FINAL GROUNDWATER SAMPLING REPORT (November 2008 Sampling Event)

Multi Site G Operation, Maintenance & Monitoring

Liberty Industrial Finishing Site Brentwood, Suffolk County, NY Site 1-52-108

Work Assignment No. D004445-14.2A

Prepared for:



SUPERFUND STANDBY PROGRAM New York State Department of Environmental Conservation 625 Broadway Albany, New York 12233

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1.0 INTRODUCTION

Past releases from the Liberty Industrial Finishing Site in Brentwood, New York (Site No. 1-52-108) resulted in the contamination of soil and groundwater at the Site and surrounding areas. AECOM Technical Services Northeast, Inc. (AECOM [formerly Earth Tech Northeast, Inc]) has been tasked with collecting three rounds of five-quarterly samples from selected monitoring wells as part of a long-term monitoring plan. AECOM is performing this work under the New York State Department of Environmental Conservation (NYSDEC) Superfund Standby Contract Work Assignment D004445-14.2. The first round of sampling was conducted in June 2006. The second round of sampling was conducted in August 2007. This report presents the results from the third and final round of sampling conducted in November 2008.

2.0 SITE DESCRIPTION

The Liberty Industrial Finishing Superfund site is located at 550 Suffolk Avenue, Brentwood, Suffolk County, New York (see Figure 1). The Site is bounded to the north by Suffolk Avenue, by the Long Island Railroad to the south, undeveloped land to the east and a gasoline station the west on Suffolk Avenue. Eight monitoring wells are included in the long-term monitoring program at the Site.

3.0 FIELD ACTIVITIES

The monitoring well survey information could not be located at the start of this project. As a part of this long-term monitoring program, each of the eight wells included in the sampling program were resurveyed by YEC, Inc., a licensed New York State surveyor on March 21, 2007. A summary of well construction data is presented on Table 1.

The field sampling at the Liberty Industrial Finishing Site occurred on November 13 and 14, and December 23, 2008. Sampling was conducted in accordance with the Sampling and Analysis Plan (SAP) prepared by AECOM, dated June 2007. The SAP is comprised of the Field Sampling Plan (FSP), the Quality Assurance Project Plan (QAPP) and the Safe Work Plan (SWP). All field work was performed in Level D personal protection.

3.1 Water Level Survey

Prior to the start of sampling, water levels were measured in each well to provide a synoptic event. Water level measurements were recorded in the Field Notebook and on the Well Sampling Forms included in Appendix A. A summary of groundwater elevation measurements is provided in Table 2. Each location was photo-documented and a hand-held global positioning system (GPS) unit was used to record the coordinates. The groundwater elevation data are shown on Figure 3. As shown on the figure, the water table elevations are very similar across the entire study area with less than 1.0 ft of change from the highest recorded elevation to the lowest. The total depth of each of the eight wells also varies significantly from 49.3 to 265 ft. It appears that groundwater is flowing to the southeast. This is consistent with previous investigations performed by other consultants, which also determined that the general direction of groundwater flow at the Site was to the southeast.

3.2 Groundwater Sampling

Eight monitoring wells were identified for long term monitoring at the Site. The selected wells included MW-5, MW-6, MW-12, MW-14, MW-18, MW-19, MW-20 and MW-21. Well locations are shown on

Figure 2. NYSDEC Monitoring Well Field Inspection Forms were completed for each well and are included in Appendix B. Six wells were sampled in November. MW-12 and MW-14 could not be sampled during the November mobilization as rain resulted in street flooding along First Street preventing the field crew from opening the flushmount well caps. The crew returned to the Site in December to complete the sampling event.

AECOM used a Grundfos Redi-Flo2 submersible electric pump with polyethylene tubing to purge each monitoring well prior to sampling. Monitoring wells were purged of at least three casing volumes of water prior to sampling. Measurements of pH, specific conductance, temperature, dissolved oxygen, oxygen reduction potential, and turbidity were recorded on the Well Sampling Forms periodically during purging. Well sampling forms are included in Appendix A. Once the minimum volume of water had been evacuated, a dedicated Teflon bailer was used to collect a groundwater sample. The sample was transferred into laboratory supplied containers and stored in an ice-filled cooler. The samples were then transported to Mitkem Laboratory via UPS for overnight delivery. Proper chain-of-custody procedures and requirements were maintained throughout the sampling event in accordance with the QAPP.

4.0 SAMPLING RESULTS

The samples from monitoring wells MW-5, MW-6, MW-12, MW-14, MW-18, MW-19, MW-20, and MW-21 were labeled with the L- prefix to denote they were collected from the Liberty site. Groundwater samples were analyzed for target analyte list metals (TAL metals) using USEPA Method 6010/7470. The analyses were performed by Mitkem Laboratory of Warwick, Rhode Island, a NYSDOH ELAP certified laboratory (ELAP certification number 11522). Data validation was not performed. The Mitkem data summary packages are included in Appendix C. A table showing the full data set is also included in Appendix C. An AECOM chemist provided a limited review of the data packages. A summary of the detections is presented in Table 3. The exceedances are also shown on Figure 4.

Eight metals were detected above the Class GA criterion in monitoring wells at the Site during the three sampling events. These metals include antimony, cadmium, chromium, iron, manganese, lead, sodium and thallium.

Antimony was detected in six of eight monitoring wells during the June 2006 sampling event; of these, two samples exceeded the Class GA criterion of 3 μ g/L (maximum concentration of 3.7 μ g/L in MW-5). During the August 2007 sampling event, antimony was detected in five of eight samples, of which all five exceeded the criterion (maximum concentration of 11.2 μ g/L in MW-12). During the November 2008 sampling event, antimony was detected in only one sample, MW-18, at a concentration of 9 μ g/L, which exceeded the criterion.

During the June 2006 sampling event, cadmium was detected in six of eight samples but none of the concentrations exceeded the Class GA criterion of 5 μ g/L. During the August 2007 sampling event, cadmium was detected in all eight sample, three of which exceeded the criterion (maximum concentration of 12.6 μ g/L). During the November 2008 sampling event, cadmium was detected in six of eight samples, two of which (MW-12 and MW-14) exceeded the criterion (maximum concentration of 59.1 μ g/L).

Chromium was detected in all eight samples during the June 2006 sampling event, one of which exceeded the Class GA criterion of 50 μ g/L (95.8 μ g/L at MW-14). During the August 2007 sampling event, chromium was again detected in all eight samples, one of which exceeded the criterion (248 μ g/L at MW-14). During the November 2008 sampling event, chromium was detected in six of eight samples, one of which exceeded the criterion (69.6 μ g/L at MW-14).

Iron was detected in all eight samples during the June 2006 and August 2007 sampling events. Three samples exceeded the criterion of 300 μ g/L during the June 2006 sampling event (maximum concentration of 1,710 μ g/L at MW-20). During the August 2007 sampling event, six samples exceeded the criterion (maximum concentration of 10,900 μ g/L at MW-12). During the November 2008 sampling event, iron was detected in six of eight samples, three of which exceeded the criterion (maximum concentration of 9,320 μ g/L at MW-14).

Manganese was detected in all eight samples during all three sampling events. There were no exceedances of the 300 μ g/L criterion during the June 2006 sampling event. There was one exceedance of the criterion during the August 2007 sampling event, 547 μ g/L at MW-18. There was one exceedance during the November 2008 sampling event, 627 μ g/L at MW-21.

Lead was detected in four of eight samples during the June 2006 sampling event but none exceeded the criterion of 25 μ g/L. Lead was detected in all eight August 2007 samples, one of which exceeded the criterion, 106 μ g/L at MW-12. Lead was detected in four of eight samples during the November 2008 sampling event, of which two exceeded the criterion (maximum concentration of 221 μ at MW-14).

Sodium was detected in all eight samples during all three sampling events. During the June 2006 sampling event, four samples exceeded the criterion of 20,000 μ g/L (maximum concentration of 31,900 μ g/L at MW-14). Four samples exceeded the criterion during the August 2007 sampling event (maximum concentration of 31,100 μ g/L at MW-20). During the November 2008 sampling event, four samples exceeded the criterion (maximum concentration of 561,000 μ g/L at MW-14).

Thallium was not detected in any of the eight samples collected during the June 2006 sampling event. Thallium was detected in two samples during the August 2007 sampling event, both of which exceeded the criterion of 0.5 μ g/L (maximum concentration of 3.4 μ g/L). Thallium was not detected in any of the eight samples collected during the November 2008 sampling event.

5.0 SUMMARY AND RECOMMENDATIONS FOR FUTURE SITE REMEDIATION ACTIVITIES

5.1 SUMMARY OF GROUNDWATER SAMPLING DATA

Based on a review of the data from the three sampling events, concentrations of antimony, cadmium, chromium, iron, lead, manganese, sodium and thallium were detected at concentrations above their Class GA criteria.

Iron, manganese and sodium are naturally occurring metals in groundwater on Long Island. The exceedances of these metals found in MW-12, MW-14, MW-18, MW-20, and MW-21 most likely represent background conditions and are not related to previous site activities. The sodium concentration from Round 3 at MW-14 (561,000 μ g/L) appears to be anomalously high. The sodium concentrations in other wells sampled during the three sampling events range from about 5,000 μ g/L to 32,000 μ g/L with the second highest sodium concentration noted at MW-14 during Round 1 (31,900 μ g/L).

Antimony was detected in all eight wells at least once during the three sampling events at concentrations ranging from 1.5 μ g/L to 11.2 μ g/L (Class GA criterion of 3 μ g/L). However, the exceedances have been sporadic. At MW-6, the concentration exceeded the criterion during the fist and second events but was not detected during the third event. There does not appear to be a trend in exceedances for antimony at any of the eight monitoring wells.

Cadmium was detected in the majority of the samples collected during the three sampling events (20 out of 24 samples). However, there were only three exceedances in Round 2 and two exceedances in Round 3. There does not appear to be any trends in cadmium concentrations and only one well, MW-12, had two exceedances.

Chromium has been detected in the majority of samples (22 of 24 samples). However there were only three exceedances during the three sampling round, all at MW-14 with concentrations ranging from $69.6 \mu g/L$ to $248 \mu g/L$.

Lead was detected in 16 of 24 samples collected at the Site during the three sampling events. However, there have only been three exceedances, two of which have occurred at MW-12 with concentrations: $106 \,\mu g/L$ during Round 2 and 83.7 $\mu g/L$ during Round 3.

Thallium was only detected twice during the three sampling events. Both occurrences were above the criterion. There does not appear to be any trends in thallium concentrations at the Site.

5.2 **RECOMMENDATIONS FOR FUTURE WORK**

Exceedances of antimony are inconsistent between sampling events. During event 1 in June 2006, antimony was detected in six of the eight wells sampled but only exceeded the Class GA criterion of $3 \mu g/L$ in two monitoring wells. Antimony was detected in five of eight monitoring wells sampled during the August 2007 sampling event, all of which exceeded the criterion. During the November 2008 sampling event, only one sample exceeded the criterion. No well has exceeded the Class GA criterion during all three sampling events. Due to the inconsistencies in concentrations between events, it does not appear that antimony is a concern at the Site. AECOM recommends continued sampling to verify the concentrations. We also recommend that samples fro metals analyses be filtered to determine if antimony is present in the dissolved phase or is a result of suspended sediment in the samples.

Cadmium was detected above the Class GA criterion of 5 μ g/L in three monitoring wells during the August 2007 sampling event and two wells during the November 2008 sampling event. Only one well, MW-12, has had two exceedances during the three sampling events. AECOM recommends the collection of another round of samples to verify the concentrations. As noted above, we also recommend the collection of both filtered and unfiltered samples to determine if the contamination is in the dissolved phase or is a result of suspended sediment in the samples.

Chromium exceeded the Class GA criterion of 50 μ g/L in one monitoring well, MW-14, during all three sampling events. Chromium concentrations in the adjacent monitoring well MW-12 (screened approximately 50 ft higher in the aquifer) were below the Class GA criterion during all three sampling events. The next monitoring well downgradient from MW-14 screened at similar interval is MW-21. Chromium concentrations in MW-21 have been significantly below the Class GA criterion during all three sampling events. It appears that the chromium contamination is limited to MW-14 as evidenced by the concentrations noted in nearby monitoring wells MW-12, MW-20 and MW-21. As the chromium concentrations appear to be an isolated occurrence at MW-14, AECOM recommends continued sampling to determine if the contamination is migrating downgradient (MW-21) or to the deeper portions of the aquifer (MW-20).

Lead exceeded the Class GA criterion of $25 \mu g/L$ during the August 2007 and November 2008 sampling events at monitoring well MW-12; however, the concentration from the June 2006 sampling event was significantly below the criterion. As this appears to be an isolated occurrence, AECOM recommends continued sampling to verify the concentrations. We also recommend collecting both filtered and

unfiltered samples to determine if the contamination is in the dissolved phase or a result of suspended sediment in the sample.

Thallium was detected in two monitoring wells, MW-14 and MW-19 above the Class GA criterion of $0.5 \,\mu$ g/L during the August 2007 sampling event only. AECOM recommends continued sampling to verify the concentrations. As noted above, we also recommend the collection of both filtered and unfiltered samples to determine if the contamination is in the dissolved phase or is a result of suspended sediment in the samples.

This ends the long term monitoring assignment for AECOM at the Liberty Site.

TABLE 1LIBERTY INDUSTRIAL FINISHING SITE (1-25-077)WELL CONSTRUCTION DATA

Well Number	Northing	Easting	Ground Elevation	Top of Riser Elevation	Top of Casing Elevation	Total Depth of Well
MW-5 MW-6 MW-12 MW-14 MW-18 MW-19 MW-20 MW-21	202,308.86 202,306.77 201,973.43 201,966.33 202,101.70 202,102.30 201,798.92 201,798.35	2,206,350.98 2,206,341.15 2,206,863.98 2,206,866.03 2,206,373.86 2,206,386.65 2,206,946.09 2,206,950.31	92.19 92.09	93.32 92.71 89.59 89.55 91.55 91.98 88.59 88.66	93.60 92.79 89.79 89.77 92.03 92.19 89.08 89.15	50.0 265.0 49.3 100.0 150.0 248.0 149.5 110.5

All elevations and depths in feet

Field survey performed by YEC, Inc., on March 23, 2007 Vertical datum: NAVD 88, for NGVD 29, add 1.13 feet

TABLE 2LIBERTY INDUSTRIAL FINISHING SITE (1-52-077)GROUNDWATER ELEVATIONS

Well #	Reference Elevation (ft, NGVD)	Total Depth of Well (ft)	Date	Depth To Water (ft)	Water Table Elevation (ft, NGVD)	Comments
MW-5	93.23	50.0	6/12/06 8/21/07 11/13/08	42.24 43.11 45.40	50.99 50.12 47.83	
MW-6	92.71	265.0	6/12/06 8/21/07 11/13/08	42.19 43.15 45.23	50.52 49.56 47.48	
MW-12	89.59	49.3	6/14/06 8/24/07 11/13/08 12/23/08	39.09 39.95 42.25 41.81	50.50 49.64 47.34 47.78	
MW-14	89.55	100.0	6/14/06 8/24/07 11/13/08 12/23/08	39.13 40.00 42.35 41.98	50.42 49.55 47.20 47.57	
MW-18	91.55	150.0	6/22/06 8/21/07 11/13/08	41.98 40.76 41.25 43.80	47.57 50.79 50.30 47.75	
MW-19	91.98	248.0	6/22/06 8/21/07 11/13/08	41.95 41.60 43.90	50.03 50.38 48.08	
MW-20	88.59	149.5	6/14/06 8/21/07 11/13/08	38.29 39.18 41.20	50.30 49.41 47.39	
MW-21	88.66	110.5	6/14/06 8/21/07 11/13/08	38.30 39.20 41.47	50.36 49.46 47.19	

