	1	U	1	1	U	1
1	U	1	1	U	1	1	U	1
1	U	1	1	U	1	1	U	1
1	U	1	1	U	1	1	U	1
1	U	1	1	U	1	1	U	1
1	U	1	1	U	1	1	U	1
1	U	1	1	U	1	1	U	1
1	U	1	1	U	1	1	U	1
1	U	1	1	U	1	1	U	1
1	U	1	1	U	1	1	U	1
1	U	1	1	U	1	1	U	1
1	U	1	1	U	1	1	U	1
1	U	1	1	U	1	1	U	1
1	U	1	1	U	1	1	U	1
1	U	1	1	U	1	1	U	1
1	U	1	1	U	1	1	U	1
1	U	1	1	U	1	1	U	1
1	U	1	1	U	1	1	U	1
1	U	1	1	U	1	1	U	1
3		1	1	U	1	1	U	1
1		1	1	U	1	1	U	1
11		1	1	U	1	1	U	1
1		1	1	U	1	1	U	1
1		1	1	U	1	1	U	1
2		1	1	U	1	1	U	1
1		1	1	U	1	1	U	1
5		1	1	U	1	1	U	1
2		1	1	U	1	1	U	1
1	U	1	1	U	1	1	U	1
1	U	1	1	U	1	1	U	1
1		1	1	U	1	1	U	1
1	U	1	1	U	1	1	U	1

VOC DATA, ug/L

	1,1-Dichloroethene			1,1-Dichloroethane			1,1,1-Trichloroethane			,1,1,2-Tetrachloroethan			Carbon Tetrachloride			Benzene		
Depth	Value	Q	DF	Value	Q	DF	Value	Q	DF	Value	Q	DF	Value	Q	DF	Value	Q	DF
75.0	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1
85.0	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1
98.0	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1
105.0	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1
114.9	1	U	1	1	U	1	1		1	1	U	1	1	U	1	1	U	1
125.0	1	U	1	1	U	1	1		1	1	U	1	1	U	1	1	U	1
135.0	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1
157.9	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1
165.0	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1
175.0	1	U	1	2		1	1	U	1	1	U	1	1	U	1	1	U	1
185.0	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1
195.0	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1
204.2	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1
215.0	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1
223.8	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1
233.4	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1
241.5	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1
252.2	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1
259.6	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1
286.5	1	U	1	1		1	1	U	1	1	U	1	1	U	1	1	U	1
294.4	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1
322.5	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1
331.1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1
340.0	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1
350.0	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1
361.6	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1
370.0	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1
380.0	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1
389.9	1	U	1	1	U	1	1		1	1	U	1	2		1	1	U	1
401.5	3		1	1	U	1	2		1	1	U	1	5		1	1	U	1
409.6	3		1	1	U	1	2		1	1	U	1	5		1	1	U	1
418.7	3		1	1	U	1	3		1	1	U	1	6		1	1	U	1
426.4	26		1	1	U	1	17		1	1	U	1	36		1	1	U	1
441.7	17		1	1	U	1	14		1	1	U	1	27		1	1	U	1
450.0	40		1	1	U	1	27		1	1	U	1	92		24	1	U	1
458.7	33		1	1	U	1	20		1	1	U	1	69		1	1	U	1
491.6	35		1	1	U	1	23		1	1	U	1	38		1	1	U	1
501.0	28		1	1	U	1	22		1	1	U	1	35		1	1	U	1
511.5	42		1	1	U	1	32		1	1	U	1	40		1	1	U	1
519.1	22		1	1	U	1	18		1	1	U	1	32		1	1	U	1
531.5	37		1	1	U	1	24		1	1	U	1	38		1	1	U	1
537.4	9		1	1	U	1	7		1	1	U	1	9		1	1	U	1
550.1	10		1	1	U	1	7		1	1	U	1	11		1	1	U	1
570.9	10		1	1	U	1	7		1	1	U	1	10		1	1	U	1
580.7	4		1	1	U	1	3		1	1	U	1	4		1	1	U	1

	1,2-Dichlorothane			Toluene			Chlorobenzene			Ethylbenzene			m,p-Xylene			o-Xylene			1,3-Dichlorobenzene			1,4-Dichlorobenzene			1,2-Dichlorobenzene			%SS
Depth	Value	Q	DF	Value	Q	DF	Value	Q	DF	Value	Q	DF	Value	Q	DF	Value	Q	DF	Value	Q	DF	Value	Q	DF	Value	Q	DF	
75.0	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	100
85.0	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	123
98.0	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	122
105.0	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	116
114.9	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	125
125.0	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	129
135.0	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	113
157.9	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	115
165.0	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	111
175.0	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	108
185.0	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	111
195.0	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	115
204.2	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	121
215.0	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	115
223.8	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	105
233.4	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	113
241.5	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	115
252.2	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	108
259.6	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	120
286.5	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	113
294.4	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	111
322.5	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	112
331.1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	114
340.0	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	118
350.0	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	109
361.6	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	109
370.0	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	102
380.0	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	110
389.9	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	116
401.5	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	101
409.6	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	107
418.7	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	105
426.4	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	106
441.7	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	110
450.0	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	104
458.7	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	104
491.6	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	105
501.0	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	111
511.5	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	112
519.1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	113
531.5	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	109
537.4	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	112
550.1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	112
570.9	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	110
580.7	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	125

Samples with >100 ppb total VOC's cannot be run on a carboxen fiber and will have detection limits of 20 ppb
%SS = Surrogate Recovery
U = Undetected below the specified reporting limit.
J = Estimated value.
ND = Value below detection limit.
NS = Not Sampled

Mobile Laboratory Results Sheet

Client: GTEOSI
Location: Hicksville, NY
Date Sampled: 11/12/2007-11/13/2007
Date Analyzed: 11/12/2007-11/13/2007

Matrix: Water

HOLE ID = MWP	VOC DATA, ug/L Vinyl Chloride			t-Dichloroethene			c-Dichloroethene			Trichloroethene			Tetrachloroethene			% SS
	Value	Q	DF	Value	Q	DF	Value	Q	DF	Value	Q	DF	Value	Q	DF	
MWP-114-170	6		1	1	U	1	140		1	440		1	7		1	111
MWP-110-355	1	U	1	1	U	1	19		1	240		1	5		1	104
MWP-110-440	1	U	1	1	U	1	11		1	23		1	500		1	110
MWP-114-290	1	U	1	1	U	1	17		1	50		1	1		1	104

INORGANIC DATA, mg/L

Fe^{+2}	Fe, Total	Ammonia	Chloride	Chlorine, Total
0.06	0.17	0.21	35	NA
0.34	0.87	0.23	27	0.09
ND	0.04	0.07	17	ND
0.59	0.69	0.21	29	ND

Freons

Freon 113			Freon 123			Freon 123A		
Value	Q	DF	Value	Q	DF	Value	Q	DF
1	U	1	1	U	1	1	U	1
6		1	1	U	1	1	U	1
1	U	1	1	U	1	1	U	1
1	U	1	1	U	1	1	U	1

VOC DATA, ug/L

	1,1-Dichloroethene			1,1-Dichloroethane			1,1,1-Trichloroethane			,1,1,2-Tetrachloroethan			Carbon Tetrachloride			Benzene			1,2-Dichlorothane			Toluene		
	Value	Q	DF	Value	Q	DF	Value	Q	DF	Value	Q	DF	Value	Q	DF	Value	Q	DF	Value	Q	DF	Value	Q	DF
MWP-114-170	2		1	6		1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1
MWP-110-355	8		1	1		1	6		1	1	U	1	4		1	1	U	1	1	U	1	1	U	1
MWP-110-440	1	U	1	1	U	1	1	U	1	1		1	3		1	1	U	1	1	U	1	1	U	1
MWP-114-290	6		1	22		1	5		1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1

	Chlorobenzene			Ethylbenzene			m,p-Xylene			o-Xylene			1,3-Dichlorobenzene			1,4-Dichlorobenzene			1,2-Dichlorobenzene			%SS
	Value	Q	DF	Value	Q	DF	Value	Q	DF	Value	Q	DF	Value	Q	DF	Value	Q	DF	Value	Q	DF	
MWP-114-170	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	111
MWP-110-355	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	104
MWP-110-440	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	110
MWP-114-290	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1	104

Samples with >100 ppb total VOC's cannot be run on a carboxen fiber and will have detection limits of 20 ppb
%SS = Surrogate Recovery
U = Undetected below the specified reporting limit.
J = Estimated value.
ND = Value below detection limit.
NS = Not Sampled

STL VOC Data - Groundwater Profile P-118 and Monitoring Wells MWP-110-355, MWP-110-440, MWP-114-170, and MWP-114-290
GTE Operations Support Incorporated
Former Sylvania Electric Products Incorporated Facility
Hicksville, NY

Chemical Name	Units	Sample ID / Depth (feet below ground surface)									
		P-118-361.55	P-118-389.85	P-118-426.40	P-118-450	P-118-531.5	P-118-537.4	MWP-110-355	MWP-110-440	MWP-114-170	MWP-114-290
1,1,1,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.4	1 U	1 U
1,1,1-Trichloroethane	ug/L	1 U	0.72 J	14	27	30	9.5	6.4	1 U	0.95 J	6.3
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	1 U	1 U	0.58 J	1.1	0.81 J	0.33 J	1.5	0.15 J	5.8	23
1,1-Dichloroethene	ug/L	1 U	0.74 J	22	39	15	7.3	9.4	0.23 J	2.3	6.4
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	0.19 J	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	ug/L	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
2-Hexanone	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone (MIBK)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	ug/L	2 UJ	2 UJ	2 UJ	2 UJ	4.8 J	16 J	2 UJ	2 UJ	2 UJ	2 UJ
Benzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.18 J	0.14 J
Bromodichloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	ug/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Carbon disulfide	ug/L	1 U	1 U	1 U	0.32 J	0.19 J	0.1 J	1 U	1 U	1 U	1 U
Carbon tetrachloride	ug/L	1 UJ	1.6 J	30 J	72	41	12	4.7	2.7	1 U	1 U
Chlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.34 J	0.34 J
Chloroethane	ug/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Chloroform	ug/L	1.4	0.21 J	2	3	1.1	0.55 J	1.4	0.75 J	0.49 J	0.61 J
Chloromethane	ug/L	2 U	2 U	2 U	2 U	2 U	2 U	0.36 J	2 U	2 U	2 U
cis-1,2-Dichloroethene	ug/L	0.89 J	0.29 J	1.4	10	1.3	0.47 J	20	13	120	20
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene chloride	ug/L	1 U	1 U	1 U	0.28 J	1 U	1 U	1 U	1 U	0.51 J	1 U
Styrene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	ug/L	4.2	3.7	62	130	260	100	4.5	420	6.7	1.8
Toluene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	0.88 J	0.31 J	0.25 J	0.18 J
trans-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	0.17 J	1 U	1 U	1 U	1 U	0.61 J	1 U
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	ug/L	1 U	18	160	540	240	94	240	23	420	55
Vinyl chloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	0.16 J	1 U	6.5	0.89 J
Xylenes (total)	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Notes:

U = the analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

Boring ID:

MALCOLM PIRNIE, INC.