TABLE 3 LIBERTY INDUSTRIAL FINISHING SITE (1-52-108) JUNE 2006, AUGUST 2007 AND NOVEMBER 2008 SAMPLING EVENTS SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-5	MW-5	MW-5	MW-6	MW-6	MW-6	MW-12	MW-12	MW-12
Sample ID	Class GA	LMW-5	LMW-5	LMW-5	LMW-6	LMW-6	LMW-6	LMW-12	LMW-12	LMW-12
Laboratory ID	Groundwater	E0833-01A	F1192-04A	G2136-07A	E0833-02A	F1192-09A	G2136-06A	E0833-03A	F1192-05A	G2415-01
Sample Date	Criteria	6/12/06	8/23/07	11/14/08	6/12/06	8/24/07	11/14/08	6/14/06	8/24/07	12/23/08
Matrix	water	water	water	water	water	water	water	water	water	water
Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
		conc. Q	conc. Q		conc. Q	conc. Q		conc. Q	conc. Q	conc. Q
Aluminum	NC	238	157 B	ND	ND	398	ND	445	9,070	2,260
Antimony	3	3.7 B	ND	ND	3.1 B	8.0 B	ND	1.8 B	11.2 B	ND
Arsenic	25	2.2 B	ND	ND	ND	ND	ND	ND	3.3 B	ND
Barium	1,000	49.3 B	50 B	45.7 B	24.9 B	29.6 B	15.7 B	45.2 B	75.4 B	60.5 B
Beryllium	3	ND	ND	ND	ND	ND	ND	0.38 B	0.24 B	0.19 B
Cadmium	5	0.13 B	0.51 B	ND	ND	12.6	0.55 B	0.52 B	5.6	25.5
Calcium	NC	19,000	15,000	16,900	9,880	10,000	8,300	13,100	26,900	19,700
Chromium	50	18.2 B	42.2	7.3 B	0.79 B	28.7	ND	2.5 B	37.5	18.9 B
Cobalt	NC	0.67 B	1.4 B	ND	0.31 B	2.2 B	ND	0.63 B	5.5 B	2.6 B
Copper	200	23.8 B	10.9 B	ND	15.6 B	31.3	ND	14.9 B	85.3	63.5
Iron	300	198 B	122 B	ND	45.2 B	3,120	147 B	467	10,900	4,080
Lead	25	1.3 B	3.4 B	ND	ND	15.8	ND	7.7 B	106	83.7
Magnesium	35,000	2,040 E	1,870	2040	2,980 E	2,630	2,590	3,710 E	6,830	4,330
Manganese	300	15.1 B	13.7 B	6.8 B	5.9 B	60.9	40.8 B	77.3	96.9	82.7
Mercury	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	100	3.3 B	1.1 B	ND	3.6 B	12.3 B	2.2 B	3.4 B	12.4 B	14.9 B
Potassium	NC	4,330	4,500	4,380	759 B	1,390	2,060	2,280	2,700	2,540
Selenium	10	ND	7.4 B	ND	1.6 B	ND	ND	2.6 B	ND	ND
Silver	50	ND	4 B	ND	ND	ND	ND	ND	ND	7.6 B
Sodium	20,000	4,460	7,800	7,570	10,100	9,950	11,600	11,700	13,400	27,100
Thallium	0.50	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	NC	ND	0.59 B	ND	ND	2 B	ND	0.77 B	28.8 B	8.6 B
Zinc	2,000	29.1 B	18.4 B	13.7 B	24.8 B	118	21.9 B	26.1 B	246	220

Notes: NC - No NYSDEC criterion

ND - Not Detected

B - Estimated value

BOLD/Italics - Exceeds criterion

E - Estimated value due to interference

TABLE 3 LIBERTY INDUSTRIAL FINISHING SITE (1-52-108) JUNE 2006, AUGUST 2007 AND NOVEMBER 2008 SAMPLING EVENTS SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-14	MW-14	MW-14	MW-18	MW-18	MW-18	MW-19	MW-19	MW-19
Sample ID	Class GA	LMW-14	LMW-14	LMW-14	LMW-18	LMW-18	LMW-18	LMW-19	LMW-19	LMW-19
Laboratory ID	Groundwater	E0833-04A	F1192-06A	G2415-02	E0868-14A	F1192-08A	G2136-02A	E0868-15A	F1192-07A	G2136-01A
Sample Date	Criteria	6/14/06	8/24/07	12/23/08	6/22/06	8/24/07	11/13/08	6/22/06	8/24/07	11/13/08
Matrix	water	water	water	water	water	water	water	water	water	water
Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
		conc. Q	conc. Q	conc. Q	conc. Q	conc. Q		conc. Q	conc. Q	
Aluminum	NC	780	314	7,090	135 B	252	196 B	53.4 B	74.9 B	ND
Antimony	3	1.5 B	ND	ND	ND	ND	9 B	ND	6.7 B	ND
Arsenic	25	ND	ND	5.6 B	ND	ND	ND	ND	ND	ND
Barium	1,000	40.5 B	31.5 B	162 B	74.8 B	92.5 B	86.4 B	14.2 B	21.5 B	20 B
Beryllium	3	ND	ND	0.38 B	ND	ND	ND	ND	ND U	ND
Cadmium	5	4.9 B	1.5 B	59.1	0.33 B	1.3 B	0.92 B	1.1 B	8	ND
Calcium	NC	13,100	12,900	35,800	12,800	15,500	13,500	9,900	13,000	9,700
Chromium	50	95.8	248	69.6	3.3 B	2.1 B	5.4 B	1 B	2 B	ND
Cobalt	NC	2 B	1.2 B	5.1 B	0.48 B	1.3 B	ND	ND	1.2 B	ND
Copper	200	22.2 B	8.9 B	110	ND	8.1 B	11 B	ND	11.7 B	ND
Iron	300	728	389	9,320	212	308	307	54.2 B	221	ND
Lead	25	2.9 B	3.4 B	221	ND	3 B	2.5 B	ND	4.1 B	ND
Magnesium	35,000	1,610 E	3,000	6,340	5,440	5,430	4,960	3,180	4,600	3,970
Manganese	300	35.3 B	21.2 B	231	169	547	122	3.5 B	9.3 B	14.9 B
Mercury	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	100	7.5 B	4.4 B	53.2	1.4 B	3.1 B	3.2 B	ND	2.9 B	ND
Potassium	NC	3,320	4,140	7,090	10,800	7,290	10,200	816 B	949 B	947 B
Selenium	10	ND	6.7 B	ND	ND	ND	ND	ND	ND	ND
Silver	50	ND	3.2 B	4.3 B	ND	4 B	1.6 B	ND	3.3 B	1.1 B
Sodium	20,000	31,900	28,900	561,000	30,000	26,700	29,600	10,200	14,400	13,400
Thallium	0.50	ND	3.4 B	ND	ND	ND	ND	ND	2.9 B	ND
Vanadium	NC	0.58 B	0.51 B	22.5 B	ND	0.66 B	ND	ND	ND	ND
Zinc	2,000	40.1 B	27.5 B	520	25 B	34.8 B	86.7	42.8 B	48.1 B	30.5 B

Notes: NC - No NYSDEC criterion

ND - Not Detected

B - Estimated value

BOLD/Italics - Exceeds criterion

E - Estimated value due to interference

Sample Location	NYSDEC	MW-20	MW-20	MW-20	MW-21	MW-21	MW-21
Sample ID	Class GA	LMW-20	LMW-20	LMW-20	LMW-21	LMW-21	LMW-21
Laboratory ID	Groundwater	E0833-05A	F1192-03A	G2136-04A	E0833-06A	F1192-01A	G2136-05A
Sample Date	Criteria	6/14/06	8/22/07	11/13/08	6/14/06	8/22/07	11/14/08
Matrix	water	water	water	water	water	water	water
Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
		conc. Q	conc. Q		conc. Q	conc. Q	
Aluminum	NC	223	299	81.6 B	ND	197 B	457
Antimony	3	1.7 B	9.5 B	ND	1.9 B	6.7 B	ND
Arsenic	25	ND	ND	ND	2.2 B	ND	ND
Barium	1,000	38.9 B	57.8 B	48.8 B	79.3 B	60.9 B	58.2 B
Beryllium	3	ND	ND	ND	ND	ND	ND
Cadmium	5	1 B	0.45 B	0.74 B	ND	1.5 B	4.8 B
Calcium	NC	13,200	20,600	4,420	7,520	5,190	11,900
Chromium	50	4.6 B	3.1 B	2.1 B	0.94 B	3 B	2.3 B
Cobalt	NC	0.92 B	2.5 B	ND	0.48 B	1.5 B	ND
Copper	200	13.6 B	8.7 B	ND	ND	13.7 B	6.6 B
Iron	300	1,710	624	164 B	31.4 B	503	198 B
Lead	25	1.5 B	3.7 B	ND	ND	4.5 B	2.6 B
Magnesium	35,000	6,050 E	9,820	3,400	5,440 E	3,320	2,960
Manganese	300	27.8 B	60.5	35 B	26.4 B	51.8	627
Mercury	0.7	ND	ND	ND	ND	ND	ND
Nickel	100	4.6 B	2.4 B	1.8 B	1.9 B	2.4 B	6.9 B
Potassium	NC	2,050	2,220	8,190	5,670	6,350	6,250
Selenium	10	1.1 B	ND	ND	4.1 B	ND	ND
Silver	50	ND	5.2 B	0.6 B	ND	ND	ND
Sodium	20,000	21,800	31,100	29,700	24,500	27,200	19,200
Thallium	0.50	ND	ND	ND	ND	ND	ND
Vanadium	NC	0.48 B	1.6 B	ND	ND	0.063 B	ND
Zinc	2,000	48.7 B	32.8 B	28.5 B	14.2 B	40.5 B	69.1

TABLE 3 LIBERTY INDUSTRIAL FINISHING SITE (1-52-108) JUNE 2006, AUGUST 2007 AND NOVEMBER 2008 SAMPLING EVENTS SUMMARY OF TAL METALS IN GROUNDWATER

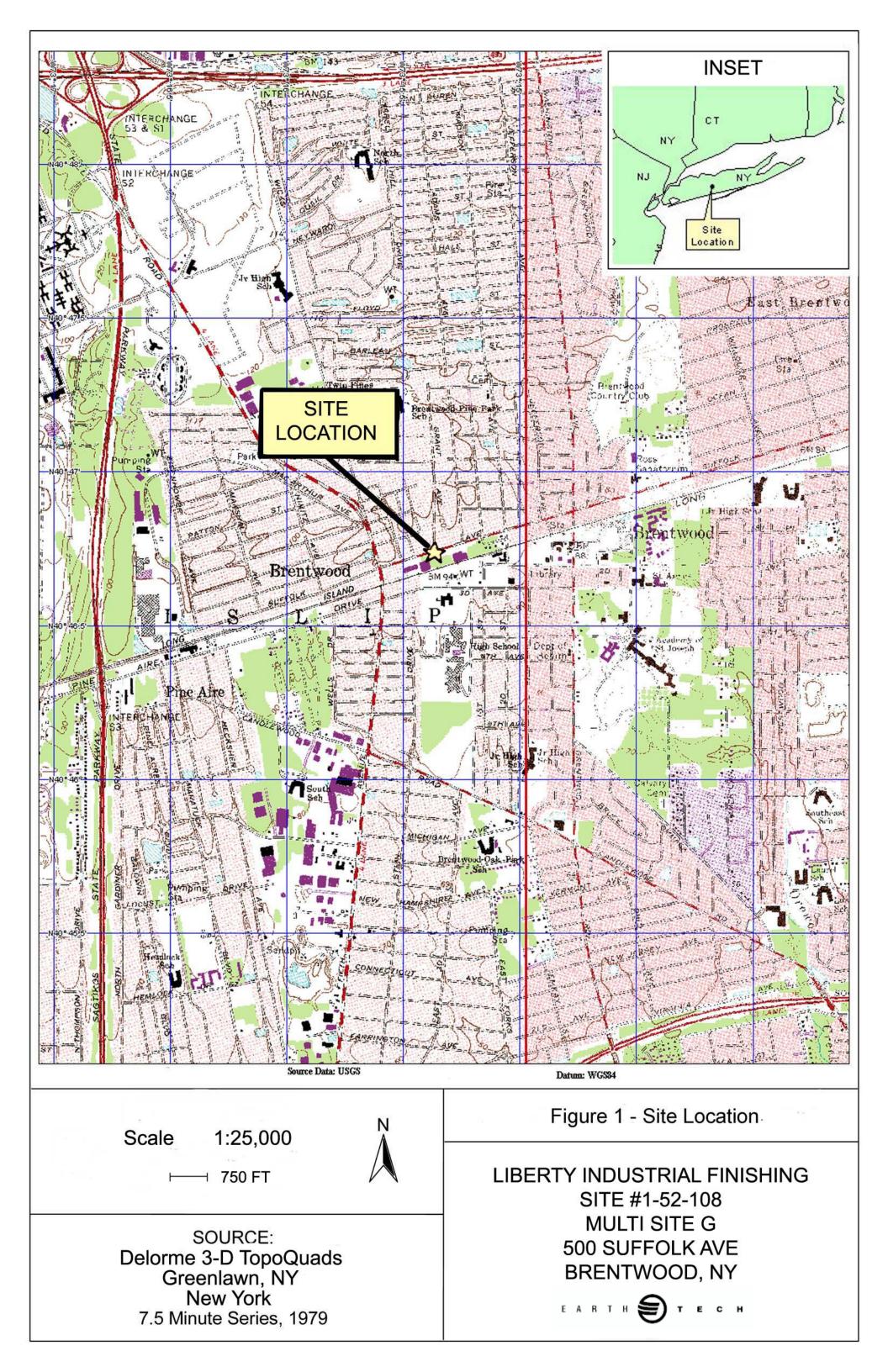
Notes: NC - No NYSDEC criterion

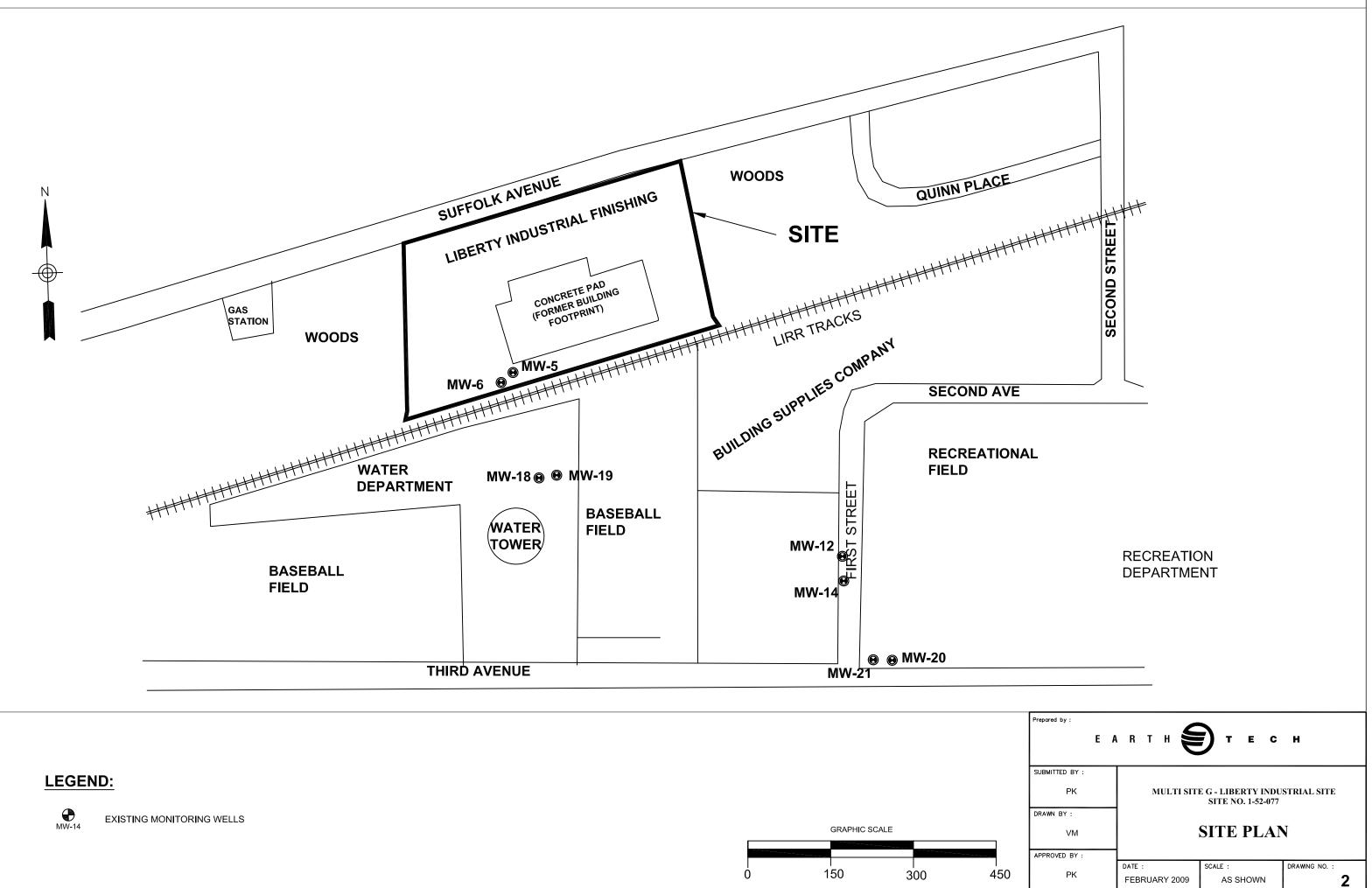
ND - Not Detected

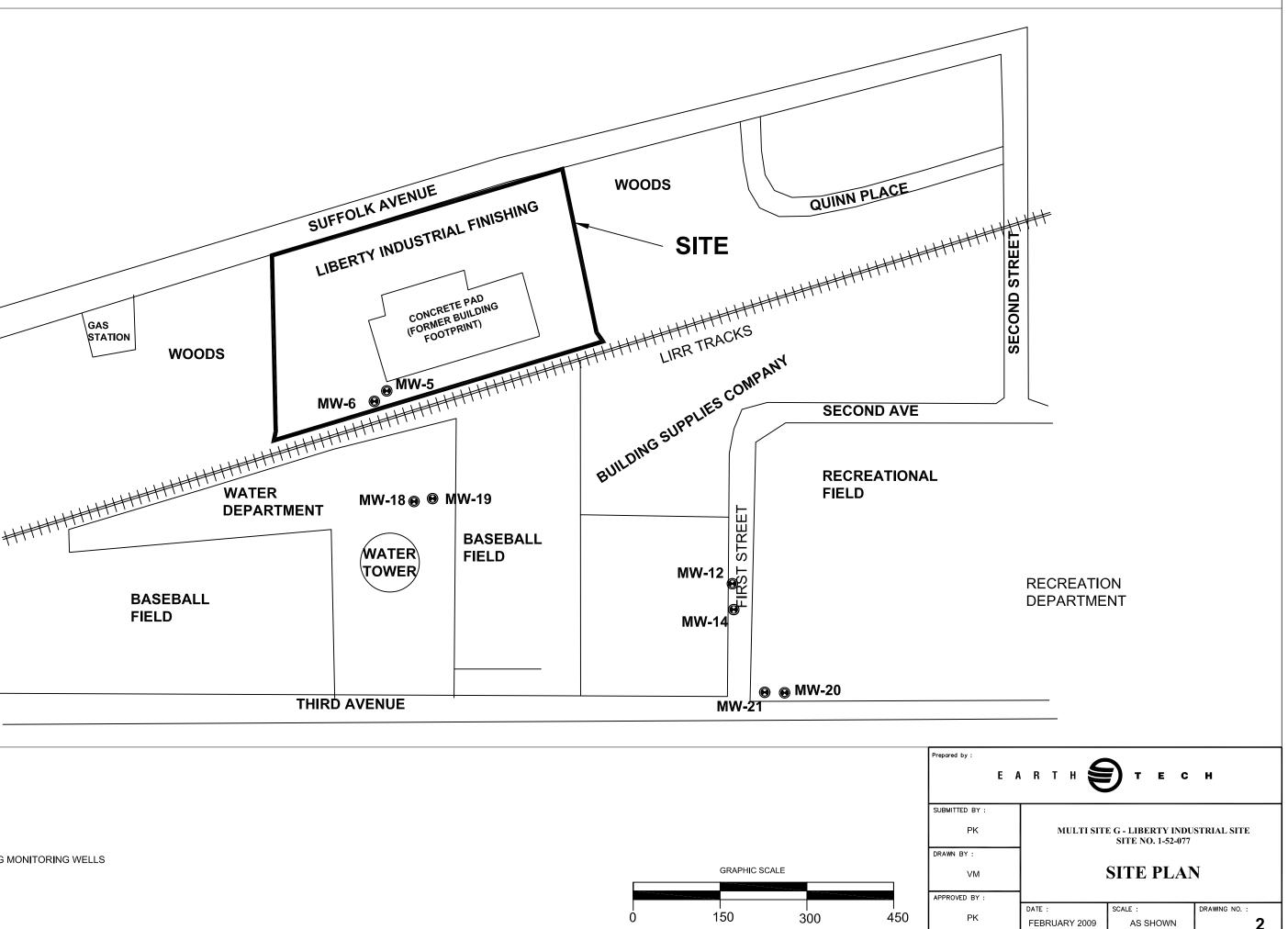
B - Estimated value

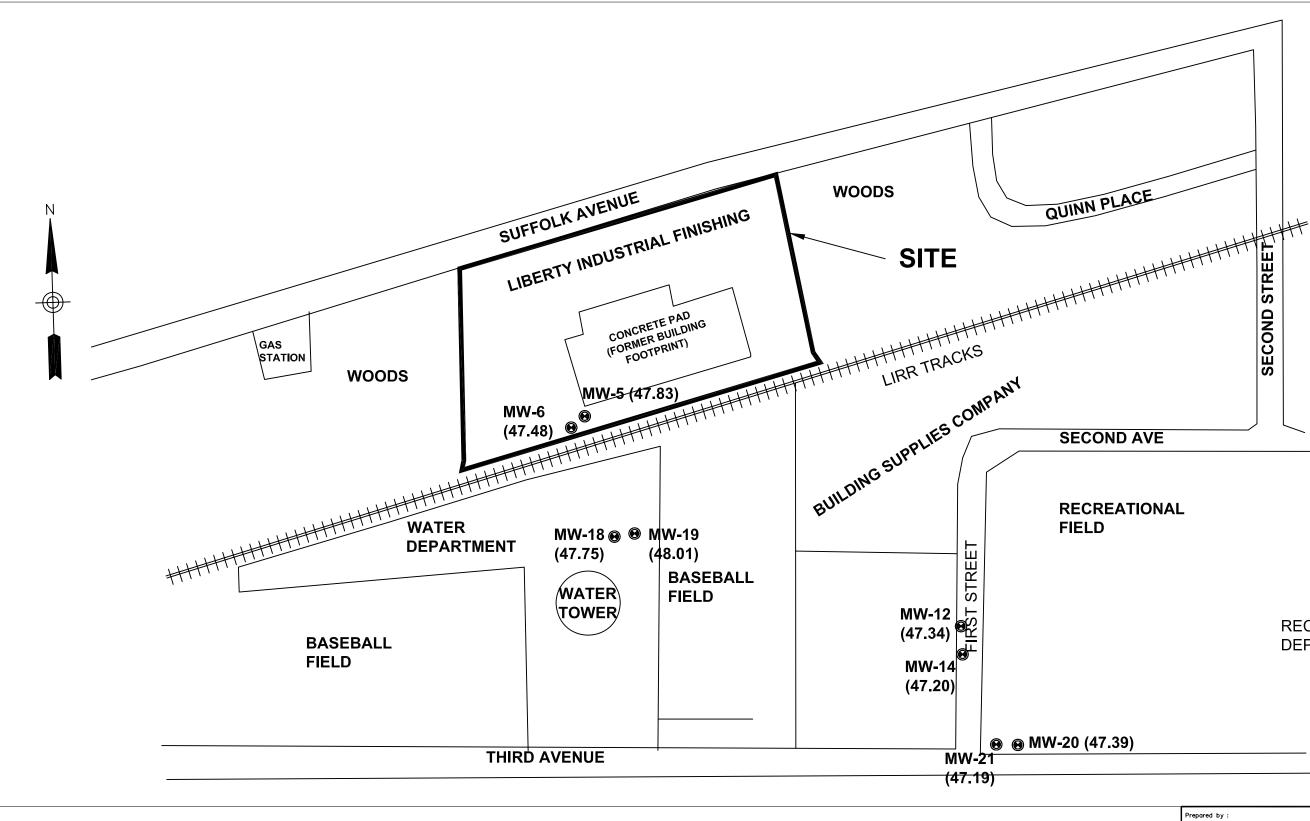
BOLD/Italics - Exceeds criterion

E - Estimated value due to interference





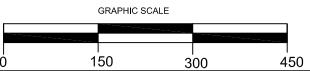




LEGEND:

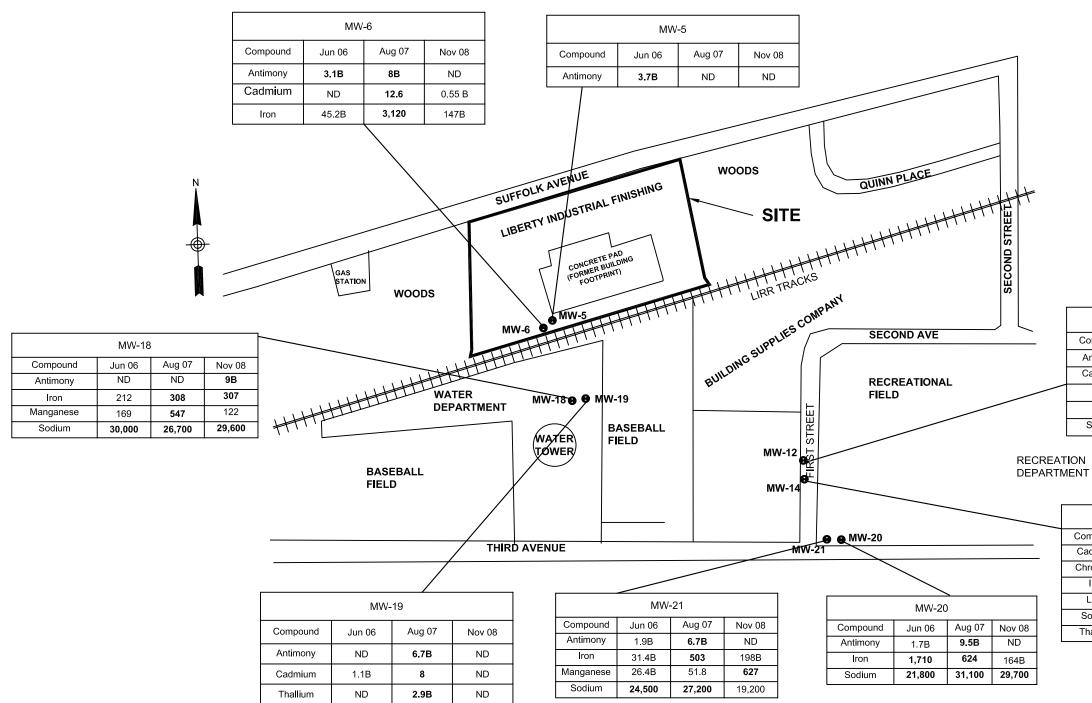
O MW-14 EXISTING MONITORING WELLS

(53.9) GROUNDWATER ELEVATIONS IN FEET ABOVE MEAN SEA LEVEL



RECREATION DEPARTMENT

Prepared by :			
E			н
SUBMITTED BY : PK	MULTI SITI	E G - LIBERTY INDUS SITE NO. 1-52-077	STRIAL SITE
DRAWN BY :		OUNDWAT	
VM		EVATION N EMBER 13	
APPROVED BY :	DATE :	SCALE :	DRAWING NO. :
PK	FEBRUARY 2009	AS SHOWN	3





0

200

LEGEND:

MW-14 EXISTING MONITORING WELLS

600

400

Prepared by :					
	E	ARTH	9	E C	н
SUBMITTED BY :					
РК			ti site g - lib site n UMMA	NO. 1-52-077	~ ~
DRAWN BY : VM			• • • • • • • • •	ALS I	N
APPROVED BY :					
РК		DATE : FEBRUARY 2	009 AS	SHOWN	drawing no. : 4

_				-
	Compound	Jun 06	Aug 07	Dec 08
	Cadmium	4.9B	1.5B	59.1
	Chromium	95.8	248	69.6
	Iron	728	389	9,320
	Lead	2.9B	3.4B	221
	Sodium	31,900	28,900	561,000
	Thallium	ND	3.4B	ND

MW-14

	MW-	MW-12							
Compound	Jun 06	Aug 07	Dec 08						
Antimony	1.8B	11.2B	ND						
Cadmium	0.52B	5.6	25.5						
Iron	467	10,900	4,080						
Lead	7.7B	106	83.7						
Sodium	11,700	13,400	27,100						