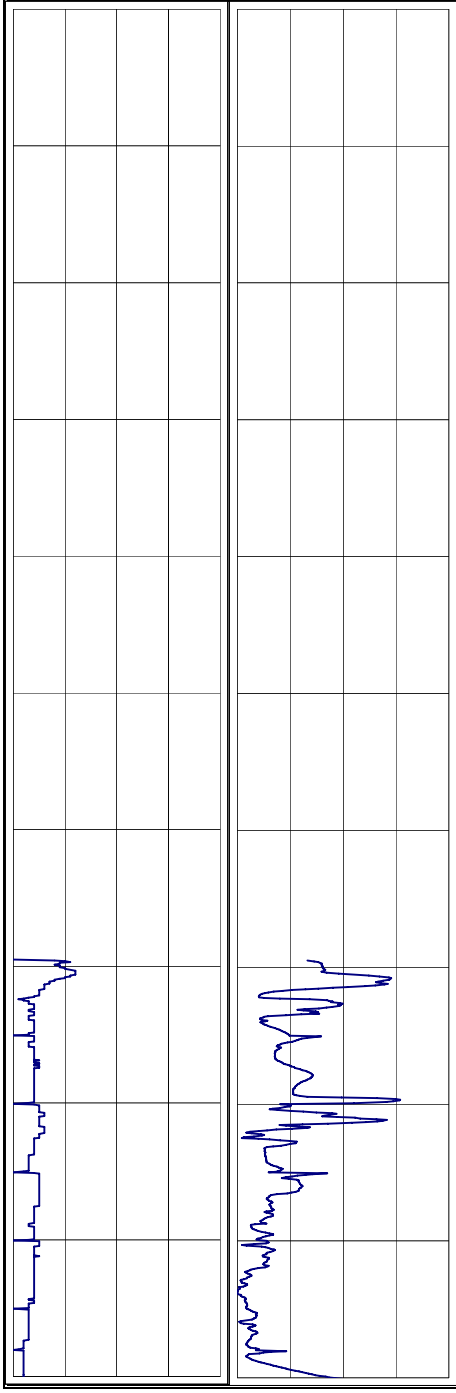
17-17 Route 208 North Fair Lawn, NJ 07401

P-118

PROJECT NAME:	**GTEOSI-Hicksville**	**START DATE:**	**October 30, 2007**
JOB NUMBER:	**4563001**	**END DATE:**	**November 18, 2007**
DRILLING FIRM:	**SGS**	**LOCATION:**	**Wantagh State Parkway north of Stewart Ave.**
DRILLING METHOD:	**Mud Rotary**	**DATUM:**	**Land Surface**
DRILLER:	**Tom Lynch**	**LOGGED BY:**	**J. Hilton**
HELPER:	**Julio Cancel**		

Total depth of Profile: 580.7 ft. **Total depth of boring:** 580 ft.

GEOLOGIC INFORMATION



Depth (ft bgs)	Description	USCS Symbol	Stratigraphic Column	REMARKS
0	SAND (fine), trace Silt and Gravel (fine); dark brown, sub-round.	SP		Hollow stem augers advanced from 0 to 20 ft bgs
	SAND (fine) and GRAVEL (fine-coarse) to 1" diameter, yellow-brown, sub-round.	SW		
10				
20	SAND (fine-medium) and GRAVEL (fine) to 1/2" diameter, light brown, sub-round.	SW		Begin mud rotary drilling at 20 ft
30				
40				
50				
60	SAND (fine-medium); light brown.	SW		
70	SAND (medium-coarse) with oxidized orange-white Silt interbeds; light brown.	SM		Begin profiling at 69.45 ft. Advance casing from ground surface to initial depth at 70' bgs
80				
90	SAND (fine), trace white Silt interbeds; Light gray white.	SP		

Boring ID:

MALCOLM PIRNIE, INC.

P-118

17-17 Route 208 North Fair Lawn, NJ 07401

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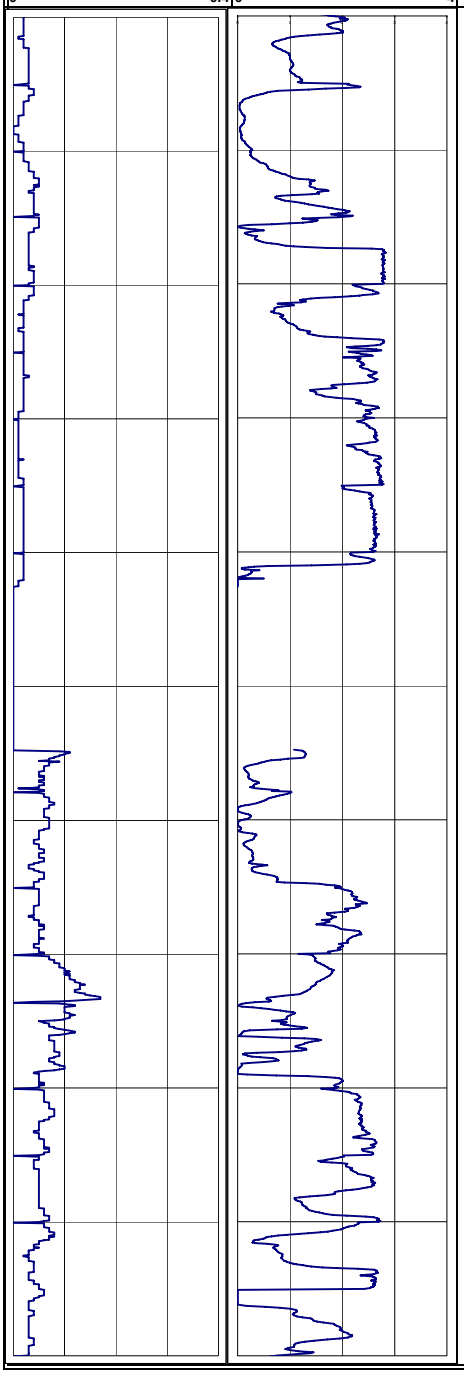
GEOLOGIC INFORMATION



Depth (ft bgs)	Description	USCS Symbol	Stratigraphic Column	REMARKS
100		SP		
110				
120				
130				
140	SILT and CLAY, trace Sand (fine); gray-white with black carbonaceous Clay.	ML-CL		Profiler refusal at 143' bgs, pulled rods and advanced casing from 70' bgs to 155'
150	SAND (fine) with interbedded Silt; gray.	SP		
160				
170				
180	SAND (fine), trace white Clay and Silt interbeds; light gray brown, micaceous.	SP		
190	SAND (fine); tan-brown, micaceous.	SP		

Boring ID:

MALCOLM PIRNIE, INC.

17-17 Route 208 North Fair Lawn, NJ 07401

P-118

PROJECT NAME:	**GTEOSI-Hicksville**	**START DATE:**	**October 30, 2007**
JOB NUMBER:	**4563001**	**END DATE:**	**November 18, 2007**
DRILLING FIRM:	**SGS**	**LOCATION:**	**Wantagh State Parkway north of Stewart Ave.**
DRILLING METHOD:	**Mud Rotary**		
DRILLER:	**Tom Lynch**	**DATUM:**	**Land Surface**
HELPER:	**Julio Cancel**	**LOGGED BY:**	**J. Hilton**

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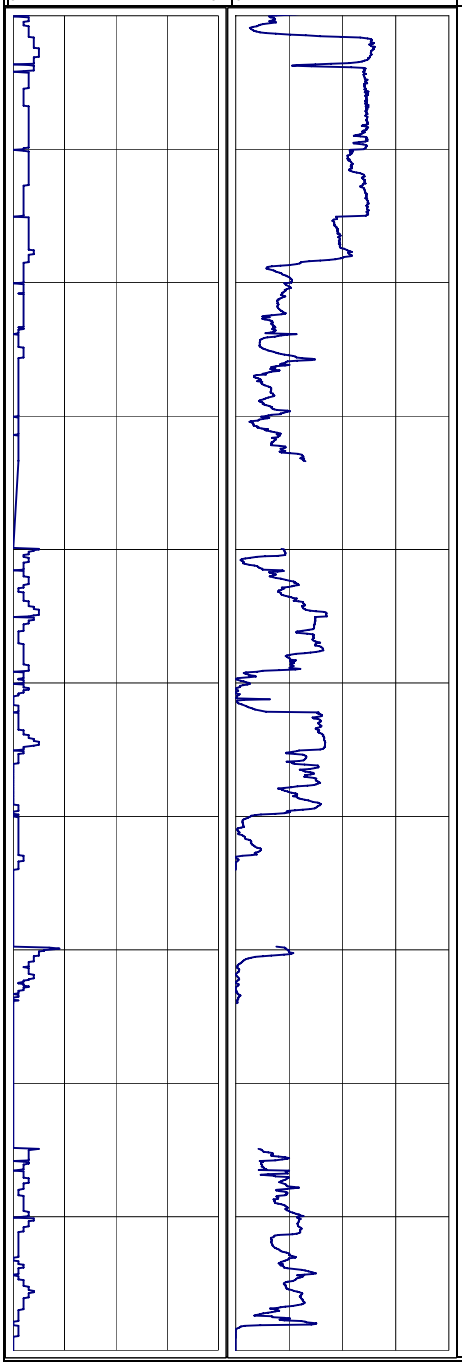
GEOLOGIC INFORMATION



Depth (ft bgs)	Description	USCS Symbol	Stratigraphic Column	REMARKS
200		SP		
210	SAND (fine-medium); light brown, micaceous.	SW		
220				
230	SAND (fine-coarse); light brown, micaceous.	SW		Profiler refusal at 233' bgs, pulled rods and advanced casing from 155' bgs to 240'
240	SAND (fine); light brown.	SP		
250	SAND (fine-medium); light brown.	SW		
260	SAND (fine), trace-little white Silty Clay interbeds < 1" thick; light brown.			
	SILT and CLAY, with stiff white Clay interbeds, trace Sand; white gray.	ML-CL		Profiler refusal at 264' bgs, pulled rods and advanced casing from 240' bgs to 270'
270				Profiler refusal at 274' bgs, pulled rods and advanced casing from 270' bgs to 285'
280	SAND (fine), little Silt; light gray white.	SP		
290				
	CLAY with trace carbonaceous material and Silt; light gray-white.	CL		

Boring ID:

MALCOLM PIRNIE, INC.

P-118

17-17 Route 208 North Fair Lawn, NJ 07401

PROJECT NAME:	**GTEOSI-Hicksville**	**START DATE:**	**October 30, 2007**
JOB NUMBER:	**4563001**	**END DATE:**	**November 18, 2007**
DRILLING FIRM:	**SGS**	**LOCATION:**	**Wantagh State Parkway north of Stewart Ave.**
DRILLING METHOD:	**Mud Rotary**		
DRILLER:	**Tom Lynch**	**DATUM:**	**Land Surface**
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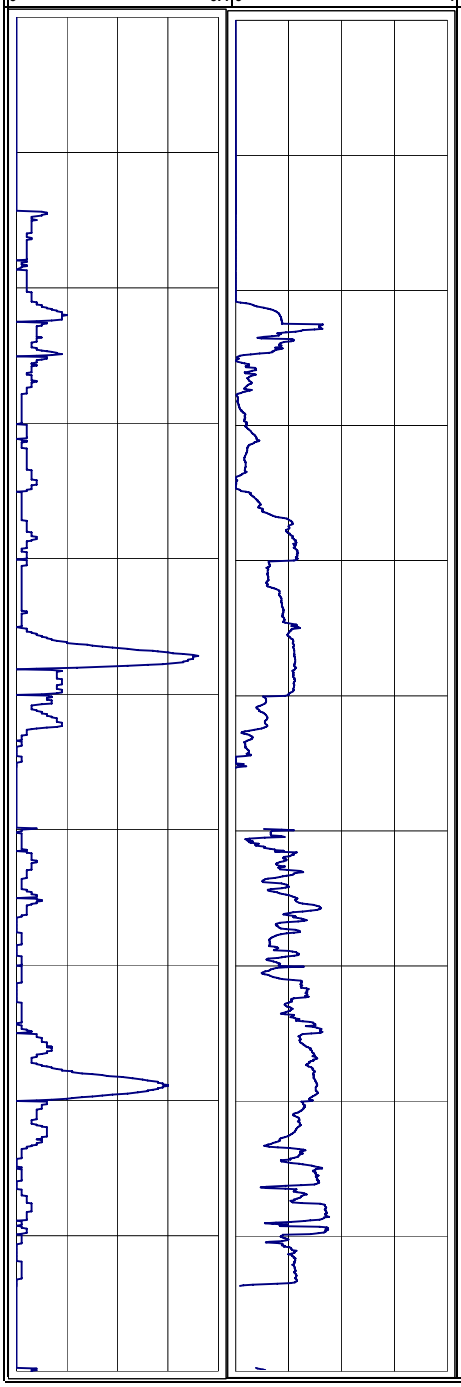
GEOLOGIC INFORMATION



Depth (ft bgs)	Description	USCS Symbol	Stratigraphic Column	REMARKS
300		CL		Profiler refusal at 299' bgs, pulled rods and advanced casing from 285' bgs to 320'
310	SILT and SAND (fine-medium); gray-white.	SM		
	SAND (medium); gray-white, angular.	SP		
320				
330				
340	SAND (fine-coarse), trace Silt; tan-white, angular, micaceous.	SW		
350				Profiler refusal at 355' bgs, pulled rods and advanced casing from 320' bgs to 360'
360	SAND (fine); light brown-gray, micaceous.	SP		
370	SAND (medium-coarse), trace Clay and Silt; Light gray-white, angular, micaceous.	SW		
380				
390				Profiler refusal at 394' bgs, pulled rods and advanced casing from 360' bgs to 400'

Boring ID:

MALCOLM PIRNIE, INC.