APPENDIX A

WELL SAMPLING FORMS

WELL SAMPLING FORM Multi Site G 95900 1 of 1 LOCATION DATE WELL STARTED DATE WELL COMPLETED Liberty Industrial Finishing, Brentwood, NY # 1-52-108 11/14/08 11/14/08 CLIENT NAME OF INSPECTOR SC / MA			-		PROJECT					PROJECT No.	SHEET	SHEETS
Docknow Liberty Industrial Finishing, Brentwood, NY # 1-52-108 DATE WELL STATED DATE WELL STATED DATE WELL STATED 11/14/08 ORE WELL VOLUME: 3.0 Gallons well to: 50 ft Purge to: SSC / MA New York State Department of Environmental Protection SSC / MA SSMATURE of INSPECTOR SSC / MA ONE WELL VOLUME: 3.0 Gallons well to: 50 ft Purge to: 48 ft Time Water Rate (ft) FIELD MEASUREMENTS Purge to: Static Water Level 11/14/08 11:50 45.4 1 14.44 190 8.47 5.76 157 28 Purp on 11:50 45.45 1 11.30 175 7.56 5.74 177 0 Purged approximately 15 gals. 12:00 45.48 1 13.52 177 7.56 5.74 177 0 12:00 45.48 1 13.52 177 7.56 5.74 177 0 12:01 I I I I IIII	WELL	SAMPI	ING FO			G						
NAME OF MISPECTOR NAME OF MISPECTOR NAME OF MISPECTOR ONE WELL VOLUME: 3.0 Gallons WELL TD: 50 ft PUMP INTAKE DEPTH: 48 ft TIME VALUE TIME VALUE TEMP. Conduct. DO PH ORP TURING DEPTH: 48 ft VIEL VOLUME: 3.0 Gallons WELL TD: 50 ft PUMP INTAKE DEPTH: 48 ft TIME VALUE TEMP. Conduct. DO PH ORP TURING DEPTH: 48 ft VIEL VOLUME: TEMP. TEMP. Conduct. DO PH ORP TURING DEPTH: 48 ft VIEL VOLUME: TEMP. TEMP. Conduct. DO PH ORP TURING DEPTH: 48 ft VIEL VOLUME: TEMP. TEMP. Conduct. DO PH ORP TURING DEPTH: 48 ft VIEL VOLUME: TEMP. TURING TURING DEPTH: 48 ft VIEL VOLUME: TEMP. TIME VIEL VOLUME: TEMP. TURING COLSPANE VIEL VOLUME: TEMP. VIEL VOLUME: TO THE VIEL VOLUME: TEMP. VIEL VOLUME: TEMP. TIME VIEL VOLUME: TO THE VIEL VOLUME: TEMP. VI	LOCATION									DATE WELL STARTED	DATE WELL COMP	LETED
NAME OF MISPECTOR NAME OF MISPECTOR NAME OF MISPECTOR ONE WELL VOLUME: 3.0 Gallons WELL TD: 50 ft PUMP INTAKE DEPTH: 48 ft TIME VALUE TIME VALUE TEMP. Conduct. DO PH ORP TURING DEPTH: 48 ft VIEL VOLUME: 3.0 Gallons WELL TD: 50 ft PUMP INTAKE DEPTH: 48 ft TIME VALUE TEMP. Conduct. DO PH ORP TURING DEPTH: 48 ft VIEL VOLUME: TEMP. TEMP. Conduct. DO PH ORP TURING DEPTH: 48 ft VIEL VOLUME: TEMP. TEMP. Conduct. DO PH ORP TURING DEPTH: 48 ft VIEL VOLUME: TEMP. TEMP. Conduct. DO PH ORP TURING DEPTH: 48 ft VIEL VOLUME: TEMP. TURING TURING DEPTH: 48 ft VIEL VOLUME: TEMP. TIME VIEL VOLUME: TEMP. TURING COLSPANE VIEL VOLUME: TEMP. VIEL VOLUME: TO THE VIEL VOLUME: TEMP. VIEL VOLUME: TEMP. TIME VIEL VOLUME: TO THE VIEL VOLUME: TEMP. VI	Liberty	Industr	ial Finish	ing, Bre	entwood, l	NY # 1-	52-108				11/14/08	
ORILING COMPANY SIGNATURE OF INSPECTOR ONE WELL VOLUME: 3.0 Gallons WELT D: 50 ft PUMP INTAKE DEPTH: 48 ft Time Water Rate Temp. Conduct. DO PH ORP Turbidity REMARKS 45.4 Integer FIELD MEASUREMENTS Static Water Level Static Water Level Integer Integer Integer REMARKS 45.4 Integer 14.44 190 8.47 5.76 161 8.6 Integer	CLIENT										-	
Description 3.0 Gallons well to: 50 ft PUMP MARKAGE DEPTH: 48 ft Time Value Reade Temp: Conduct. DO pH ORP Turbidity REMARKS 45.4 - - - Static Water Level 11:50 45.4 - - Static Water Level 11:50 45.4 1 14.48 181 7.27 5.75 161 8.6 12:00 45.45 1 13.53 175 7.56 5.74 177 0 12:00 45.48 1 13.52 177 7.66 5.73 181 0 Purged approximately 15 gals. 12:10 - - - - - - - - 12:10 - - - - - - - - 12:10 - - - - - - - - - 12:10 - - - - - - - - - - - <t< td=""><td>New Y</td><td>ork Stat</td><td>te Depart</td><td>ment of</td><td>Environn</td><td>nental F</td><td>Protecti</td><td>on</td><td></td><td></td><td></td><td></td></t<>	New Y	ork Stat	te Depart	ment of	Environn	nental F	Protecti	on				
Depti Purge Rate FIELD MEASUREMENTS REMARKS 1 1 1 0 PH 0R Turbidity (nu) REMARKS 4.5 - - - - - Static Water Level 11:50 45.4 1 14.44 190 8.47 5.76 157 2.8 Pump on 11:55 45.45 1 13.53 175 5.74 171 0 12:00 45.45 1 13.52 177 7.66 5.73 181 0 Purged approximately 15 gals. 12:00 45.48 1 13.52 177 7.66 5.73 181 0 Purged approximately 15 gals. 12:01 I I I I I I I I I 12:10 I I I I I I I I I 12:01 I I I I I I I I	DRILLING	COMPANY								SIGNATURE OF INSPECTOR		
Depti Purge Rate FIELD MEASUREMENTS REMARKS 1 1 1 0 PH 0R Turbidity (nu) REMARKS 4.5 - - - - - Static Water Level 11:50 45.4 1 14.44 190 8.47 5.76 157 2.8 Pump on 11:55 45.45 1 13.53 175 5.74 171 0 12:00 45.45 1 13.52 177 7.66 5.73 181 0 Purged approximately 15 gals. 12:00 45.48 1 13.52 177 7.66 5.73 181 0 Purged approximately 15 gals. 12:01 I I I I I I I I I 12:10 I I I I I I I I I 12:01 I I I I I I I I												
Depti Purge Rate FIELD MEASUREMENTS REMARKS 1 1 1 0 PH 0R Turbidity (nu) REMARKS 4.5 - - - - - Static Water Level 11:50 45.4 1 14.44 190 8.47 5.76 157 2.8 Pump on 11:55 45.45 1 13.53 175 5.74 171 0 12:00 45.45 1 13.52 177 7.66 5.73 181 0 Purged approximately 15 gals. 12:00 45.48 1 13.52 177 7.66 5.73 181 0 Purged approximately 15 gals. 12:01 I I I I I I I I I 12:10 I I I I I I I I I 12:01 I I I I I I I I		0.015		20	Gallona			50	ft		∕10 ft	
io Purge (gpm)		ONE WE	LL VOLUME :	3.0	GallUllS	v	WELL TD:	50	IL	PUMP INTAKE DEPTH:	40 II	
io Purge (gpm)		Depth			FIE	LD MEAS	SUREME	NTS				
Time Water Rate (t) Temp. (y) Conduct. (y) DO (mg/L) PH ORP Turbidity (nu) REMARKS 45.4 - - - - Static Water Level 11:50 45.4 1 14.44 190 8.47 5.76 157 28 Pump on 11:54 45.45 1 13.53 175 7.56 5.74 177 0 12:00 45.45 1 13.52 177 7.66 5.73 181 0 Purged approximately 15 gals. 12:01 -			Purge									
n n n n n n n Static Water Level 11:50 45.4 1 14.44 190 8.47 5.76 157 28 Pump on 11:55 45.45 1 13.53 175 7.56 5.74 177 0 Purged approximately 15 gals. 12:05 45.48 1 13.52 177 7.66 5.73 181 0 Purged approximately 15 gals. 12:05 45.48 1 13.52 177 7.66 5.73 181 0 Purged approximately 15 gals. 12:10	Time	Water	Rate	Temp.	Conduct.	DO	рН	ORP	Turbidity	REM	ARKS	
111:50 45.4 1 14.44 190 8.47 5.76 157 28 Pump on 11:55 45.45 1 14.08 181 7.27 5.75 161 8.6 12:00 45.45 1 13.53 177 7.56 5.73 181 0 Purged approximately 15 gals. 12:01 45.48 1 13.52 177 7.66 5.73 181 0 Purged approximately 15 gals. 12:01 1 1 13.52 177 7.66 5.73 181 0 Purged approximately 15 gals. 12:10 1 1 1 1 1 1 1 1 1 12:10 1 1 1 1 1 1 1 1 12:10 1 1 1 1 1 1 1 1 12:10 1 1 1 1 1 1 1 1 12:10 1 1 1 1 1 1 1 1		(ft)	(gpm)	(°C)	(µs/cm)	(mg/L)			(ntu)			
111:50 45.4 1 14.44 190 8.47 5.76 157 28 Pump on 11:55 45.45 1 14.08 181 7.27 5.75 161 8.6 12:00 45.45 1 13.53 177 7.56 5.73 181 0 Purged approximately 15 gals. 12:01 45.48 1 13.52 177 7.66 5.73 181 0 Purged approximately 15 gals. 12:01 1 1 13.52 177 7.66 5.73 181 0 Purged approximately 15 gals. 12:10 1 1 1 1 1 1 1 1 1 12:10 1 1 1 1 1 1 1 1 12:10 1 1 1 1 1 1 1 1 12:10 1 1 1 1 1 1 1 1 12:10 1 1 1 1 1 1 1 1												
11:55 45.45 1 14.08 181 7.27 5.75 161 8.6 12:00 45.45 1 13.53 175 7.56 5.74 177 0 12:05 45.48 1 13.52 177 7.66 5.73 181 0 Purged approximately 15 gals. 12:10 1 <td></td> <td>45.4</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Static Water Level</td> <td></td> <td></td>		45.4								Static Water Level		
11:55 45.45 1 14.08 181 7.27 5.75 161 8.6 12:00 45.45 1 13.53 175 7.56 5.74 177 0 12:05 45.48 1 13.52 177 7.66 5.73 181 0 Purged approximately 15 gals. 12:10 1 <td>11:50</td> <td>45.4</td> <td>1</td> <td>14.44</td> <td>190</td> <td>8.47</td> <td>5.76</td> <td>157</td> <td>28</td> <td>Pump on</td> <td></td> <td></td>	11:50	45.4	1	14.44	190	8.47	5.76	157	28	Pump on		
12:00 45.45 1 13.53 175 7.56 5.74 177 0 12:05 45.48 1 13.52 177 7.66 5.73 181 0 Purged approximately 15 gals. 12:10 1 1 1 1 1 1 1 0 Purged approximately 15 gals. 12:10 1 1 1 1 1 1 1 1 12:10 1 1 1 1 1 1 1 1 12:10 1 1 1 1 1 1 1 1 1 12:10 1 1 1 1 1 1 1 1 1 1 12:10 1										i '		
12:05 45.48 1 13.52 177 7.66 5.73 181 0 Purged approximately 15 gals. 12:10 - - - - - - Collect sample LMW-5 12:10 - - - - - - - - 12:10 - - - - - - - - 12:10 - - - - - - - - 12:10 - - - - - - - - 12:10 - - - - - - - - 12:10 - - - - - - - - 12:10 - - - - - - - - 14:10 - <td></td>												
12:10 1 <th1< th=""> <th1< th=""> <th1< th=""> <th1< th=""></th1<></th1<></th1<></th1<>										Purged approximate	ly 15 dals	
Image: Structure structur		10.10	•	10.02			0.10		Ŭ		.,	
Image: Structure structur	12.10									Collect sample I M/M	/-5	
	12.10											
								-				
		-										
	Pump	Туре:	Grundfos	pump	with poly	tubing						
Analytical Parameters: TAL Metals												
	Analyti	cal Para	ameters:		TAL Meta	als						
	-											

									WELL NO. MW-6		
NELL	SAMPL	ING FO	RM	^{ркојест} Multi Site	G				PROJECT №. 95900	SHEET 1 o	shee f 1
CATION					, 0				DATE WELL STARTED	DATE WELL CO	
iberty	Industr	ial Finish	ing, Bre	entwood, l	NY # 1-	52-108			11/14/08	11/14/08	
	ork Stat	o Donart	mont of	Environn	oontal [Protocti	on		NAME OF INSPECTOR SC / MA		
	COMPANY	e Depart	ment of	Environn		TOLECIN	UT		SIGNATURE OF INSPECTOR		
	ONE WEL	L VOLUME :	143.0	Gallons	N	VELL TD:	265	ft	PUMP INTAKE DEPTH:	100 ft	
	Depth			FIE		SUREME	NTS				
	to	Purge									
Time	Water	Rate	Temp.	Conduct.	DO	рН	ORP	Turbidity	REM	ARKS	
	(ft)	(gpm)	(°C)	(µs/cm)	(mg/L)			(ntu)			
	45.2								Static water level		
8:35	43.2		12.72	155	1.7	6.13	136	2	Pump on		
8:40	55.3	2.5	13.1	155	0.39	6.2	136	2			
8:50	67.2	2.5	13.25	154	0.54	6.18	134	1.4			
9:00	71.8	2.5	13	154	0.39	6.13	135	1.5			
9:10	73.8	2.5	12.82	154	1.9	6.09	136	0.8			
9:20	75.2	2.5	12.72	153	0.18	6.06	138	0.5			
9:30	75.94	2.5	12.59	153	0.16	6.01	141	0.4			
9:40	76.1	2.5									
9:50	76.78	2.5	12.26	111	3.9	5.46	128	6.4			
0:00	77.52	2.5	12.22	100	5.32	5.96	97	6.4			
0:20	77.4	3	12.19	86	6.26	5.97	93	4.6			-
0:30	82	3	12.25	89	5.96	5.96	98	3.4			
10:40	84.1	3	12.16	84	7.02	5.96	107	2.7			
10:50	84.8	3	12.13	81	7.56	5.95	113	2.2			
11:00	85.4	3 3	12.1	78	7.68	5.95	121	1.7			
		3	12.15 12.09	76 75	7.77 7.8	5.95 5.95	126 128	1.5 1.6	Purged approx 430	gallon	
1.15	00.00	3	12.09	75	1.0	5.95	120	1.0	Fulged applox 450	gallon	
1:20									Collect sample LMW	/-6	
										-	
			<u> </u>						ļ		
'ump	Type:	Grundfos	s pump	with poly	tubina						
1				1 - 7	5						
nalyti	cal Para	ameters:		TAL Meta	als						

				PROJECT					PROJECT No.	SHEET SHEETS
WELL	SAMPI	ING FO		Multi Site	G				95900	1 of 1
LOCATION	1			DATE WELL STARTED	DATE WELL COMPLETED					
Liberty	Industr	ial Finish	ing, Bre	entwood, l	NY # 1-	52-108			12/23/08	12/23/08
CLIENT									NAME OF INSPECTOR	1
New Y	ork Stat	te Depart	ment of	SC / MA						
DRILLING	COMPANY								SIGNATURE OF INSPECTOR	
	ONE WE	LL VOLUME :	1.3	PUMP INTAKE DEPTH:	47 ft					
	Depth			FIE			NTS			
	to	Purge								
Time	Water	Rate	Temp.	Conduct.	DO	рН	ORP	Turbidity	REM	ARKS
	(ft)	(gpm)	(°C)	(µs/cm)	(mg/L)	P	•	(ntu)		
	()	(31-1-7	(-)	()	(··· 3 /-/			()		
10.00	41.81								Static water level	
	41.81		10.75	763	4.8	6.56	-26	300	Pump on	
	42.39		12.45	768	4.35	5.49		200		
							-29			
	42.39		12.75	284	7.68	6.1	-17	150		
10:20	42.34		15.18	227	7.09	5.98	-1	140		
									Purged approx 8 gal	lons
10:25									Collect sample LMW	/-12
									1	
]			L			l	1	ļ	
Pump	Type	Grundfor	numn	with poly	tubing					
rump	гуре.	Grandios	pump	with poly	abiliy					
Apolyt	ool Do-	amotora								
Analyti	cal Para	ameters:		TAL Meta	215					

Laith	10011								WELL NO. MW- 14	-
VELL	SAMPI	ING FO		^{ркојест} Multi Site	G				project №. 95900	SHEET SHEE 1 of 1
CATION				DATE WELL STARTED	DATE WELL COMPLETED					
iberty	[,] Industr	ial Finish	ing, Bre	12/23/08 NAME OF INSPECTOR	12/23/08					
	ork Stat	e Depart	ment of	Environn	nental F	Protecti	on		SC / MA	
RILLING	COMPANY								SIGNATURE OF INSPECTOR	
	ONE WE	LL VOLUME :	9.5	Gallons	ı	WELL TD:	100	ft	PUMP INTAKE DEPTH	: 50 ft
	Depth			FIE	LD MEA	SUREME	NTS			
Time	to Water	Purge Rate	Temp.	Conduct.	DO	pН	ORP	Turbidity	DE	MARKS
Time	(ft)	(gpm)	(°C)	(µs/cm)	(mg/L)	рп	UKP	(ntu)	REI	WARKS
1:00	41.98								Static water level	
1:15	42		12.8	3372	6.81	6.16	129	10.9	Pump on	
	42.17	0.55	14.68	3646	1.26	6.5	3	970	l '	
	42.17		14.71	3637	2.55	6.64	6	840		
	42.17		13.74	2640	5.05	6.37	2.7	790		
	42.17		13.6	821	5.97	5.97	85	741		
	42.17		13.36	692	5.84	5.84	117	800		
	42.17		13.58	296	5.79	5.79	137	790		
12:10	42.17		13.32	526	5.78	5.78	142	812		
									Purged approximat	ely 30 gallons
									-	
12:20									Sample MW-14 col	lected at 12:20
									Turbidity towards the	ne end seems
									< 100 NTU	
									The turbidity meter	shows incorrect
									reading	
									Sample could not b	e collected in
									November, since th	ne well was under
									water	
Pump	Туре:	Grundfos	s pump	with poly	tubing					
nalyti	ical Para	ameters:		TAL Meta	als					

				PROJECT					PROJECT No.	SHEET SHEETS
WELL	SAMP	LING FOI		Multi Site	95900	1 of 1				
LOCATION	N								DATE WELL STARTED	DATE WELL COMPLETED
Liberty	Industr	rial Finish	ing, Bre	entwood, I	NY # 1-	52-108	<u>, </u>		11/13/08	11/13/08
CLIENT	ork Sta	to Denart	ment of	f Environn	nontal [Drotecti	on		NAME OF INSPECTOR SC / MA	
DRILLING	COMPANY	le Depart	Inent of	Environin	SIGNATURE OF INSPECTOR					
			17 1		50 ft					
		ELL VOLUME :	17.1	Gallons	v	WELL TD:	150	IL	PUMP INTAKE DEPTH:	50 IL
	Depth			FIE	LD MEA	SUREME	INTS			
Time	to	Purge	Toman	Conduct	- 20			Turbidity	ВЕМ	
Time	Water (ft)	Rate (gpm)	Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	рН	ORP	Turbidity (ntu)	KEW	ARKS
	(17)	(gpin)		(µə/ciii)	(├ ────′	├───		1	
	43.8	l		ŀ		├ ───′	<u> </u>	<u> </u>	Static Water Level	
12:40	43.8	2.5	12.65	244	5.93	5.58	199	0	Pump on	
12:50	44.3	- <u>-</u>	12.7	291	4.8	5.35	216	0		
13:00	44.3	[12.74	300	4.3	5.3	232	0	1	
	 1	[Purged approximate	ly 55 gallons
13:10	[]	[Collect sample LMW	
		Í		1					Duplicate MW-68 at	
		I	[]	[]				f		
				<u>[</u>	<u> </u>	<u> </u>				
				['	<u> </u>	<u> </u>	\square			
		 	ļ!	<u> </u>	<u> </u>	<u> </u>				
		 	<u> </u>	 '	↓ '	↓ '	└───	Ļ		
	└─── ┦	 	 '	└─── '	 '	 '				
	↓]	 	<u> </u> '	 '	 '	 '		<u> </u>	 	
	 	l	 '	 '	 '	↓ '	───	───	<u> </u>	
	┝───┦	<u> </u>	↓ ′	├ ────┘	┟────┘	 '	┣────	<u> </u>	<u> </u>	
	┟───┦	<u> </u>	'	<u> </u>	┟────┘	 '	──	───	<u> </u>	
	┟────┦	i	 '	<u> </u>	┟────┘	┟────┘	╂────	╂────	+	
	┢───┦	i	 '	┟────┘	├ ────′	 '	┣───	───	+	
	├───┦	i	├──── ′	<u>├</u> ────┤	├ ────'	 '	├───	├───	1	
	┢───┦	i	 '	<u>├</u> ────┤	├ ────′	┝───┘	├───	├───	1	
		l	├ ───┦	<u>├</u> ───┦	┢────┦	├ ────′	├───	├	<u>+</u>	
		[├ ───′			1	
	├ ──┤	[łł	+		'	 	<u> </u>	1	
		[+				<u> </u>	1	
	 1	[1	
		[1						1	
		ĺ		1					1	
		l								
			e							
Pump ⁻	Type:	Grundfos	s pump	with poly	tubing					
Analyti	cal Para	ameters:		TAL Meta	als					

									WELL NO. MW- 1	9
PROJECT NELL SAMPLING FORM Multi Site G									PROJECT №. 95900	SHEET SHEE 1 of 1
CATION				DATE WELL STARTED	DATE WELL COMPLETED					
iberty	Industr	ial Finish	ing, Bre	11/13/08	11/13/08					
	ork Stat	e Denart	ment of	Environn	nental F	Protecti	on		NAME OF INSPECTOR SC / MA	
RILLING	COMPANY	e Depart		LINIOIII		101001			SIGNATURE OF INSPECTOR	
	ONE WEL	L VOLUME :	133	Gallons		WELL TD:	248	ft	PUMP INTAKE DEPTH	ı: 55 ft
	Depth to	Purge		FIE	LD MEAS	SUREME	NTS			
Time	Water	Rate	Temp.	p. Conduct. DO pH ORP Turbidity					RE	MARKS
	(ft)	(gpm)	(°C)	(µs/cm)	(mg/L)			(ntu)		
	43.9								Static Water level	
9:50	43.9	3.5	15.5	157	8.34	6.42	92	119	Pump started	
0:00	45.4	3.5	14.9	154	6.2	5.79	137	0	Purged approxima	tely 400 gallons
0:10	46.18	3.5	12.83	146	4.77	5.68	165	0		
0:20	46.2	3.5	12.74	145	4.47	5.67	175	0		
0:30	46.25	3.5	12.65	144	4.75	5.66	180	0		
0:40	46.25	3.5	12.14	165	5.08	5.64	193	0		
0:50	46.30	3.5	11.97	187	5.66	5.62	199	0		
1:00	46.25	3.5	11.93	190	5.89	5.62	205	0		
1:10	46.25	3.5	11.92	189	5.9	5.62	209	0		
	46.25	3.5	11.88	191	5.99	5.62	210	0		
1:30	46.25	3.5	11.89	192	5.69	5.62	213	0		
1:40	46.25	3.5	11.86	192	5.83	5.62	217	0		
1:50	46.25	3.5	11.87	191	5.85	5.62	219	0		
44.55										
11:55									Collect sample LM	W-19 at 11:55
									MS/MSD	
									1	
								1		
			_			-				
'ump ⁻	Type:	Grundfos	s pump	with poly	tubing					
nalyti	cal Para	ameters:		TAL Meta	als					

		-		PROJECT					PROJECT No.	SHEET SHEETS	
WELL	SAMPI			Multi Site	G				95900	1 OF 1	
LOCATION									DATE WELL STARTED	DATE WELL COMPLETED	
Liberty	Industr	ial Finish	ing, Bre	entwood, l	NY # 1-	52-108			11/13/08	11/13/08	
				—					NAME OF INSPECTOR		
INEW Y	OFK Stat	te Depart	ment of	SC / MA SIGNATURE OF INSPECTOR							
DRILLING	COMPANY			SIGNATORE OF INSPECTOR							
	ONE WE	LL VOLUME :	17.7	PUMP INTAKE DEPTH:	48 ft						
	Depth to	Purge		FIE	LD MEAS	SUREME	NTS				
Time	Water	Rate	Temp.	Conduct.	DO	рН	ORP	Turbidity	REM	ARKS	
	(ft)	(gpm)	(°C)	(µs/cm)	(mg/L)			(ntu)			
	41.2								Static Water Level		
17:00		2.5	14.06	204	10.39	5.94	135	0	Pump on		
17:10		2.5	13.15	203	10.36	5.44	185	0			
17:20		2.5	13.41	203	10.47	5.92	213	0			
									Purged approx. 55 g	al	
17:30									Collect sample LMW		
			-								
Pump ⁻	Туре:	Grundfos	s pump	with poly	tubing						
				-							
Analyti	cal Para	ameters:		TAL Meta	als						

				PROJECT					PROJECT No.	SHEET SHEETS
		LING FO	RM	Multi Site	95900 date well started	1 OF 1 DATE WELL COMPLETED				
Liberty		rial Finish	ing, Bre	entwood, I	11/14/08	11/14/08				
CLIENT										
	CORK Stat	te Depart	ment or	f Environn	SC / MA					
DIGLE										
ONE WELL VOLUME : 11.2 Gallons WELL TD: 110.5 ft									PUMP INTAKE DEPTH:	48 ft
	Depth to	Purge		FIE	LD MEAS	SUREME	NTS			
Time	Water	Rate	Temp.	Conduct.		рН	ORP	Turbidity	REM	ARKS
 '	(ft)	(gpm)	(°C)	(µs/cm)	(mg/L)	 '	 '	(ntu)		
6:40	41.44	 '	───┘	 '	───┘		 '	 	Static Water Level	
6:40 6:55	41.44	2	14.49	181	9.13	6.24	113	2	Pump on	
7:05	┣───┦		13.6	243	9.13 8.43	5.4	164	0		
7:15	├──┤	i'	13.6	243	9.3	5.39	193	0	Purged approximate	ly 35 dals
/	├ ──┤	/ 	10.0	<u><u>L</u>¬<u>L</u></u>	0.0	0.00	100			
7:25									Collect sample LMW	/-21
 '	\vdash	 '	↓ '	 '	↓ '	└── ′	 '	 		
 '	\vdash	 '	 '	 '	 '	└─── ′	 '	 	 	
 '	┝──┤	 '	┟────┘	 '	┟────┘	↓ '	 '	───		
 '	┣───┦	 '	 '	 '	 '	┟────′	 '	 	1	
 '	──┤	 '	──′	 '	──′	┢────┘	 '	 		
 '	──┤	 '	 '	 '	 '	┢────┘	 '	 		
'	──┤	[!]	 /	├ ────'	↓ ′	┢───┘	 '	 	<u> </u>	
 '	┟───┦	l'	┟────┦	├ ────'	┟────┦	┢────┘	 '	 		
 '	├ ──┤	l'	├ ───┦	<u>├</u> ────'	├ ───┦	┢────┘	 '	 		
 '	├ ──┤	i'	┟────┦	 '	┟────┦	┢────┦	 '	 		
'	┼──┤	i'	 !	'	┟────┦		 '	<u> </u>	1	
 '	├ ──┤	/ 	├ ───┦	'	├ ───┦		┟────┘	<u> </u>		
 '	├ ──┦	i'	┟───┦	'	┟───┦		┟────┘	<u> </u>		
┢─────		l	├ ───┦		├ ───┦	!		<u> </u>	ł	
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Pump	Type:	Grundfog		with poly	tubina					
		•••••	, la aula							
Analyti	ical Para	ameters:		TAL Meta	als					

APPENDIX B

NYSDEC MONITORING WELL FIELD INSPECTION LOGS

MONITORING WELL FIELD INSPECTION LOG

Liberty Industrial Finishing

SITE NAME:

SITE ID.: 1-52-108 INSPECTOR: MA/SC

DATE/TIME: 11/14/08 -

WEII ID.: LMW-5

	YES NO
WELL VISIBLE? (If not, provide directions below)	
WELL COORDINATES? NYTM X 2,206,350.98 NYTM Y 202,30	
PDOP Reading from Trimble pathfinder: Satelites: Satelites:	
GPS Method (circle) Trimble And/Or Magellan	
	YES NO
WELL I.D. VISIBLE?	
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)	Х
WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL:	·····
	YES NO
SURFACE SEAL PRESENT?	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below)	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below)	Х
HEADSPACE READING (ppm) AND INSTRUMENT USED	0.0 PID
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable	e) 2.0 FT
PROTECTIVE CASING MATERIAL TYPE:	
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches):	
	YES NO
LOCK PRESENT?	
LOCK FUNCTIONAL? DID YOU REPLACE THE LOCK?	
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes, describe below	
WELL MEASURING POINT VISIBLE?	
MEASURE WELL DEPTH FROM MEASURING POINT (Feet):	
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet):	
MEASURE WELL DIAMETER (Inches):	
WELL CASING MATERIAL: PHYSICAL CONDITION OF VISIBLE WELL CASING:	
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE	
DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig. natural of	structions overhead

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY. Overgrown vegetation, accessible by truck mounted rig.

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.

located in a field surrounded by overgrown vegetation

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT

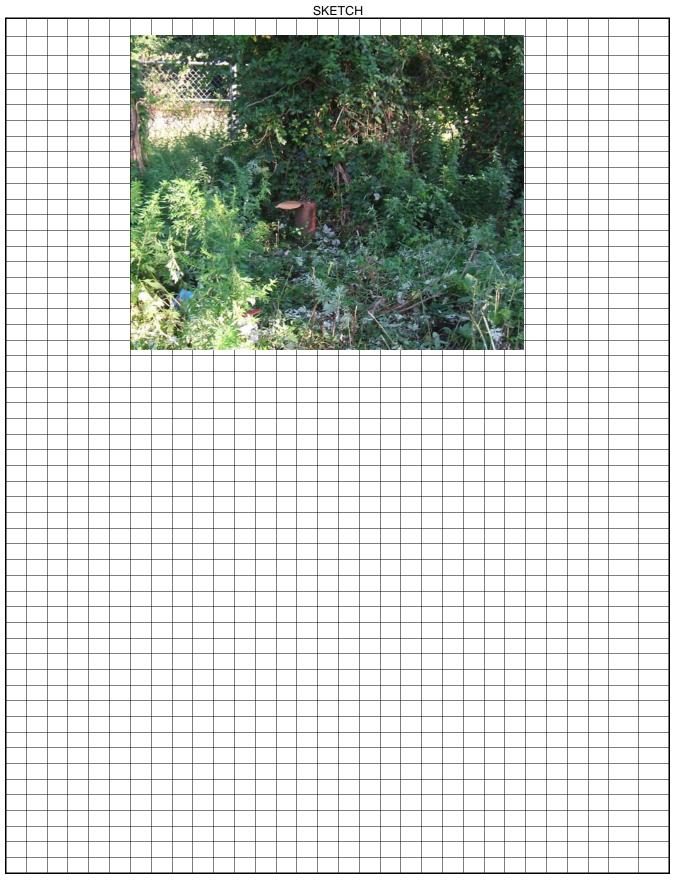
(e.g. Gas station, salt pile, etc.):

Gas station to the east of the Site.

REMARKS:

Needs lock and new well cap

MONITORING WELL INSPECTION LOG



SITE NAME: Liberty Industrial Finishing **INSPECTOR:** MA/SC MONITORING WELL FIELD INSPECTION LOG DATE/TIME: 11/14/08 WEII ID.: LMW-6 YES NO WELL VISIBLE? (If not, provide directions below) Х WELL COORDINATES? NYTM X 2,206,341.15 NYTM Y 202,306.77 See Report PDOP Reading from Trimble pathfinder: Satelites: GPS Method (circle) Trimble And/Or Magellan YES NO WELL I.D. VISIBLE? WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back) WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: YES NO SURFACE SEAL PRESENT? SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below) Х PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below) Х HEADSPACE READING (ppm) AND INSTRUMENT USED 0.0 PID TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable) 8" PROTECTIVE CASING MATERIAL TYPE: SS MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches): 8 YES NO LOCK PRESENT? LOCK FUNCTIONAL? DID YOU REPLACE THE LOCK? Х

SITE ID.: 1-52-108

Х

IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes, describe below) Х WELL MEASURING POINT VISIBLE? MEASURE WELL DEPTH FROM MEASURING POINT (Feet): 265 45.21 MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): MEASURE WELL DIAMETER (Inches): 4 PVC WELL CASING MATERIAL: PHYSICAL CONDITION OF VISIBLE WELL CASING: Average ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY. Overgrown vegetation, accessible by truck mounted rig.

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.

located in a field surrounded by overgrown vegetation

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION. IF PRESENT

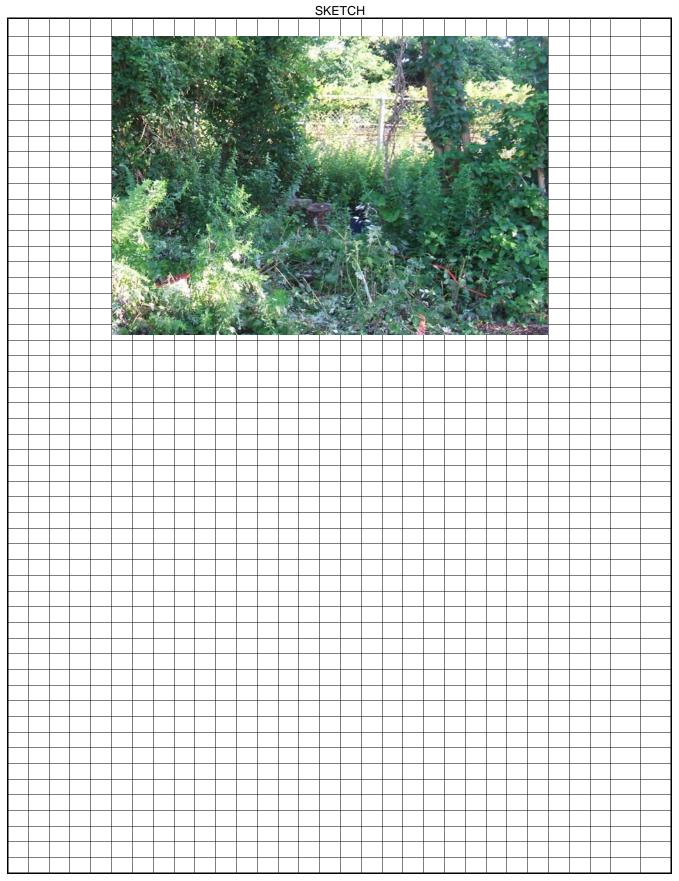
(e.g. Gas station, salt pile, etc.):

Gas station to the east of the Site.

REMARKS:

Needs new well cap and lock.

MONITORING WELL INSPECTION LOG



SITE ID.: 1-52-108 SITE NAME: Liberty Industrial Finishing **INSPECTOR:** MA/SC MONITORING WELL FIELD INSPECTION LOG DATE/TIME: 11/13/08 WEII ID.: LMW-12 YES NO WELL VISIBLE? (If not, provide directions below) Х WELL COORDINATES? NYTM X 2,206,863.98 NYTM Y 201,973.43 See Report PDOP Reading from Trimble pathfinder: Satelites: GPS Method (circle) Trimble And/Or Magellan YES NO WELL I.D. VISIBLE? WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back) WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: YES NO SURFACE SEAL PRESENT? SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below) Х PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below) Х HEADSPACE READING (ppm) AND INSTRUMENT USED 0.0 PID TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable) NA PROTECTIVE CASING MATERIAL TYPE: SS MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches): 8 YES NO LOCK PRESENT? Х LOCK FUNCTIONAL? DID YOU REPLACE THE LOCK? Х IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes, describe below) WELL MEASURING POINT VISIBLE? Х MEASURE WELL DEPTH FROM MEASURING POINT (Feet): 49.30 42.25 MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): MEASURE WELL DIAMETER (Inches): 2 PVC WELL CASING MATERIAL: PHYSICAL CONDITION OF VISIBLE WELL CASING: GOOD ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY. Accessible by truck mounted rig

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.

Located on the sidewalk along First Street on the corner of parking lot

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT

(e.g. Gas station, salt pile, etc.):

REMARKS:

Well was under water due to rain. Well could not be sampled

MONITORING WELL INSPECTION LOG



MONITORING WELL FIELD INSPECTION LOG

Liberty Industrial Finishing

SITE NAME:

SITE ID.: 1-52-108

INSPECTOR: MA/SC DATE/TIME: 11/13/08

WEII ID.: LMW-14

	YES NO
WELL VISIBLE? (If not, provide directions below)	Х
	e Report
PDOP Reading from Trimble pathfinder: Satelites:	
GPS Method (circle) Trimble And/Or Magellan	YES NO
WELL I.D. VISIBLE?	YES NO
WELL I.D. VISIBLE? WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)	
WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL:	YES NO
SURFACE SEAL PRESENT?	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below)	X
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below)	Х
HEADSPACE READING (ppm) AND INSTRUMENT USED	0.0 PID
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable)	NA
PROTECTIVE CASING MATERIAL TYPE:	SS
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches):	
	YES NO
	X
LOCK FUNCTIONAL? DID YOU REPLACE THE LOCK?	X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes, describe below)	× ×
WELL MEASURING POINT VISIBLE?	X
MEASURE WELL DEPTH FROM MEASURING POINT (Feet):	100
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet):	42.35
MEASURE WELL DIAMETER (Inches):	2
WELL CASING MATERIAL:	PVC
PHYSICAL CONDITION OF VISIBLE WELL CASING:	GOOD
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE	-
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES	
DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig. natural obstructions, overhead	4

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY. Accessible by truck mounted rig

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.