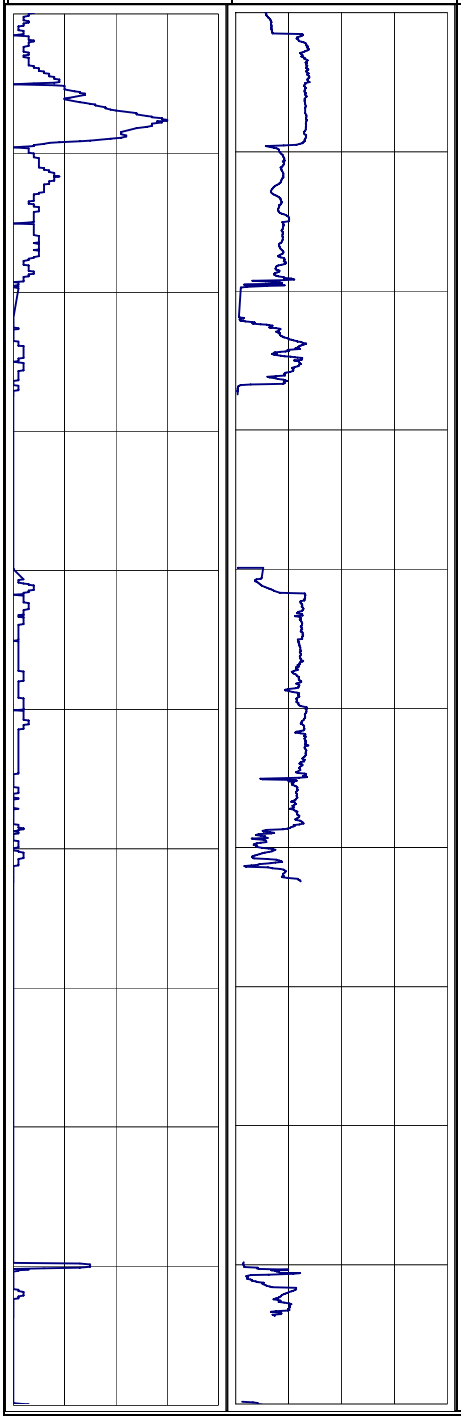
17-17 Route 208 North Fair Lawn, NJ 07401

P-118

PROJECT NAME:	**GTEOSI-Hicksville**	**START DATE:**	**October 30, 2007**
JOB NUMBER:	**4563001**	**END DATE:**	**November 18, 2007**
DRILLING FIRM:	**SGS**	**LOCATION:**	**Wantagh State Parkway north of Stewart Ave.**
DRILLING METHOD:	**Mud Rotary**		
DRILLER:	**Tom Lynch**	**DATUM:**	**Land Surface**
HELPER:	**Julio Cancel**	**LOGGED BY:**	**J. Hilton**

Total depth of Profile: 580.7 ft. **Total depth of boring:** 580 ft.

GEOLOGIC INFORMATION



Depth (ft bgs)	Description	USCS Symbol	Stratigraphic Column	REMARKS
400	SAND (fine-medium); light gray, micaceous.	SW		
410				
420				
	SILT and CLAY; gray-white.	ML-CL		Profiler refusal at 427 bgs, pulled rods and advance casing from 400' bgs to 440' bgs.
430				
	SAND (fine); light tan-brown.	SP		
440				
450	SAND (medium-coarse), trace fine Gravel; tan-white, angular.	SW		
460	SAND (fine-medium), trace-little white Silt; tan.	SW		Profiler refusal at 462' bgs, pulled rods and advanced casing from 440' bgs to 490'
	CLAY and Silt with interbedded white Silt, trace Sand (fine); dark gray.	CL-ML		
470				
480				
	SAND (fine-coarse) with Gravel (fine), trace Silt; light brown-white, sub-round.	SW		silt appears oxidized
490				Profiler refusal at 494' bgs, pulled rods and advanced casing from 490' bgs to 500'

Boring ID:

MALCOLM PIRNIE, INC.

17-17 Route 208 North Fair Lawn, NJ 07401

P-118

PROJECT NAME:	**GTEOSI-Hicksville**	**START DATE:**	**October 30, 2007**
JOB NUMBER:	**4563001**	**END DATE:**	**November 18, 2007**
DRILLING FIRM:	**SGS**	**LOCATION:**	**Wantagh State Parkway north of Stewart Ave.**
DRILLING METHOD:	**Mud Rotary**		
DRILLER:	**Tom Lynch**	**DATUM:**	**Land Surface**
HELPER:	**Julio Cancel**	**LOGGED BY:**	**J. Hilton**

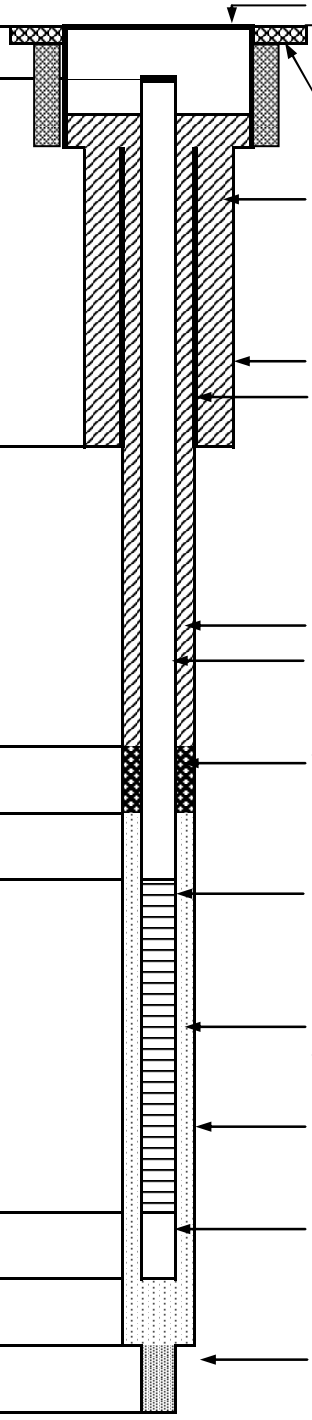
Total depth of Profile: 580.7 ft. **Total depth of boring:** 580 ft.

GEOLOGIC INFORMATION

Penetration Rate (ft/min) 0 – 0.4	Index of Hyd. Conductivity 0 – 4	Depth (ft bgs)	Description	USCS Symbol	Stratigraphic Column	REMARKS
		500	SAND (medium-coarse), trace-little Garvel and white Silt interbeds; gray-white, sub-round.	SW		Profiler refusal at 501' bgs, pulled rods and advanced casing from 500' bgs to 510'
		510				
		520				Profiler refusal at 519' bgs, pulled rods and advanced casing from 510' bgs to 530'
		530	SAND (medium-coarse), little-some Silt and gray Clay interbeds < 2' thick; white-gray.	SW		Artesian Conditions noted in sand unit profiled at 530-537' bgs; flow at 2-3 gpm.
		540				Profiler refusal at 538' bgs, pulled rods and advanced casing from 530' bgs to 550'
			SAND (medium-coarse) with white Silt interbeds; gray-white.	SM		
		550	SAND (coarse) and GRAVEL (fine); white-gray, aub-angular.	SW		Profiler refusal at 550' bgs, pulled rods and advanced casing from 550' bgs to 560'
		560				Trip out profiling rods from 560' bgs. Not able to collect sample at 560' interval due to parameters indicating drilling mud or additives in purge water. pull rods and advanced casing from 560' bgs to 570'
		570	SAND (medium-coarse), little interbedded white/pink Silt < 1' thick from approximately 575-578' bgs; white-gray.	SW		Profiler refusal at 571' bgs, pulled rods and advanced casing from 570' bgs to 580'
		580				End of boring at 580 ft End of profile at 580.7 ft
		590				

MALCOLM PIRNIE, Inc.			FLUSHMOUNT OVERBURDEN Multicased Monitoring Well MWP 110-355
Project: Profiling/Well Installation Hicksville, NY	**Number:** 4563-001		
Client: GTEOSI	**Date:** 8/13/2007	**Subcontractor:**	SGS Drilling
Drilling Method: Mud rotary		**Measuring Point**	
Development Method: Submersible Pump		**Type:**	Top Of Riser
Development Dates: 9/18/2007		**Elevation (ft):**	0.0

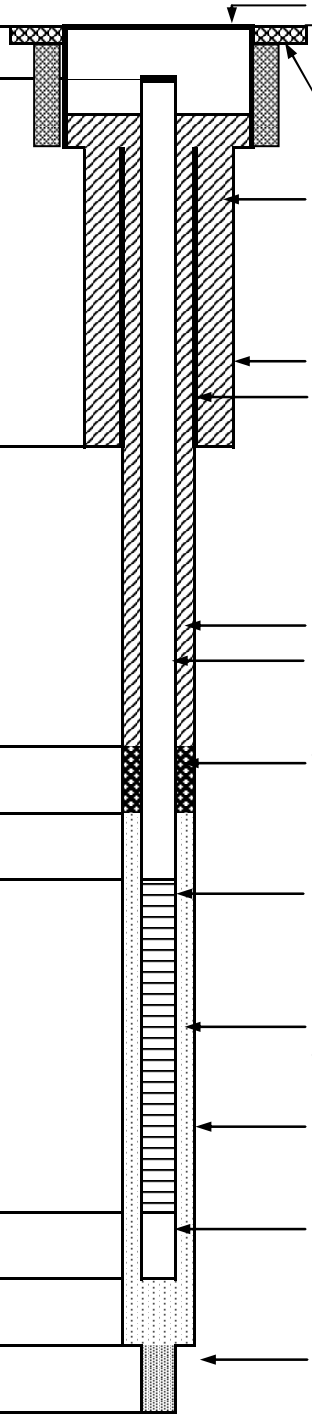
Item	Depth, below Measuring Point (ft)	Elevation (ft)	Description
Grade	0.0	0	Flushmount Diameter: 9 (in.)
Riser Pipe	0.5	-0.5	Surface Seal Type: Concrete
			Grout Type: Cement-bentonite
			Borehole Diameter: 12 (in.)
			Casing Type: Sch 40 PVC
Base of Casing	78.5	-78.5	Casing ID: 8 (in.)
			Grout Type: Cement-bentonite
			Riser Pipe Type: Sch 80 PVC
			Riser Pipe ID: 4 (in.)
Top of Seal.	330	-330	
			Type of Seal: Bentonite Slurry
Top of Filter Pack.	340.2	-340.2	
Top of Screen.	345	-345	
			Screen Type: Sch 80 PVC
			Screen ID: 4 (in.)
			Screen Slot Size: 0.02 (in.)
			Filter/Sand Pack Type: Graded #1 silica sand
			Borehole Diameter: 7 7/8 (in.)
Base of Screen.	355	-355	
			Sump: Sch 80 PVC
End Cap	357	-357	
Drilled Depth	362	-362	
			Fallback/Backfill: Not Applicable
Total Depth	362	-362	