Located on the sidewalk along First Street on the corner of parking lot

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT

(e.g. Gas station, salt pile, etc.):

REMARKS:

Well was under water due to rain. Well could not be sampled

MONITORING WELL INSPECTION LOG



SITE ID.: 1-52-108 SITE NAME: Liberty Industrial Finishing **INSPECTOR:** MA/SC MONITORING WELL FIELD INSPECTION LOG DATE/TIME: 11/13/08 WEII ID.: LMW-18 YES NO WELL VISIBLE? (If not, provide directions below) Х WELL COORDINATES? NYTM X 2,206,373.86 NYTM Y 202,101.70 See Report PDOP Reading from Trimble pathfinder: Satelites: GPS Method (circle) Trimble And/Or Magellan YES NO WELL I.D. VISIBLE? WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back) WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: YES NO SURFACE SEAL PRESENT? SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below) Х PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below) HEADSPACE READING (ppm) AND INSTRUMENT USED 0.0 PID TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable) NA PROTECTIVE CASING MATERIAL TYPE: SS MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches): YES NO LOCK PRESENT? Х LOCK FUNCTIONAL? DID YOU REPLACE THE LOCK? Х IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes, describe below) WELL MEASURING POINT VISIBLE? Х MEASURE WELL DEPTH FROM MEASURING POINT (Feet): 150 43.8 MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): MEASURE WELL DIAMETER (Inches): 2 PVC WELL CASING MATERIAL: GOOD PHYSICAL CONDITION OF VISIBLE WELL CASING: ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.

Not accessible by truck mounted rig due to partly opening fence gate, trees and not enough turning radius for truck

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.

Located in the grassy area behind the water tower second fence to the south of water tower

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT

(e.g. Gas station, salt pile, etc.):

REMARKS:

Location shown in workplan is wrong, swap MW-18 location with MW-19 location. Well surveyed and location corrected

MONITORING WELL INSPECTION LOG

SKETCH

SITE ID.: 1-52-108 SITE NAME: Liberty Industrial Finishing **INSPECTOR:** MA/SC MONITORING WELL FIELD INSPECTION LOG DATE/TIME: 11/13/08 WEII ID.: LMW-19 YES NO WELL VISIBLE? (If not, provide directions below) Х WELL COORDINATES? NYTM X 2,206,386.65 NYTM Y 202,102.30 See Report PDOP Reading from Trimble pathfinder: Satelites: GPS Method (circle) Trimble And/Or Magellan YES NO WELL I.D. VISIBLE? WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back) WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: YES NO SURFACE SEAL PRESENT? SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below) Х PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below) HEADSPACE READING (ppm) AND INSTRUMENT USED 0.0 PID TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable) NA PROTECTIVE CASING MATERIAL TYPE: SS MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches): 12 YES NO LOCK PRESENT? Х LOCK FUNCTIONAL? DID YOU REPLACE THE LOCK? Х IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes, describe below) WELL MEASURING POINT VISIBLE? Х MEASURE WELL DEPTH FROM MEASURING POINT (Feet): 248 43.9 MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): MEASURE WELL DIAMETER (Inches): 2 PVC WELL CASING MATERIAL: GOOD PHYSICAL CONDITION OF VISIBLE WELL CASING: ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.

Not accessible by truck mounted rig due to partly opening fence gate, trees and not enough turning radius for truck

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.

Located in the grassy area behind the water tower second fence to the south of water tower

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT

(e.g. Gas station, salt pile, etc.):

REMARKS:

Location shown in workplan is wrong, swap MW-18 location with MW-19 location. Well surveyed and location corrected

MONITORING WELL INSPECTION LOG

SKETCH

SITE ID.: 1-52-108 SITE NAME: Liberty Industrial Finishing **INSPECTOR:** MA/SC MONITORING WELL FIELD INSPECTION LOG DATE/TIME: 11/13/08 WEII ID.: LMW-20 YES NO WELL VISIBLE? (If not, provide directions below) Х WELL COORDINATES? NYTM X 2,206,946.09 NYTM Y 201,798.92 See Report PDOP Reading from Trimble pathfinder: Satelites: GPS Method (circle) Trimble And/Or Magellan YES NO WELL I.D. VISIBLE? WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back) WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: YES NO SURFACE SEAL PRESENT? SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below) Х PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below) Х HEADSPACE READING (ppm) AND INSTRUMENT USED 0.0 PIF TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable) NA PROTECTIVE CASING MATERIAL TYPE: SS MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches): YES NO LOCK PRESENT? LOCK FUNCTIONAL? DID YOU REPLACE THE LOCK? Х IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes, describe below) WELL MEASURING POINT VISIBLE? Х MEASURE WELL DEPTH FROM MEASURING POINT (Feet): 149.5 MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): 41.2 MEASURE WELL DIAMETER (Inches): 2 PVC WELL CASING MATERIAL: PHYSICAL CONDITION OF VISIBLE WELL CASING: GOOD ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES

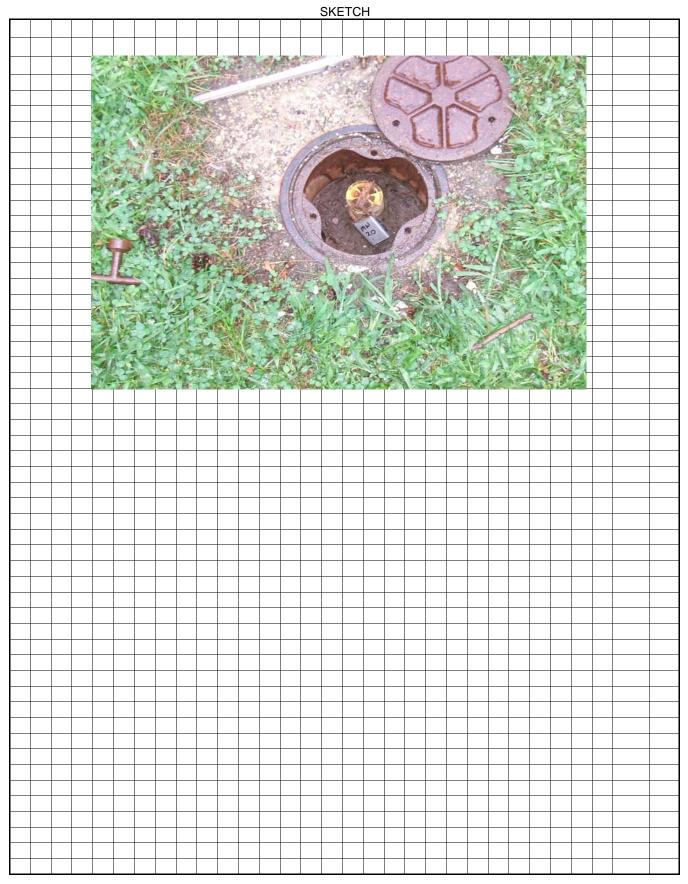
DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):

REMARKS:

MONITORING WELL INSPECTION LOG



SITE ID.: 1-52-108 SITE NAME: Liberty Industrial Finishing **INSPECTOR:** MA/SC MONITORING WELL FIELD INSPECTION LOG DATE/TIME: 11/14/08 WEII ID.: LMW-21 YES NO WELL VISIBLE? (If not, provide directions below) Х WELL COORDINATES? NYTM X 2,206,950.31 NYTM Y 201,798.35 See Report PDOP Reading from Trimble pathfinder: Satelites: GPS Method (circle) Trimble And/Or Magellan YES NO WELL I.D. VISIBLE? WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back) WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: YES NO SURFACE SEAL PRESENT? SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below) Х PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below) HEADSPACE READING (ppm) AND INSTRUMENT USED 0.0 PIF TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable) NA PROTECTIVE CASING MATERIAL TYPE: SS MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches): YES NO LOCK PRESENT? Х LOCK FUNCTIONAL? DID YOU REPLACE THE LOCK? Х IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes, describe below) WELL MEASURING POINT VISIBLE? Х MEASURE WELL DEPTH FROM MEASURING POINT (Feet): 110.5 41.44 MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): MEASURE WELL DIAMETER (Inches): 2 PVC WELL CASING MATERIAL: GOOD PHYSICAL CONDITION OF VISIBLE WELL CASING: ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):

REMARKS: I nut missing from the well cap

MONITORING WELL INSPECTION LOG



APPENDIX C

LABORATORY DATA SUMMARY PACKAGE (FORM 1S)

APPENDIX C, TABLE 1 LIBERTY INDUSTRIAL FINISHING (SITE # 1-52-108) SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location		MW-5	MW-6	MW-12	MW-14	MW-18	MW-19
Sample ID	Class GA	LMW-5	LMW-6	LMW-12	LMW-14	LMW-18	LMW-19
Laboratory ID	Groundwater				G2415-02	G2136-02	G2136-01
Sample Date	Criteria	11/14/08	11/14/08	12/23/08	12/23/08	11/13/08	11/13/08
Matrix	water	water	water	water	water	water	water
Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
		Conc. Q					
Aluminum	NC	56 U	56 U	2,260	7,090	196 B	56 U
Antimony	3	4.6 U	4.6 U	4.6 U	4.6 U	9 B	4.6 U
Arsenic	25	5.3 U	5.3 U	5.3 U	5.6 B	5.3 U	5.3 U
Barium	1,000	45.7 B	15.7 B	60.5 B	162 B	86.4 B	20 B
Beryllium	3	0.13 U	0.13 U	0.19 B	0.38 B	0.13 U	0.13 U
Cadmium	5	0.14 U	0.55 B	25.5	59.1	0.92 B	0.14 U
Calcium	NC	16,900	8,300	19,700	35,800	13,500	9,700
Chromium	50	7.3 B	1.1 U	18.9 B	69.6	5.4 B	1.1 U
Cobalt	NC	1.2 U	1.2 U	2.6 B	5.1 B	1.2 U	1.2 U
Copper	200	5 U	5 U	63.5	110	11 B	5 U
Iron	300	61 U	147 B	4,080	9,320	307	61 U
Lead	25	2.2 U	2.2 U	83.7	221	2.5 B	2.2 U
Magnesium	35,000	2,040	2,590	4,330	6,340	4,960	3,970
Manganese	300	6.8 B	40.8 B	82.7	231	122	14.9 B
Mercury	0.7	0.016 U					
Nickel	100	1.5 U	2.2 B	14.9 B	53.2	3.2 B	1.5 U
Potassium	NC	4,380	2,060	2,540	7,090	10,200	947 B
Selenium	10	6.6 U					
Silver	50	0.59 U	0.59 U	7.6 B	4.3 B	1.6 B	1.1 B
Sodium	20,000	7,570	11,600	27,100	561,000	29,600	13,400
Thallium	0.50	4.2 U					
Vanadium	NC	0.96 U	0.96 U	8.6 B	22.5 B	0.96 U	0.96 U
Zinc	2,000	13.7 B	21.9 B	220	520	86.7	30.5 B

U - Not detected

B - Estimated value

APPENDIX C, TABLE 1 LIBERTY INDUSTRIAL FINISHING (SITE # 1-52-108) SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-20	MW-21
Sample ID	Class GA	LMW-20	LMW-21
Laboratory ID	Groundwater		G2136-05
Sample Date	Criteria	11/13/08	11/14/08
Matrix	water	water	water
Units	µg/L	µg/L	µg/L
		Conc. Q	Conc. Q
Aluminum	NC	81.6 B	457
Antimony	3	4.6 U	4.6 U
Arsenic	25	5.3 U	5.3 U
Barium	1,000	48.8 B	58.2 B
Beryllium	3	0.13 U	0.13 U
Cadmium	5	0.74 B	4.8 B
Calcium	NC	4,420	11,900
Chromium	50	2.1 B	2.3 B
Cobalt	NC	1.2 U	1.2 U
Copper	200	5 U	6.6 B
Iron	300	164 B	198 B
Lead	25	2.2 U	2.6 B
Magnesium	35,000	3,400	2,960
Manganese	300	35 B	627
Mercury	0.7	0.016 U	0.016 U
Nickel	100	1.8 B	6.9 B
Potassium	NC	8,190	6,250
Selenium	10	6.6 U	6.6 U
Silver	50	0.6 B	0.59 U
Sodium	20,000	29,700	19,200
Thallium	0.50	4.2 U	4.2 U
Vanadium	NC	0.96 U	0.96 U
Zinc	2,000	28.5 B	69.1

U - Not detected

B - Estimated value



A DIVISION OF SPECTRUM ANALYTICAL, INC. Featuring HANIBAL TECHNOLOGY

December 17, 2008

Earth Tech – AECOM 300 Broadacres Drive Bloomfield, NJ 07003 Attn: Mr. Paul Kareth

RE: Client Project: Multi Site G—Liberty, DZUS Lab Work Order #: G2136

Dear Mr. Kareth:

Enclosed please find the data report of the required analyses for the samples associated with the above referenced project. If you have any questions regarding this report, please call me.

We appreciate your business.

Sincerely,

Shirley Ng

Project Manager



* Data Summary Pack *

Mitkem Laboratories

New York State Department of Environmental Conservation Sample Identification and Analytical Requirements Summary

Project Name : Multi Site G - Liberty, DZUS

SDG : <u>G2136</u>

		Analytical Requirements							
Customer Sample ID	Laboratory Sample ID	MSVOA Method #	MSSEMI Method #	GC* Method #	ME	Other			
LMW-19	G2136-01				SW6010_W				
LMW-19	G2136-01		· · · ·		SW7470				
LMW-18	G2136-02				SW6010_W				
LMW-18	G2136-02				SW7470				
LMW-68	G2136-03	· · · · · · · · · · · · · · · · · · ·			SW6010_W				
LMW-68	G2136-03				SW7470				
LMW-20	G2136-04				SW6010_W				
LMW-20	G2136-04				SW7470				
LMW-21	G2136-05				SW6010_W				
LMW-21	G2136-05				SW7470				
LMW-6	G2136-06				SW6010_W	·			
LMW-6	G2136-06				SW7470				
LMW-5	G2136-07				SW6010_W				
LMW-5	G2136-07				SW7470				
SED-2	G2136-08	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	SW6010_S				
SED-2	G2136-08				SW7471				
SW-2	G2136-09				SW6010_W				
SW-2	G2136-09				SW7470				
SED-1	G2136-10			· · · · · · · · · · · · · · · · · · ·	SW6010_S				
SED-1	G2136-10				SW7471				
SW-1	G2136-11			· · · · · · · · · · · · · · · · · · ·	SW6010_W				
SW-1	G2136-11				SW7470				
SW-51	G2136-12				SW6010_W				
SW-51	G2136-12				SW7470				
SW-3	G2136-13				SW6010_W				
SW-3	G2136-13	wend 1 - met 76 dar de 1978 - 1 - 1			SW7470				
SED-3	G2136-14				SW6010_S				
SED-3	G2136-14				SW7471				
SW-4	G2136-15				SW6010_W				
SW-4	G2136-15				SW7470				
SED-4	G2136-16		· · · ·	<u></u>	SW6010_S				
SED-4	G2136-16				SW7471				
FB 111408	G2136-17				SW6010_W				
FB 111408	G2136-17				SW7470				

Mitkem Laboratories

New York State Department of Environmental Conservation Sample Preparation and Analysis Summary ME

Project Name : <u>Multi Site G – Liberty, DZUS</u>

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SDG: <u>G2136</u>
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Laboratory		Metals	Date Received	Date
Sample ID	Matrix	Requested	By Lab	Analyzed
SW6010_S		·····		
	SL	SW6010_S	11/15/2008	12/4/2008
G2136-10A	SL	SW6010_S	11/15/2008	12/4/2008
G2136-14A	SL	SW6010_S	11/15/2008	12/4/2008
G2136-16A	SL	SW6010_S	11/15/2008	12/4/2008
G2136-16ADUP	SL	SW6010_S	11/15/2008	12/4/2008
G2136-16AMS	SL	SW6010_S	11/15/2008	12/4/2008
SW6010_W				
G2136-01A	AQ	SW6010_W	11/15/2008	12/4/2008
G2136-01ADUP	AQ	SW6010_W	11/15/2008	12/4/2008
G2136-01AMS	AQ	SW6010_W	11/15/2008	12/4/2008
G2136-02A	AQ	SW6010_W	11/15/2008	12/4/2008
G2136-03A	AQ		11/15/2008	12/4/2008
G2136-04A	AQ	SW6010_W	11/15/2008	12/4/2008
G2136-05A	AQ	SW6010_W	11/15/2008	12/4/2008
G2136-06A	AQ	SW6010 W	11/15/2008	12/4/2008
G2136-07A	AQ	SW6010_W	11/15/2008	12/4/2008
G2136-09A	AQ	SW6010_W	11/15/2008	12/4/2008
G2136-11A	AQ	SW6010_W	11/15/2008	12/4/2008
G2136-11ADUP	AQ	SW6010_W	11/15/2008	12/4/2008
G2136-11AMS	AQ	SW6010_W	11/15/2008	12/4/2008
G2136-12A	AQ		11/15/2008	12/4/2008
G2136-13A	AQ		11/15/2008	12/4/2008
G2136-15A	AQ		11/15/2008	12/4/2008
G2136-17A	AQ		11/15/2008	12/4/2008
SW7470			<u>I</u>	, <u>,</u> , ,
G2136-01A	AQ	SW7470	11/15/2008	12/4/2008
G2136-01ADUP	AQ	SW7470	11/15/2008	12/4/2008
G2136-01AMS	AQ	SW7470	11/15/2008	12/4/2008
G2136-02A	AQ	SW7470	11/15/2008	12/4/2008
G2136-03A	AQ	SW7470	11/15/2008	12/4/2008
G2136-04A	AQ	SW7470	11/15/2008	12/4/2008
G2136-05A	AQ	SW7470	11/15/2008	12/4/2008
G2136-06A	AQ	SW7470	11/15/2008	12/4/2008
G2136-07A	AQ	SW7470	11/15/2008	12/4/2008
G2136-09A	AQ	SW7470	11/15/2008	12/4/2008
G2136-11A	AQ	SW7470	11/15/2008	12/4/2008
G2136-11ADUP	AQ	SW7470	11/15/2008	12/4/2008
G2136-11AMS	AQ	SW7470	11/15/2008	12/4/2008
G2136-12A	AQ	SW7470	11/15/2008	12/4/2008
G2136-13A	AQ	SW7470	11/15/2008	12/4/2008
G2136-15A	AQ	SW7470	11/15/2008	12/4/2008
G2136-17A	AQ	SW7470	11/15/2008	12/4/2008
SW7471	I	· · · · · · · · · · · · · · · · · · ·	I	
G2136-08A	SL	SW7471	11/15/2008	12/3/2008
G2136-10A	SL	SW7471	11/15/2008	12/3/2008
G2136-14A	SL	SW7471	11/15/2008	12/3/2008
G2136-16A	SL	SW7471	11/15/2008	12/3/2008

Analytical Data Package for Earth Tech Northeast, Inc.

Client Project: Multi Site G-Liberty, DZUS

SDG# MG2136

Mitkem Work Order ID: G2136

December 17, 2008

Prepared For:

Earth Tech – AECOM 300 Broadacres Drive Bloomfield, NJ 07003 Attn: Mr. Paul Kareth

Prepared By:

Mitkem Laboratories 175 Metro Center Boulevard Warwick, RI 02886 (401) 732-3400

SDG Narrative

Mitkem Laboratories submits the enclosed data package in response to Earth Tech Northeast, Inc.'s Multi Site G—Servall project. Under this deliverable, analysis results are presented for seventeen aqueous samples that were received on November 15, 2008. Analyses were performed per specifications in the project's contract and chain of custody forms. Following the narrative is the Mitkem Work Order for cross-referencing sample client ID with laboratory sample ID.

The analyses were performed according to NYSDEC ASP protocols (2000update) and reported per NYSDEC ASP requirement for Category B deliverable.

The following observation and/or deviations are observed for the following analyses:

1. Metals analysis:

Lab control sample: percent recoveries were within the QC limits.

Matrix spike analysis: matrix spikes were performed on samples LMW-19 and SW-1, on also sample SED-4 for ICP only. Spike recoveries were within the QC limits with the exception of antimony, cadmium and lead in SED-4. These elements are flagged with an "N" on the data reporting forms. A post digestion spike was performed on sample SED-4 with improved recoveries and reported.

Duplicate analysis: duplicate analyses were performed on samples LMW-19 and SW-1, on also sample SED-4 for ICP only. Percent recoveries were within the QC limits with the exception of aluminum, barium, cadmium, calcium, lead, magnesium, manganese, potassium and zinc. These elements are flagged with a "*" on the data reporting forms.

Sample analysis: serial dilutions were performed on samples LMW-19, SW-1 and SED-4. Percent differences were within the QC limits with the exception of barium, cadmium, chromium, cobalt, iron, lead, magnesium, vanadium and zinc in SED-4. These elements are flagged with an "E" on the data reporting forms. No other unusual occurrences were noted during sample analysis.

All pages in this report have been numbered consecutively, starting with the title page and ending with a page saying only "Last Page of Data Report".

I certify that this data package is in compliance, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Shirley Ng

Project Manager 12/17/08

		U.S. H	EPA - CLP					
			1			EPA SAM	IPLE NO.	
		INORGANIC ANA	LYSIS DATA SI	HEET		FB 111408	<u></u>	
Lab Name:	Mitkem Laboratorie	S	Contract:	95900-	04	·		
Lab Code:	MITKEM Case N	0.:	SAS No.:			SDG No.:	MG2136	
Matrix (soi	l/water): WATER		Lab Sample	ID: G	2136-1	7		
Level (low,	/med): MED		Date Receiv	ved: 11	1/15/2	008		
% Solids:	0.0			r.				

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	56.0	U		P
7440-36-0	Antimony	4.6	U		P
7440-38-2	Arsenic	5.3	U		P
7440-39-3	Barium	8.5	U		P
7440-41-7	Beryllium	0.13	U		P
7440-43-9	Cadmium	0.33	в		P
7440-70-2	Calcium	130	U		P
7440-47-3	Chromium	1.1	U		P
7440-48-4	Cobalt	1.2	U		P
7440-50-8	Copper	5.0	υ		P
7439-89-6	Iron	61.0	υ		P
7439-92-1	Lead	2.2	υ		Р
7439-95-4	Magnesium	77.0	U		P
7439-96-5	Manganese	13.8	В		Р
7439-97-6	Mercury	0.016	U		CV
7440-02-0	Nickel	1.5	U		P
7440-09-7	Potassium	41.0	U		P
7782-49-2	Selenium	6.6	υ		P
7440-22-4	Silver	0.59	υ		P
7440-23-5	Sodium	57.9	В		P
7440-28-0	Thallium	4.2	U		Р
7440-62-2	Vanadium	0.96	U		P
7440-66-6	Zinc	12.0	в	-	P
	1				1

Comments:

U.S. EPA - CLP

		1	EPA SAMPLE NO.
	INORGANIC	ANALYSIS DATA SHEET	LMW-18
Lab Name:	Mitkem Laboratories	Contract: 95900-	04
Lab Code:	MITKEM Case No.:	SAS No.:	SDG No.: MG2136
Matrix (so	il/water): WATER	Lab Sample ID: G2	2136-02
Level (low	/med): MED	Date Received: 1	1/15/2008
% Solids:	0.0		

Concentration Units (ug/L or mg/kg dry weight): UG/L

7429-90-5 Aluminum 196 B P 7440-36-0 Antimony 9.0 B P 7440-38-2 Arsenic 5.3 U P 7440-39-3 Barium 86.4 B P 7440-41-7 Beryllium 0.13 U P 7440-43-9 Cadmium 0.92 B P 7440-70-2 Calcium 13500 P 7440-47-3 Chromium 5.4 B P 7440-48-4 Cobalt 1.2 U P 7440-50-8 Copper 11.0 B P 7439-89-6 Iron 307 P P 7439-92-1 Lead 2.5 B P 7439-92-1 Lead 2.5 B P 7439-95-4 Magnesium 4960 P P 7439-97-6 Mercury 0.016 U CV 7440-02-0 Nickel 3.2 B P 7440-02-7 Potassium 10200 P P	CAS No.	Analyte	Concentration	С	Q	М
7440-38-2 Arsenic 5.3 U P 7440-39-3 Barium 86.4 B P 7440-41-7 Beryllium 0.13 U P 7440-43-9 Cadmium 0.92 B P 7440-70-2 Calcium 13500 P 7440-47-3 Chromium 5.4 B P 7440-48-4 Cobalt 1.2 U P 7440-50-8 Copper 11.0 B P 7439-89-6 Iron 307 P P 7439-92-1 Lead 2.5 B P 7439-95-4 Magnesium 4960 P P 7439-97-6 Mercury 0.016 U CV 7440-02-0 Nickel 3.2 B P 7440-02-7 Potassium 10200 P P 7440-22-4 Silver 1.6 B P 7440-23-5 Sodium 29600 P P 7440-28-0 Thallium 4.2 U P 7440-62-2 Vanadium 0.96 U P	7429-90-5	Aluminum	196	В		P
7440-39-3 Barium 86.4 B P 7440-41-7 Beryllium 0.13 U P 7440-43-9 Cadmium 0.92 B P 7440-70-2 Calcium 13500 P 7440-47-3 Chromium 5.4 B P 7440-48-4 Cobalt 1.2 U P 7440-50-8 Copper 11.0 B P 7439-89-6 Iron 307 P P 7439-92-1 Lead 2.5 B P 7439-95-4 Magnesium 4960 P 7439-96-5 Manganese 122 P 7440-02-0 Nickel 3.2 B P 7440-02-0 Nickel 3.2 B P 7440-23-5 Sodium 6.6 U P 7440-23-5 Sodium 29600 P P 7440-23-0 Thallium 4.2 U P	7440-36-0	Antimony	9.0	В		Р
7440-41-7Beryllium0.13UP7440-43-9Cadmium0.92BP7440-70-2Calcium13500P7440-47-3Chromium5.4BP7440-48-4Cobalt1.2UP7440-50-8Copper11.0BP7439-89-6Iron307P7439-92-1Lead2.5BP7439-95-4Magnesium4960P7439-96-5Manganese122P7440-02-0Nickel3.2BP7440-02-7Potassium10200P7440-22-4Silver1.6BP7440-23-5Sodium29600P7440-28-0Thallium4.2UP7440-62-2Vanadium0.96UP	7440-38-2	Arsenic	5.3	U		Р
7440-43-9 Cadmium 0.92 B P 7440-70-2 Calcium 13500 P 7440-47-3 Chromium 5.4 B P 7440-47-3 Chromium 5.4 B P 7440-48-4 Cobalt 1.2 U P 7440-50-8 Copper 11.0 B P 7439-89-6 Iron 307 P 7439-92-1 Lead 2.5 B P 7439-95-4 Magnesium 4960 P P 7439-96-5 Manganese 122 P P 7439-97-6 Mercury 0.016 U CV 7440-02-0 Nickel 3.2 B P 7440-02-0 Nickel 3.2 B P 7440-02-7 Potassium 10200 P P 7440-22-4 Silver 1.6 B P 7440-23-5 Sodium 29600 P P 7440-28-0 Thallium 4.2 U P	7440-39-3	Barium	86.4	В		Р
7440-70-2 Calcium 13500 P 7440-47-3 Chromium 5.4 B P 7440-48-4 Cobalt 1.2 U P 7440-50-8 Copper 11.0 B P 7439-89-6 Iron 307 P 7439-92-1 Lead 2.5 B P 7439-95-4 Magnesium 4960 P 7439-96-5 Manganese 122 P 7440-02-0 Nickel 3.2 B P 7440-09-7 Potassium 10200 P P 7440-22-4 Silver 1.6 P P 7440-28-0 Thallium 4.2 U P	7440-41-7	Beryllium	0.13	υ		P
7440-47-3Chromium5.4BP7440-48-4Cobalt1.2UP7440-50-8Copper11.0BP7439-89-6Iron307IP7439-92-1Lead2.5BP7439-95-4Magnesium4960P7439-96-5Manganese122IP7439-97-6Mercury0.016UCV7440-02-0Nickel3.2BP7440-02-7Potassium10200P7440-22-4Silver1.6BP7440-23-5Sodium29600P7440-28-0Thallium4.2UP7440-62-2Vanadium0.96UP	7440-43-9	Cadmium	0.92	в		Р
7440-48-4Cobalt1.2UP7440-50-8Copper11.0BP7439-89-6Iron307VP7439-92-1Lead2.5BP7439-95-4Magnesium4960VP7439-96-5Manganese122VP7439-97-6Mercury0.016UCV7440-02-0Nickel3.2BP7440-09-7Potassium10200P7440-22-4Silver1.6BP7440-23-5Sodium29600VP7440-28-0Thallium4.2UP7440-62-2Vanadium0.96UP	7440-70-2	Calcium	13500			Р
7440-50-8 Copper 11.0 B P 7439-89-6 Iron 307 P 7439-92-1 Lead 2.5 B P 7439-95-4 Magnesium 4960 P 7439-95-5 Magnesium 4960 P 7439-96-5 Magnese 122 P 7439-97-6 Mercury 0.016 U CV 7440-02-0 Nickel 3.2 B P 7440-09-7 Potassium 10200 P P 7440-22-4 Silver 1.6 B P 7440-23-5 Sodium 29600 P P 7440-28-0 Thallium 4.2 U P 7440-62-2 Vanadium 0.96 U P	7440-47-3	Chromium	5.4	В		Р
7439-89-6 Iron 307 P 7439-92-1 Lead 2.5 B P 7439-92-1 Lead 2.5 B P 7439-92-4 Magnesium 4960 P 7439-95-4 Magnesium 4960 P 7439-96-5 Manganese 122 P 7439-97-6 Mercury 0.016 U CV 7440-02-0 Nickel 3.2 B P 7440-02-7 Potassium 10200 P P 7440-22-4 Selenium 6.6 U P 7440-22-5 Sodium 29600 P P 7440-28-0 Thallium 4.2 U P 7440-62-2 Vanadium 0.96 U P	7440-48-4	Cobalt	1.2	υ		P
7439-92-1 Lead 2.5 B P 7439-95-4 Magnesium 4960 P 7439-96-5 Manganese 122 P 7439-97-6 Mercury 0.016 U CV 7440-02-0 Nickel 3.2 B P 7440-09-7 Potassium 10200 P 7782-49-2 Selenium 6.6 U P 7440-22-4 Silver 1.6 B P 7440-23-5 Sodium 29600 P P 7440-28-0 Thallium 4.2 U P 7440-62-2 Vanadium 0.96 U P	7440-50-8	Copper	11.0	В		P
7439-95-4Magnesium4960P7439-96-5Manganese122P7439-97-6Mercury0.016UCV7440-02-0Nickel3.2BP7440-09-7Potassium10200P7782-49-2Selenium6.6UP7440-22-4Silver1.6BP7440-23-5Sodium29600P7440-28-0Thallium4.2UP7440-62-2Vanadium0.96UP	7439-89-6	Iron	307			P
7439-96-5 Manganese 122 P 7439-97-6 Mercury 0.016 U CV 7440-02-0 Nickel 3.2 B P 7440-09-7 Potassium 10200 P 7782-49-2 Selenium 6.6 U P 7440-22-4 Silver 1.6 B P 7440-23-5 Sodium 29600 P 7440-28-0 Thallium 4.2 U P 7440-62-2 Vanadium 0.96 U P	7439-92-1	Lead	2.5	в		Р
7439-97-6Mercury0.016UCV7440-02-0Nickel3.2BP7440-09-7Potassium10200P7782-49-2Selenium6.6UP7440-22-4Silver1.6BP7440-23-5Sodium29600P7440-28-0Thallium4.2UP7440-62-2Vanadium0.96UP	7439-95-4	Magnesium	4960			Р
7440-02-0 Nickel 3.2 B P 7440-09-7 Potassium 10200 P 7782-49-2 Selenium 6.6 U P 7440-22-4 Silver 1.6 B P 7440-23-5 Sodium 29600 P 7440-28-0 Thallium 4.2 U P 7440-62-2 Vanadium 0.96 U P	7439-96-5	Manganese	122			Р
7440-09-7 Potassium 10200 P 7782-49-2 Selenium 6.6 U P 7440-22-4 Silver 1.6 B P 7440-23-5 Sodium 29600 P 7440-28-0 Thallium 4.2 U P 7440-62-2 Vanadium 0.96 U P	7439-97-6	Mercury	0.016	U		CV
7782-49-2 Selenium 6.6 U P 7440-22-4 Silver 1.6 B P 7440-23-5 Sodium 29600 P 7440-28-0 Thallium 4.2 U P 7440-62-2 Vanadium 0.96 U P	7440-02-0	Nickel	3.2	В		P
7440-22-4 Silver 1.6 B P 7440-23-5 Sodium 29600 P 7440-28-0 Thallium 4.2 U P 7440-62-2 Vanadium 0.96 U P	7440-09-7	Potassium	10200			P
7440-23-5 Sodium 29600 P 7440-28-0 Thallium 4.2 U P 7440-62-2 Vanadium 0.96 U P	7782-49-2	Selenium	6.6	U		Р
7440-28-0 Thallium 4.2 U P 7440-62-2 Vanadium 0.96 U P	7440-22-4	Silver	1.6	В		Р
7440-62-2 Vanadium 0.96 U P	7440-23-5	Sodium	29600			P
	7440-28-0	Thallium	4.2	U		P
7440-66-6Zinc 86.7 P	7440-62-2	Vanadium	0.96	U		Р
	7440-66-6	Zinc	86.7			Р