Notes:

MALCOLM PIRNIE, Inc.			FLUSHMOUNT OVERBURDEN Multicased Monitoring Well MWP 110-440
Project: Profiling/Well Installation Hicksville, NY		**Number:** 4563-001	
Client: GTEOSI		**Date:** 8/24/2007	**Subcontractor:** SGS Drilling
Drilling Method:	Mud rotary		**Measuring Point**
Development Method:	Submersible Pump		**Type:** Top Of Riser
Development Dates: 9/19/2007-9/20/2007			**Elevation (ft):** 0.0

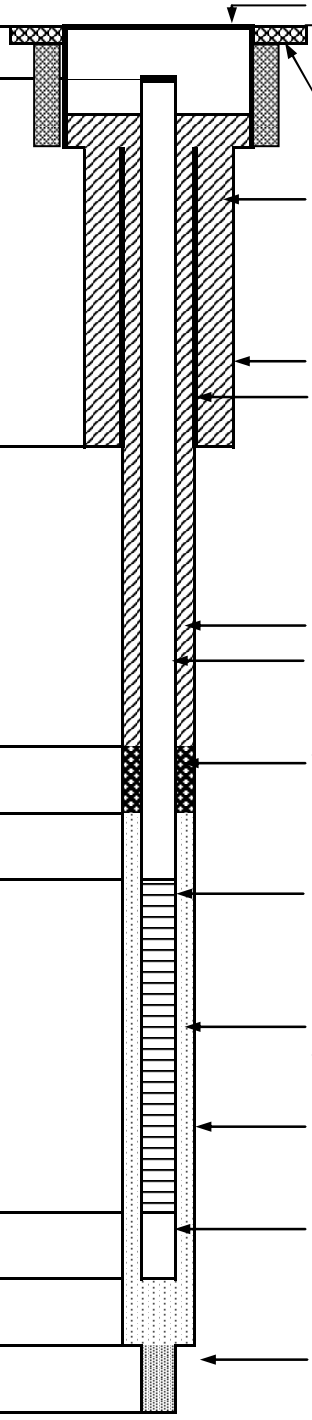
Item	Depth, below Measuring Point (ft)	Elevation (ft)	Description
Grade	0.0	0	Flushmount Diameter: 9 (in.)
Riser Pipe	0.5	-0.5	Surface Seal Type: Concrete
			Grout Type: Cement-bentonite
			Borehole Diameter: 12 (in.)
			Casing Type: Sch 40 PVC
Base of Casing	78.4	-78.4	Casing ID: 8 (in.)
			Grout Type: Cement-bentonite
			Riser Pipe Type: Sch 80 PVC
			Riser Pipe ID: 4 (in.)
Top of Seal.	415	-415	Type of Seal: Bentonite Slurry
Top of Filter Pack.	424	-424	
Top of Screen.	430	-430	Screen Type: Sch 80 PVC
			Screen ID: 4 (in.)
			Screen Slot Size: 0.02 (in.)
			Filter/Sand Pack Type: Graded #1 silica sand
			Borehole Diameter: 7 7/8 (in.)
Base of Screen.	440	-440	Sump: Sch 80 PVC
End Cap	444	-444	
Drilled Depth	445	-445	Fallback/Backfill: Native sand
Total Depth	445	-445	



Notes:

MALCOLM PIRNIE, Inc.			FLUSHMOUNT OVERBURDEN Multicased Monitoring Well MWP 114-290
Project: Profiling/Well Installation Hicksville, NY	**Number:** 4563-001		
Client: GTEOSI	**Date:** 9/10/2007	**Subcontractor:**	SGS Drilling
Drilling Method: Mud rotary		**Measuring Point**	
Development Method: Submersible Pump		**Type:**	Top Of Riser
Development Dates: 9/25/2007		**Elevation (ft):**	0.0

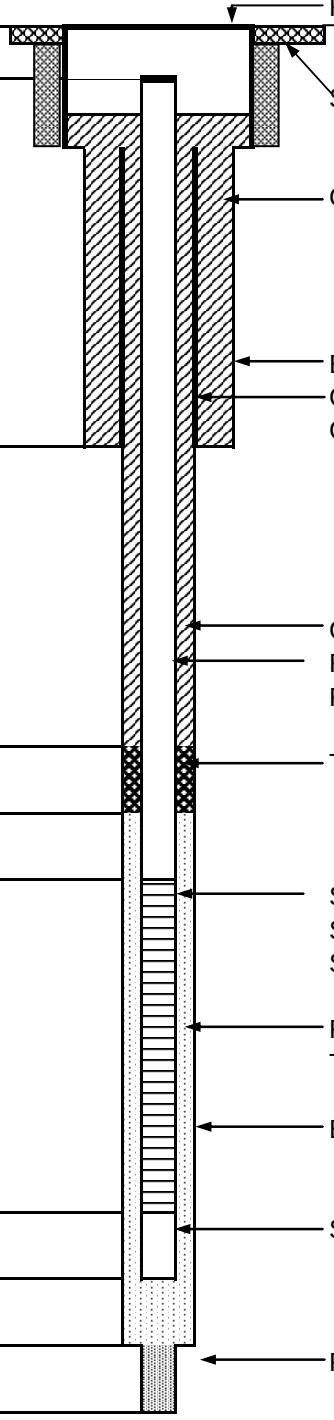
Item	Depth, below Measuring Point (ft)	Elevation (ft)	Description	
Grade	0.0	0	Flushmount Diameter:	9 (in.)
Riser Pipe	0.5	-0.5	Surface Seal Type:	Concrete
			Grout Type:	Cement-bentonite
			Borehole Diameter:	13 (in.)
			Casing Type:	Sch 40 PVC
Base of Casing	78.5	-78.5	Casing ID:	8 (in.)
			Grout Type:	Cement-bentonite
			Riser Pipe Type:	Sch 80 PVC
			Riser Pipe ID:	4 (in.)
Top of Seal.	265	-265	Type of Seal:	Bentonite Slurry
Top of Filter Pack.	277.6	-277.6		
Top of Screen.	280	-280	Screen Type:	Sch 80 PVC
			Screen ID:	4 (in.)
			Screen Slot Size:	0.02 (in.)
			Filter/Sand Pack Type:	Graded #1 silica sand
			Borehole Diameter:	7 7/8 (in.)
Base of Screen.	290	-290	Sump:	Sch 80 PVC
End Cap	292	-292		
Drilled Depth	294	-294	Fallback/Backfill:	Not Applicable
Total Depth	294	-294		



Notes:

MALCOLM PIRNIE, Inc.			FLUSHMOUNT OVERBURDEN Multicased Monitoring Well MWP 114-170
Project: Profiling/Well Installation Hicksville, NY	**Number:** 4563-001		
Client: GTEOSI	**Date:** 10/12/2007	**Subcontractor:**	SGS Drilling
Drilling Method:	Mud rotary	**Measuring Point**	
Development Method:	Submersible Pump	**Type:**	Top Of Riser
Development Dates: 10/29/2007		**Elevation (ft):**	0.0

Item	Depth, below Measuring Point (ft)	Elevation (ft)
Grade	0.0	0
Riser Pipe	0.5	-0.5
Base of Casing	76	-76
Top of Seal.	145	-145
Top of Filter Pack.	157	-157
Top of Screen.	160	-160
Base of Screen.	170	-170
End Cap	172	-172
Drilled Depth	174	-174
Total Depth	174	-174



Description	
Flushmount Diameter:	9 (in.)
Surface Seal Type:	Concrete
Grout Type:	Cement-bentonite
Borehole Diameter:	12 (in.)
Casing Type:	Sch 40 PVC
Casing ID:	8 (in.)
Grout Type:	Cement-bentonite
Riser Pipe Type:	Sch 80 PVC
Riser Pipe ID:	4 (in.)
Type of Seal:	Bentonite Slurry
Screen Type:	Sch 80 PVC
Screen ID:	4 (in.)
Screen Slot Size:	0.02 (in.)
Filter/Sand Pack Type:	Graded #1 silica sand
Borehole Diameter:	7 7/8 (in.)
Sump:	Sch 80 PVC
Fallback/Backfill:	Not Applicable

Notes:

MALCOLM PIRNIE

17-17 Rt 208 NORTH, FAIRLAWN, NEW JERSEY 07410

GROUNDWATER MONITORING WELL SAMPLE COLLECTION LOGS

PROJECT NUMBER:	4563001	**DATE:**	11/12/2007
PROJECT NAME:	GTEOSI	**SAMPLERS:**	Jeff DeKoskie
SITE LOCATION:	Hicksville, NY		Chris Goldsmith
SITE CONTACT:		**WEATHER:**	Cloudy, 45°F

WELL IDENTIFICATION NUMBER: MWP-114-170 **PERMIT:**

WELL HEADSPACE READING:	2.9	**PID MODEL/LAMP:**	mini rae 2000
DEPTH TO WATER (Before Purging):	47.59	**FEET FROM TOP OF CASING**	
WELL DEPTH:	171.85	**FEET FROM TOP OF CASING**	
HEIGHT OF WATER IN WELL:	124.26	**FEET**	
WATER IN ONE WELL VOLUME:	81.1169	**GALLONS**	
PURGE TIME (start/finish):	12:22 / 15:10	**PURGE RATE:**	300 ml/min
WELL EVACUATION DEVICE:	Marschalk bladder pump		
SAMPLING TIME (start/finish):	15:15 / 15:20	**SAMPLE RATE:**	250 ml/min
SAMPLE COLLECTION DEVICE:	Marschalk bladder pump		
SAMPLE APPEARANCE:	Brown to clear		

FIELD PARAMETERS	initial	1st	2nd	3rd	4th	5th	6th	7th	8th	9th
time (00:00)	12:35	12:45	12:50	12:55	13:00	13:05	13:10	13:15	13:20	13:25
pH (SU)	5.00	5.39	5.99	6.02	6.01	6.07	6.08	6.11	6.23	6.44
specific conductivity (mS)	0.356	0.358	0.405	0.415	0.415	0.417	0.422	0.424	0.433	0.437
turbidity (NTU's)	2	41	86	293	330	>1000	>1000	>1000	>1000	>999
dissolved oxygen (mg/l)	2.16	1.71	1.84	2.00	2.05	0.99	0.92	0.96	1.00	1.00
temperature (degrees C)	12.5	13.1	13.5	13.2	13.3	13.8	14.1	14.2	14.0	14.5
redox potential (mv)	200.0	192.2	184.3	183.7	184.0	186.2	185.3	185.0	183.7	173.4
depth to water (feet)	47.68	47.67	47.62	47.62	47.62	47.62	47.63	47.63	47.63	47.66
volume purged (L)	0.5	1.5	3.0	4.5	6.0	7.5	9.0	10.5	12.0	13.5

SAMPLE ANALYSIS INFORMATION

ANALYSIS REQUIRED:

LABORATORY:

CONTACT:

Casing Diameter/Volume conversions	
(inches)	(gallons per foot)
2.0	0.1632
4.0	**0.6528**
6.0	1.4687
8.0	2.6115

NOTES: 4-inch well

12:35 Stop pump to adjust flow thru cell and clean out

12:44 re-start pump

MALCOLM PIRNIE

17-17 Rt 208 NORTH, FAIRLAWN, NEW JERSEY 07410

GROUNDWATER MONITORING WELL SAMPLE COLLECTION LOGS

PROJECT NUMBER:	4563001	**DATE:**	11/12/2007
PROJECT NAME:	GTEOSI	**SAMPLERS:**	Jeff DeKoskie
SITE LOCATION:	Hicksville, NY		Chris Goldsmith
SITE CONTACT:		**WEATHER:**	Cloudy, 45°F

WELL IDENTIFICATION NUMBER: MWP-114-170 **PERMIT:**

WELL HEADSPACE READING:	2.9	**PID MODEL/LAMP:**	mini rae 2000
DEPTH TO WATER (Before Purging):	47.59	**FEET FROM TOP OF CASING**	
WELL DEPTH:	171.85	**FEET FROM TOP OF CASING**	
HEIGHT OF WATER IN WELL:	124.26	**FEET**	
WATER IN ONE WELL VOLUME:	81.1169	**GALLONS**	
PURGE TIME (start/finish):	12:22 / 15:10	**PURGE RATE:**	300 ml/min
WELL EVACUATION DEVICE:	Marschalk bladder pump		
SAMPLING TIME (start/finish):	15:15 / 15:20	**SAMPLE RATE:**	250 ml/min
SAMPLE COLLECTION DEVICE:	Marschalk bladder pump		
SAMPLE APPEARANCE:	Brownish color		

FIELD PARAMETERS	10th	11th	12th	13th	14th	15th	16th	17th	18th	19th
time (00:00)	13:30	13:35	13:40	13:45	13:50	13:55	14:00	14:05	14:45	14:50
pH (SU)	6.50	6.77	6.96	7.07	7.15	7.30	7.46	7.69	6.21	6.19
specific conductivity (mS)	0.427	0.433	0.431	0.415	0.402	0.395	0.390	0.387	0.389	0.390
turbidity (NTU's)	>999	>999	>999	>999	>999	>999	>999	>999	155	75
dissolved oxygen (mg/l)	0.88	0.91	0.94	1.09	0.94	1.15	1.17	1.04	1.40	1.36
temperature (degrees C)	14.6	14.0	13.3	13.0	13.2	13.2	13.2	13.2	13.2	13.2
redox potential (mv)	170.7	170	169.6	169.4	168.9	168.8	165.1	147.5	211	209
depth to water (feet)	47.64	47.64	47.64	47.63	47.63	47.63	47.63	47.63	47.65	47.65
volume purged (L)	15.0	16.5	18.0	19.5	21.0	22.5	24.0	25.5	27.0	28.5

SAMPLE ANALYSIS INFORMATION

ANALYSIS REQUIRED: VOC

LABORATORY: STL Edison

CONTACT:

Casing Diameter/Volume conversions	
(inches)	(gallons per foot)
2.0	0.1632
4.0	**0.6528**
6.0	1.4687
8.0	2.6115

NOTES: 4-inch well

14:05 Stop pump, clean out FTC, raise pump 2 ft

14:40 Re-start pump

MALCOLM PIRNIE

17-17 Rt 208 NORTH, FAIRLAWN, NEW JERSEY 07410

GROUNDWATER MONITORING WELL SAMPLE COLLECTION LOGS

PROJECT NUMBER:	4563001	**DATE:**	11/12/2007
PROJECT NAME:	GTEOSI	**SAMPLERS:**	Jeff DeKoskie
SITE LOCATION:	Hicksville, NY		Chris Goldsmith
SITE CONTACT:		**WEATHER:**	Cloudy, 45°F

WELL IDENTIFICATION NUMBER: MWP-114-170 **PERMIT:**

WELL HEADSPACE READING:	2.9	**PID MODEL/LAMP:**	mini rae 2000
DEPTH TO WATER (Before Purging):	47.59	**FEET FROM TOP OF CASING**	
WELL DEPTH:	171.85	**FEET FROM TOP OF CASING**	
HEIGHT OF WATER IN WELL:	124.26	**FEET**	
WATER IN ONE WELL VOLUME:	81.1169	**GALLONS**	
PURGE TIME (start/finish):	12:22 / 15:10	**PURGE RATE:**	300 ml/min
WELL EVACUATION DEVICE:	Marschalk bladder pump		
SAMPLING TIME (start/finish):	15:15 / 15:20	**SAMPLE RATE:**	250 ml/min
SAMPLE COLLECTION DEVICE:	Marschalk bladder pump		
SAMPLE APPEARANCE:	Brown to clear		

FIELD PARAMETERS	20th	21th	22nd	23rd						
time (00:00)	14:55	15:00	15:05	15:10						
pH (SU)	6.19	6.16	6.03	6.02						
specific conductivity (mS)	0.402	0.403	0.401	0.401						
turbidity (NTU's)	60	58	55	57						
dissolved oxygen (mg/l)	1.39	1.32	0.96	0.97						
temperature (degrees C)	11.9	11.8	12.1	12.1						
redox potential (mv)	224	221	223	223						
depth to water (feet)	47.64	47.64	47.64	47.64						
volume purged (L)	30.0	31.5	33.0	34.5						

SAMPLE ANALYSIS INFORMATION

ANALYSIS REQUIRED: VOC

LABORATORY: STL Edison

CONTACT:

Casing Diameter/Volume conversions	
(inches)	(gallons per foot)
2.0	0.1632
4.0	**0.6528**
6.0	1.4687
8.0	2.6115

NOTES: 4-inch well

MALCOLM PIRNIE

17-17 Rt 208 NORTH, FAIRLAWN, NEW JERSEY 07410

GROUNDWATER MONITORING WELL SAMPLE COLLECTION LOGS

PROJECT NUMBER:	4563001	**DATE:**	11/13/2007
PROJECT NAME:	GTEOSI	**SAMPLERS:**	Jeff DeKoskie
SITE LOCATION:	Hicksville, NY		Chris Goldsmith
SITE CONTACT:		**WEATHER:**	Ptly cloudy, 55°F

WELL IDENTIFICATION NUMBER: MWP-110-440 **PERMIT:**

WELL HEADSPACE READING:	1.0	**PID MODEL/LAMP:**	mini rae 2000
DEPTH TO WATER (Before Purging):	47.34	**FEET FROM TOP OF CASING**	
WELL DEPTH:	444.31	**FEET FROM TOP OF CASING**	
HEIGHT OF WATER IN WELL:	396.97	**FEET**	
WATER IN ONE WELL VOLUME:	259.142	**GALLONS**	
PURGE TIME (start/finish):	12:00 / 13:10	**PURGE RATE:**	300 ml/min
WELL EVACUATION DEVICE:	Marschalk bladder pump		
SAMPLING TIME (start/finish):	13:20 / 13:25	**SAMPLE RATE:**	250 ml/min
SAMPLE COLLECTION DEVICE:	Marschalk bladder pump		
SAMPLE APPEARANCE:			

FIELD PARAMETERS	initial	1st	2nd	3rd	4th	5th	6th	7th	8th	9th
time (00:00)	12:10	12:15	12:20	12:25	12:30	12:35	12:40	12:45	12:50	12:55
pH (SU)	5.56	5.35	5.27	5.26	5.25	5.22	5.16	5.12	5.09	5.05
specific conductivity (mS)	0.301	0.303	0.303	0.303	0.303	0.304	0.305	0.305	0.306	0.307
turbidity (NTU's)	2	1	1	2	5	6	6	7	7	9
dissolved oxygen (mg/l)	2.83	2.15	2.12	2.07	1.92	1.76	1.68	1.71	1.70	1.70
temperature (degrees C)	14.3	14.2	14.2	14.2	14.2	14.0	14.0	14.0	14.1	14.0
redox potential (mv)	210	237	247	249	249	245	247	243	237	232
depth to water (feet)	47.51	47.52	47.52	47.52	47.52	47.52	47.52	47.51	47.51	47.51
volume purged (L)	0.5	1.5	3.0	4.5	6.0	7.5	9.0	10.5	12.0	13.5

SAMPLE ANALYSIS INFORMATION

ANALYSIS REQUIRED: VOC

LABORATORY: STL Edison

CONTACT:

Casing Diameter/Volume conversions	
(inches)	(gallons per foot)
2.0	0.1632
4.0	**0.6528**
6.0	1.4687
8.0	2.6115

NOTES: 4-inch well

MALCOLM PIRNIE

17-17 Rt 208 NORTH, FAIRLAWN, NEW JERSEY 07410

GROUNDWATER MONITORING WELL SAMPLE COLLECTION LOGS

PROJECT NUMBER:	4563001	**DATE:**	11/13/2007
PROJECT NAME:	GTEOSI	**SAMPLERS:**	Jeff DeKoskie
SITE LOCATION:	Hicksville, NY		Chris Goldsmith
SITE CONTACT:		**WEATHER:**	Ptly cloudy, 55°F

WELL IDENTIFICATION NUMBER: MWP-110-440 **PERMIT:**

WELL HEADSPACE READING:	1.0	**PID MODEL/LAMP:**	mini rae 2000
DEPTH TO WATER (Before Purging):	47.34	**FEET FROM TOP OF CASING**	
WELL DEPTH:	444.31	**FEET FROM TOP OF CASING**	
HEIGHT OF WATER IN WELL:	396.97	**FEET**	
WATER IN ONE WELL VOLUME:	259.142	**GALLONS**	
PURGE TIME (start/finish):	12:00 / 13:10	**PURGE RATE:**	300 ml/min
WELL EVACUATION DEVICE:	Marschalk bladder pump		
SAMPLING TIME (start/finish):	13:20 / 13:25	**SAMPLE RATE:**	250 ml/min
SAMPLE COLLECTION DEVICE:	Marschalk bladder pump		
SAMPLE APPEARANCE:			

FIELD PARAMETERS	10th	11th	12th	13th	14th	15th	16th	17th	18th	19th
time (00:00)	13:00	13:05	13:10							
pH (SU)	5.05	5.03	5.02							
specific conductivity (mS)	0.307	0.307	0.307							
turbidity (NTU's)	10	8	10							
dissolved oxygen (mg/l)	1.74	1.77	1.78							
temperature (degrees C)	14.1	14.1	14.0							
redox potential (mv)	232	232	232							
depth to water (feet)	47.51	47.51	47.51							
volume purged (L)	15.0	16.5	18.0							

SAMPLE ANALYSIS INFORMATION

ANALYSIS REQUIRED: VOC

LABORATORY: STL Edison

CONTACT:

Casing Diameter/Volume conversions	
(inches)	(gallons per foot)
2.0	0.1632
4.0	**0.6528**
6.0	1.4687
8.0	2.6115

NOTES: 4-inch well

MALCOLM PIRNIE

17-17 Rt 208 NORTH, FAIRLAWN, NEW JERSEY 07410

GROUNDWATER MONITORING WELL SAMPLE COLLECTION LOGS

PROJECT NUMBER:	4563001	**DATE:**	11/13/2007
PROJECT NAME:	GTEOSI	**SAMPLERS:**	Jeff DeKoskie
SITE LOCATION:	Hicksville, NY		Chris Goldsmith
SITE CONTACT:		**WEATHER:**	Sunny, mild, 60°F

WELL IDENTIFICATION NUMBER: MWP-110-355 **PERMIT:**

WELL HEADSPACE READING:	2.5	**PID MODEL/LAMP:**	mini rae 2000
DEPTH TO WATER (Before Purging):	47.15	**FEET FROM TOP OF CASING**	
WELL DEPTH:	354.54	**FEET FROM TOP OF CASING**	
HEIGHT OF WATER IN WELL:	307.39	**FEET**	
WATER IN ONE WELL VOLUME:	200.664	**GALLONS**	
PURGE TIME (start/finish):	15:00 / 16:25	**PURGE RATE:**	300 ml/min
WELL EVACUATION DEVICE:	Marschalk bladder pump		
SAMPLING TIME (start/finish):	16:30 / 16:35	**SAMPLE RATE:**	250 ml/min
SAMPLE COLLECTION DEVICE:	Marschalk bladder pump		
SAMPLE APPEARANCE:	Clear		

FIELD PARAMETERS	initial	1st	2nd	3rd	4th	5th	6th	7th	8th	9th
time (00:00)	15:05	15:10	15:15	15:20	15:25	15:30	15:35	15:40	15:45	15:50
pH (SU)	5.32	5.54	5.65	5.66	5.63	5.54	5.36	5.34	5.35	5.36
specific conductivity (mS)	0.169	0.182	0.201	0.202	0.204	0.203	0.204	0.203	0.201	0.201
turbidity (NTU's)	85	88	70	69	71	75	55	41	37	41
dissolved oxygen (mg/l)	7.65	6.20	6.24	6.48	7.23	7.11	2.80	1.95	1.22	1.11
temperature (degrees C)	13.7	13.7	13.4	13.4	13.3	13.6	14.0	14.0	14.0	14.0
redox potential (mv)	292	310	314	315	306	306	278	256	205	180
depth to water (feet)	47.13	47.13	47.05	47.05	47.05	47.15	47.15	47.14	47.27	47.28
volume purged (L)	0.5	1.5	3.0	4.5	6.0	7.5	9.0	10.5	12.0	13.5

SAMPLE ANALYSIS INFORMATION

ANALYSIS REQUIRED: VOC

LABORATORY: STL Edison

CONTACT:

Casing Diameter/Volume conversions	
(inches)	(gallons per foot)
2.0	0.1632
4.0	**0.6528**
6.0	1.4687
8.0	2.6115

NOTES: 4-inch well

MALCOLM PIRNIE

17-17 Rt 208 NORTH, FAIRLAWN, NEW JERSEY 07410

GROUNDWATER MONITORING WELL SAMPLE COLLECTION LOGS

PROJECT NUMBER:	4563001	**DATE:**	11/13/2007
PROJECT NAME:	GTEOSI	**SAMPLERS:**	Jeff DeKoskie
SITE LOCATION:	Hicksville, NY		Chris Goldsmith
SITE CONTACT:		**WEATHER:**	Sunny, mild, 60°F

WELL IDENTIFICATION NUMBER: MWP-110-355 **PERMIT:**

WELL HEADSPACE READING:	2.5	**PID MODEL/LAMP:**	mini rae 2000
DEPTH TO WATER (Before Purging):	47.15	**FEET FROM TOP OF CASING**	
WELL DEPTH:	354.54	**FEET FROM TOP OF CASING**	
HEIGHT OF WATER IN WELL:	307.39	**FEET**	
WATER IN ONE WELL VOLUME:	200.664	**GALLONS**	
PURGE TIME (start/finish):	15:00 / 16:25	**PURGE RATE:**	300 ml/min
WELL EVACUATION DEVICE:	Marschalk bladder pump		
SAMPLING TIME (start/finish):	16:30 / 16:35	**SAMPLE RATE:**	250 ml/min
SAMPLE COLLECTION DEVICE:	Marschalk bladder pump		
SAMPLE APPEARANCE:	Clear		

FIELD PARAMETERS	10th	11th	12th	13th	14th	15th	16th	17th	18th	19th
time (00:00)	15:55	16:00	16:05	16:10	16:15	16:20	16:25			
pH (SU)	5.37	5.37	5.37	5.38	5.38	5.38	5.39			
specific conductivity (mS)	0.200	0.200	0.200	0.200	0.200	0.200	0.200			
turbidity (NTU's)	42	36	41	36	38	35	31			
dissolved oxygen (mg/l)	1.01	1.00	1.00	0.97	0.96	0.96	0.93			
temperature (degrees C)	13.9	13.9	13.9	13.9	13.9	13.9	13.9			
redox potential (mv)	173.5	172.8	171.9	171.9	169.3	168.7	167.5			
depth to water (feet)	47.38	47.42	47.44	47.41	47.41	47.42	47.42			
volume purged (L)	15.0	16.5	18.0	19.5	21.0	22.5	24.0			

SAMPLE ANALYSIS INFORMATION

ANALYSIS REQUIRED: VOC

LABORATORY: STL Edison

CONTACT:

Casing Diameter/Volume conversions	
(inches)	(gallons per foot)
2.0	0.1632
4.0	**0.6528**
6.0	1.4687
8.0	2.6115

NOTES: 4-inch well

MALCOLM PIRNIE

17-17 Rt 208 NORTH, FAIRLAWN, NEW JERSEY 07410

GROUNDWATER MONITORING WELL SAMPLE COLLECTION LOGS

PROJECT NUMBER:	4563001	**DATE:**	11/14/2007
PROJECT NAME:	GTEOSI	**SAMPLERS:**	Jeff DeKoskie
SITE LOCATION:	Hicksville, NY		Chris Goldsmith
SITE CONTACT:		**WEATHER:**	Sunny, mild, 60°F

WELL IDENTIFICATION NUMBER: MWP-114-290 **PERMIT:**

WELL HEADSPACE READING:	0.0	**PID MODEL/LAMP:**	mini rae 2000
DEPTH TO WATER (Before Purging):	47.68	**FEET FROM TOP OF CASING**	
WELL DEPTH:	289.61	**FEET FROM TOP OF CASING**	
HEIGHT OF WATER IN WELL:	241.93	**FEET**	
WATER IN ONE WELL VOLUME:	157.932	**GALLONS**	
PURGE TIME (start/finish):	08:25 / 10:30	**PURGE RATE:**	300 ml/min
WELL EVACUATION DEVICE:	Marschalk bladder pump		
SAMPLING TIME (start/finish):	10:35 / 10:40	**SAMPLE RATE:**	250 ml/min
SAMPLE COLLECTION DEVICE:	Marschalk bladder pump		
SAMPLE APPEARANCE:	Brown to clear		

FIELD PARAMETERS	initial	1st	2nd	3rd	4th	5th	6th	7th	8th	9th
time (00:00)	8:30	8:35	8:40	8:45	8:50	8:55	9:00	9:15	9:35	9:40
pH (SU)	5.27	5.49	5.49	5.45	5.38	5.31	5.30	5.16	5.16	5.18
specific conductivity (mS)	0.365	0.355	0.353	0.351	0.338	0.330	0.336	0.303	0.291	0.291
turbidity (NTU's)	60	45	45	41	>999	>999	>999	>999	>999	>999
dissolved oxygen (mg/l)	2.44	1.60	1.51	1.21	1.24	0.97	0.85	1.26	1.04	0.98
temperature (degrees C)	13.5	14.1	14.2	14.2	14.2	14.4	14.4	14.5	14.6	14.6
redox potential (mv)	138.1	177.0	177.6	175.7	176.9	149.0	144.9	151.4	165.4	168.0
depth to water (feet)	47.91	47.90	47.90	47.89	47.88	47.88	47.90	47.90	48.03	48.06
volume purged (L)	0.5	1.5	3.0	4.5	6.0	7.5	9.0	10.5	12.0	13.5

SAMPLE ANALYSIS INFORMATION

ANALYSIS REQUIRED: VOC

LABORATORY: STL Edison

CONTACT:

Casing Diameter/Volume conversions	
(inches)	(gallons per foot)
2.0	0.1632
4.0	**0.6528**
6.0	1.4687
8.0	2.6115

NOTES: 4-inch well

09:00 Clean out flow thru cell

09:15 Clean out flow thru cell

MALCOLM PIRNIE

17-17 Rt 208 NORTH, FAIRLAWN, NEW JERSEY 07410

GROUNDWATER MONITORING WELL SAMPLE COLLECTION LOGS

PROJECT NUMBER:	4563001	**DATE:**	11/14/2007
PROJECT NAME:	GTEOSI	**SAMPLERS:**	Jeff DeKoskie
SITE LOCATION:	Hicksville, NY		Chris Goldsmith
SITE CONTACT:		**WEATHER:**	Sunny, mild, 60°F

WELL IDENTIFICATION NUMBER: MWP-114-290 **PERMIT:**

WELL HEADSPACE READING:	0.0	**PID MODEL/LAMP:**	mini rae 2000
DEPTH TO WATER (Before Purging):	47.68	**FEET FROM TOP OF CASING**	
WELL DEPTH:	289.61	**FEET FROM TOP OF CASING**	
HEIGHT OF WATER IN WELL:	241.93	**FEET**	
WATER IN ONE WELL VOLUME:	157.932	**GALLONS**	
PURGE TIME (start/finish):	08:25 / 10:30	**PURGE RATE:**	300 ml/min
WELL EVACUATION DEVICE:	Marschalk bladder pump		
SAMPLING TIME (start/finish):	10:35 / 10:40	**SAMPLE RATE:**	250 ml/min
SAMPLE COLLECTION DEVICE:	Marschalk bladder pump		
SAMPLE APPEARANCE:	Brown to clear		

FIELD PARAMETERS	10th	11th	12th	13th	14th	15th	16th	17th	18th	19th
time (00:00)	9:45	9:50	9:55	10:00	10:05	10:10	10:15	10:20	10:25	10:30
pH (SU)	5.19	5.22	5.22	5.11	5.12	5.13	5.14	5.15	5.16	5.16
specific conductivity (mS)	0.291	0.294	0.294	0.300	0.301	0.303	0.304	0.307	0.308	0.307
turbidity (NTU's)	>999	856	764	77	68	66	67	70	64	66
dissolved oxygen (mg/l)	1.20	1.28	1.16	1.75	1.29	1.24	0.98	0.88	0.85	0.83
temperature (degrees C)	14.5	14.7	14.7	14.8	14.8	14.8	14.9	14.8	14.8	14.9
redox potential (mv)	173.2	249.0	233.0	188.5	190.3	197.4	196.8	198.6	198.7	196.7
depth to water (feet)	48.08	48.14	48.17	48.15	48.15	48.15	48.14	48.14	48.14	48.14
volume purged (L)	15.0	16.5	18.0	19.5	21.0	22.5	24.0	25.5	27.0	28.5

SAMPLE ANALYSIS INFORMATION

ANALYSIS REQUIRED: VOC

LABORATORY: STL Edison

CONTACT:

Casing Diameter/Volume conversions	
(inches)	(gallons per foot)
2.0	0.1632
4.0	**0.6528**
6.0	1.4687
8.0	2.6115

NOTES: 4-inch well

Duplicate sample collected

Data Usability Summary Report

Former Sylvania Electric Products
GTE Operations Support Incorporated
Hicksville Site

10/07 -11/07 Groundwater Sampling Event

VALIDATION REPORT

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Executive Summary

This report addresses data quality for groundwater samples collected south of the former Sylvania Electric Products Incorporated facility in Hicksville, New York. Sample collection activities were conducted by Malcolm Pirnie, Inc. between October 30, 2007 and November 14, 2007. The environmental samples collected for this investigation were submitted to TestAmerica Laboratories, Inc. (formerly Severn Trent Laboratories, Inc.) of Earth City, MO for Target Compound List Volatile Organic Compound (TCL VOC) analyses using United States Environmental Protection Agency (USEPA) guidance methods. The analytical data generated for this investigation were evaluated by Data Validation Services (DVS) using the quality assurance/quality control (QA/QC) criteria established in the methods as guidance. Non-conformances from the QA/QC criteria were qualified based on guidance provided in the following references:

- *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,* (SW846) USEPA, Final Update IIIA, April 1998;
- *United States Environmental Protection Agency Contract Laboratory Program National Functional Guidelines for Organic Data Review,* EPA 540-R-99-008, October 1999;
- *Analytical Services Protocol (ASP), New York State Department of Environmental Conservation* (NYSDEC). Guidance documents including Exhibits A, B, C, D, E, F, G, H, and I. (June 2000), and
- *United States Environmental Protection Agency Region II Contract Laboratory Program Organics Data Review,* SOP No. HW-6, Revision #11 (USEPA 1996a)

Professional judgment can be used to qualify results as estimated (J or UJ) in instances when so indicated by the overall quality of data.

A method non-conformance was observed with Laboratory Control Sample (LCS) recoveries, regarding which there was no significant effect on sample reported results. The equipment and trip blanks contained low level contamination of between one and three target compounds. The presence of these contaminants in those blanks indicate that some of the low level sample detections of these same analytes are to be considered as resulting from external contamination.

Also included in the data validation process is the replacement of results determined from responses that exceeded the laboratory calibration range (i.e., qualified with an "E" by the laboratory) with those reflecting responses (from dilution analyses) within the calibration range.

None of the exceedances or method non-conformance were significant enough to jeopardize the usability of the data. The reported sample results are usable based on the findings listed in this Data Usability Summary Report (DUSR).

Overall, 100 percent of the VOC data reported in the laboratory data packages were determined to be usable for qualitative and quantitative purposes. Those sample results qualified as estimated ("J" and "UJ") due to data validation QA/QC exceedances should be considered conditionally usable. Therefore, the completeness objective of 90 percent, as stated in the quality assurance project plan (QAPP), was met.

1. Introduction

1.1. Sample Identification

This report addresses the results of a data quality evaluation for groundwater samples collected south of the former Sylvania Electric Products Incorporated facility in Hicksville, New York (the Site). Sample collection activities were conducted between October 30, 2007 and November 14, 2007 by Malcolm Pirnie, Inc. A total of ten groundwater samples, two field duplicates, two trip blanks, and two equipment blanks were processed.

The laboratory Sample Delivery Group (SDG) (unique data package number), field identification, and laboratory identification number of the samples that were submitted for data validation are presented in Table 1-1.

Table 1-1: *Sample Cross-Reference List*

SDG	*Client ID*	*Laboratory ID*	*Analysis Requested*
F7K090121	P-118-361.55	F7K090121-001	VOCs by USEPA 8260B
	P-118-389.85	F7K090121-002	VOCs by USEPA 8260B
	P-118-426.40	F7K090121-003	VOCs by USEPA 8260B
	P-118-Dup#2	F7K090121-004	VOCs by USEPA 8260B
	Equipment Blank #6	F7K090121-005	VOCs by USEPA 8260B
	Trip Blank 10231108	F7K090121-006	VOCs by USEPA 8260B
F7K160121	MWP-114-170	F7K160121-001	VOCs by USEPA 8260B
	MWP-110-440	F7K160121-002	VOCs by USEPA 8260B
	MWP-110-355	F7K160121-003	VOCs by USEPA 8260B
	MWP-114-290	F7K160121-004	VOCs by USEPA 8260B
	P-118-450	F7K160121-007	VOCs by USEPA 8260B
	P-118-531.5	F7K160121-008	VOCs by USEPA 8260B
	P-118-537.4	F7K160121-009	VOCs by USEPA 8260B
	MWP-DUP-1	F7K160121-005	VOCs by USEPA 8260B
	MWP-EB-1	F7K160121-006	VOCs by USEPA 8260B
	TB11091115	F7K160121-010	VOCs by USEPA 8260B

1.2. General Considerations

The data validation review process is designed to evaluate the specific technical aspects of the analytical laboratory processing and the sample matrix, to verify that the final data reported for the field samples accurately reflect sample constituency, and to inform the end-user of the limitation of the data in the event

that they do not. This report summarizes the findings of the review and outlines any deviations from the applicable QC criteria outlined in the following documents:

- *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,* (SW846) USEPA, Final Update IIIA, April 1998.
- *USEPA CLP National Functional Guidelines for Organic Data Review*, EPA 540-R-99-008, October 1999.
- *Analytical Services Protocol (ASP), New York State Department of Environmental Conservation* (NYSDEC). Guidance documents including Exhibits A, B, C, D, E, F, G, H, and I. (June 2000)
- *USEPA Region II CLP Organics Data Review*, SOP No. HW-6, Revision #11 (USEPA 1996a); and

1.3. Analytical Methods

The environmental samples collected for this investigation were submitted to TestAmerica Laboratories, Inc. of Earth City, Missouri for volatile organic compound (VOC) analyses. The laboratory used the following USEPA guidance methods for the analyses:

- SW846 Method 5030B Purge/Trap Analysis
- SW846 Method 8260B Gas Chromatography/Mass Spectrometry

Each data package represents a sample delivery group (SDG), a collection of specific samples assigned during the sample log-in process. The SDG number is the means by which the laboratory tracks samples and controls QC analyses. A total of two SDGs, each containing between three and seven groundwater samples (and accompanying field QC), were created and processed for this project scope. The SDG, field identification and laboratory identification for each sample are summarized in Table 1-1.

The following sections of this document address distinct aspects of the validation process. Section 2 lists the data QA/QC protocols used to validate the sample data. A summary of the findings associated with the validation and the specific QA/QC deviations and qualifications performed on the sample data are discussed in Section 3. Data completeness and usability are discussed in Section 4. Section 5 presents the DUSR Summary Information.

2. Data Validation Protocols

2.1. Sample Analysis Parameters

Validation of the data was performed using guidance from the project QAPP (GTEOSI, 2002), the analytical methodology, and the data validation guidelines referenced in Section 1.

DVS performed a data review of all analytical results to assess data quality. A data review includes an assessment of sample handling protocols, supporting laboratory quality control (QC) parameters, and field QC. The following is a list of specific analytical information evaluated during the validation:

- Data package completeness review – per the NYSDEC ASP Category B
- Analytical methods performed and test method references
- Sample condition - review of log-in records for cooler temperature, presence of headspace, chemical preservation, etc.
- Holding times -comparison of collection and analysis dates

- Analytical results -units, values, significant figures, reporting limits, calculation algorithms
- Sample traceability and comparison to raw data
- Instrument tuning
- Initial calibration standards
- Continuing calibration standards
- Method blank results and laboratory contamination
- Laboratory control sample (LCS/MSB) results and comparison to laboratory and NYSASP control limits
- Matrix spike/matrix spike duplicate (MS/MSD) results; comparison to laboratory control limits
- Field duplicate results and comparison to data review criteria
- Surrogate recoveries and comparison to laboratory control limits
- Internal Standards and comparison to method and validation criteria
- Field QC sample (e.g., trip blanks, equipment blanks, etc.) --external contamination;
- Reporting Limits and dilutions

Review was performed on the laboratory analytical reports to determine completeness of the data packages and the acceptability of the accompanying QC data. When QC results fell outside recommended or required QC limits, validation data qualifiers were applied to the results in order to reflect the potential compromise in the integrity of the originally reported result. These qualifiers are in addition to, or a revision of, the qualifiers provided by the laboratory. A summary of the data qualifiers used for this review is presented in Section 2.2.

2.2. Data Qualifiers

The following qualifiers have been used by the laboratory:

"U"/ "ND"
: Non-detected result at the required QAPP reporting limit--- the laboratory utilizes "U" within the full data package, and "ND" in the summary package report Forms I equivalents.

"B"
: Associated with a result if the compound was identified in the corresponding method blank.

"J"
: Indicates an estimated value or a value below the established reporting limit but above the method detection limit.

"E"
: This flag identifies compounds whose concentrations exceed the calibration range of the instrument for the specific analysis; data qualified with an "E" are qualitative only and not useable for quantitative purposes. All results qualified with an "E" were required to be re-analyzed using an applicable dilution and re-reported.

Laboratory qualifiers defined above, are retained in the final database unless revised during the data validation process to one of the following qualifiers:

"U"/"ND"
: The analyte was not detected at the indicated reporting limit.

"J"
: Estimated concentration because the result was below the sample reporting limit or quality control criteria were not met.

"UJ" The chemical was not detected at or above the indicated reporting limit. However, the reporting limit is approximate and may or may not represent the actual limit of reporting necessary to accurately and precisely measure the analyte in the sample.

2.3. Data Usability Summary Report Questions

The DUSR determines whether or not the data meets site-specific criteria for data quality and use. It was developed by reviewing and evaluating the analytical data packages. During the course of this review the following questions were addressed (where applicable):

1. Is the data package complete as defined under the requirements for the NYSDEC ASP Category B or USEPA CLP deliverables?

2. Have all holding times been met?

3. Do all the QC data: blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls and sample data fall within the protocol required limits and specifications?

4. Have all of the data been generated using established and agreed upon analytical protocols?

5. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms?

6. Have the correct data qualifiers been used?

The answers to the questions presented by the DUSR are presented in the following sections of the report and in the DUSR Summary Information Section, Section 5.

3. Data Quality Evaluation

3.1. Summary

This section summarizes the review evaluation and subsequent usability of the data generated for this sampling event, as indicated by results of quality control parameters associated with the project samples. Laboratory compliance with required deliverables and processing was also assessed.

3.2. Validation Review

3.2.1. Completeness Review

The laboratory data packages were generated to include summary forms and raw data as specified in the New York State Department of Environmental Conservation (NYSDEC) Category B format. All summary form and raw data required for full validation review were provided. Custody and login forms pertaining to one of the data packages were provided on request.

3.2.2. Test Methods

The laboratory performed the analyses using the analytical test methods listed in Section 1.3. These included SW846 Method 5030B (aqueous sample purge/trap analysis) followed by Method 8260B (gas chromatography/mass spectrometry). The samples were analyzed using a 25-mL purge volume, thus providing lower reporting limits for each compound than those available with the unmodified method.

3.2.3. Sample Receipt

Sixteen aqueous samples were submitted for VOC analysis between October 30, 2007 and November 14, 2007. This included ten field samples, two field duplicates, two equipment blanks, and two trip blanks.

The sample temperatures at the time of receipt were within the recommended temperature range of 4°C±2°C for all deliveries.

Field and laboratory personnel completed the Chain-of-Custody (COC) documents correctly recording the signature, date, and time of custody transfer.

The laboratory recorded the condition of the samples at the time of receipt on a "Conditions Upon Receipt Form." This Form identifies whether the containers were received undamaged, within the proper temperature range, at the proper pH, in a container that is sealed with a custody seal on the exterior, and with a completed COC enclosed to identify all samples submitted to the laboratory.

Discrepancies between label information and custody form entries were observed, relating to collection times and sample identifications of two samples. Custody form entries were utilized.

A hand-edit was made to one sample ID entry on the custody, from "MWP-114-120" to "MWP-114-170". That edit should have been dated and initialed when made.

3.2.4. Holding Times

The technical and contractual holding times between sample collection and laboratory analyses meet method and QAPP requirements of 14-days for acid preserved field samples.
The trip blank associated with the 11/08/07 shipment was received by the laboratory outside of analytical holding time from the date of filling. The results for that blank are therefore qualified as estimated, with a potentially low bias. This means that the potential for external contamination in those three associated project samples (and the field duplicate) has not been thoroughly evaluated. Results for low-level detections in those samples should be used with that consideration. Table 3-1 shows a summary of that blank and qualified parameters.

Table 3-1. *Evaluation of Holding Times*

Package Identification	*Sample IDs*	*Compounds*	*Action*
F7K090121	Trip Blank 10231108	All	Qualify non-detections "UJ" Qualify detections "J"

3.2.5. Analytical Results

The laboratory provided a Form I equivalent with the reported analytical results for the requested analyses. The Form I format that was submitted is not strictly in compliance with USEPA CLP requirements as regards the inclusion of laboratory name and code. The forms do show the client sample identification, the laboratory sample identification, the file identification, the matrix, the date and time the sample was collected, the date the sample was received, the date and time the sample was analyzed, the dilution factor, the preparation batch identification number, the chemical abstract service (CAS) number for each analyte, the units of measure; and the laboratory qualifier (if any). Additional CLP forms were provided (e.g., II, III, etc.) to report applicable QC information for the analyses performed. The laboratory provided all the necessary forms for the VOC method.

3.2.6. Traceability to Raw Data

The traceability of the sample results to the raw data was easily accomplished by the use of the information on the summary forms and laboratory analysis logs.

3.2.7. Instrument Tuning

The GC/MS system performance was shown to produce acceptable mass identifications and sensitivity with the evaluation of the instrument tuning compound bromofluorobenzene (BFB). All requirements for mass fragmentation and resolution were met. The instrument performance was checked prior to calibration and once every 12-hour shift for all analytical QC batches.

3.2.8. Initial Calibration

Calibration standards are analyzed at required frequency and concentration in order to show that the instrumentation is performing consistently and to establish the linear range of response.

All linearity relative standard deviations (%RSD) met analytical and validation guidelines.

Relative response factors (RRFs) were within method protocol requirements. However, responses for acetone and 2-butanone in the calibration standards show RRFs typical for this methodology, but below the validation limit of 0.05 noted in the guidance documents cited earlier in this narrative. The acetone and 2-butanone RRFs observed with this project are considered acceptable (above 0.01) in the updated USEPA Region II low level volatile analysis validation SOP (HW-33), further supporting judgment that the data are usable. Acceptance of these data is based upon the linearity and consistency of standard responses, the recoveries of these analytes in the spiked QC, and the quality of the mass spectra of acetone. Data for those compounds in all project samples and QC are qualified as estimated. Table 3-2 shows the samples and indicated qualifications:

Table 3-2. *Evaluation of Initial Calibration Results*

Package Identification	*Sample IDs*	*Compounds**	*Action*
F7K090121 F7K160121	All	Acetone and 2-butanone	Qualify detections "J" Qualify non-detections "UJ"

3.2.9. Continuing Calibration

The continuing calibration standards (CCAL) were performed with a mid-level standard immediately following the tuning check at the beginning of each 12-hour analytical sequence. The CCAL verification analyses met method criteria (i.e., RRFs were >0.05 for the SPCCs, and the percent differences (%Ds) from the avgRRF were < 20% for the CCCs) for all analytical QC batches. For the target compounds, the %Ds were greater than 20% for three compounds. Although method criteria were met, as a conservative approach the results associated with a CCAL that exceeded 20%D were qualified as estimated ("J" or "UJ"). Table 3-3 shows a summary of the samples and qualified parameters.

Table 3-3. *Evaluation of Continuing Calibration Results*

Package Identification	*Sample ID*	*Compound (%D)*	*Action*
F7K090121	P-118-361.55 P-118-389.85 P-118-426.40 P-118-DUP#2 Equipment Blank #6 Trip Blank 10231108	Carbon tetrachloride (31%D)	Qualify detections "J" Qualify non-detections "UJ"

3.2.10. Laboratory Method Blanks

Blanks are processed to evaluate the potential for external contamination at sample collection, transport, and analysis.

Method blanks are clean water samples that are processed as part of the analytical sequence, and whenever contamination may be present in the analytical system.

Laboratory method blanks showed no contamination, with the exception of one in which bromomethane was detected at a low concentration. There were no detections of this compound in the field samples, and reported results are therefore unaffected.

3.2.11. Laboratory Control Sample Results

LCSs are fortified blanks that are spiked with known concentrations of specific analytes. The recoveries of these analytes confirm that laboratory processing and instrumentation are producing accurate and consistent results.

LCSs were processed at the correct frequency, and in duplicate, thus providing evaluation for precision as well as accuracy. All percent recoveries were within laboratory control limits and validation action levels with the exception of those for bromomethane (215% and 224%, above 140%) in one pair of the LCSs. Bromomethane was not detected in associated samples and results are therefore not affected.

Acetone showed an elevated duplicate correlation (22%RPD, above 20%RPD) in that same set. Two of the samples show acetone detections, and are therefore qualified as estimated in value. Table 3-4 shows the affected samples:

Table 3-4. *Evaluation of Laboratory Control Sample Results*

Package Identification	*Client ID*	*Compound*	*Action*
F7K160121	P-118-531.5 P-118-537.4	Acetone	Qualify detections "J"

3.2.12. Matrix Spike/Matrix Spike Duplicate Analyses

Target analyte compounds are added to defined project samples in order to monitor how well those analytes recover through the analytical process. Duplicate matrix spike or duplicate parent sample results are also compared to see how well they correlate to one another. Those recoveries indicate the accuracy and precision of sample reported results.

No project samples were submitted or processed for MS/MSD evaluations. Non-project batch QC accuracy and precision data were provided, and show several analytes with either outlying recoveries or elevated duplicate correlations. No qualification is made to the samples in this project due to matrix effects of other project samples.

3.2.13. Field Duplicate Analyses

P-118-426.40 and P-114-290 were submitted with accompanying field duplicates. An evaluation of the precision of the field sampling procedure (as well as the laboratory analysis procedure) was made based on the relative percent difference (RPD) calculated for the original and duplicate sample results. RPD calculations were made only when both results were above the laboratory reporting limits. The RPD values for all compounds were less than 30% (aqueous data evaluation criteria).

3.2.14. Trip Blanks and Equipment Blanks

Blanks are processed to evaluate the potential for external contamination at sample collection, transport, and analysis.

- Equipment blanks are collected by pouring de-ionized water through decontaminated sampling equipment in order to verify that the decontamination process is performed completely.

- Trip blanks are sealed vials of clean water that are transported with the sample vials from the mobile laboratory to the site prior to sample collection, and from the site to the laboratory with the collected samples. They are stored and processed with the project samples, thus reflecting potential contamination from external sources.

Two trip blanks and two equipment blanks were submitted with the groundwater samples. One trip blank showed low-level contamination of trichloroethene, and the other trip blank showed low-level contamination of chloromethane, chloroethane, and trichloroethene. One of the equipment blanks showed no contamination, and the other showed low-level detections of carbon tetrachloride and trichloroethene. Results for these specific analytes in associated field samples that were found at concentrations below the validation action limit have been edited to reflect the fact that the sample detected values may be a result of external contamination. Edits to the affected target compounds were based on trip and equipment blank contamination, in accordance with practices described in the validation guidance documents listed in Sections 1.2. Table 3-5 shows the samples and compounds that were qualified as non-detect ("U").

Table 3-5. *Evaluation of Trip Blank and Equipment Blank Results*

Package Identification	***Sample ID***	***Compound*** (Blank concentration)	***Action***
F7K090121	P-118-361.55	Carbon tetrachloride (0.13 ug/L)	Edit to "U" or "ND"
	P-118-361.55 P-118-389.85 P-118-426.40 P-118-DUP#2	Chloromethane (0.67 ug/L)	Edit to "U" or "ND"
	P-118-361.55	Trichloroethene (0.19 ug/L)	Edit to "U" or "ND"

3.2.15. System Monitoring Compounds

System Monitoring Compounds (SMC) are surrogate standards that behave similarly to the target analytes during the analysis procedures, and serve to monitor system performance and potential sample matrix interference.

The three SMC evaluated in the TCL VOA analyses show acceptable recoveries in the field samples. This indicates that there are no significant sample matrix effects on the recoveries of target analytes, and aids in the confirmation of reported quantitative values.

3.2.16. Internal Standards

System performance and sample matrix interferences are evaluated during the VOA analyses by the addition of internal standard compounds to all samples and associated QC.

All samples show internal standards within the required range. The retention times of the internal standards fell within ± 30 seconds from that of the most recent calibration for all analyses.

3.2.17. Compound Identification and Quantitation of Results

The retention times and mass spectra of detected analytes meet protocol requirements for identification of the target analytes.

The retention times of detected analytes meet protocol requirements for identification.

Raw data were provided for review in the data package. Calculation algorithms, quantitative results, and reporting limit values have been confirmed during this review process.

Ten of the project samples were processed at secondary dilution in order to bring certain of the analyte detected responses into instrument calibration range. The results derived from the dilution analyses are used for those specific sample analyte results, as shown in Table 3-6.

Table 3-6. *Summary of Laboratory Re-Analyses*

Package Identification	***Client ID***	***Compound Reported From Dilution Analysis***
F7K090121	P-118-426.40	Tetrachloroethene Trichloroethene
	P-118-DUP#2	Tetrachloroethene Trichloroethene
F7160121	MWP-114-170	cis-1,2-Dichloroethene Trichloroethene
	MWP-110-440	Tetrachloroethene
	MWP-110-355	Trichloroethene
	MWP-114-290	Trichloroethene
	MWP-DUP-1	Trichloroethene
	P-118-450	Tetrachloroethene Trichloroethene Carbon Tetrachloride
	P-118-531.5	Tetrachloroethene Trichloroethene
	P-118-537.4	Tetrachloroethene Trichloroethene

4. Summary and Data Usability

This chapter summarizes the analytical data in terms of its completeness and usability. Data completeness is defined as the percentage of sample results that have been determined to be usable during the data validation process. Overall, 100 percent of the VOC data were determined to be usable for qualitative and quantitative purposes. Those sample results qualified as estimated ("J" and "UJ") due to data validation QA/QC exceedances should be considered conditionally usable. No project data have been rejected.

The samples collected from the site in Hicksville, New York were evaluated based on QA/QC criteria established by methods as listed in Section 1.3, by the data validation guidelines listed in Section 1.2, and by the QAPP (GTEOSI, 2002) established for this project. Major deficiencies in the data generation process would have resulted in data being rejected, indicating that the data are considered unusable for either quantitative or qualitative purposes. Minor deficiencies in the data generation process resulted in some sample data being characterized as approximate or estimated. Identification of a data point as approximate indicates uncertainty in the reported concentration or detection limit of the chemical, but not its assigned identity.

The following paragraphs present the adherence of the data to the precision, accuracy, representativeness, comparability, completeness, and sensitivity (PARCCS) parameters.

Precision is measured through the evaluation of field duplicate samples and laboratory duplicate samples, and LCS recoveries indicate the accuracy of the data.

Holding times, sample preservation, blank analysis, and analyte identification and quantification are indicators of the representativeness of the analytical data.

Comparability is not compromised, provided that the analytical methods do not change over time. A major component of comparability is the use of standard reference materials for calibration and QC.

These standards are compared to other unknowns to verify their concentrations. Since standard analytical methods and reporting procedures were consistently used by the laboratory, the comparability criteria for the analytical data were met.

Sensitivity is established by reported detection limits that represent measurable concentrations of analytes that can be determined with a designated level of confidence.

5. Data Usability Summary Report Summary Information

The DUSR was performed to determine whether or not the data meets site-specific criteria for data quality and use. The DUSR is developed by reviewing and evaluating the analytical data package. The following questions were addressed:

1. Is the data package complete as defined under the requirements for the NYSDEC ASP Category B or USEPA CLP deliverables?

The QAPP required that USEPA Level III deliverables be provided by the laboratory for each data package. This requirement was met as it applies to the methods used by the laboratory for sample analysis. Proper documentation was provided to enable a thorough validation review of the analytical data.

2. Have all holding times been met?

All field sample holding times were met.

3. Do all the QC data: blanks, standards, spike recoveries, replicate analyses, and sample data fall within the protocol-required limits and specifications?

The laboratory used the laboratory control limits during the analyses performed for this sampling event. Only minor QA/QC deviations were observed, with subsequent minimal qualification to sample data.

4. Have all of the data been generated using established and agreed upon analytical protocols?

The QAPP required that USEPA guidance methods be used in the analysis of samples collected for this sampling event. The laboratory used the required method protocols (with some minor modifications) for the analyses performed for this sampling event, which met data user and client needs.

5. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms?

The raw data confirm the reported qualitative and quantitative results that were submitted by the laboratory in the data packages.

Have the correct data qualifiers been used?

The laboratory applied the correct qualifiers to the sample data (although "ND" was used for "U" on the sample results report forms. The validation qualifiers were applied as required by validation guidelines listed in Section 1

References

URS Corporation, *Groundwater Investigation Work Plan, Former Sylvania Electric Products Facility, Hicksville, New York,* QAPP: Appendix C. September 2002.

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, (SW846) USEPA, Final Update IIIA, April 1998;

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Analytical Services Protocol (ASP), New York State Department of Environmental Conservation (NYSDEC). Guidance documents including Exhibits A, B, C, D, E, F, G, H, and I. (June 2000), and

United States Environmental Protection Agency Region II Contract Laboratory Program (CLP) Organics Data Review, SOP No. HW-6, Revision #11 (USEPA 1996a)