Comments:

U.S. EPA - CLP

		1	EPA SAMPLE NO.
	INORGANIC	ANALYSIS DATA SHEET	LMW-19
Lab Name:	Mitkem Laboratories	Contract: 9590	0-04
Lab Code:	MITKEM Case No.:	SAS No.:	SDG No.: MG2136
Matrix (so	il/water): WATER	Lab Sample ID:	G2136-01
Level (low	/med): MED	Date Received:	11/15/2008
% Solids:	0.0		

Concentration Units (ug/L or mg/kg dry weight): UG/L

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CAS No.	Analyte	Concentration	С	0	M
7429-90-5	-	56.0	U	*	P
7440-36-0		4.6	U		P
7440-38-2	-	5.3	U		P
7440-39-3		20.0	B		P
		0.13	U U		P
	Beryllium		<u> </u>		
7440-43-9	Cadmium	0.14	U		P
7440-70-2	Calcium	9700			P
7440-47-3	Chromium	1.1	U		P
7440-48-4	Cobalt	1.2	U		P
7440-50-8	Copper	5.0	U		P
7439-89-6	Iron	61.0	υ		P
7439-92-1	Lead	2.2	U		P
7439-95-4	Magnesium	3970			Р
7439-96-5	Manganese	14.9	В		P
7439-97-6	Mercury	0.016	υ		CV
7440-02-0	Nickel	1.5	U		Р
7440-09-7	Potassium	947	В		P
7782-49-2	Selenium	6.6	U		P
7440-22-4	Silver	1.1	в		Р
7440-23-5	Sodium	13400			P
7440-28-0	Thallium	4.2	U		P
7440-62-2	Vanadium	0.96	U		Р
7440-66-6	Zinc	30.5	в		P

Comments:

	U.S.	EPA - CLP	
		1	EPA SAMPLE NO.
	INORGANIC AN	NALYSIS DATA SHEET	LMW-20
Lab Name:	Mitkem Laboratories	Contract: 95900	0-04
Lab Code:	MITKEM Case No.:	SAS No.:	SDG No.: MG2136
Matrix (soi	l/water): WATER	Lab Sample ID:	G2136-04
Level (low,	(med): MED	Date Received:	11/15/2008
% Solids: (0.0		

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	С	0	M
7429-90-5	-	81.6	в		P
7440-36-0	Antimony	4.6	υ		P
7440-38-2		5.3	υ		P
7440-39-3	Barium	48.8	в		P
7440-41-7	Beryllium	0.13	U		P
7440-43-9	Cadmium	0.74	В		P
7440-70-2	Calcium	4420			P
7440-47-3	Chromium	2.1	в		P
7440-48-4	Cobalt	1.2	U	· · ·	P
7440-50-8	Copper	5.0	υ		P
7439-89-6	Iron	164	в		P
7439-92-1	Lead	2.2	U	-	Р
7439-95-4	Magnesium	3400			P
7439-96-5	Manganese	35.0	В		P
7439-97-6	Mercury	0.016	υ		CV
7440-02-0	Nickel	1.8	в		P
7440-09-7	Potassium	8190			Р
7782-49-2	Selenium	6.6	U		Р
7440-22-4	Silver	0.60	В		Р
7440-23-5	Sodium	29700			P
7440-28-0	Thallium	4.2	υ		P
7440-62-2	Vanadium	0.96	U		P
7440-66-6	Zinc	28.5	В		P

Comments:

	U	.S. EPA - CLP	
		1	EPA SAMPLE NO.
	INORGANIC	ANALYSIS DATA SHEET	LMW-21
Lab Name:	Mitkem Laboratories	Contract: 95900-	-04
Lab Code:	MITKEM Case No.:	SAS No.:	SDG No.: MG2136
Matrix (so	il/water): WATER	Lab Sample ID: G	2136-05
Level (low	/med): MED	Date Received: 1	1/15/2008
% Solids:	0.0		

Concentration Units (ug/L or mg/kg dry weight): UG/L $\,$

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	457			P
7440-36-0	Antimony	4.6	U		P
7440-38-2	Arsenic	5.3	U		P
7440-39-3	Barium	58.2	В		Р
7440-41-7	Beryllium	0.13	U		P
7440-43-9	Cadmium	4.8	В		P
7440-70-2	Calcium	11900			P
7440-47-3	Chromium	2.3	В		P
7440-48-4	Cobalt	1.2	U		P
7440-50-8	Copper	6.6	В		Р
7439-89-6	Iron	198	В		P
7439-92-1	Lead	2.6	В		P
7439-95-4	Magnesium	2960	1		P
7439-96-5	Manganese	627			P
7439-97-6	Mercury	0.016	U		CV
7440-02-0	Nickel	6.9	в		P
7440-09-7	Potassium	6250			P
7782-49-2	Selenium	6.6	U		P
7440-22-4	Silver	0.59	U		P
7440-23-5	Sodium	19200			Р
7440-28-0	Thallium	4.2	υ		Р
7440-62-2	Vanadium	0.96	υ		P
7440-66-6	Zinc	69.1			Р

Comments:

U.S. EPA - CLP

			1	EPA SAMPLE NO.
		INORGANI	C ANALYSIS DATA SHEET	LMW-5
Lab Name:	Mitkem Lab	oratories	Contract: 9590	00-04
Lab Code:	MITKEM	Case No.:	SAS No.:	SDG No.: MG2136
Matrix (so	il/water):	WATER	Lab Sample ID:	G2136-07
Level (low	/med): MED		Date Received:	11/15/2008
% Solids:	0.0			

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	56.0	U		P
7440-36-0	Antimony	4.6	U		P
7440-38-2	Arsenic	5.3	U		P
7440-39-3	Barium	45.7	В	an a	P
7440-41-7	Beryllium	0.13	U		P
7440-43-9	Cadmium	0.14	υ		P
7440-70-2	Calcium	16900			P
7440-47-3	Chromium	7.3	В		P
7440-48-4	Cobalt	1.2	U		P
7440-50-8	Copper	5.0	U		P
7439-89-6	Iron	61.0	U		P
7439-92-1	Lead	· 2.2	U		P
7439-95-4	Magnesium	2040			P
7439-96-5	Manganese	6.8	В		P
7439-97-6	Mercury	0.016	U		CV
7440-02-0	Nickel	1.5	U		P
7440-09-7	Potassium	4380			P
7782-49-2	Selenium	6.6	U		P
7440-22-4	Silver	0.59	υ		P
7440-23-5	Sodium	7570		A	P
7440-28-0		4.2	U		P
7440-62-2	Vanadium	0.96	U		P
7440-66-6	Zinc	13.7	в		P

Comments:

	U	.S. EPA - CLP	
		1	EPA SAMPLE NO.
	INORGANIC	ANALYSIS DATA SHEET	LMW-6
Lab Name:	Mitkem Laboratories	Contract: 95900-	04
Lab Code:	MITKEM Case No.:	SAS No.:	SDG No.: MG2136
Matrix (so	il/water): WATER	Lab Sample ID: G	2136-06
Level (low	/med): MED	Date Received: 1	1/15/2008
% Solids:	0.0		

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	М
7429-90-5	Aluminum	56.0	U		Р
7440-36-0	Antimony	4.6	U	444-0-0-01	P
7440-38-2	Arsenic	5.3	U		Р
7440-39-3	Barium	15.7	В		Р
7440-41-7	Beryllium	0.13	U		P
7440-43-9	Cadmium	0.55	В		P
7440-70-2	Calcium	8300			Р
7440-47-3	Chromium	1.1	U		P
7440-48-4	Cobalt	1.2	U		P
7440-50-8	Copper	5.0	υ		P
7439-89-6	Iron	147	В		Р
7439-92-1	Lead	2.2	υ		P
7439-95-4	Magnesium	2590			P
7439-96-5	Manganese	40.8	В		P
7439-97-6	Mercury	0.016	U		CV
7440-02-0	Nickel	2.2	В		P
7440-09-7	Potassium	2060			P
7782-49-2	Selenium	6.6	U		P
7440-22-4	Silver	0.59	U		P
7440-23-5	Sodium	11600			P
7440-28-0	Thallium	4.2	U	- · ·	P
7440-62-2	Vanadium	0.96	U		Р
7440-66-6	Zinc	21.9	В		P

Comments:

U.S. EPA - CLP

		1	EPA SAMPLE NO.
	INORGANIC AN	ALYSIS DATA SHEET	LMW-68
Lab Name:	Mitkem Laboratories	Contract: 959	00-04
Lab Code:	MITKEM Case No.:	SAS No.:	SDG No.: MG2136
Matrix (so	il/water): WATER	Lab Sample ID:	G2136-03
Level (low	/med): MED	Date Received:	11/15/2008

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5A	luminum	214			P
7440-36-0A	ntimony	5.3	В		P
7440-38-2A	rsenic	5.3	U		P
7440-39-3B	arium	86.3	В		Р
7440-41-7B	eryllium	0.13	U		P
7440-43-9C	admium	1.2	В		P
7440-70-2C	alcium	13800			Р
7440-47-3C	hromium	5.6	В		Р
7440-48-4C	obalt	1.2	U		P
7440-50-8C	opper	10.1	В		P
7439-89-6I	ron	266			Р
7439-92-1L	ead	2.5	В		Р
7439-95-4M	lagnesium	4960			Р
7439-96-5M	anganese	126			P
7439-97-6M	lercury	0.016	υ		CV
7440-02-0N	ickel	3.2	В		P
7440-09-7P	otassium	10400			Р
7782-49-2 S	elenium	6.6	U		P
7440-22-4 S	ilver	0.91	В		P
7440-23-5S	odium	30000			P
7440-28-0 T	hallium	4.2	U		P
7440-62-2V	anadium	0.96	U		P
7440-66-6Z	inc	83.8			P

Comments:



A DIVISION OF SPECTRUM ANALYTICAL, INC. Featuring HANIBAL TECHNOLOGY

January 13, 2009

Earth Tech – AECOM 300 Broadacres Drive Bloomfield, NJ 07003 Attn: Mr. Paul Kareth

RE: Client Project: Multi Site G Lab Work Order #: G2415

Dear Mr. Kareth:

Enclosed please find the data report of the required analyses for the samples associated with the above referenced project. If you have any questions regarding this report, please call me.

We appreciate your business.

Sincerely,

Shirley Ng Project Manager



* Data Summary Pack *

Mitkem Laboratories

New York State Department of Environmental Conservation Sample Identification and Analytical Requirements Summary

Project Name : Multi Site G

SDG : <u>G2415</u>

		· · · · · · · · · · · · · · · · · · ·	Anal	ytical Requirements		
Customer Sample ID	Laboratory Sample ID			GC* Method #	ME	Other
MW-12	G2415-01				SW6010_W	
MW-12	G2415-01				SW7470	
MW-14	G2415-02				SW6010_W	
MW-14	G2415-02	· · · · · · · · · · · · · · · · · · ·			SW7470	

Mitkem Laboratories

New York State Department of Environmental Conservation Sample Preparation and Analysis Summary ME

Project Name : Multi Site G

SDG: <u>G2415</u>

Laboratory Sample ID	Matrix	Metals Requested	Date Received By Lab	Date Analyzed
SW6010_W				
	AQ	SW6010_W	12/24/2008	1/6/2009
G2415-01A G2415-02A	AQ	SW6010_W	12/24/2008	1/7/2009
SW7470				
G2415-01A	AQ	SW7470	12/24/2008	1/3/2009
G2415-01A G2415-02A	AQ	SW7470	12/24/2008	1/3/2009

Analytical Data Package for Earth Tech Northeast, Inc.

Client Project: Multi Site G

SDG# MG2415

Mitkem Work Order ID: G2415

January 13, 2009

Prepared For:

Earth Tech – AECOM 300 Broadacres Drive Bloomfield, NJ 07003 Attn: Mr. Paul Kareth

Prepared By:

Mitkem Laboratories 175 Metro Center Boulevard Warwick, RI 02886 (401) 732-3400

SDG Narrative

Mitkem Laboratories submits the enclosed data package in response to Earth Tech Northeast, Inc.'s Multi Site G project. Under this deliverable, analysis results are presented for two aqueous samples that were received on December 24, 2008. Analyses were performed per specifications in the project's contract and chain of custody forms. Following the narrative is the Mitkem Work Order for cross-referencing sample client ID with laboratory sample ID.

The analyses were performed according to NYSDEC ASP protocols (2000update) and reported per NYSDEC ASP requirement for Category B deliverable.

The following observation and/or deviations are observed for the following analyses:

1. Metals analysis:

Lab control sample: percent recoveries were within the QC limits.

Sample analysis: no unusual occurrences were noted during sample analysis.

All pages in this report have been numbered consecutively, starting with the title page and ending with a page saying only "Last Page of Data Report".

I certify that this data package is in compliance, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Shirley Ng

Shirley Ng > Project Manager 01/13/09

		U.S. E	PA - CLP				
			1			EPA SAM	IPLE NO.
		INORGANIC ANAL	LYSIS DATA SH	IEET		MW-12	····
Lab Name:	Mitkem Laboratories		Contract:	95900	-04		
Lab Code:	MITKEM Case No.:		SAS No.:			SDG No.:	MG2415
Matrix (soi	il/water): WATER		Lab Sample	ID:	G2415-0)1	
Level (low,	/med): MED		Date Receiv	ed:	12/24/2	2008	
% Solids: (0.0						

Concentration Units (ug/L or mg/kg dry weight): UG/L

CTO NI-	7	Concentration	С	0	M
CAS No.	Analyte			<u> </u>	
7429-90-5	Aluminum	2260			P
7440-36-0	Antimony	4.6	U		P
7440-38-2	Arsenic	5.3	U		Р
7440-39-3	Barium	60.5	В		P
7440-41-7	Beryllium	0.19	В		P
7440-43-9	Cadmium	25.5			P
7440-70-2	Calcium	19700			P
7440-47-3	Chromium	18.9	В		P
7440-48-4	Cobalt	2.6	В		P
7440-50-8	Copper	63.5			P
7439-89-6	Iron	4080			P
7439-92-1	Lead	83.7	1		Р
7439-95-4	Magnesium	4330			P
7439-96-5	Manganese	82.7			P
7439-97-6	Mercury	0.016	U		CV
7440-02-0	Nickel	14.9	В		Р
7440-09-7	Potassium	2540			P
7782-49-2	Selenium	6.6	υ		Р
7440-22-4	Silver	7.6	В		P
7440-23-5	Sodium	27100			P
7440-28-0	Thallium	4.2	U		P
7440-62-2	Vanadium	8.6	В		P
7440-66-6	Zinc	220			P

Comments:

		U.S. EPA - CLP			
	1		EPA SAMPLE NO.		
	INORGANI	C ANALYSIS DATA SHEET	MW-14		
Lab Name:	Mitkem Laboratories	Contract: 95900-0	4		
Lab Code:	MITKEM Case No.:	SAS No.:	SDG No.: MG2415		
Matrix (soil/water): WATER		Lab Sample ID: G24	2415-02		
Level (low,	/med): MED	Date Received: 12,	12/24/2008		
% Solids:	0.0				

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7090			P
7440-36-0	Antimony	4.6	υ		Р
7440-38-2	Arsenic	5.6	В		Р
7440-39-3	Barium	162	В		Р
7440-41-7	Beryllium	0.38	В		P
7440-43-9	Cadmium	59.1			P
7440-70-2	Calcium	35800			Р
7440-47-3	Chromium	69.6			P
7440-48-4	Cobalt	5.1	В		P
7440-50-8	Copper	110			Р
7439-89-6	Iron	9320			Р
7439-92-1	Lead	221			Р
7439-95-4	Magnesium	6340			P
7439-96-5	Manganese	231			P
7439-97-6	Mercury	0.016	υ	· · · · · · · · · · · · · · · · · · ·	CV
7440-02-0	Nickel	53.2			Р
7440-09-7	Potassium	7090			Р
7782-49-2	Selenium	6.6	U		Р
7440-22-4	Silver	4.3	В		P
7440-23-5	Sodium	561000			P
7440-28-0	Thallium	4.2	U	· ·	P
7440-62-2	Vanadium	22.5	В		Р
7440-66-6	Zinc	520			P

Comments: