URS

June 20, 2012

Mr. Ronnie Lee, P.E.
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233-7016

Re: Former EMCA Site, Mamaroneck, New York
Site Number 360025
Groundwater Sampling and Analysis Report
April 2012 Sampling Event

Dear Mr. Lee:

Enclosed is one CD containing the Groundwater Sampling and Analysis Report for the April 2012 Sampling Event. This transmittal is being made on behalf of Rohm and Haas Company, a wholly owned subsidiary of The Dow Chemical Company.

If you have any questions or comments regarding the enclosed, please give me a call at (716) 923-1102. Thank you.

Sincerely,

URS Corporation

Bruce J. Przybyl
Project Manager

Enc.

cc: Mr. Nathan Walz, NYSDOH (1 – CD)
Mr. Ed Tokarski, Dow (1 – Hard Copy, 1 - CD)
Mr. Louis Vetere, Cablevision (1 – Hard Copy)
Mr. James Moras, NYSDEC (e-mail of LOT)
Mr. Doug Gray, URS (1 – Hard Copy)
File: 11172730/C-1

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Groundwater Sampling and Analysis Report April 2012 Sampling Event

Former EMCA Site
Mamaroneck, New York

Prepared for:

Rohm and Haas Company, a wholly-owned subsidiary of The Dow Chemical Company

Prepared by:

URS
77 Goodell Street
Buffalo, New York 14203

June 2012

G4427R

FORMER EMCA SITE

SITE NO. 360025

MAMARONECK, NEW YORK

GROUNDWATER SAMPLING AND ANALYSIS REPORT
APRIL 2012 SAMPLING EVENT

Prepared for:

ROHM AND HAAS COMPANY

A WHOLLY-OWNED SUBSIDIARY OF THE DOW CHEMICAL COMPANY

Submitted by:

URS CORPORATION

77 Goodell Street

Buffalo, New York 14203

JUNE 2012

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1.0 INTRODUCTION

This report presents the results of groundwater monitoring conducted on April 11, 2012 at the former EMCA site located in Mamaroneck, New York (Figure 1) pursuant to the approved Site Management Plan (URS, 2010) and to recommendations made in the *Groundwater Sampling and Analysis Report, September 2011 Sampling Event* (URS, 2011a). The groundwater monitoring program generates data used to monitor the effectiveness of remedial actions performed at the site from 2003 to 2012.

The pilot program conducted in 2003, the interim remedial measure in 2004, the supplemental injection in 2007, and the supplemental injection in 2009, all involved the injections of food-grade emulsified soybean oil and sodium lactate into groundwater to stimulate anaerobic biodegradation and the reductive dechlorination of 1,1,2-trichloro-1,2,2-trifluoroethane (Freon 113; CAS No. 76-13-1) in site groundwater. This was the fifteenth groundwater sampling event since the interim remedial measure in 2004, the tenth following the supplemental injection event in 2007, and the seventh following the 2009 supplemental injection event.

2.0 GROUNDWATER SAMPLING AND ANALYSIS

Groundwater samples were collected from a total of five monitoring wells using low-flow purging and sampling procedures. Static groundwater level measurements were taken prior to purging and sampling. Field purging and sampling logs are presented in Appendix A.

Chain-of-custody was initiated immediately after the groundwater samples were collected and was maintained through shipment to the laboratory. Laboratory analyses were performed on samples from all five monitoring wells for the following parameters:

Parameter	Analytical Method
Freon 113	SW8260B
Freon 123a	SW8260B
Freon 1113	SW8260B
Methane	RSK-175/SW3810
Sulfate	ASTM D516-90

3.0 RESULTS

Groundwater level data are presented in Table 1 and a groundwater elevation map is shown on Figure 2. A truck was parked over the top of monitoring well GZ-03 during the sampling event making it inaccessible. Benchmark C was originally established as a temporary benchmark off a tree branch overhanging the Sheldrake River between the north and south bridges. The approximate water surface elevation for this benchmark is now calculated by taking the average surface elevation of Benchmark B and Benchmark D. As found during previous sampling events, groundwater flow was generally northwestward towards the Sheldrake River.

Groundwater monitoring results for the current event are provided in Table 2. Historical groundwater analytical results are presented in Table 3. Laboratory data sheets and a data usability summary report for the April 2012 results are provided in Appendix B. Freon 113, 123a and 1113 concentrations over time are shown in plan view on Figure 3 and trend plots are presented for Freon 113 (Figures 4 and 5), Freon 123a (Figure 6), Freon 1113 (Figure 7), sulfate (Figure 8), methane (Figure 9), dissolved oxygen (Figure 10), and oxidation-reduction potential (Figure 11). Dissolved oxygen and oxidation-reduction potential were measured in the field by real-time instrumentation. Pre-injection Freon results (2003) compared to current Freon results are also shown in bar-graph form on Figure 12.

4.0 DATA ASSESSMENT

The groundwater analytical data collected in April 2012 is the seventh set of data collected following the supplemental injection of food-grade emulsified soybean oil and sodium lactate completed on September 9, 2009. The previous round of groundwater sampling occurred

on September 13, 2011. These results were presented in the previous Groundwater Sampling and Analysis Report for September 2011 (URS, 2011a).

The groundwater analytical results for the April 2012 sampling event indicate that Freon 113 concentrations were detected above the remedial goal of 5 µg/L at four of the five wells sampled. Freon 113 was detected at 1,200 J µg/L at MW-02, increasing from 490 µg/L; detected at 20 J µg/L at MW-03, increasing from 5.4 µg/L; detected at 82 J µg/L at MW-06, increasing from non-detect; and detected at 67 J µg/L at MW-07R, increasing from 1.6 µg/L.

Freon 123a and Freon 1113 are the expected reductive dechlorination daughter products of Freon 113. Freon 123a holds one less chlorine than Freon 113. Therefore, the concentrations of these compounds are expected to increase over time as Freon 113 declines in response to the treatments, and then eventually decline as reductive dechlorination continues. Compared to the previous sampling event (September 2011), Freon 123a increased at MW-02 (26 µg/L to 57 µg/L), MW-03 (9.4 µg/L to 36 µg/L), MW-06 (4.4 µg/L to 28 µg/L), and MW-07R (0.94 J µg/L to 11 µg/L). Freon 123a has never been detected at MW-04.

Freon 1113, which holds two less chlorines than Freon 113, increased in concentration from the September 2011 event at MW-03 (82 µg/L to 150 J µg/L), MW-04 (1.2 µg/L to 7.2 J µg/L), MW-06 (30 µg/L to 230 J µg/L) and MW-07R (26 µg/L to 630 J µg/L) and decreased at MW-02 (180 µg/L to 140 J µg/L).

The April 2012 sulfate concentrations increased at all locations compared to the previous event. This trend indicates generally less favorable reducing (more aerobic) conditions for biological degradation of the Freon compounds.

Methane concentrations decreased at MW-06; increased at MW-02, MW-04, and MW-07R; and remained the same at MW-03 compared to the previous event. Dissolved oxygen concentrations remained the same at 0 mg/L at all wells.

Oxidation-reduction potentials increased in all wells from the previous event. The range generally became less reducing, ranging from between -109 to -126 millivolts in the September 2011 event to between -44 to -87 millivolts in the April 2012 event.

5.0 CONCLUSIONS

A relative comparison of data from the April 2012 event with the September 2011 event, including Freon 113 and its degradation products and various indicator parameters, is presented in Table 4 (see below). Comparative data from these events is also discussed in Section 4.

The Freon data trends show a diminished impact of the August-September 2009 supplemental injection event. Freon 113 concentrations increased at MW-02, MW-03, MW-06, and MW-07R; and remained the same at non-detect at MW-04 in the April 2012 event. Freon 113 daughter product Freon 123a increased at MW-02, MW-03, MW-06, and MW-07R, and remained the same at non-detect at MW-04 in the April 2012 event. Freon 113 daughter product Freon 1113 increased at MW-03, MW-04, MW-06, and MW-07R, and decreased at MW-02 in the April 2012 event.

Oxidation-reduction potentials increased in all wells. Following the IRM injection in November 2004 (a period of strong Freon reduction), oxidation-reduction potentials in site wells, except GZ-06, were observed to fall to approximately -135 to -155 millivolts. Currently, the oxidation-reduction potentials in site wells have a less reducing range (-44 to -87 millivolts). Sulfate, which is a competing electron acceptor with Freon, increased in all wells.

Methane concentrations decreased at MW-06; increased at MW-02, MW-04, and MW-07R, and remained the same at MW-03. Dissolved oxygen concentrations remained the same at 0 mg/L at all wells.

Overall, it appears that the substrates injected in August-September 2009 are no longer causing conditions favorable to the reductive dechlorination of Freon at the site. Further, it appears that the slow rate of reduction near MW-02 possibly caused by low microbial populations as documented in prior reports is hindering long-term degradation.

Table 4

Comparison of September 2011 to April 2012 Data

Location	Freon 113	Freon 123a	Freon 1113	Methane	Sulfate	ORP	DO
MW-02	↑	↑	↓	↑	↑	↑	↔
MW-03	↑	↑	↑	↔	↑	↑	↔
MW-04	↔	↔	↑	↑	↑	↑	↔
MW-06	↑	↑	↑	↓	↑	↑	↔
MW-07/07R	↑	↑	↑	↑	↑	↑	↔

Legend

↓ Decrease from previous event

↑ Increase from previous event

↔ No significant change from previous event

6.0 CONTINGENCY TRIGGER EVALUATION

Contingency measures were triggered at the site by the April 2011 data collected at MW-02, in accordance with Section 4.0 of the Site Management Plan (URS, 2010). As a result, Dow prepared a 2012 Supplemental Injection Work Plan (URS, 2012) and submitted it to the NYSDEC in February 2012. The NYSDEC approved the plan on April 12, 2012. The plan will be executed in October 2012. Comparison of data to trigger criteria presented in the Site Management Plan will resume following execution of the contingency measures.

7.0 NEXT STEPS

SiREM Laboratories is growing acclimated KB-1® Plus bacteria culture for bioaugmentation for the planned contingency injections. This lab has recently reported that the volume of culture required for injection will be available in October 2012. Depending on progress reports received from the lab later this year, it is anticipated that biostimulation substrate injections will occur in late-September or early-October followed by bioaugmentation 1 to 3 weeks following the completion of the injections. To provide a baseline of results prior to biostimulation and bioaugmentation, it is proposed that the October 2012 routine groundwater

monitoring event be moved to a timeframe prior to substrate injection in early September 2012. In accordance with the Work Plan (URS, 2012), MW-02 will then be sampled post-injection on a monthly basis for Freon 113, Freon 123a, Freon 1113, methane, sulfate, dehalococcoides and field parameters.

REFERENCES

URS Inc., 2005. *Groundwater Sampling and Analysis Report, May 2005 Sampling Event, Former EMCA Site, Site No. 360025, Mamaroneck, New York.* August.

URS Inc., 2006a. *Groundwater Sampling and Analysis Report, December 2005 Sampling Event, Former EMCA Site, Site No. 360025, Mamaroneck, New York.* March.

URS Inc., 2006b. *Groundwater Sampling and Analysis Report, August 2006 Sampling Event, Former EMCA Site, Site No. 360025, Mamaroneck, New York.* October.

URS Inc., 2007a. *Groundwater Sampling and Analysis Report, February 2007 Sampling Event, Former EMCA Site, Site No. 360025, Mamaroneck, New York.* April.

URS Inc., 2007b. *Groundwater Sampling and Analysis Report, August 2007 Sampling Event & Summary of Supplemental Injection Event, Former EMCA Site, Site No. 360025, Mamaroneck, New York.* October.

URS Inc., 2008. *Groundwater Sampling and Analysis Report, February 2008 Sampling Event, Former EMCA Site, Site No 360025, Mamaroneck, New York.* May.

URS Inc., 2008a. *Groundwater Sampling and Analysis Report, August 2008 Sampling Event, Former EMCA Site, Site No 360025, Mamaroneck, New York.* October.

URS Inc., 2009. *Groundwater Sampling and Analysis Report, February 2009 Sampling Event, Former EMCA Site, Site No 360025, Mamaroneck, New York.* April.

URS Inc., 2009b. *2009 Supplemental Injection Work Plan, Former EMCA Site, Site No 360025, Mamaroneck, New York.* July.

URS Inc., 2009c. *Groundwater Sampling and Analysis Report, October 2009 Sampling Event and Summary of 2009 Supplemental Injection Event, Former EMCA Site, Site No 360025, Mamaroneck, New York.* November.

URS Inc., 2010. *Site Management Plan, NYSDEC Site Number 360025, Former EMCA Site, Mamaroneck, New York.* October.

URS Inc., 2010a. *Groundwater Sampling and Analysis Report, February 2010 Sampling Event, Former EMCA Site, Site No. 360025, Mamaroneck, New York.* April.

URS Inc., 2010b. *Groundwater Sampling and Analysis Report, June 2010 Sampling Event, Former EMCA Site, Site No. 360025, Mamaroneck, New York.* August.

URS Inc., 2010c. *Groundwater Sampling and Analysis Report, October 2010 Sampling Event, Former EMCA Site, Site No. 360025, Mamaroneck, New York.* December.

URS Inc., 2011. *Groundwater Sampling and Analysis Report, April 2011 Sampling Event, Former EMCA Site, Site No. 360025, Mamaroneck, New York.* June.

URS Inc., 2011a. *Groundwater Sampling and Analysis Report, September 2011 Sampling Event, Former EMCA Site, Site No. 360025, Mamaroneck, New York.* December.

URS Inc., 2012. *Draft 2012 Supplemental Injection Work Plan, Former EMCA Site, Site No. 360025, Mamaroneck, New York.* February.

TABLES

TABLE 1
GROUNDWATER ELEVATION MEASUREMENTS (April 11, 2012)
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location	Measuring Point Elevation[1] (ft.)	Depth to Water[2] (ft.)	Water Surface Elevation (ft.)
GZ-03[3]	26.16	NA	NA
GZ-06	28.02	7.34	20.68
MW-01	25.74	6.02	19.72
MW-02	25.63	6.38	19.25
MW-03	25.59	6.38	19.21
MW-04	25.31	6.23	19.08
MW-05	24.63	5.40	19.23
MW-06	25.77	6.51	19.26
MW-07R	25.63	6.50	19.13
Benchmark B (Sheldrake River - South [Rockaway Avenue] Bridge)	32.21	Dry	Dry
Benchmark C[4] (Sheldrake River - between North and South Bridges)	--	--	16.48
Benchmark D (Sheldrake River - North [Fenimore Road] Bridge)	27.41	10.93	16.48

Notes:

1) All of the monitoring well and benchmark locations were resurveyed on 6/25/2010.
2) Water elevations for all wells and benchmarks were collected on 4/11/2012.
3) Monitoring well GZ-03 was modified from a stick-up well to a flush-mount well on 6/24/2010.
4) Benchmark C was originally established as a temporary benchmark off a tree branch overhanging the Sheldrake River between the North and South bridges. The approximate water surface elevation for this benchmark is now calculated by taking the average water surface elevation of Benchmark B and Benchmark D.

NA - Not Accessible (Truck parked over the well).

TABLE 2
GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-02	MW-03	MW-04	MW-06	MW-07R
Sample ID			20120411MW-02V08N	20120411MW-03V09N	20120411MW-04V08N	20120411MW-06V13N	20120411MW-07RV15FD
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			04/11/12	04/11/12	04/11/12	04/11/12	04/11/12
Parameter	**Units**	**Criteria***					Field Duplicate (1-1)
Volatiles							
Chlorotrifluoroethene (Freon-1113)	UG/L	5	140 J	150 J	7.2 J	230 J	630 J
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	5	1,200 J	20 J	1 UJ	82 J	67 J
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	5	57	36	1 U	28	11
Dissolved Gases							
Methane	UG/L	-	8,100	15,000	2,700	5,300	6,400
Miscellaneous Parameters							
Sulfate	MG/L	250	51.8	63.1	18.7	119	18.9
Field Parameter							
Dissolved Oxygen	MG/L	-	0.0	0.0	0.0	0.0	NA
Oxidation-Reduction Potential	mV	-	-44	-63	-87	-48	NA
pH	S.U.	-	6.56	6.64	6.80	6.81	NA
Specific Conductance	MS/CM	-	1.86	1.02	1.38	1.06	NA
Temperature	DEG C	-	13.45	13.35	14.07	14.04	NA
Turbidity	NTU	-	0.0	0.0	8.9	0.0	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

U - Non-Detect

J - Analyte is reported below the PQL at an estimated concentration.

Detection Limits shown are PQL

TABLE 2
GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-07R
Sample ID			20120411MW-07RV15N
Matrix			Groundwater
Depth Interval (ft)			-
Date Sampled			04/11/12
Parameter	**Units**	**Criteria***	
Volatiles			
Chlorotrifluoroethene (Freon-1113)	UG/L	5	540 J
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	5	59 J
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	5	9.7
Dissolved Gases			
Methane	UG/L	-	6,600
Miscellaneous Parameters			
Sulfate	MG/L	250	17.7
Field Parameter			
Dissolved Oxygen	MG/L	-	0.0
Oxidation-Reduction Potential	mV	-	-82
pH	S.U.	-	6.72
Specific Conductance	MS/CM	-	2.10
Temperature	DEG C	-	13.63
Turbidity	NTU	-	8.2

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

U - Non-Detect

J - Analyte is reported below the PQL at an estimated concentration.

Detection Limits shown are PQL

TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			GZ-03	GZ-06	GZ-06	GZ-06	GZ-06
Sample ID			20070801GZ-03V11N	GZ06_52103	GZ06	GZ06-091703	GZ-06-121803
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			08/01/07	05/21/03	07/23/03	09/17/03	12/18/03
Parameter	**Units**	**Criteria***					
Volatiles							
Acetone	UG/L	50	NA	5.0 U	10 U	5.0 U	5.0 U
Benzene	UG/L	1	NA	5.0 U	10 U	5.0 U	5.0 U
Methyl ethyl ketone (2-Butanone)	UG/L	50	NA	R	R	R	R
Chlorotrifluoroethene (Freon-1113)	UG/L	5	10 U	0 U	0 U	5.4 NJ	0 U
1,1-Dichloroethene	UG/L	5	NA	0.8 J	1.5 J	2.0 U	2.0 U
cis-1,2-Dichloroethene	UG/L	5	NA	5.0 U	10 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	UG/L	5	NA	5.0 U	10 U	5.0 U	5.0 U
Ethylbenzene	UG/L	5	NA	4.0 U	8 U	4.0 U	4.0 U
2-Hexanone	UG/L	50	NA	5.0 U	10 U	5.0 U	5.0 U
4-Methyl-2-Pentanone	UG/L	-	NA	5.0 U	10 U	5.0 U	5.0 U
Tetrachloroethene	UG/L	5	NA	0.6 J	2 U	0.5 J	1.0 U
Trichloroethene	UG/L	5	NA	1.0 U	2 U	1.0 U	1.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	5	10 U	100	230	74	5.0 U
Vinyl Chloride	UG/L	2	NA	5.0 U	10 U	5.0 U	5.0 U
Xylene (total)	UG/L	5	NA	5.0 U	10 U	5.0 U	5.0 U
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	5	10 U	20	41	26	0.7 J
Dissolved Gases							
Methane	UG/L	-	5.0 U	140	98	89	5.9
Total Metals							
Iron	UG/L	300	NA	2,390	866	517 J	173
Dissolved Metals							
Iron	UG/L	300	NA	2,290	778	583 J	85.3 B

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

U - Non-Detect UJ - Not detected above the estiamted quantitation limit

D - Diluted analysis

J (or B for Inorganics) - Analyte is reported below the PQL at an estimated concentration. NJ - Presumptive evidence that compound is present.

R - Rejected result NA - Not Analyzed

Only Detected Results Reported.

Detection Limits shown are PQL

TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			GZ-03	GZ-06	GZ-06	GZ-06	GZ-06
Sample ID			20070801GZ-03V11N	GZ06_52103	GZ06	GZ06-091703	GZ-06-121803
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			08/01/07	05/21/03	07/23/03	09/17/03	12/18/03
Parameter	**Units**	**Criteria***					
Miscellaneous Parameters							
Alkalinity, Total (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Chloride	MG/L	250	NA	559	474	477 J	218
Dehalococcoides ethenogenes	CEQ/mL	-	NA	NA	NA	NA	NA
Hardness (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Ammonia (As N)	MG/L	2	NA	0.1 U	0.1 U	0.1 U	0.1 U
Nitrogen, Kjeldahl, Total	MG/L	-	NA	0.5 U	0.7	1.3	0.57
Nitrogen, Nitrate	MG/L	10	NA	0.1 U	NA	0.58	0.1 U
Nitrogen, Nitrate-Nitrite	MG/L	10	NA	NA	0.12 J	NA	NA
Sulfate	MG/L	250	15.8	25.2	27.5	32.4	5.0 U
Total Organic Carbon	MG/L	-	NA	NA	NA	NA	NA
Ferrous Iron (field)	MG/L	-	NA	2.8	9.6	0.25	0.03
Ferric Iron (lab)	MG/L	-	NA	0.1 U	0.1 U	0.52	0.143
Fluoride	MG/L	1.5	NA	0.1 U	0.1 U	0.1 U	0.32
Oil & Grease	MG/L	-	NA	NA	NA	R	NA
Field Parameter							
Dissolved Oxygen	MG/L	-	0.52	0.76	0.5	0.48	6.86
Ferrous Iron	MG/L	-	NA	NA	NA	NA	NA
Ferric Iron (calculated)	MG/L	-	NA	NA	NA	NA	NA
Oxidation-Reduction Potential	mV	-	98.5	-110	-75	-129	73
pH	S.U.	-	6.05	NA	NA	NA	NA
Specific Conductance	MS/CM	-	0.599	2.27	1.99	1.98	1.11
Temperature	DEG C	-	21.6	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

U - Non-Detect UJ - Not detected above the estiamted quantitation limit

D - Diluted analysis

J (or B for Inorganics) - Analyte is reported below the PQL at an estimated concentration. NJ - Presumptive evidence that compound is present.

R - Rejected result NA - Not Analyzed

Only Detected Results Reported.

Detection Limits shown are PQL

TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			GZ-03	GZ-06	GZ-06	GZ-06	GZ-06
Sample ID			20070801GZ-03V11N	GZ06_52103	GZ06	GZ06-091703	GZ-06-121803
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			08/01/07	05/21/03	07/23/03	09/17/03	12/18/03
Parameter	**Units**	**Criteria***					
Field Parameter							
Turbidity	NTU	-	28	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

U - Non-Detect UJ - Not detected above the estiamted quantitation limit

D - Diluted analysis

J (or B for Inorganics) - Analyte is reported below the PQL at an estimated concentration. NJ - Presumptive evidence that compound is present.

R - Rejected result NA - Not Analyzed

Only Detected Results Reported.

Detection Limits shown are PQL

Advanced Selection: WG Apr12 Tab3
N:\11172730.00000\DB\PROGRAM\EDMS.mde
Printed: 5/23/2012 8:36:22 AM
([LOGDATE] BETWEEN #05/01/03# AND #4/11/12#) AND [MATRIX] = 'WG' AND ([SACODE] = 'N' OR [SACODE] = 'FD')

TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			GZ-06	GZ-06	GZ-06	GZ-06	GZ-06
Sample ID			GZ06	GZ-06	MW-GZ-06V08N	GZ-0608N	20061117GZ-0608
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			07/22/04	05/31/05	12/20/05	08/15/06	11/17/06
Parameter	**Units**	**Criteria***					
Volatiles							
Acetone	UG/L	50	NA	NA	NA	NA	NA
Benzene	UG/L	1	NA	NA	NA	NA	NA
Methyl ethyl ketone (2-Butanone)	UG/L	50	NA	NA	NA	NA	NA
Chlorotrifluoroethene (Freon-1113)	UG/L	5	24	15	10 U	13	2.0 J
1,1-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
Ethylbenzene	UG/L	5	NA	NA	NA	NA	NA
2-Hexanone	UG/L	50	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	UG/L	-	NA	NA	NA	NA	NA
Tetrachloroethene	UG/L	5	NA	NA	NA	NA	NA
Trichloroethene	UG/L	5	NA	NA	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	5	100 J	9.0 J	10 U	74	2.0 J
Vinyl Chloride	UG/L	2	NA	NA	NA	NA	NA
Xylene (total)	UG/L	5	NA	NA	NA	NA	NA
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	5	36	4.0 J	2.0 J	23	2.0 J
Dissolved Gases							
Methane	UG/L	-	48	310	74	140	180
Total Metals							
Iron	UG/L	300	NA	NA	NA	NA	NA
Dissolved Metals							
Iron	UG/L	300	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

U - Non-Detect UJ - Not detected above the estiamted quantitation limit

D - Diluted analysis

J (or B for Inorganics) - Analyte is reported below the PQL at an estimated concentration. NJ - Presumptive evidence that compound is present.

R - Rejected result NA - Not Analyzed

Only Detected Results Reported.

Detection Limits shown are PQL

TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			GZ-06	GZ-06	GZ-06	GZ-06	GZ-06
Sample ID			GZ06	GZ-06	MW-GZ-06V08N	GZ-0608N	20061117GZ-0608
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			07/22/04	05/31/05	12/20/05	08/15/06	11/17/06
Parameter	**Units**	**Criteria***					
Miscellaneous Parameters							
Alkalinity, Total (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Chloride	MG/L	250	1,610	NA	NA	NA	NA
Dehalococcoides ethenogenes	CEQ/mL	-	NA	NA	NA	NA	NA
Hardness (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Ammonia (As N)	MG/L	2	NA	NA	NA	NA	NA
Nitrogen, Kjeldahl, Total	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Nitrate	MG/L	10	NA	NA	NA	NA	NA
Nitrogen, Nitrate-Nitrite	MG/L	10	NA	NA	NA	NA	NA
Sulfate	MG/L	250	20.8	14.2	31.7	23.2	25.1
Total Organic Carbon	MG/L	-	NA	NA	NA	NA	NA
Ferrous Iron (field)	MG/L	-	NA	NA	NA	NA	NA
Ferric Iron (lab)	MG/L	-	NA	NA	NA	NA	NA
Fluoride	MG/L	1.5	1.00 U	NA	NA	NA	NA
Oil & Grease	MG/L	-	NA	NA	NA	NA	NA
Field Parameter							
Dissolved Oxygen	MG/L	-	1.15	0.11	0.03	5.67	NA
Ferrous Iron	MG/L	-	NA	NA	NA	NA	NA
Ferric Iron (calculated)	MG/L	-	NA	NA	NA	NA	NA
Oxidation-Reduction Potential	mV	-	-210	-107	-59	-49	NA
pH	S.U.	-	NA	NA	NA	NA	NA
Specific Conductance	MS/CM	-	5.25	1.43	1.16	1.28	NA
Temperature	DEG C	-	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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D - Diluted analysis

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Only Detected Results Reported.

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			GZ-06	GZ-06	GZ-06	GZ-06	GZ-06
Sample ID			GZ06	GZ-06	MW-GZ-06V08N	GZ-0608N	20061117GZ-0608
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			07/22/04	05/31/05	12/20/05	08/15/06	11/17/06
Parameter	**Units**	**Criteria***					
Field Parameter							
Turbidity	NTU	-	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

Flags assigned during chemistry validation are shown.

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			GZ-06	GZ-06	GZ-06	GZ-06	GZ-06
Sample ID			20061117GZ0608FD	20070207GZ-06V08N	20070731GZ-06V08	20080228GZ06V08	20080812GZ06V10N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			11/17/06	02/07/07	07/31/07	02/28/08	08/12/08
Parameter	**Units**	**Criteria***	Field Duplicate (1-1)				
Volatiles							
Acetone	UG/L	50	NA	NA	NA	NA	NA
Benzene	UG/L	1	NA	NA	NA	NA	NA
Methyl ethyl ketone (2-Butanone)	UG/L	50	NA	NA	NA	NA	NA
Chlorotrifluoroethene (Freon-1113)	UG/L	5	2.0 J	1.0 J	2.0 J	10 U	10 U
1,1-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
Ethylbenzene	UG/L	5	NA	NA	NA	NA	NA
2-Hexanone	UG/L	50	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	UG/L	-	NA	NA	NA	NA	NA
Tetrachloroethene	UG/L	5	NA	NA	NA	NA	NA
Trichloroethene	UG/L	5	NA	NA	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	5	2.0 J	14	13	10 UJ	10 U
Vinyl Chloride	UG/L	2	NA	NA	NA	NA	NA
Xylene (total)	UG/L	5	NA	NA	NA	NA	NA
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	5	2.0 J	4.0 J	10	10 U	10 U
Dissolved Gases							
Methane	UG/L	-	210	360	23	5,900	880
Total Metals							
Iron	UG/L	300	NA	NA	NA	NA	NA
Dissolved Metals							
Iron	UG/L	300	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

Flags assigned during chemistry validation are shown.

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			GZ-06	GZ-06	GZ-06	GZ-06	GZ-06
Sample ID			20061117GZ0608FD	20070207GZ-06V08N	20070731GZ-06V08	20080228GZ06V08	20080812GZ06V10N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			11/17/06	02/07/07	07/31/07	02/28/08	08/12/08
Parameter	**Units**	**Criteria***	Field Duplicate (1-1)				
Miscellaneous Parameters							
Alkalinity, Total (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Chloride	MG/L	250	NA	NA	NA	NA	NA
Dehalococcoides ethenogenes	CEQ/mL	-	NA	NA	NA	NA	NA
Hardness (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Ammonia (As N)	MG/L	2	NA	NA	NA	NA	NA
Nitrogen, Kjeldahl, Total	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Nitrate	MG/L	10	NA	NA	NA	NA	NA
Nitrogen, Nitrate-Nitrite	MG/L	10	NA	NA	NA	NA	NA
Sulfate	MG/L	250	25.4	29.3	50.4	5 U	28.1
Total Organic Carbon	MG/L	-	NA	NA	NA	NA	NA
Ferrous Iron (field)	MG/L	-	NA	NA	NA	NA	NA
Ferric Iron (lab)	MG/L	-	NA	NA	NA	NA	NA
Fluoride	MG/L	1.5	NA	NA	NA	NA	NA
Oil & Grease	MG/L	-	NA	NA	NA	NA	NA
Field Parameter							
Dissolved Oxygen	MG/L	-	NA	4.17	1.18	4.1	0.91
Ferrous Iron	MG/L	-	NA	NA	NA	NA	NA
Ferric Iron (calculated)	MG/L	-	NA	NA	NA	NA	NA
Oxidation-Reduction Potential	mV	-	NA	-29	15.6	-89.0	-102
pH	S.U.	-	NA	NA	6.22	6.15	6.31
Specific Conductance	MS/CM	-	NA	3.06	1.671	0.89	1.59
Temperature	DEG C	-	NA	NA	NA	8.91	17.5

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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Only Detected Results Reported.

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			GZ-06	GZ-06	GZ-06	GZ-06	GZ-06
Sample ID			20061117GZ0608FD	20070207GZ-06V08N	20070731GZ-06V08	20080228GZ06V08	20080812GZ06V10N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			11/17/06	02/07/07	07/31/07	02/28/08	08/12/08
Parameter	**Units**	**Criteria***	Field Duplicate (1-1)				
Field Parameter							
Turbidity	NTU	-	NA	NA	NA	1,000	18

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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([LOGDATE] BETWEEN #05/01/03# AND #4/11/12#) AND [MATRIX] = 'WG' AND ([SACODE] = 'N' OR [SACODE] = 'FD')

TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			GZ-06	GZ-06	MW-01	MW-02	MW-02
Sample ID			20090218GZ-06V10N	20100225GZ-06V14N	20070801MW-01V08N	MW02-5-20-03	MW02-5-20-03DUP
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			02/18/09	02/25/10	08/01/07	05/20/03	05/20/03
Parameter	**Units**	**Criteria***					Field Duplicate (1-1)
Volatiles							
Acetone	UG/L	50	NA	NA	NA	140 J	130 J
Benzene	UG/L	1	NA	NA	NA	50 U	25 U
Methyl ethyl ketone (2-Butanone)	UG/L	50	NA	NA	NA	R	R
Chlorotrifluoroethene (Freon-1113)	UG/L	5	10 U	1 UJ	20 U	0 U	0 U
1,1-Dichloroethene	UG/L	5	NA	NA	20 U	4.4 J	5.1 J
cis-1,2-Dichloroethene	UG/L	5	NA	NA	250	50 U	25 U
trans-1,2-Dichloroethene	UG/L	5	NA	NA	4.0 J	50 U	25 U
Ethylbenzene	UG/L	5	NA	NA	NA	40 U	20 U
2-Hexanone	UG/L	50	NA	NA	NA	50 U	25 U
4-Methyl-2-Pentanone	UG/L	-	NA	NA	NA	50 U	25 U
Tetrachloroethene	UG/L	5	NA	NA	8.0 J	10 U	5.0 U
Trichloroethene	UG/L	5	NA	NA	5.0 J	10 U	5.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	5	10 U	1 UJ	20 U	710	880
Vinyl Chloride	UG/L	2	NA	NA	5.0 J	50 U	25 U
Xylene (total)	UG/L	5	NA	NA	NA	50 U	25 U
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	5	10 U	1 U	20 U	34 J	40
Dissolved Gases							
Methane	UG/L	-	8,700	5,000	98	26	32
Total Metals							
Iron	UG/L	300	NA	NA	NA	27,800	28,300
Dissolved Metals							
Iron	UG/L	300	NA	NA	NA	27,900	28,200

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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Only Detected Results Reported.

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			GZ-06	GZ-06	MW-01	MW-02	MW-02
Sample ID			20090218GZ-06V10N	20100225GZ-06V14N	20070801MW-01V08N	MW02-5-20-03	MW02-5-20-03DUP
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			02/18/09	02/25/10	08/01/07	05/20/03	05/20/03
Parameter	**Units**	**Criteria***					Field Duplicate (1-1)
Miscellaneous Parameters							
Alkalinity, Total (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Chloride	MG/L	250	NA	NA	NA	338	338
Dehalococcoides ethenogenes	CEQ/mL	-	NA	NA	NA	NA	NA
Hardness (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Ammonia (As N)	MG/L	2	NA	NA	NA	3.3	3.4
Nitrogen, Kjeldahl, Total	MG/L	-	NA	NA	NA	6.6	6.2
Nitrogen, Nitrate	MG/L	10	NA	NA	NA	0.15	0.16
Nitrogen, Nitrate-Nitrite	MG/L	10	NA	NA	NA	NA	NA
Sulfate	MG/L	250	5 UJ	8.4	39.2	44.0	46.0
Total Organic Carbon	MG/L	-	NA	NA	NA	NA	NA
Ferrous Iron (field)	MG/L	-	NA	NA	NA	25.3	NA
Ferric Iron (lab)	MG/L	-	NA	NA	NA	2.5	3
Fluoride	MG/L	1.5	NA	NA	NA	0.28	0.3
Oil & Grease	MG/L	-	NA	NA	NA	NA	NA
Field Parameter							
Dissolved Oxygen	MG/L	-	0.36	0.00	0.99	0.36	NA
Ferrous Iron	MG/L	-	NA	NA	NA	NA	NA
Ferric Iron (calculated)	MG/L	-	NA	NA	NA	NA	NA
Oxidation-Reduction Potential	mV	-	-91	-154	95.4	-108	NA
pH	S.U.	-	6.12	6.73	6.25	NA	NA
Specific Conductance	MS/CM	-	2.13	5.49	1.755	1.68	NA
Temperature	DEG C	-	9.24	7.23	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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Only Detected Results Reported.

Detection Limits shown are PQL

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([LOGDATE] BETWEEN #05/01/03# AND #4/11/12#) AND [MATRIX] = 'WG' AND ([SACODE] = 'N' OR [SACODE] = 'FD')

TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			GZ-06	GZ-06	MW-01	MW-02	MW-02
Sample ID			20090218GZ-06V10N	20100225GZ-06V14N	20070801MW-01V08N	MW02-5-20-03	MW02-5-20-03DUP
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			02/18/09	02/25/10	08/01/07	05/20/03	05/20/03
Parameter	Units	Criteria*					Field Duplicate (1-1)
Field Parameter							
Turbidity	NTU	-	16	300	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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R - Rejected result NA - Not Analyzed

Only Detected Results Reported.

Detection Limits shown are PQL

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([LOGDATE] BETWEEN #05/01/03# AND #4/11/12#) AND [MATRIX] = 'WG' AND ([SACODE] = 'N' OR [SACODE] = 'FD')

TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-02	MW-02	MW-02	MW-02	MW-02
Sample ID			DUP-7_22_03	MW02-7_22_03	MW02-091803	MW-02-121803	MW-02
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			07/22/03	07/22/03	09/18/03	12/18/03	07/22/04
Parameter	**Units**	**Criteria***	Field Duplicate (1-1)				
Volatiles							
Acetone	UG/L	50	R	R	5.0 U	5.0 U	NA
Benzene	UG/L	1	50 U	50 U	5.0 U	5.0 U	NA
Methyl ethyl ketone (2-Butanone)	UG/L	50	R	R	R	R	NA
Chlorotrifluoroethene (Freon-1113)	UG/L	5	0 U	0 U	0 U	0 U	14
1,1-Dichloroethene	UG/L	5	8.2 J	7.5 J	2.0 U	2.0 U	NA
cis-1,2-Dichloroethene	UG/L	5	50 U	50 U	5.0 U	5.0 U	NA
trans-1,2-Dichloroethene	UG/L	5	50 U	50 U	5.0 U	5.0 U	NA
Ethylbenzene	UG/L	5	40 U	3.4 J	4.0 U	4.0 U	NA
2-Hexanone	UG/L	50	50 U	50 U	5.0 U	5.0 U	NA
4-Methyl-2-Pentanone	UG/L	-	50 U	50 U	5.0 U	5.0 U	NA
Tetrachloroethene	UG/L	5	10 U	10 U	1.0 U	1.0 U	NA
Trichloroethene	UG/L	5	10 U	10 U	1.0 U	1.0 U	NA
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	5	1,000	1,000	54	12	21 J
Vinyl Chloride	UG/L	2	50 U	50 U	5.0 U	5.0 U	NA
Xylene (total)	UG/L	5	7.1 J	11 J	5.0 U	5.0 U	NA
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	5	40 J	41 J	7.8	3.3 J	4 J
Dissolved Gases							
Methane	UG/L	-	54	52	410	320	140
Total Metals							
Iron	UG/L	300	30,100	30,900	63,800 J	69,000	NA
Dissolved Metals							
Iron	UG/L	300	30,500	30,500	60,900 J	69,300	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

Flags assigned during chemistry validation are shown.

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Only Detected Results Reported.

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-02	MW-02	MW-02	MW-02	MW-02
Sample ID			DUP-7_22_03	MW02-7_22_03	MW02-091803	MW-02-121803	MW-02
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			07/22/03	07/22/03	09/18/03	12/18/03	07/22/04
Parameter	**Units**	**Criteria***	Field Duplicate (1-1)				
Miscellaneous Parameters							
Alkalinity, Total (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Chloride	MG/L	250	307	283	839	769	238
Dehalococcoides ethenogenes	CEQ/mL	-	NA	NA	NA	NA	NA
Hardness (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Ammonia (As N)	MG/L	2	4.1	3.8	11.5	11.9	NA
Nitrogen, Kjeldahl, Total	MG/L	-	6.6	6.1	17.1	16.9	NA
Nitrogen, Nitrate	MG/L	10	0.1 U	0.1	0.1 U	0.1 U	NA
Nitrogen, Nitrate-Nitrite	MG/L	10	NA	NA	NA	NA	NA
Sulfate	MG/L	250	32.3	32.5	4.80	5.0 U	15.2
Total Organic Carbon	MG/L	-	NA	NA	NA	NA	NA
Ferrous Iron (field)	MG/L	-	25.7	28.0	49.3	6.3	NA
Ferric Iron (lab)	MG/L	-	4.4	2.9	48.3	62.7	NA
Fluoride	MG/L	1.5	0.37	0.39	0.3	0.31	0.294
Oil & Grease	MG/L	-	NA	NA	5 U	NA	NA
Field Parameter							
Dissolved Oxygen	MG/L	-	NA	0.26	0.53	0 U	0.91
Ferrous Iron	MG/L	-	NA	NA	NA	NA	NA
Ferric Iron (calculated)	MG/L	-	NA	NA	NA	NA	NA
Oxidation-Reduction Potential	mV	-	NA	-190	-99	-108	-133
pH	S.U.	-	NA	NA	NA	NA	NA
Specific Conductance	MS/CM	-	NA	1.65	3.17	3.28	2.34
Temperature	DEG C	-	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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([LOGDATE] BETWEEN #05/01/03# AND #4/11/12#) AND [MATRIX] = 'WG' AND ([SACODE] = 'N' OR [SACODE] = 'FD')

TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-02	MW-02	MW-02	MW-02	MW-02
Sample ID			DUP-7_22_03	MW02-7_22_03	MW02-091803	MW-02-121803	MW-02
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			07/22/03	07/22/03	09/18/03	12/18/03	07/22/04
Parameter	**Units**	**Criteria***	Field Duplicate (1-1)				
Field Parameter							
Turbidity	NTU	-	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-02	MW-02	MW-02	MW-02	MW-02
Sample ID			MW-02	MW-02V06N	MW-02V15N	20061117MW02VISN	20070207MW-02V06N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			05/31/05	12/20/05	08/14/06	11/17/06	02/07/07
Parameter	**Units**	**Criteria***					
Volatiles							
Acetone	UG/L	50	NA	NA	NA	NA	NA
Benzene	UG/L	1	NA	NA	NA	NA	NA
Methyl ethyl ketone (2-Butanone)	UG/L	50	NA	NA	NA	NA	NA
Chlorotrifluoroethene (Freon-1113)	UG/L	5	120	18	200	21	84
1,1-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
Ethylbenzene	UG/L	5	NA	NA	NA	NA	NA
2-Hexanone	UG/L	50	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	UG/L	-	NA	NA	NA	NA	NA
Tetrachloroethene	UG/L	5	NA	NA	NA	NA	NA
Trichloroethene	UG/L	5	NA	NA	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	5	1,200	110	890	100	800
Vinyl Chloride	UG/L	2	NA	NA	NA	NA	NA
Xylene (total)	UG/L	5	NA	NA	NA	NA	NA
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	5	86 J	15	110	10	95
Dissolved Gases							
Methane	UG/L	-	2,000	5,800	5,500	4,300	6,300
Total Metals							
Iron	UG/L	300	NA	NA	NA	NA	NA
Dissolved Metals							
Iron	UG/L	300	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-02	MW-02	MW-02	MW-02	MW-02
Sample ID			MW-02	MW-02V06N	MW-02V15N	20061117MW02VISN	20070207MW-02V06N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			05/31/05	12/20/05	08/14/06	11/17/06	02/07/07
Parameter	**Units**	**Criteria***					
Miscellaneous Parameters							
Alkalinity, Total (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Chloride	MG/L	250	NA	NA	NA	NA	NA
Dehalococcoides ethenogenes	CEQ/mL	-	NA	NA	NA	NA	NA
Hardness (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Ammonia (As N)	MG/L	2	NA	NA	NA	NA	NA
Nitrogen, Kjeldahl, Total	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Nitrate	MG/L	10	NA	NA	NA	NA	NA
Nitrogen, Nitrate-Nitrite	MG/L	10	NA	NA	NA	NA	NA
Sulfate	MG/L	250	25.2	5.0 U	27.1	5.0 U	15.9
Total Organic Carbon	MG/L	-	NA	NA	NA	NA	NA
Ferrous Iron (field)	MG/L	-	NA	NA	NA	NA	NA
Ferric Iron (lab)	MG/L	-	NA	NA	NA	NA	NA
Fluoride	MG/L	1.5	NA	NA	NA	NA	NA
Oil & Grease	MG/L	-	NA	NA	NA	NA	NA
Field Parameter							
Dissolved Oxygen	MG/L	-	0 U	0 U	4.92	NA	1.56
Ferrous Iron	MG/L	-	NA	NA	NA	NA	NA
Ferric Iron (calculated)	MG/L	-	NA	NA	NA	NA	NA
Oxidation-Reduction Potential	mV	-	-140	-137	-144	NA	-120
pH	S.U.	-	NA	NA	NA	NA	NA
Specific Conductance	MS/CM	-	1.19	2.51	1.55	NA	1.77
Temperature	DEG C	-	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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Detection Limits shown are PQL

TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-02	MW-02	MW-02	MW-02	MW-02
Sample ID			MW-02	MW-02V06N	MW-02V15N	20061117MW02VISN	20070207MW-02V06N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			05/31/05	12/20/05	08/14/06	11/17/06	02/07/07
Parameter	Units	Criteria*					
Field Parameter							
Turbidity	NTU	-	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-02	MW-02	MW-02	MW-02	MW-02
Sample ID			20070731MW-02V15N	20080228MW02V15N	20080812MW02V10N	20090218MW-02V10N	20091013MW-02V10N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			07/31/07	02/28/08	08/12/08	02/18/09	10/13/09
Parameter	**Units**	**Criteria***					
Volatiles							
Acetone	UG/L	50	NA	NA	NA	NA	NA
Benzene	UG/L	1	NA	NA	NA	NA	NA
Methyl ethyl ketone (2-Butanone)	UG/L	50	NA	NA	NA	NA	NA
Chlorotrifluoroethene (Freon-1113)	UG/L	5	61	120 J	160	81 J	300
1,1-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
Ethylbenzene	UG/L	5	NA	NA	NA	NA	NA
2-Hexanone	UG/L	50	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	UG/L	-	NA	NA	NA	NA	NA
Tetrachloroethene	UG/L	5	NA	NA	NA	NA	NA
Trichloroethene	UG/L	5	NA	NA	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	5	290	830 J	700	1,300	1,200 D
Vinyl Chloride	UG/L	2	NA	NA	NA	NA	NA
Xylene (total)	UG/L	5	NA	NA	NA	NA	NA
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	5	40	72	38 J	34 J	51
Dissolved Gases							
Methane	UG/L	-	2,900	6,400	6,200	8,000	6,100
Total Metals							
Iron	UG/L	300	NA	NA	NA	NA	NA
Dissolved Metals							
Iron	UG/L	300	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-02	MW-02	MW-02	MW-02	MW-02
Sample ID			20070731MW-02V15N	20080228MW02V15N	20080812MW02V10N	20090218MW-02V10N	20091013MW-02V10N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			07/31/07	02/28/08	08/12/08	02/18/09	10/13/09
Parameter	**Units**	**Criteria***					
Miscellaneous Parameters							
Alkalinity, Total (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Chloride	MG/L	250	NA	NA	NA	NA	NA
Dehalococcoides ethenogenes	CEQ/mL	-	NA	NA	NA	NA	NA
Hardness (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Ammonia (As N)	MG/L	2	NA	NA	NA	NA	NA
Nitrogen, Kjeldahl, Total	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Nitrate	MG/L	10	NA	NA	NA	NA	NA
Nitrogen, Nitrate-Nitrite	MG/L	10	NA	NA	NA	NA	NA
Sulfate	MG/L	250	27.6	23.2	47.9	35.2 J	36.9
Total Organic Carbon	MG/L	-	NA	NA	NA	NA	NA
Ferrous Iron (field)	MG/L	-	NA	NA	NA	NA	NA
Ferric Iron (lab)	MG/L	-	NA	NA	NA	NA	NA
Fluoride	MG/L	1.5	NA	NA	NA	NA	NA
Oil & Grease	MG/L	-	NA	NA	NA	NA	NA
Field Parameter							
Dissolved Oxygen	MG/L	-	0.31	2.87	0 U	0 U	0.00
Ferrous Iron	MG/L	-	NA	NA	NA	NA	NA
Ferric Iron (calculated)	MG/L	-	NA	NA	NA	NA	NA
Oxidation-Reduction Potential	mV	-	-97.2	-131.0	-119	-154	-161
pH	S.U.	-	6.39	6.38	6.40	6.26	6.16
Specific Conductance	MS/CM	-	2.357	2.18	2.14	2.55	2.09
Temperature	DEG C	-	NA	10.5	18.9	11.23	18.88

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-02	MW-02	MW-02	MW-02	MW-02
Sample ID			20070731MW-02V15N	20080228MW02V15N	20080812MW02V10N	20090218MW-02V10N	20091013MW-02V10N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			07/31/07	02/28/08	08/12/08	02/18/09	10/13/09
Parameter	**Units**	**Criteria***					
Field Parameter							
Turbidity	NTU	-	NA	28	3	5	9.4

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-02	MW-02	MW-02	MW-02	MW-02
Sample ID			20100225MW-02V08N	20100624MW-02V08N	20101006MW-02V08N	20110406MW-02V08N	20110913MW02V08N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			02/25/10	06/24/10	10/06/10	04/06/11	09/13/11
Parameter	**Units**	**Criteria***					
Volatiles							
Acetone	UG/L	50	NA	NA	NA	NA	NA
Benzene	UG/L	1	NA	NA	NA	NA	NA
Methyl ethyl ketone (2-Butanone)	UG/L	50	NA	NA	NA	NA	NA
Chlorotrifluoroethene (Freon-1113)	UG/L	5	92 J	240	180	110 J	180
1,1-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
Ethylbenzene	UG/L	5	NA	NA	NA	NA	NA
2-Hexanone	UG/L	50	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	UG/L	-	NA	NA	NA	NA	NA
Tetrachloroethene	UG/L	5	NA	NA	NA	NA	NA
Trichloroethene	UG/L	5	NA	NA	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	5	76 J	670	580	920	490
Vinyl Chloride	UG/L	2	NA	NA	NA	NA	NA
Xylene (total)	UG/L	5	NA	NA	NA	NA	NA
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	5	6.1	37	26	33 J	26
Dissolved Gases							
Methane	UG/L	-	7,500	8,400	6,200	10,000	5,300
Total Metals							
Iron	UG/L	300	NA	NA	NA	NA	60,400
Dissolved Metals							
Iron	UG/L	300	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-02	MW-02	MW-02	MW-02	MW-02
Sample ID			20100225MW-02V08N	20100624MW-02V08N	20101006MW-02V08N	20110406MW-02V08N	20110913MW02V08N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			02/25/10	06/24/10	10/06/10	04/06/11	09/13/11
Parameter	**Units**	**Criteria***					
Miscellaneous Parameters							
Alkalinity, Total (as CaCO3)	MG/L	-	NA	NA	NA	NA	361
Chloride	MG/L	250	NA	NA	NA	NA	NA
Dehalococcoides ethenogenes	CEQ/mL	-	NA	NA	NA	NA	1.79
Hardness (as CaCO3)	MG/L	-	NA	NA	NA	NA	726
Nitrogen, Ammonia (As N)	MG/L	2	NA	NA	NA	NA	NA
Nitrogen, Kjeldahl, Total	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Nitrate	MG/L	10	NA	NA	NA	NA	0.1 U
Nitrogen, Nitrate-Nitrite	MG/L	10	NA	NA	NA	NA	NA
Sulfate	MG/L	250	5 U	38.9	36.9 J	26.6	5 U
Total Organic Carbon	MG/L	-	NA	NA	NA	NA	19.1
Ferrous Iron (field)	MG/L	-	NA	NA	NA	NA	NA
Ferric Iron (lab)	MG/L	-	NA	NA	NA	NA	NA
Fluoride	MG/L	1.5	NA	NA	NA	NA	NA
Oil & Grease	MG/L	-	NA	NA	NA	NA	NA
Field Parameter							
Dissolved Oxygen	MG/L	-	0.00	0.64	6.21	0.00	0.00
Ferrous Iron	MG/L	-	NA	NA	NA	NA	50.6
Ferric Iron (calculated)	MG/L	-	NA	NA	NA	NA	9.8
Oxidation-Reduction Potential	mV	-	-147	-136	-107	-97	-115
pH	S.U.	-	6.57	8.91	6.76	6.36	6.80
Specific Conductance	MS/CM	-	4.48	1.70	1.91	3.34	3.24
Temperature	DEG C	-	9.33	16.71	19.45	10.98	22.1

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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Only Detected Results Reported.

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-02	MW-02	MW-02	MW-02	MW-02
Sample ID			20100225MW-02V08N	20100624MW-02V08N	20101006MW-02V08N	20110406MW-02V08N	20110913MW02V08N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			02/25/10	06/24/10	10/06/10	04/06/11	09/13/11
Parameter	**Units**	**Criteria***					
Field Parameter							
Turbidity	NTU	-	0	3.0	11.9	3.9	0.1

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

U - Non-Detect UJ - Not detected above the estiamted quantitation limit

D - Diluted analysis

J (or B for Inorganics) - Analyte is reported below the PQL at an estimated concentration. NJ - Presumptive evidence that compound is present.

R - Rejected result NA - Not Analyzed

Only Detected Results Reported.

Detection Limits shown are PQL

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([LOGDATE] BETWEEN #05/01/03# AND #4/11/12#) AND [MATRIX] = 'WG' AND ([SACODE] = 'N' OR [SACODE] = 'FD')

TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-02	MW-03	MW-03	MW-03	MW-03
Sample ID			20120411MW-02V08N	MW03_52103	MW03	DUP-91703	MW03-091703
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			04/11/12	05/21/03	07/23/03	09/17/03	09/17/03
Parameter	**Units**	**Criteria***				Field Duplicate (1-1)	
Volatiles							
Acetone	UG/L	50	NA	250 U	78	110	110
Benzene	UG/L	1	NA	250 U	2.3	2.2	1.8
Methyl ethyl ketone (2-Butanone)	UG/L	50	NA	R	130 J	69 J	65 J
Chlorotrifluoroethene (Freon-1113)	UG/L	5	140 J	0 U	7.0 NJ	6.2 NJ	0 U
1,1-Dichloroethene	UG/L	5	NA	33 J	2.0 U	2.0 U	2.0 U
cis-1,2-Dichloroethene	UG/L	5	NA	250 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	UG/L	5	NA	250 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	UG/L	5	NA	200 U	0.3 J	4.0 U	4.0 U
2-Hexanone	UG/L	50	NA	250 U	5.0 U	19	16
4-Methyl-2-Pentanone	UG/L	-	NA	250 U	5.0 U	11	11
Tetrachloroethene	UG/L	5	NA	50 U	1.0 U	1.0 U	1.0 U
Trichloroethene	UG/L	5	NA	50 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	5	1,200 J	5,800	68	26	16
Vinyl Chloride	UG/L	2	NA	250 U	5.0 U	5.0 U	5.0 U
Xylene (total)	UG/L	5	NA	250 U	1.1 J	5.0 U	5.0 U
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	5	57	78 J	43	180	110
Dissolved Gases							
Methane	UG/L	-	8,100	86	56	2,400	2,500
Total Metals							
Iron	UG/L	300	NA	1,170	150,000	174,000 J	178,000 J
Dissolved Metals							
Iron	UG/L	300	NA	267	152,000	187,000 J	186,000 J

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

U - Non-Detect UJ - Not detected above the estiamted quantitation limit

D - Diluted analysis

J (or B for Inorganics) - Analyte is reported below the PQL at an estimated concentration. NJ - Presumptive evidence that compound is present.

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Only Detected Results Reported.

Detection Limits shown are PQL

TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-02	MW-03	MW-03	MW-03	MW-03
Sample ID			20120411MW-02V08N	MW03_52103	MW03	DUP-91703	MW03-091703
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			04/11/12	05/21/03	07/23/03	09/17/03	09/17/03
Parameter	**Units**	**Criteria***				Field Duplicate (1-1)	
Miscellaneous Parameters							
Alkalinity, Total (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Chloride	MG/L	250	NA	113	143	99.2 J	91.5 J
Dehalococcoides ethenogenes	CEQ/mL	-	NA	NA	NA	NA	NA
Hardness (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Ammonia (As N)	MG/L	2	NA	0.36	2.7	0.86	0.95
Nitrogen, Kjeldahl, Total	MG/L	-	NA	1.3	10.8	4.5	4.4
Nitrogen, Nitrate	MG/L	10	NA	2	NA	0.1 U	0.1 U
Nitrogen, Nitrate-Nitrite	MG/L	10	NA	NA	0.1 UJ	NA	NA
Sulfate	MG/L	250	51.8	32.7	26.9	5.0 U	5.0 U
Total Organic Carbon	MG/L	-	NA	NA	NA	NA	NA
Ferrous Iron (field)	MG/L	-	NA	0.5	3.7	25.5	27.9
Ferric Iron (lab)	MG/L	-	NA	0.67	146	67.0	93.0
Fluoride	MG/L	1.5	NA	0.28	0.44	0.27	0.2
Oil & Grease	MG/L	-	NA	NA	NA	R	R
Field Parameter							
Dissolved Oxygen	MG/L	-	0.0	0.58	0 U	NA	0.01
Ferrous Iron	MG/L	-	NA	NA	NA	NA	NA
Ferric Iron (calculated)	MG/L	-	NA	NA	NA	NA	NA
Oxidation-Reduction Potential	mV	-	-44	40	-103	NA	-90
pH	S.U.	-	6.56	NA	NA	NA	NA
Specific Conductance	MS/CM	-	1.86	0.638	4.35	NA	1.64
Temperature	DEG C	-	13.45	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

U - Non-Detect UJ - Not detected above the estiamted quantitation limit

D - Diluted analysis

J (or B for Inorganics) - Analyte is reported below the PQL at an estimated concentration. NJ - Presumptive evidence that compound is present.

R - Rejected result NA - Not Analyzed

Only Detected Results Reported.

Detection Limits shown are PQL

TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-02	MW-03	MW-03	MW-03	MW-03
Sample ID			20120411MW-02V08N	MW03_52103	MW03	DUP-91703	MW03-091703
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			04/11/12	05/21/03	07/23/03	09/17/03	09/17/03
Parameter	Units	Criteria*				Field Duplicate (1-1)	
Field Parameter							
Turbidity	NTU	-	0.0	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

Flags assigned during chemistry validation are shown.

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U - Non-Detect UJ - Not detected above the estiamted quantitation limit

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([LOGDATE] BETWEEN #05/01/03# AND #4/11/12#) AND [MATRIX] = 'WG' AND ([SACODE] = 'N' OR [SACODE] = 'FD')

TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-03	MW-03	MW-03	MW-03	MW-03
Sample ID			DUP1_121703	MW-03_121703	MW-03	MW-03	MW-03VION
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			12/17/03	12/17/03	07/23/04	05/31/05	12/20/05
Parameter	**Units**	**Criteria***	Field Duplicate (1-1)				
Volatiles							
Acetone	UG/L	50	130 J	120 J	NA	NA	NA
Benzene	UG/L	1	10 U	10 U	NA	NA	NA
Methyl ethyl ketone (2-Butanone)	UG/L	50	39 J	38 J	NA	NA	NA
Chlorotrifluoroethene (Freon-1113)	UG/L	5	0 U	0 U	68 J	83	2.0 J
1,1-Dichloroethene	UG/L	5	4.0 U	4 U	NA	NA	NA
cis-1,2-Dichloroethene	UG/L	5	10 U	10 U	NA	NA	NA
trans-1,2-Dichloroethene	UG/L	5	10 U	10 U	NA	NA	NA
Ethylbenzene	UG/L	5	8.0 U	8 U	NA	NA	NA
2-Hexanone	UG/L	50	10 U	10 U	NA	NA	NA
4-Methyl-2-Pentanone	UG/L	-	10 U	10 U	NA	NA	NA
Tetrachloroethene	UG/L	5	4.9	4.6	NA	NA	NA
Trichloroethene	UG/L	5	2.0 U	2 U	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	5	150	150	4,900 J	2.0 J	10 U
Vinyl Chloride	UG/L	2	10 U	10 U	NA	NA	NA
Xylene (total)	UG/L	5	10 U	10 U	NA	NA	NA
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	5	170	160	3,900	14	1.0 J
Dissolved Gases							
Methane	UG/L	-	7,200	4,900	2,700	6,300	10,000
Total Metals							
Iron	UG/L	300	156,000	164,000	NA	NA	NA
Dissolved Metals							
Iron	UG/L	300	167,000	176,000	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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Concentration Exceeds Criteria

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Only Detected Results Reported.

Detection Limits shown are PQL

TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-03	MW-03	MW-03	MW-03	MW-03
Sample ID			DUP1_121703	MW-03_121703	MW-03	MW-03	MW-03VION
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			12/17/03	12/17/03	07/23/04	05/31/05	12/20/05
Parameter	**Units**	**Criteria***	Field Duplicate (1-1)				
Miscellaneous Parameters							
Alkalinity, Total (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Chloride	MG/L	250	224	192	71.7	NA	NA
Dehalococcoides ethenogenes	CEQ/mL	-	NA	NA	NA	NA	NA
Hardness (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Ammonia (As N)	MG/L	2	1.4	1.2	NA	NA	NA
Nitrogen, Kjeldahl, Total	MG/L	-	4.0	4.0	NA	NA	NA
Nitrogen, Nitrate	MG/L	10	0.1 U	0.1 U	NA	NA	NA
Nitrogen, Nitrate-Nitrite	MG/L	10	NA	NA	NA	NA	NA
Sulfate	MG/L	250	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Total Organic Carbon	MG/L	-	NA	NA	NA	NA	NA
Ferrous Iron (field)	MG/L	-	23.5	30.0	NA	NA	NA
Ferric Iron (lab)	MG/L	-	132	134	NA	NA	NA
Fluoride	MG/L	1.5	0.22	0.25	0.397	NA	NA
Oil & Grease	MG/L	-	NA	NA	NA	NA	NA
Field Parameter							
Dissolved Oxygen	MG/L	-	NA	0.35	1.05	1.24	0 U
Ferrous Iron	MG/L	-	NA	NA	NA	NA	NA
Ferric Iron (calculated)	MG/L	-	NA	NA	NA	NA	NA
Oxidation-Reduction Potential	mV	-	NA	-59	-143	-133	-151
pH	S.U.	-	NA	NA	NA	NA	NA
Specific Conductance	MS/CM	-	NA	1.99	2.40	3.19	1.20
Temperature	DEG C	-	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-03	MW-03	MW-03	MW-03	MW-03
Sample ID			DUP1_121703	MW-03_121703	MW-03	MW-03	MW-03VION
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			12/17/03	12/17/03	07/23/04	05/31/05	12/20/05
Parameter	**Units**	**Criteria***	Field Duplicate (1-1)				
Field Parameter							
Turbidity	NTU	-	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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([LOGDATE] BETWEEN #05/01/03# AND #4/11/12#) AND [MATRIX] = 'WG' AND ([SACODE] = 'N' OR [SACODE] = 'FD')

TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-03	MW-03	MW-03	MW-03	MW-03
Sample ID			MW-03V15N	20070207MW-03V10N	20070731MW-03V10N	20080228MW03V10N	20080812MW03V10FD
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			08/14/06	02/07/07	07/31/07	02/28/08	08/12/08
Parameter	**Units**	**Criteria***					Field Duplicate (1-1)
Volatiles							
Acetone	UG/L	50	NA	NA	NA	NA	NA
Benzene	UG/L	1	NA	NA	NA	NA	NA
Methyl ethyl ketone (2-Butanone)	UG/L	50	NA	NA	NA	NA	NA
Chlorotrifluoroethene (Freon-1113)	UG/L	5	51	39	54	13 J	10
1,1-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
Ethylbenzene	UG/L	5	NA	NA	NA	NA	NA
2-Hexanone	UG/L	50	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	UG/L	-	NA	NA	NA	NA	NA
Tetrachloroethene	UG/L	5	NA	NA	NA	NA	NA
Trichloroethene	UG/L	5	NA	NA	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	5	10 U	10	2.0 J	0.5 J	10 U
Vinyl Chloride	UG/L	2	NA	NA	NA	NA	NA
Xylene (total)	UG/L	5	NA	NA	NA	NA	NA
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	5	0.8 J	48	7.0 J	4.0 J	1.0 J
Dissolved Gases							
Methane	UG/L	-	7,400	15,000	4,500	18,000	10,000
Total Metals							
Iron	UG/L	300	NA	NA	NA	NA	NA
Dissolved Metals							
Iron	UG/L	300	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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D - Diluted analysis

J (or B for Inorganics) - Analyte is reported below the PQL at an estimated concentration. NJ - Presumptive evidence that compound is present.

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Only Detected Results Reported.

Detection Limits shown are PQL

TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-03	MW-03	MW-03	MW-03	MW-03
Sample ID			MW-03V15N	20070207MW-03V10N	20070731MW-03V10N	20080228MW03V10N	20080812MW03V10FD
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			08/14/06	02/07/07	07/31/07	02/28/08	08/12/08
Parameter	**Units**	**Criteria***					Field Duplicate (1-1)
Miscellaneous Parameters							
Alkalinity, Total (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Chloride	MG/L	250	NA	NA	NA	NA	NA
Dehalococcoides ethenogenes	CEQ/mL	-	NA	NA	NA	NA	NA
Hardness (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Ammonia (As N)	MG/L	2	NA	NA	NA	NA	NA
Nitrogen, Kjeldahl, Total	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Nitrate	MG/L	10	NA	NA	NA	NA	NA
Nitrogen, Nitrate-Nitrite	MG/L	10	NA	NA	NA	NA	NA
Sulfate	MG/L	250	5.0 U	7.80	38.4	14.1	30.0
Total Organic Carbon	MG/L	-	NA	NA	NA	NA	NA
Ferrous Iron (field)	MG/L	-	NA	NA	NA	NA	NA
Ferric Iron (lab)	MG/L	-	NA	NA	NA	NA	NA
Fluoride	MG/L	1.5	NA	NA	NA	NA	NA
Oil & Grease	MG/L	-	NA	NA	NA	NA	NA
Field Parameter							
Dissolved Oxygen	MG/L	-	5.36	2.44	0.22	2.94	NA
Ferrous Iron	MG/L	-	NA	NA	NA	NA	NA
Ferric Iron (calculated)	MG/L	-	NA	NA	NA	NA	NA
Oxidation-Reduction Potential	mV	-	-123	-116	-79.7	-123.0	NA
pH	S.U.	-	NA	NA	6.15	6.15	NA
Specific Conductance	MS/CM	-	0.946	0.91	1.309	1.36	NA
Temperature	DEG C	-	NA	NA	NA	11.6	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

Flags assigned during chemistry validation are shown.

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D - Diluted analysis

J (or B for Inorganics) - Analyte is reported below the PQL at an estimated concentration. NJ - Presumptive evidence that compound is present.

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Only Detected Results Reported.

Detection Limits shown are PQL

TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-03	MW-03	MW-03	MW-03	MW-03
Sample ID			MW-03V15N	20070207MW-03V10N	20070731MW-03V10N	20080228MW03V10N	20080812MW03V10FD
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			08/14/06	02/07/07	07/31/07	02/28/08	08/12/08
Parameter	**Units**	**Criteria***					Field Duplicate (1-1)
Field Parameter							
Turbidity	NTU	-	NA	NA	NA	41	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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D - Diluted analysis

J (or B for Inorganics) - Analyte is reported below the PQL at an estimated concentration. NJ - Presumptive evidence that compound is present.

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-03	MW-03	MW-03	MW-03	MW-03
Sample ID			20080812MW03V10N	20090218MW-03V10N	20091013MW-03V10FD	20091013MW-03V10N	20100226MW-03V09N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			08/12/08	02/18/09	10/13/09	10/13/09	02/26/10
Parameter	**Units**	**Criteria***			Field Duplicate (1-1)		
Volatiles							
Acetone	UG/L	50	NA	NA	NA	NA	NA
Benzene	UG/L	1	NA	NA	NA	NA	NA
Methyl ethyl ketone (2-Butanone)	UG/L	50	NA	NA	NA	NA	NA
Chlorotrifluoroethene (Freon-1113)	UG/L	5	10	38	20	19	17 J
1,1-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
Ethylbenzene	UG/L	5	NA	NA	NA	NA	NA
2-Hexanone	UG/L	50	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	UG/L	-	NA	NA	NA	NA	NA
Tetrachloroethene	UG/L	5	NA	NA	NA	NA	NA
Trichloroethene	UG/L	5	NA	NA	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	5	10 U	5.0 J	0.92 J	0.82 J	1 UJ
Vinyl Chloride	UG/L	2	NA	NA	NA	NA	NA
Xylene (total)	UG/L	5	NA	NA	NA	NA	NA
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	5	1.0 J	40	2.1	1.9	1 U
Dissolved Gases							
Methane	UG/L	-	8,400	13,000	5,300	4,800	13,000
Total Metals							
Iron	UG/L	300	NA	NA	NA	NA	NA
Dissolved Metals							
Iron	UG/L	300	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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D - Diluted analysis

J (or B for Inorganics) - Analyte is reported below the PQL at an estimated concentration. NJ - Presumptive evidence that compound is present.

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Only Detected Results Reported.

Detection Limits shown are PQL

TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-03	MW-03	MW-03	MW-03	MW-03
Sample ID			20080812MW03V10N	20090218MW-03V10N	20091013MW-03V10FD	20091013MW-03V10N	20100226MW-03V09N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			08/12/08	02/18/09	10/13/09	10/13/09	02/26/10
Parameter	**Units**	**Criteria***			Field Duplicate (1-1)		
Miscellaneous Parameters							
Alkalinity, Total (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Chloride	MG/L	250	NA	NA	NA	NA	NA
Dehalococcoides ethenogenes	CEQ/mL	-	NA	NA	NA	NA	NA
Hardness (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Ammonia (As N)	MG/L	2	NA	NA	NA	NA	NA
Nitrogen, Kjeldahl, Total	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Nitrate	MG/L	10	NA	NA	NA	NA	NA
Nitrogen, Nitrate-Nitrite	MG/L	10	NA	NA	NA	NA	NA
Sulfate	MG/L	250	28.1	50.7 J	4.6 J	8.7	11.6
Total Organic Carbon	MG/L	-	NA	NA	NA	NA	NA
Ferrous Iron (field)	MG/L	-	NA	NA	NA	NA	NA
Ferric Iron (lab)	MG/L	-	NA	NA	NA	NA	NA
Fluoride	MG/L	1.5	NA	NA	NA	NA	NA
Oil & Grease	MG/L	-	NA	NA	NA	NA	NA
Field Parameter							
Dissolved Oxygen	MG/L	-	0 U	0 U	NA	0.00	0.00
Ferrous Iron	MG/L	-	NA	NA	NA	NA	NA
Ferric Iron (calculated)	MG/L	-	NA	NA	NA	NA	NA
Oxidation-Reduction Potential	mV	-	-149	-185	NA	-103	-138
pH	S.U.	-	6.36	6.06	NA	5.87	6.32
Specific Conductance	MS/CM	-	1.69	2.08	NA	1.85	3.39
Temperature	DEG C	-	17.8	12.87	NA	18.68	8.95

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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D - Diluted analysis

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Detection Limits shown are PQL

TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-03	MW-03	MW-03	MW-03	MW-03
Sample ID			20080812MW03V10N	20090218MW-03V10N	20091013MW-03V10FD	20091013MW-03V10N	20100226MW-03V09N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			08/12/08	02/18/09	10/13/09	10/13/09	02/26/10
Parameter	Units	Criteria*			Field Duplicate (1-1)		
Field Parameter							
Turbidity	NTU	-	2	5	NA	8.7	94

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-03	MW-03	MW-03	MW-03	MW-03
Sample ID			20100624MW-03V09N	20101006MW-03V09N	20110406MW-03V09N	20110913MW03V09FD	20110913MW03V09N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/24/10	10/06/10	04/06/11	09/13/11	09/13/11
Parameter	**Units**	**Criteria***				Field Duplicate (1-1)	
Volatiles							
Acetone	UG/L	50	NA	NA	NA	NA	NA
Benzene	UG/L	1	NA	NA	NA	NA	NA
Methyl ethyl ketone (2-Butanone)	UG/L	50	NA	NA	NA	NA	NA
Chlorotrifluoroethene (Freon-1113)	UG/L	5	26	4.6	110 J	69	82
1,1-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
Ethylbenzene	UG/L	5	NA	NA	NA	NA	NA
2-Hexanone	UG/L	50	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	UG/L	-	NA	NA	NA	NA	NA
Tetrachloroethene	UG/L	5	NA	NA	NA	NA	NA
Trichloroethene	UG/L	5	NA	NA	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	5	1 U	1 U	32	4.2	5.4
Vinyl Chloride	UG/L	2	NA	NA	NA	NA	NA
Xylene (total)	UG/L	5	NA	NA	NA	NA	NA
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	5	0.5 J	1 U	99 J	8.3	9.4
Dissolved Gases							
Methane	UG/L	-	6,000	7,400	18,000	12,000	15,000
Total Metals							
Iron	UG/L	300	NA	NA	NA	35,300	35,700
Dissolved Metals							
Iron	UG/L	300	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-03	MW-03	MW-03	MW-03	MW-03
Sample ID			20100624MW-03V09N	20101006MW-03V09N	20110406MW-03V09N	20110913MW03V09FD	20110913MW03V09N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/24/10	10/06/10	04/06/11	09/13/11	09/13/11
Parameter	**Units**	**Criteria***				Field Duplicate (1-1)	
Miscellaneous Parameters							
Alkalinity, Total (as CaCO3)	MG/L	-	NA	NA	NA	596	596
Chloride	MG/L	250	NA	NA	NA	NA	NA
Dehalococcoides ethenogenes	CEQ/mL	-	NA	NA	NA	1,820	3,780
Hardness (as CaCO3)	MG/L	-	NA	NA	NA	520	510
Nitrogen, Ammonia (As N)	MG/L	2	NA	NA	NA	NA	NA
Nitrogen, Kjeldahl, Total	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Nitrate	MG/L	10	NA	NA	NA	0.1 U	0.1 U
Nitrogen, Nitrate-Nitrite	MG/L	10	NA	NA	NA	NA	NA
Sulfate	MG/L	250	15.8	5.1 J	34.0	19	18.2
Total Organic Carbon	MG/L	-	NA	NA	NA	27.1	26.7
Ferrous Iron (field)	MG/L	-	NA	NA	NA	NA	NA
Ferric Iron (lab)	MG/L	-	NA	NA	NA	NA	NA
Fluoride	MG/L	1.5	NA	NA	NA	NA	NA
Oil & Grease	MG/L	-	NA	NA	NA	NA	NA
Field Parameter							
Dissolved Oxygen	MG/L	-	0.85	0	0.00	NA	0.00
Ferrous Iron	MG/L	-	NA	NA	NA	29.8	29.8
Ferric Iron (calculated)	MG/L	-	NA	NA	NA	5.5	5.9
Oxidation-Reduction Potential	mV	-	-170	-116	-115	NA	-124
pH	S.U.	-	9.28	6.73	6.38	NA	6.85
Specific Conductance	MS/CM	-	1.50	1.68	1.55	NA	1.99
Temperature	DEG C	-	16.51	20.19	11.90	NA	20.7

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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Only Detected Results Reported.

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-03	MW-03	MW-03	MW-03	MW-03
Sample ID			20100624MW-03V09N	20101006MW-03V09N	20110406MW-03V09N	20110913MW03V09FD	20110913MW03V09N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/24/10	10/06/10	04/06/11	09/13/11	09/13/11
Parameter	**Units**	**Criteria***				Field Duplicate (1-1)	
Field Parameter							
Turbidity	NTU	-	5.1	6.3	3.6	NA	21.8

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-03	MW-04	MW-04	MW-04	MW-04
Sample ID			20120411MW-03V09N	MW04-5-20-03	MW-04_121703	Dup1	MW-04
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			04/11/12	05/20/03	12/17/03	07/22/04	07/22/04
Parameter	**Units**	**Criteria***				Field Duplicate (1-1)	
Volatiles							
Acetone	UG/L	50	NA	5.0 U	5.0 U	NA	NA
Benzene	UG/L	1	NA	5.0 U	5.0 U	NA	NA
Methyl ethyl ketone (2-Butanone)	UG/L	50	NA	R	R	NA	NA
Chlorotrifluoroethene (Freon-1113)	UG/L	5	150 J	0 U	0 U	10 U	10 U
1,1-Dichloroethene	UG/L	5	NA	2.0 U	2.0 U	NA	NA
cis-1,2-Dichloroethene	UG/L	5	NA	5.0 U	5.0 U	NA	NA
trans-1,2-Dichloroethene	UG/L	5	NA	5.0 U	5.0 U	NA	NA
Ethylbenzene	UG/L	5	NA	4.0 U	4.0 U	NA	NA
2-Hexanone	UG/L	50	NA	5.0 U	5.0 U	NA	NA
4-Methyl-2-Pentanone	UG/L	-	NA	5.0 U	5.0 U	NA	NA
Tetrachloroethene	UG/L	5	NA	1.0 U	1.0 U	NA	NA
Trichloroethene	UG/L	5	NA	1.0 U	1.0 U	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	5	20 J	5.0 U	5.0 U	10 UJ	0.7 J
Vinyl Chloride	UG/L	2	NA	5.0 U	5.0 U	NA	NA
Xylene (total)	UG/L	5	NA	5.0 U	5.0 U	NA	NA
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	5	36	5.0 U	5.0 U	10 U	10 U
Dissolved Gases							
Methane	UG/L	-	15,000	380	35	69	99
Total Metals							
Iron	UG/L	300	NA	18,400	3,640	NA	NA
Dissolved Metals							
Iron	UG/L	300	NA	18,500	3,760	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-03	MW-04	MW-04	MW-04	MW-04
Sample ID			20120411MW-03V09N	MW04-5-20-03	MW-04_121703	Dup1	MW-04
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			04/11/12	05/20/03	12/17/03	07/22/04	07/22/04
Parameter	**Units**	**Criteria***				Field Duplicate (1-1)	
Miscellaneous Parameters							
Alkalinity, Total (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Chloride	MG/L	250	NA	238	294	158	161
Dehalococcoides ethenogenes	CEQ/mL	-	NA	NA	NA	NA	NA
Hardness (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Ammonia (As N)	MG/L	2	NA	1.6	1.2	NA	NA
Nitrogen, Kjeldahl, Total	MG/L	-	NA	6.2	1.9	NA	NA
Nitrogen, Nitrate	MG/L	10	NA	0.1 U	0.1 U	NA	NA
Nitrogen, Nitrate-Nitrite	MG/L	10	NA	NA	NA	NA	NA
Sulfate	MG/L	250	63.1	5.0 U	9.40	10.8	10.8
Total Organic Carbon	MG/L	-	NA	NA	NA	NA	NA
Ferrous Iron (field)	MG/L	-	NA	17.6	2.2	NA	NA
Ferric Iron (lab)	MG/L	-	NA	0.76	1.3	NA	NA
Fluoride	MG/L	1.5	NA	0.27	0.19	0.304	0.302
Oil & Grease	MG/L	-	NA	NA	NA	NA	NA
Field Parameter							
Dissolved Oxygen	MG/L	-	0.0	0.54	0 U	NA	0.82
Ferrous Iron	MG/L	-	NA	NA	NA	NA	NA
Ferric Iron (calculated)	MG/L	-	NA	NA	NA	NA	NA
Oxidation-Reduction Potential	mV	-	-63	-115	0 U	NA	-136
pH	S.U.	-	6.64	NA	NA	NA	NA
Specific Conductance	MS/CM	-	1.02	1.61	0.99	NA	1.05
Temperature	DEG C	-	13.35	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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Advanced Selection: WG Apr12 Tab3
N:\11172730.00000\DB\PROGRAM\EDMS.mde
Printed: 5/23/2012 8:36:28 AM
([LOGDATE] BETWEEN #05/01/03# AND #4/11/12#) AND [MATRIX] = 'WG' AND ([SACODE] = 'N' OR [SACODE] = 'FD')

TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-03	MW-04	MW-04	MW-04	MW-04
Sample ID			20120411MW-03V09N	MW04-5-20-03	MW-04_121703	Dup1	MW-04
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			04/11/12	05/20/03	12/17/03	07/22/04	07/22/04
Parameter	Units	Criteria*				Field Duplicate (1-1)	
Field Parameter							
Turbidity	NTU	-	0.0	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

Flags assigned during chemistry validation are shown.

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Advanced Selection: WG Apr12 Tab3
N:\11172730.00000\DB\PROGRAM\EDMS.mde
Printed: 5/23/2012 8:36:28 AM
([LOGDATE] BETWEEN #05/01/03# AND #4/11/12#) AND [MATRIX] = 'WG' AND ([SACODE] = 'N' OR [SACODE] = 'FD')

TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-04	MW-04	MW-04	MW-04	MW-04
Sample ID			MW-04	MW-04VION	MW-04V15N	20070207MW-04V10N	20070801MW-04V10N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			05/31/05	12/20/05	08/14/06	02/07/07	08/01/07
Parameter	**Units**	**Criteria***					
Volatiles							
Acetone	UG/L	50	NA	NA	NA	NA	NA
Benzene	UG/L	1	NA	NA	NA	NA	NA
Methyl ethyl ketone (2-Butanone)	UG/L	50	NA	NA	NA	NA	NA
Chlorotrifluoroethene (Freon-1113)	UG/L	5	1.0 J	10 U	0.7 J	0.6 J	10 U
1,1-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
Ethylbenzene	UG/L	5	NA	NA	NA	NA	NA
2-Hexanone	UG/L	50	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	UG/L	-	NA	NA	NA	NA	NA
Tetrachloroethene	UG/L	5	NA	NA	NA	NA	NA
Trichloroethene	UG/L	5	NA	NA	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	5	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	UG/L	2	NA	NA	NA	NA	NA
Xylene (total)	UG/L	5	NA	NA	NA	NA	NA
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	5	10 U	10 U	10 U	10 U	10 U
Dissolved Gases							
Methane	UG/L	-	190	400	420	400	43
Total Metals							
Iron	UG/L	300	NA	NA	NA	NA	NA
Dissolved Metals							
Iron	UG/L	300	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

Flags assigned during chemistry validation are shown.

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Only Detected Results Reported.

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-04	MW-04	MW-04	MW-04	MW-04
Sample ID			MW-04	MW-04VION	MW-04V15N	20070207MW-04V10N	20070801MW-04V10N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			05/31/05	12/20/05	08/14/06	02/07/07	08/01/07
Parameter	**Units**	**Criteria***					
Miscellaneous Parameters							
Alkalinity, Total (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Chloride	MG/L	250	NA	NA	NA	NA	NA
Dehalococcoides ethenogenes	CEQ/mL	-	NA	NA	NA	NA	NA
Hardness (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Ammonia (As N)	MG/L	2	NA	NA	NA	NA	NA
Nitrogen, Kjeldahl, Total	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Nitrate	MG/L	10	NA	NA	NA	NA	NA
Nitrogen, Nitrate-Nitrite	MG/L	10	NA	NA	NA	NA	NA
Sulfate	MG/L	250	14.2	6.66	5.0 U	5.0 U	7.0
Total Organic Carbon	MG/L	-	NA	NA	NA	NA	NA
Ferrous Iron (field)	MG/L	-	NA	NA	NA	NA	NA
Ferric Iron (lab)	MG/L	-	NA	NA	NA	NA	NA
Fluoride	MG/L	1.5	NA	NA	NA	NA	NA
Oil & Grease	MG/L	-	NA	NA	NA	NA	NA
Field Parameter							
Dissolved Oxygen	MG/L	-	0 U	0 U	4.97	4.73	0.41
Ferrous Iron	MG/L	-	NA	NA	NA	NA	NA
Ferric Iron (calculated)	MG/L	-	NA	NA	NA	NA	NA
Oxidation-Reduction Potential	mV	-	-126	-161	-154	-81	-79.2
pH	S.U.	-	NA	NA	NA	NA	6.59
Specific Conductance	MS/CM	-	1.85	1.47	1.14	0.804	1.241
Temperature	DEG C	-	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

U - Non-Detect UJ - Not detected above the estiamted quantitation limit

D - Diluted analysis

J (or B for Inorganics) - Analyte is reported below the PQL at an estimated concentration. NJ - Presumptive evidence that compound is present.

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Only Detected Results Reported.

Detection Limits shown are PQL

TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-04	MW-04	MW-04	MW-04	MW-04
Sample ID			MW-04	MW-04VION	MW-04V15N	20070207MW-04V10N	20070801MW-04V10N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			05/31/05	12/20/05	08/14/06	02/07/07	08/01/07
Parameter	**Units**	**Criteria***					
Field Parameter							
Turbidity	NTU	-	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-04	MW-04	MW-04	MW-04	MW-04
Sample ID			20080228MW04V10N	20080812MW04V08N	20090218MW-04V08FD	20090218MW-04V08N	20091013MW-04V08N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			02/28/08	08/12/08	02/18/09	02/18/09	10/13/09
Parameter	**Units**	**Criteria***			Field Duplicate (1-1)		
Volatiles							
Acetone	UG/L	50	NA	NA	NA	NA	NA
Benzene	UG/L	1	NA	NA	NA	NA	NA
Methyl ethyl ketone (2-Butanone)	UG/L	50	NA	NA	NA	NA	NA
Chlorotrifluoroethene (Freon-1113)	UG/L	5	1.0 J	10 U	1.0 J	1.0 J	15
1,1-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
Ethylbenzene	UG/L	5	NA	NA	NA	NA	NA
2-Hexanone	UG/L	50	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	UG/L	-	NA	NA	NA	NA	NA
Tetrachloroethene	UG/L	5	NA	NA	NA	NA	NA
Trichloroethene	UG/L	5	NA	NA	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	5	10 UJ	10 U	10 U	10 U	1 U
Vinyl Chloride	UG/L	2	NA	NA	NA	NA	NA
Xylene (total)	UG/L	5	NA	NA	NA	NA	NA
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	5	10 U	10 U	10 U	10 U	1 U
Dissolved Gases							
Methane	UG/L	-	5,700	290	1,600	1,600	3,100
Total Metals							
Iron	UG/L	300	NA	NA	NA	NA	NA
Dissolved Metals							
Iron	UG/L	300	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-04	MW-04	MW-04	MW-04	MW-04
Sample ID			20080228MW04V10N	20080812MW04V08N	20090218MW-04V08FD	20090218MW-04V08N	20091013MW-04V08N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			02/28/08	08/12/08	02/18/09	02/18/09	10/13/09
Parameter	**Units**	**Criteria***			Field Duplicate (1-1)		
Miscellaneous Parameters							
Alkalinity, Total (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Chloride	MG/L	250	NA	NA	NA	NA	NA
Dehalococcoides ethenogenes	CEQ/mL	-	NA	NA	NA	NA	NA
Hardness (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Ammonia (As N)	MG/L	2	NA	NA	NA	NA	NA
Nitrogen, Kjeldahl, Total	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Nitrate	MG/L	10	NA	NA	NA	NA	NA
Nitrogen, Nitrate-Nitrite	MG/L	10	NA	NA	NA	NA	NA
Sulfate	MG/L	250	5 U	5 U	5 UJ	5 UJ	20.8
Total Organic Carbon	MG/L	-	NA	NA	NA	NA	NA
Ferrous Iron (field)	MG/L	-	NA	NA	NA	NA	NA
Ferric Iron (lab)	MG/L	-	NA	NA	NA	NA	NA
Fluoride	MG/L	1.5	NA	NA	NA	NA	NA
Oil & Grease	MG/L	-	NA	NA	NA	NA	NA
Field Parameter							
Dissolved Oxygen	MG/L	-	2.91	0 U	NA	0 U	0.00
Ferrous Iron	MG/L	-	NA	NA	NA	NA	NA
Ferric Iron (calculated)	MG/L	-	NA	NA	NA	NA	NA
Oxidation-Reduction Potential	mV	-	-136.0	-126	NA	-158	-122
pH	S.U.	-	6.45	6.65	NA	6.33	6.43
Specific Conductance	MS/CM	-	1.16	0.531	NA	1.75	1.83
Temperature	DEG C	-	9.19	21.3	NA	9.36	19.37

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-04	MW-04	MW-04	MW-04	MW-04
Sample ID			20080228MW04V10N	20080812MW04V08N	20090218MW-04V08FD	20090218MW-04V08N	20091013MW-04V08N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			02/28/08	08/12/08	02/18/09	02/18/09	10/13/09
Parameter	**Units**	**Criteria***			Field Duplicate (1-1)		
Field Parameter							
Turbidity	NTU	-	9	2	NA	4	4.6

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-04	MW-04	MW-04	MW-04	MW-04
Sample ID			20100225MW04V08FD	20100225MW-04V08N	20100624MW-04V08N	20101006MW-04V08N	20110406MW-04V08FD
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			02/25/10	02/25/10	06/24/10	10/06/10	04/06/11
Parameter	**Units**	**Criteria***	Field Duplicate (1-1)				Field Duplicate (1-1)
Volatiles							
Acetone	UG/L	50	NA	NA	NA	NA	NA
Benzene	UG/L	1	NA	NA	NA	NA	NA
Methyl ethyl ketone (2-Butanone)	UG/L	50	NA	NA	NA	NA	NA
Chlorotrifluoroethene (Freon-1113)	UG/L	5	6.6 J	7.7 J	12	2.8	5 J
1,1-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
Ethylbenzene	UG/L	5	NA	NA	NA	NA	NA
2-Hexanone	UG/L	50	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	UG/L	-	NA	NA	NA	NA	NA
Tetrachloroethene	UG/L	5	NA	NA	NA	NA	NA
Trichloroethene	UG/L	5	NA	NA	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	5	1 UJ	1 UJ	1 U	1 U	1 U
Vinyl Chloride	UG/L	2	NA	NA	NA	NA	NA
Xylene (total)	UG/L	5	NA	NA	NA	NA	NA
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	5	1 U	1 U	1 U	1 U	1 UJ
Dissolved Gases							
Methane	UG/L	-	5,200	5,100	4,000	2,400	4,200
Total Metals							
Iron	UG/L	300	NA	NA	NA	NA	NA
Dissolved Metals							
Iron	UG/L	300	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

Flags assigned during chemistry validation are shown.

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Only Detected Results Reported.

Detection Limits shown are PQL

TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-04	MW-04	MW-04	MW-04	MW-04
Sample ID			20100225MW04V08FD	20100225MW-04V08N	20100624MW-04V08N	20101006MW-04V08N	20110406MW-04V08FD
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			02/25/10	02/25/10	06/24/10	10/06/10	04/06/11
Parameter	**Units**	**Criteria***	Field Duplicate (1-1)				Field Duplicate (1-1)
Miscellaneous Parameters							
Alkalinity, Total (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Chloride	MG/L	250	NA	NA	NA	NA	NA
Dehalococcoides ethenogenes	CEQ/mL	-	NA	NA	NA	NA	NA
Hardness (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Ammonia (As N)	MG/L	2	NA	NA	NA	NA	NA
Nitrogen, Kjeldahl, Total	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Nitrate	MG/L	10	NA	NA	NA	NA	NA
Nitrogen, Nitrate-Nitrite	MG/L	10	NA	NA	NA	NA	NA
Sulfate	MG/L	250	13	11.3	18.4	5.5 J	26.6
Total Organic Carbon	MG/L	-	NA	NA	NA	NA	NA
Ferrous Iron (field)	MG/L	-	NA	NA	NA	NA	NA
Ferric Iron (lab)	MG/L	-	NA	NA	NA	NA	NA
Fluoride	MG/L	1.5	NA	NA	NA	NA	NA
Oil & Grease	MG/L	-	NA	NA	NA	NA	NA
Field Parameter							
Dissolved Oxygen	MG/L	-	NA	0.00	0.80	0	NA
Ferrous Iron	MG/L	-	NA	NA	NA	NA	NA
Ferric Iron (calculated)	MG/L	-	NA	NA	NA	NA	NA
Oxidation-Reduction Potential	mV	-	NA	-124	-146	-96	NA
pH	S.U.	-	NA	6.50	8.99	6.86	NA
Specific Conductance	MS/CM	-	NA	2.14	1.84	1.48	NA
Temperature	DEG C	-	NA	8.34	18.45	21.38	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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([LOGDATE] BETWEEN #05/01/03# AND #4/11/12#) AND [MATRIX] = 'WG' AND ([SACODE] = 'N' OR [SACODE] = 'FD')

TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-04	MW-04	MW-04	MW-04	MW-04
Sample ID			20100225MW04V08FD	20100225MW-04V08N	20100624MW-04V08N	20101006MW-04V08N	20110406MW-04V08FD
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			02/25/10	02/25/10	06/24/10	10/06/10	04/06/11
Parameter	**Units**	**Criteria***	Field Duplicate (1-1)				Field Duplicate (1-1)
Field Parameter							
Turbidity	NTU	-	NA	1.5	1.9	3.7	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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([LOGDATE] BETWEEN #05/01/03# AND #4/11/12#) AND [MATRIX] = 'WG' AND ([SACODE] = 'N' OR [SACODE] = 'FD')

TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-04	MW-04	MW-04	MW-05	MW-05
Sample ID			20110406MW-04V08N	20110913MW04V08N	20120411MW-04V08N	MW05_52103	MW-05-121803
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			04/06/11	09/13/11	04/11/12	05/21/03	12/18/03
Parameter	**Units**	**Criteria***					
Volatiles							
Acetone	UG/L	50	NA	NA	NA	5.0 U	5.0 U
Benzene	UG/L	1	NA	NA	NA	5.0 U	5.0 U
Methyl ethyl ketone (2-Butanone)	UG/L	50	NA	NA	NA	R	R
Chlorotrifluoroethene (Freon-1113)	UG/L	5	4.3 J	1.2	7.2 J	0 U	0 U
1,1-Dichloroethene	UG/L	5	NA	NA	NA	2.0 U	2.0 U
cis-1,2-Dichloroethene	UG/L	5	NA	NA	NA	5.0 U	5.0 U
trans-1,2-Dichloroethene	UG/L	5	NA	NA	NA	5.0 U	5.0 U
Ethylbenzene	UG/L	5	NA	NA	NA	4.0 U	4.0 U
2-Hexanone	UG/L	50	NA	NA	NA	5.0 U	5.0 U
4-Methyl-2-Pentanone	UG/L	-	NA	NA	NA	5.0 U	5.0 U
Tetrachloroethene	UG/L	5	NA	NA	NA	0.4 J	1.0 U
Trichloroethene	UG/L	5	NA	NA	NA	1.0 U	1.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	5	1 U	1 U	1 UJ	5.0 U	5.0 U
Vinyl Chloride	UG/L	2	NA	NA	NA	5.0 U	5.0 U
Xylene (total)	UG/L	5	NA	NA	NA	5.0 U	5.0 U
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	5	1 UJ	1 U	1 U	5.0 U	5.0 U
Dissolved Gases							
Methane	UG/L	-	4,300	1,700	2,700	27	6.7
Total Metals							
Iron	UG/L	300	NA	NA	NA	2,110	15,500
Dissolved Metals							
Iron	UG/L	300	NA	NA	NA	1,670	39.7 U

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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([LOGDATE] BETWEEN #05/01/03# AND #4/11/12#) AND [MATRIX] = 'WG' AND ([SACODE] = 'N' OR [SACODE] = 'FD')

TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-04	MW-04	MW-04	MW-05	MW-05
Sample ID			20110406MW-04V08N	20110913MW04V08N	20120411MW-04V08N	MW05_52103	MW-05-121803
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			04/06/11	09/13/11	04/11/12	05/21/03	12/18/03
Parameter	**Units**	**Criteria***					
Miscellaneous Parameters							
Alkalinity, Total (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Chloride	MG/L	250	NA	NA	NA	49.8	27.5
Dehalococcoides ethenogenes	CEQ/mL	-	NA	NA	NA	NA	NA
Hardness (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Ammonia (As N)	MG/L	2	NA	NA	NA	0.25	0.1 U
Nitrogen, Kjeldahl, Total	MG/L	-	NA	NA	NA	3.6	0.61
Nitrogen, Nitrate	MG/L	10	NA	NA	NA	0.22	0.18
Nitrogen, Nitrate-Nitrite	MG/L	10	NA	NA	NA	NA	NA
Sulfate	MG/L	250	22.3	16.7	18.7	50.1	61.4
Total Organic Carbon	MG/L	-	NA	NA	NA	NA	NA
Ferrous Iron (field)	MG/L	-	NA	NA	NA	1.7	0.07
Ferric Iron (lab)	MG/L	-	NA	NA	NA	0.43	15.4
Fluoride	MG/L	1.5	NA	NA	NA	0 U	0.12
Oil & Grease	MG/L	-	NA	NA	NA	NA	NA
Field Parameter							
Dissolved Oxygen	MG/L	-	0.00	0.00	0.0	0.37	0 U
Ferrous Iron	MG/L	-	NA	14.3	NA	NA	NA
Ferric Iron (calculated)	MG/L	-	NA	NA	NA	NA	NA
Oxidation-Reduction Potential	mV	-	-78	-126	-87	26	121
pH	S.U.	-	6.40	6.83	6.80	NA	NA
Specific Conductance	MS/CM	-	2.19	2.29	1.38	0.426	0.629
Temperature	DEG C	-	12.86	22.5	14.07	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

Flags assigned during chemistry validation are shown.

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J (or B for Inorganics) - Analyte is reported below the PQL at an estimated concentration. NJ - Presumptive evidence that compound is present.

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Only Detected Results Reported.

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-04	MW-04	MW-04	MW-05	MW-05
Sample ID			20110406MW-04V08N	20110913MW04V08N	20120411MW-04V08N	MW05_52103	MW-05-121803
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			04/06/11	09/13/11	04/11/12	05/21/03	12/18/03
Parameter	**Units**	**Criteria***					
Field Parameter							
Turbidity	NTU	-	0.0	0.2	8.9	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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J (or B for Inorganics) - Analyte is reported below the PQL at an estimated concentration. NJ - Presumptive evidence that compound is present.

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-05	MW-06	MW-06	MW-06	MW-06
Sample ID			MW-05	MW06-6-10-03	MW06-7_22_03	MW06-091803	MW-06_121703
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			07/23/04	06/10/03	07/22/03	09/18/03	12/17/03
Parameter	**Units**	**Criteria***					
Volatiles							
Acetone	UG/L	50	NA	10 U	5.0 U	5.0 U	10 U
Benzene	UG/L	1	NA	10 U	5.0 U	5.0 U	10 U
Methyl ethyl ketone (2-Butanone)	UG/L	50	NA	R	R	R	R
Chlorotrifluoroethene (Freon-1113)	UG/L	5	10 U	0 U	5.7 NJ	0 U	0 U
1,1-Dichloroethene	UG/L	5	NA	4 U	1.2 J	2.0 U	4 U
cis-1,2-Dichloroethene	UG/L	5	NA	10 U	1.7 J	1.4 J	1.3 J
trans-1,2-Dichloroethene	UG/L	5	NA	10 U	5.0 U	5.0 U	10 U
Ethylbenzene	UG/L	5	NA	8 U	4.0 U	4.0 U	8 U
2-Hexanone	UG/L	50	NA	10 U	5.0 U	5.0 U	10 U
4-Methyl-2-Pentanone	UG/L	-	NA	10 U	5.0 U	5.0 U	10 U
Tetrachloroethene	UG/L	5	NA	2 U	1.0 U	1.0 U	2 U
Trichloroethene	UG/L	5	NA	2 U	1.0 U	1.0 U	2 U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	5	0.5 J	220	180	97	250
Vinyl Chloride	UG/L	2	NA	10 U	1.2 J	5.0 U	10 U
Xylene (total)	UG/L	5	NA	10 U	5.0 U	5.0 U	10 U
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	5	10 U	8.8 J	9.5	8.6	14
Dissolved Gases							
Methane	UG/L	-	47	49	81	99	78
Total Metals							
Iron	UG/L	300	NA	14,400	10,500	8,370 J	7,690
Dissolved Metals							
Iron	UG/L	300	NA	14,300	10,300	8,470 J	7,670

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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Only Detected Results Reported.

Detection Limits shown are PQL

TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-05	MW-06	MW-06	MW-06	MW-06
Sample ID			MW-05	MW06-6-10-03	MW06-7_22_03	MW06-091803	MW-06_121703
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			07/23/04	06/10/03	07/22/03	09/18/03	12/17/03
Parameter	**Units**	**Criteria***					
Miscellaneous Parameters							
Alkalinity, Total (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Chloride	MG/L	250	63.9	184	82.3	74.6	84.0
Dehalococcoides ethenogenes	CEQ/mL	-	NA	NA	NA	NA	NA
Hardness (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Ammonia (As N)	MG/L	2	NA	0.19	0.33	0.31	0.36
Nitrogen, Kjeldahl, Total	MG/L	-	NA	0.72	1.1	0.88	0.79
Nitrogen, Nitrate	MG/L	10	NA	0.33	0.1 U	0.1 U	0.1 UJ
Nitrogen, Nitrate-Nitrite	MG/L	10	NA	NA	NA	NA	NA
Sulfate	MG/L	250	42.3	32.0	30.5	39.2	39.1
Total Organic Carbon	MG/L	-	NA	NA	NA	NA	NA
Ferrous Iron (field)	MG/L	-	NA	14.3	8.6	6.0	8.7
Ferric Iron (lab)	MG/L	-	NA	0.12	1.9	8.4	1.0 U
Fluoride	MG/L	1.5	0.103	0.46	0.56	0.37	0.42
Oil & Grease	MG/L	-	NA	NA	NA	5 U	NA
Field Parameter							
Dissolved Oxygen	MG/L	-	0.97	0.93	1.07	0 U	0 U
Ferrous Iron	MG/L	-	NA	NA	NA	NA	NA
Ferric Iron (calculated)	MG/L	-	NA	NA	NA	NA	NA
Oxidation-Reduction Potential	mV	-	46	-145	-155	-143	-110
pH	S.U.	-	NA	NA	NA	NA	NA
Specific Conductance	MS/CM	-	0.463	0.741	0.866	0.581	0.602
Temperature	DEG C	-	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

Flags assigned during chemistry validation are shown.

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U - Non-Detect UJ - Not detected above the estiamted quantitation limit

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Only Detected Results Reported.

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-05	MW-06	MW-06	MW-06	MW-06
Sample ID			MW-05	MW06-6-10-03	MW06-7_22_03	MW06-091803	MW-06_121703
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			07/23/04	06/10/03	07/22/03	09/18/03	12/17/03
Parameter	Units	Criteria*					
Field Parameter							
Turbidity	NTU	-	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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Concentration Exceeds Criteria

U - Non-Detect UJ - Not detected above the estiamted quantitation limit

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([LOGDATE] BETWEEN #05/01/03# AND #4/11/12#) AND [MATRIX] = 'WG' AND ([SACODE] = 'N' OR [SACODE] = 'FD')

TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-06	MW-06	MW-06	MW-06	MW-06
Sample ID			MW-06	Field-Dup	MW-06	MW-06V15FD	MW-06V15N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			07/23/04	05/31/05	05/31/05	12/20/05	12/20/05
Parameter	**Units**	**Criteria***		Field Duplicate (1-1)		Field Duplicate (1-1)	
Volatiles							
Acetone	UG/L	50	NA	NA	NA	NA	NA
Benzene	UG/L	1	NA	NA	NA	NA	NA
Methyl ethyl ketone (2-Butanone)	UG/L	50	NA	NA	NA	NA	NA
Chlorotrifluoroethene (Freon-1113)	UG/L	5	5 J	6.0 J	5.0 J	6.0 J	6.0 J
1,1-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
Ethylbenzene	UG/L	5	NA	NA	NA	NA	NA
2-Hexanone	UG/L	50	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	UG/L	-	NA	NA	NA	NA	NA
Tetrachloroethene	UG/L	5	NA	NA	NA	NA	NA
Trichloroethene	UG/L	5	NA	NA	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	5	140 J	1.0 J	1.0 J	10 U	10 U
Vinyl Chloride	UG/L	2	NA	NA	NA	NA	NA
Xylene (total)	UG/L	5	NA	NA	NA	NA	NA
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	5	23	16	14	10 UJ	10 UJ
Dissolved Gases							
Methane	UG/L	-	40	3,600	3,300	6,700	5,600
Total Metals							
Iron	UG/L	300	NA	NA	NA	NA	NA
Dissolved Metals							
Iron	UG/L	300	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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Only Detected Results Reported.

Detection Limits shown are PQL

TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-06	MW-06	MW-06	MW-06	MW-06
Sample ID			MW-06	Field-Dup	MW-06	MW-06V15FD	MW-06V15N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			07/23/04	05/31/05	05/31/05	12/20/05	12/20/05
Parameter	**Units**	**Criteria***		Field Duplicate (1-1)		Field Duplicate (1-1)	
Miscellaneous Parameters							
Alkalinity, Total (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Chloride	MG/L	250	60.5	NA	NA	NA	NA
Dehalococcoides ethenogenes	CEQ/mL	-	NA	NA	NA	NA	NA
Hardness (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Ammonia (As N)	MG/L	2	NA	NA	NA	NA	NA
Nitrogen, Kjeldahl, Total	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Nitrate	MG/L	10	NA	NA	NA	NA	NA
Nitrogen, Nitrate-Nitrite	MG/L	10	NA	NA	NA	NA	NA
Sulfate	MG/L	250	33.5	5.0 U	5.0 U	5.0 U	5.0 U
Total Organic Carbon	MG/L	-	NA	NA	NA	NA	NA
Ferrous Iron (field)	MG/L	-	NA	NA	NA	NA	NA
Ferric Iron (lab)	MG/L	-	NA	NA	NA	NA	NA
Fluoride	MG/L	1.5	0.467	NA	NA	NA	NA
Oil & Grease	MG/L	-	NA	NA	NA	NA	NA
Field Parameter							
Dissolved Oxygen	MG/L	-	1.04	NA	0 U	NA	0 U
Ferrous Iron	MG/L	-	NA	NA	NA	NA	NA
Ferric Iron (calculated)	MG/L	-	NA	NA	NA	NA	NA
Oxidation-Reduction Potential	mV	-	-64	NA	-140	NA	-140
pH	S.U.	-	NA	NA	NA	NA	NA
Specific Conductance	MS/CM	-	0.513	NA	1.13	NA	1.29
Temperature	DEG C	-	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-06	MW-06	MW-06	MW-06	MW-06
Sample ID			MW-06	Field-Dup	MW-06	MW-06V15FD	MW-06V15N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			07/23/04	05/31/05	05/31/05	12/20/05	12/20/05
Parameter	Units	Criteria*		Field Duplicate (1-1)		Field Duplicate (1-1)	
Field Parameter							
Turbidity	NTU	-	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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([LOGDATE] BETWEEN #05/01/03# AND #4/11/12#) AND [MATRIX] = 'WG' AND ([SACODE] = 'N' OR [SACODE] = 'FD')

TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-06	MW-06	MW-06	MW-06	MW-06
Sample ID			MW-06V15FD	MW-06V15N	20070207MW-06V15FD	20070207MW-06V15N	20070731MW-06V15FD
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			08/15/06	08/15/06	02/07/07	02/07/07	07/31/07
Parameter	**Units**	**Criteria***	Field Duplicate (1-1)		Field Duplicate (1-1)		Field Duplicate (1-1)
Volatiles							
Acetone	UG/L	50	NA	NA	NA	NA	NA
Benzene	UG/L	1	NA	NA	NA	NA	NA
Methyl ethyl ketone (2-Butanone)	UG/L	50	NA	NA	NA	NA	NA
Chlorotrifluoroethene (Freon-1113)	UG/L	5	10 U	10 U	100	100	18
1,1-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
Ethylbenzene	UG/L	5	NA	NA	NA	NA	NA
2-Hexanone	UG/L	50	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	UG/L	-	NA	NA	NA	NA	NA
Tetrachloroethene	UG/L	5	NA	NA	NA	NA	NA
Trichloroethene	UG/L	5	NA	NA	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	5	10 U	10 U	3.0 J	3.0 J	10 U
Vinyl Chloride	UG/L	2	NA	NA	NA	NA	NA
Xylene (total)	UG/L	5	NA	NA	NA	NA	NA
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	5	10 U	10 U	8.0 J	8.0 J	0.5 J
Dissolved Gases							
Methane	UG/L	-	1,600	1,700	12,000	13,000	3,800
Total Metals							
Iron	UG/L	300	NA	NA	NA	NA	NA
Dissolved Metals							
Iron	UG/L	300	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-06	MW-06	MW-06	MW-06	MW-06
Sample ID			MW-06V15FD	MW-06V15N	20070207MW-06V15FD	20070207MW-06V15N	20070731MW-06V15FD
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			08/15/06	08/15/06	02/07/07	02/07/07	07/31/07
Parameter	**Units**	**Criteria***	Field Duplicate (1-1)		Field Duplicate (1-1)		Field Duplicate (1-1)
Miscellaneous Parameters							
Alkalinity, Total (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Chloride	MG/L	250	NA	NA	NA	NA	NA
Dehalococcoides ethenogenes	CEQ/mL	-	NA	NA	NA	NA	NA
Hardness (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Ammonia (As N)	MG/L	2	NA	NA	NA	NA	NA
Nitrogen, Kjeldahl, Total	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Nitrate	MG/L	10	NA	NA	NA	NA	NA
Nitrogen, Nitrate-Nitrite	MG/L	10	NA	NA	NA	NA	NA
Sulfate	MG/L	250	5.0 U	5.0 U	7.40	7.00	41.8
Total Organic Carbon	MG/L	-	NA	NA	NA	NA	NA
Ferrous Iron (field)	MG/L	-	NA	NA	NA	NA	NA
Ferric Iron (lab)	MG/L	-	NA	NA	NA	NA	NA
Fluoride	MG/L	1.5	NA	NA	NA	NA	NA
Oil & Grease	MG/L	-	NA	NA	NA	NA	NA
Field Parameter							
Dissolved Oxygen	MG/L	-	NA	6.83	NA	1.05	NA
Ferrous Iron	MG/L	-	NA	NA	NA	NA	NA
Ferric Iron (calculated)	MG/L	-	NA	NA	NA	NA	NA
Oxidation-Reduction Potential	mV	-	NA	87	NA	-136	NA
pH	S.U.	-	NA	NA	NA	NA	NA
Specific Conductance	MS/CM	-	NA	0.033	NA	0.79	NA
Temperature	DEG C	-	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-06	MW-06	MW-06	MW-06	MW-06
Sample ID			MW-06V15FD	MW-06V15N	20070207MW-06V15FD	20070207MW-06V15N	20070731MW-06V15FD
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			08/15/06	08/15/06	02/07/07	02/07/07	07/31/07
Parameter	**Units**	**Criteria***	Field Duplicate (1-1)		Field Duplicate (1-1)		Field Duplicate (1-1)
Field Parameter							
Turbidity	NTU	-	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

Flags assigned during chemistry validation are shown.

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([LOGDATE] BETWEEN #05/01/03# AND #4/11/12#) AND [MATRIX] = 'WG' AND ([SACODE] = 'N' OR [SACODE] = 'FD')

TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-06	MW-06	MW-06	MW-06	MW-06
Sample ID			20070731MW-06V15N	20080228MW06V15FD	20080228MW06V15N	20080812MW06V13N	20090219MW-06V13N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			07/31/07	02/28/08	02/28/08	08/12/08	02/19/09
Parameter	**Units**	**Criteria***		Field Duplicate (1-1)			
Volatiles							
Acetone	UG/L	50	NA	NA	NA	NA	NA
Benzene	UG/L	1	NA	NA	NA	NA	NA
Methyl ethyl ketone (2-Butanone)	UG/L	50	NA	NA	NA	NA	NA
Chlorotrifluoroethene (Freon-1113)	UG/L	5	21	8.0 J	8.0 J	4.0 J	34
1,1-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
Ethylbenzene	UG/L	5	NA	NA	NA	NA	NA
2-Hexanone	UG/L	50	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	UG/L	-	NA	NA	NA	NA	NA
Tetrachloroethene	UG/L	5	NA	NA	NA	NA	NA
Trichloroethene	UG/L	5	NA	NA	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	5	10 U	10 UJ	10 U	10 U	2.0 J
Vinyl Chloride	UG/L	2	NA	NA	NA	NA	NA
Xylene (total)	UG/L	5	NA	NA	NA	NA	NA
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	5	0.6 J	10 U	10 U	10 U	35
Dissolved Gases							
Methane	UG/L	-	2,500	12,000	14,000	12,000	9,000
Total Metals							
Iron	UG/L	300	NA	NA	NA	NA	NA
Dissolved Metals							
Iron	UG/L	300	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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Only Detected Results Reported.

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-06	MW-06	MW-06	MW-06	MW-06
Sample ID			20070731MW-06V15N	20080228MW06V15FD	20080228MW06V15N	20080812MW06V13N	20090219MW-06V13N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			07/31/07	02/28/08	02/28/08	08/12/08	02/19/09
Parameter	**Units**	**Criteria***		Field Duplicate (1-1)			
Miscellaneous Parameters							
Alkalinity, Total (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Chloride	MG/L	250	NA	NA	NA	NA	NA
Dehalococcoides ethenogenes	CEQ/mL	-	NA	NA	NA	NA	NA
Hardness (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Ammonia (As N)	MG/L	2	NA	NA	NA	NA	NA
Nitrogen, Kjeldahl, Total	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Nitrate	MG/L	10	NA	NA	NA	NA	NA
Nitrogen, Nitrate-Nitrite	MG/L	10	NA	NA	NA	NA	NA
Sulfate	MG/L	250	44.2	5 U	5 U	17.8	57.0 J
Total Organic Carbon	MG/L	-	NA	NA	NA	NA	NA
Ferrous Iron (field)	MG/L	-	NA	NA	NA	NA	NA
Ferric Iron (lab)	MG/L	-	NA	NA	NA	NA	NA
Fluoride	MG/L	1.5	NA	NA	NA	NA	NA
Oil & Grease	MG/L	-	NA	NA	NA	NA	NA
Field Parameter							
Dissolved Oxygen	MG/L	-	0.31	NA	2.61	0 U	0 U
Ferrous Iron	MG/L	-	NA	NA	NA	NA	NA
Ferric Iron (calculated)	MG/L	-	NA	NA	NA	NA	NA
Oxidation-Reduction Potential	mV	-	-99.7	NA	-122.0	-117	-132
pH	S.U.	-	6.38	NA	6.24	6.37	6.30
Specific Conductance	MS/CM	-	1.050	NA	1.21	1.47	0.84
Temperature	DEG C	-	NA	NA	12.2	17.0	13.23

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

Flags assigned during chemistry validation are shown.

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-06	MW-06	MW-06	MW-06	MW-06
Sample ID			20070731MW-06V15N	20080228MW06V15FD	20080228MW06V15N	20080812MW06V13N	20090219MW-06V13N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			07/31/07	02/28/08	02/28/08	08/12/08	02/19/09
Parameter	**Units**	**Criteria***		Field Duplicate (1-1)			
Field Parameter							
Turbidity	NTU	-	NA	NA	9	5	8

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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([LOGDATE] BETWEEN #05/01/03# AND #4/11/12#) AND [MATRIX] = 'WG' AND ([SACODE] = 'N' OR [SACODE] = 'FD')

TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-06	MW-06	MW-06	MW-06	MW-06
Sample ID			20091013MW-06V13N	20100226MW-06V13N	20100624MW-06V13N	20101006MW-06V13FD	20101006MW-06V13N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			10/13/09	02/26/10	06/24/10	10/06/10	10/06/10
Parameter	**Units**	**Criteria***				Field Duplicate (1-1)	
Volatiles							
Acetone	UG/L	50	NA	NA	NA	NA	NA
Benzene	UG/L	1	NA	NA	NA	NA	NA
Methyl ethyl ketone (2-Butanone)	UG/L	50	NA	NA	NA	NA	NA
Chlorotrifluoroethene (Freon-1113)	UG/L	5	6.4	35 J	68 J	61	57
1,1-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
Ethylbenzene	UG/L	5	NA	NA	NA	NA	NA
2-Hexanone	UG/L	50	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	UG/L	-	NA	NA	NA	NA	NA
Tetrachloroethene	UG/L	5	NA	NA	NA	NA	NA
Trichloroethene	UG/L	5	NA	NA	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	5	1 U	1 UJ	1 U	1 U	1 U
Vinyl Chloride	UG/L	2	NA	NA	NA	NA	NA
Xylene (total)	UG/L	5	NA	NA	NA	NA	NA
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	5	1 U	3.6	0.57 J	1 U	1 U
Dissolved Gases							
Methane	UG/L	-	7,300	13,000	9,400	8,300	8,800
Total Metals							
Iron	UG/L	300	NA	NA	NA	NA	NA
Dissolved Metals							
Iron	UG/L	300	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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Concentration Exceeds Criteria

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-06	MW-06	MW-06	MW-06	MW-06
Sample ID			20091013MW-06V13N	20100226MW-06V13N	20100624MW-06V13N	20101006MW-06V13FD	20101006MW-06V13N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			10/13/09	02/26/10	06/24/10	10/06/10	10/06/10
Parameter	**Units**	**Criteria***				Field Duplicate (1-1)	
Miscellaneous Parameters							
Alkalinity, Total (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Chloride	MG/L	250	NA	NA	NA	NA	NA
Dehalococcoides ethenogenes	CEQ/mL	-	NA	NA	NA	NA	NA
Hardness (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Ammonia (As N)	MG/L	2	NA	NA	NA	NA	NA
Nitrogen, Kjeldahl, Total	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Nitrate	MG/L	10	NA	NA	NA	NA	NA
Nitrogen, Nitrate-Nitrite	MG/L	10	NA	NA	NA	NA	NA
Sulfate	MG/L	250	2.8 J	31.2	52.3	36.8 J	34.5 J
Total Organic Carbon	MG/L	-	NA	NA	NA	NA	NA
Ferrous Iron (field)	MG/L	-	NA	NA	NA	NA	NA
Ferric Iron (lab)	MG/L	-	NA	NA	NA	NA	NA
Fluoride	MG/L	1.5	NA	NA	NA	NA	NA
Oil & Grease	MG/L	-	NA	NA	NA	NA	NA
Field Parameter							
Dissolved Oxygen	MG/L	-	0.00	0.00	0.73	NA	0
Ferrous Iron	MG/L	-	NA	NA	NA	NA	NA
Ferric Iron (calculated)	MG/L	-	NA	NA	NA	NA	NA
Oxidation-Reduction Potential	mV	-	-139	-140	-124	NA	-129
pH	S.U.	-	6.57	6.46	8.81	NA	6.97
Specific Conductance	MS/CM	-	1.79	2.48	0.958	NA	0.879
Temperature	DEG C	-	17.80	11.80	17.79	NA	18.25

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-06	MW-06	MW-06	MW-06	MW-06
Sample ID			20091013MW-06V13N	20100226MW-06V13N	20100624MW-06V13N	20101006MW-06V13FD	20101006MW-06V13N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			10/13/09	02/26/10	06/24/10	10/06/10	10/06/10
Parameter	Units	Criteria*				Field Duplicate (1-1)	
Field Parameter							
Turbidity	NTU	-	2.2	39	0.45	NA	0

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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([LOGDATE] BETWEEN #05/01/03# AND #4/11/12#) AND [MATRIX] = 'WG' AND ([SACODE] = 'N' OR [SACODE] = 'FD')

TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-06	MW-06	MW-06	MW-07	MW-07
Sample ID			20110406MW-06V13N	20110913MW06V13N	20120411MW-06V13N	MW07-6-10-03	MW07
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			04/06/11	09/13/11	04/11/12	06/10/03	07/23/03
Parameter	**Units**	**Criteria***					
Volatiles							
Acetone	UG/L	50	NA	NA	NA	250 U	500 U
Benzene	UG/L	1	NA	NA	NA	250 U	500 U
Methyl ethyl ketone (2-Butanone)	UG/L	50	NA	NA	NA	R	R
Chlorotrifluoroethene (Freon-1113)	UG/L	5	96 J	30	230 J	0 U	0 U
1,1-Dichloroethene	UG/L	5	NA	NA	NA	100 U	68 J
cis-1,2-Dichloroethene	UG/L	5	NA	NA	NA	250 U	500 U
trans-1,2-Dichloroethene	UG/L	5	NA	NA	NA	250 U	500 U
Ethylbenzene	UG/L	5	NA	NA	NA	200 U	400 U
2-Hexanone	UG/L	50	NA	NA	NA	250 U	500 U
4-Methyl-2-Pentanone	UG/L	-	NA	NA	NA	250 U	500 U
Tetrachloroethene	UG/L	5	NA	NA	NA	50 U	100 U
Trichloroethene	UG/L	5	NA	NA	NA	50 U	100 U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	5	33	1 U	82 J	5,400	8,500
Vinyl Chloride	UG/L	2	NA	NA	NA	250 U	500 U
Xylene (total)	UG/L	5	NA	NA	NA	250 U	500 U
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	5	38 J	4.4	28	68 J	130 J
Dissolved Gases							
Methane	UG/L	-	7,900	1,800	5,300	740	420
Total Metals							
Iron	UG/L	300	NA	9,630	NA	21,300	21,200
Dissolved Metals							
Iron	UG/L	300	NA	NA	NA	20,800	20,800

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-06	MW-06	MW-06	MW-07	MW-07
Sample ID			20110406MW-06V13N	20110913MW06V13N	20120411MW-06V13N	MW07-6-10-03	MW07
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			04/06/11	09/13/11	04/11/12	06/10/03	07/23/03
Parameter	**Units**	**Criteria***					
Miscellaneous Parameters							
Alkalinity, Total (as CaCO3)	MG/L	-	NA	388	NA	NA	NA
Chloride	MG/L	250	NA	NA	NA	140	168
Dehalococcoides ethenogenes	CEQ/mL	-	NA	353,000 J	NA	NA	NA
Hardness (as CaCO3)	MG/L	-	NA	235	NA	NA	NA
Nitrogen, Ammonia (As N)	MG/L	2	NA	NA	NA	0.39	0.6
Nitrogen, Kjeldahl, Total	MG/L	-	NA	NA	NA	1.2	1.8
Nitrogen, Nitrate	MG/L	10	NA	0.1 U	NA	0.1 U	NA
Nitrogen, Nitrate-Nitrite	MG/L	10	NA	NA	NA	NA	0.1 UJ
Sulfate	MG/L	250	60.8	16.5	119	32.8	31.0
Total Organic Carbon	MG/L	-	NA	10.9	NA	NA	NA
Ferrous Iron (field)	MG/L	-	NA	NA	NA	20.2	19.8
Ferric Iron (lab)	MG/L	-	NA	NA	NA	1	1.4
Fluoride	MG/L	1.5	NA	NA	NA	0.33	0.25
Oil & Grease	MG/L	-	NA	NA	NA	NA	NA
Field Parameter							
Dissolved Oxygen	MG/L	-	0.00	0.00	0.0	0.9	0.1
Ferrous Iron	MG/L	-	NA	7.4	NA	NA	NA
Ferric Iron (calculated)	MG/L	-	NA	2.23	NA	NA	NA
Oxidation-Reduction Potential	mV	-	-68	-123	-48	-130	-108
pH	S.U.	-	7.08	7.08	6.81	NA	NA
Specific Conductance	MS/CM	-	1.61	0.801	1.06	0.93	1.11
Temperature	DEG C	-	12.46	22.4	14.04	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-06	MW-06	MW-06	MW-07	MW-07
Sample ID			20110406MW-06V13N	20110913MW06V13N	20120411MW-06V13N	MW07-6-10-03	MW07
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			04/06/11	09/13/11	04/11/12	06/10/03	07/23/03
Parameter	**Units**	**Criteria***					
Field Parameter							
Turbidity	NTU	-	0.0	5.3	0.0	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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([LOGDATE] BETWEEN #05/01/03# AND #4/11/12#) AND [MATRIX] = 'WG' AND ([SACODE] = 'N' OR [SACODE] = 'FD')

TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-07	MW-07	MW-07	MW-07	MW-07
Sample ID			MW07-91703	MW-07_121703	MW-07	MW-07	MW-07V15N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			09/17/03	12/17/03	07/22/04	05/31/05	12/20/05
Parameter	**Units**	**Criteria***					
Volatiles							
Acetone	UG/L	50	250 U	50 U	NA	NA	NA
Benzene	UG/L	1	250 U	14	NA	NA	NA
Methyl ethyl ketone (2-Butanone)	UG/L	50	R	R	NA	NA	NA
Chlorotrifluoroethene (Freon-1113)	UG/L	5	0 U	0 U	210	140	47
1,1-Dichloroethene	UG/L	5	100 U	20 U	NA	NA	NA
cis-1,2-Dichloroethene	UG/L	5	250 U	50 U	NA	NA	NA
trans-1,2-Dichloroethene	UG/L	5	250 U	50 U	NA	NA	NA
Ethylbenzene	UG/L	5	200 U	49	NA	NA	NA
2-Hexanone	UG/L	50	250 U	50 U	NA	NA	NA
4-Methyl-2-Pentanone	UG/L	-	250 U	50 U	NA	NA	NA
Tetrachloroethene	UG/L	5	50 U	10 U	NA	NA	NA
Trichloroethene	UG/L	5	50 U	10 U	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	5	6,100	370	110 J	10 U	10 U
Vinyl Chloride	UG/L	2	250 U	50 U	NA	NA	NA
Xylene (total)	UG/L	5	250 U	50 U	NA	NA	NA
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	5	130 J	940	50	2.0 J	10 U
Dissolved Gases							
Methane	UG/L	-	1,200	1,700	2,500	5,900	9,700
Total Metals							
Iron	UG/L	300	32,700 J	38,900	NA	NA	NA
Dissolved Metals							
Iron	UG/L	300	32,500 J	38,900	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-07	MW-07	MW-07	MW-07	MW-07
Sample ID			MW07-91703	MW-07_121703	MW-07	MW-07	MW-07V15N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			09/17/03	12/17/03	07/22/04	05/31/05	12/20/05
Parameter	**Units**	**Criteria***					
Miscellaneous Parameters							
Alkalinity, Total (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Chloride	MG/L	250	300 J	328	303	NA	NA
Dehalococcoides ethenogenes	CEQ/mL	-	NA	NA	NA	NA	NA
Hardness (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Ammonia (As N)	MG/L	2	0.66	0.99	NA	NA	NA
Nitrogen, Kjeldahl, Total	MG/L	-	2.1	2.8	NA	NA	NA
Nitrogen, Nitrate	MG/L	10	0.1 U	0.1 U	NA	NA	NA
Nitrogen, Nitrate-Nitrite	MG/L	10	NA	NA	NA	NA	NA
Sulfate	MG/L	250	23.6	5.0 U	5.0 U	5.0 U	5.0 U
Total Organic Carbon	MG/L	-	NA	NA	NA	NA	NA
Ferrous Iron (field)	MG/L	-	33.8	19.5	NA	NA	NA
Ferric Iron (lab)	MG/L	-	14.1	19.4	NA	NA	NA
Fluoride	MG/L	1.5	0.24	0.19	0.190	NA	NA
Oil & Grease	MG/L	-	5.44 U	NA	NA	NA	NA
Field Parameter							
Dissolved Oxygen	MG/L	-	0 U	3.33	0.88	0 U	0 U
Ferrous Iron	MG/L	-	NA	NA	NA	NA	NA
Ferric Iron (calculated)	MG/L	-	NA	NA	NA	NA	NA
Oxidation-Reduction Potential	mV	-	-118	-115	-153	-152	-169
pH	S.U.	-	NA	NA	NA	NA	NA
Specific Conductance	MS/CM	-	1.44	1.94	1.69	1.75	1.65
Temperature	DEG C	-	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-07	MW-07	MW-07	MW-07	MW-07
Sample ID			MW07-91703	MW-07_121703	MW-07	MW-07	MW-07V15N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			09/17/03	12/17/03	07/22/04	05/31/05	12/20/05
Parameter	**Units**	**Criteria***					
Field Parameter							
Turbidity	NTU	-	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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R - Rejected result NA - Not Analyzed

Only Detected Results Reported.

Detection Limits shown are PQL

Advanced Selection: WG Apr12 Tab3
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([LOGDATE] BETWEEN #05/01/03# AND #4/11/12#) AND [MATRIX] = 'WG' AND ([SACODE] = 'N' OR [SACODE] = 'FD')

TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-07	MW-07	MW-07	MW-07	MW-07
Sample ID			MW-07V15N	20070207MW-07V15N	20070731MW-07V15N	20080228MW07V15N	20080812MW07V09N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			08/14/06	02/07/07	07/31/07	02/28/08	08/12/08
Parameter	**Units**	**Criteria***					
Volatiles							
Acetone	UG/L	50	NA	NA	NA	NA	NA
Benzene	UG/L	1	NA	NA	NA	NA	NA
Methyl ethyl ketone (2-Butanone)	UG/L	50	NA	NA	NA	NA	NA
Chlorotrifluoroethene (Freon-1113)	UG/L	5	97	89	82	92	170
1,1-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
Ethylbenzene	UG/L	5	NA	NA	NA	NA	NA
2-Hexanone	UG/L	50	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	UG/L	-	NA	NA	NA	NA	NA
Tetrachloroethene	UG/L	5	NA	NA	NA	NA	NA
Trichloroethene	UG/L	5	NA	NA	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	5	10 U	10 U	6.0 J	10 UJ	3.0 J
Vinyl Chloride	UG/L	2	NA	NA	NA	NA	NA
Xylene (total)	UG/L	5	NA	NA	NA	NA	NA
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	5	1.0 J	3.0 J	10	0.9 J	16
Dissolved Gases							
Methane	UG/L	-	6,900	6,200	4,100	7,100	5,600
Total Metals							
Iron	UG/L	300	NA	NA	NA	NA	NA
Dissolved Metals							
Iron	UG/L	300	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

Flags assigned during chemistry validation are shown.

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U - Non-Detect UJ - Not detected above the estiamted quantitation limit

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J (or B for Inorganics) - Analyte is reported below the PQL at an estimated concentration. NJ - Presumptive evidence that compound is present.

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-07	MW-07	MW-07	MW-07	MW-07
Sample ID			MW-07V15N	20070207MW-07V15N	20070731MW-07V15N	20080228MW07V15N	20080812MW07V09N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			08/14/06	02/07/07	07/31/07	02/28/08	08/12/08
Parameter	**Units**	**Criteria***					
Miscellaneous Parameters							
Alkalinity, Total (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Chloride	MG/L	250	NA	NA	NA	NA	NA
Dehalococcoides ethenogenes	CEQ/mL	-	NA	NA	NA	NA	NA
Hardness (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Ammonia (As N)	MG/L	2	NA	NA	NA	NA	NA
Nitrogen, Kjeldahl, Total	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Nitrate	MG/L	10	NA	NA	NA	NA	NA
Nitrogen, Nitrate-Nitrite	MG/L	10	NA	NA	NA	NA	NA
Sulfate	MG/L	250	19.3	5.0 U	6.1	5 U	5.6
Total Organic Carbon	MG/L	-	NA	NA	NA	NA	NA
Ferrous Iron (field)	MG/L	-	NA	NA	NA	NA	NA
Ferric Iron (lab)	MG/L	-	NA	NA	NA	NA	NA
Fluoride	MG/L	1.5	NA	NA	NA	NA	NA
Oil & Grease	MG/L	-	NA	NA	NA	NA	NA
Field Parameter							
Dissolved Oxygen	MG/L	-	3.47	2.89	0.48	2.64	0 U
Ferrous Iron	MG/L	-	NA	NA	NA	NA	NA
Ferric Iron (calculated)	MG/L	-	NA	NA	NA	NA	NA
Oxidation-Reduction Potential	mV	-	-163	-121	-113.5	-137.0	-167
pH	S.U.	-	NA	NA	6.78	6.32	6.48
Specific Conductance	MS/CM	-	1.44	2.02	2.182	1.62	1.99
Temperature	DEG C	-	NA	NA	NA	9.03	17.3

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-07	MW-07	MW-07	MW-07	MW-07
Sample ID			MW-07V15N	20070207MW-07V15N	20070731MW-07V15N	20080228MW07V15N	20080812MW07V09N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			08/14/06	02/07/07	07/31/07	02/28/08	08/12/08
Parameter	**Units**	**Criteria***					
Field Parameter							
Turbidity	NTU	-	NA	NA	NA	54	25

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-07	MW-07R	MW-07R	MW-07R	MW-07R
Sample ID			20090218MW-07V09N	20091013MW-07RV15N	20100225MW-07RV15N	20100624MW-07RV15FD	20100624MW-07RV15N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			02/18/09	10/13/09	02/25/10	06/24/10	06/24/10
Parameter	**Units**	**Criteria***				Field Duplicate (1-1)	
Volatiles							
Acetone	UG/L	50	NA	NA	NA	NA	NA
Benzene	UG/L	1	NA	NA	NA	NA	NA
Methyl ethyl ketone (2-Butanone)	UG/L	50	NA	NA	NA	NA	NA
Chlorotrifluoroethene (Freon-1113)	UG/L	5	150	370 D	150 J	350 J	390
1,1-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
Ethylbenzene	UG/L	5	NA	NA	NA	NA	NA
2-Hexanone	UG/L	50	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	UG/L	-	NA	NA	NA	NA	NA
Tetrachloroethene	UG/L	5	NA	NA	NA	NA	NA
Trichloroethene	UG/L	5	NA	NA	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	5	46	580 D	18 J	1.1 J	1
Vinyl Chloride	UG/L	2	NA	NA	NA	NA	NA
Xylene (total)	UG/L	5	NA	NA	NA	NA	NA
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	5	20	76	8.1	1.7 J	1.8
Dissolved Gases							
Methane	UG/L	-	11,000	5,900	6,500	8,100	8,400
Total Metals							
Iron	UG/L	300	NA	NA	NA	NA	NA
Dissolved Metals							
Iron	UG/L	300	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-07	MW-07R	MW-07R	MW-07R	MW-07R
Sample ID			20090218MW-07V09N	20091013MW-07RV15N	20100225MW-07RV15N	20100624MW-07RV15FD	20100624MW-07RV15N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			02/18/09	10/13/09	02/25/10	06/24/10	06/24/10
Parameter	**Units**	**Criteria***				Field Duplicate (1-1)	
Miscellaneous Parameters							
Alkalinity, Total (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Chloride	MG/L	250	NA	NA	NA	NA	NA
Dehalococcoides ethenogenes	CEQ/mL	-	NA	NA	NA	NA	NA
Hardness (as CaCO3)	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Ammonia (As N)	MG/L	2	NA	NA	NA	NA	NA
Nitrogen, Kjeldahl, Total	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Nitrate	MG/L	10	NA	NA	NA	NA	NA
Nitrogen, Nitrate-Nitrite	MG/L	10	NA	NA	NA	NA	NA
Sulfate	MG/L	250	5 UJ	6.3	7.9	17	11.2
Total Organic Carbon	MG/L	-	NA	NA	NA	NA	NA
Ferrous Iron (field)	MG/L	-	NA	NA	NA	NA	NA
Ferric Iron (lab)	MG/L	-	NA	NA	NA	NA	NA
Fluoride	MG/L	1.5	NA	NA	NA	NA	NA
Oil & Grease	MG/L	-	NA	NA	NA	NA	NA
Field Parameter							
Dissolved Oxygen	MG/L	-	0 U	0.00	0.00	NA	0.69
Ferrous Iron	MG/L	-	NA	NA	NA	NA	NA
Ferric Iron (calculated)	MG/L	-	NA	NA	NA	NA	NA
Oxidation-Reduction Potential	mV	-	-154	-139	-146	NA	-129
pH	S.U.	-	6.18	6.45	6.52	NA	8.83
Specific Conductance	MS/CM	-	2.01	2.74	2.79	NA	2.09
Temperature	DEG C	-	12.11	18.36	10.69	NA	16.45

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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Location ID			MW-07	MW-07R	MW-07R	MW-07R	MW-07R
Sample ID			20090218MW-07V09N	20091013MW-07RV15N	20100225MW-07RV15N	20100624MW-07RV15FD	20100624MW-07RV15N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			02/18/09	10/13/09	02/25/10	06/24/10	06/24/10
Parameter	Units	Criteria*				Field Duplicate (1-1)	
Field Parameter							
Turbidity	NTU	-	21	1.1	1.1	NA	0.35

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-07R	MW-07R	MW-07R	MW-07R	MW-07R
Sample ID			20101006MW-07RV15N	20110406MW-07RV15N	20110913MW07RV15N	20120411MW-07RV15FD	20120411MW-07RV15N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			10/06/10	04/06/11	09/13/11	04/11/12	04/11/12
Parameter	**Units**	**Criteria***				Field Duplicate (1-1)	
Volatiles							
Acetone	UG/L	50	NA	NA	NA	NA	NA
Benzene	UG/L	1	NA	NA	NA	NA	NA
Methyl ethyl ketone (2-Butanone)	UG/L	50	NA	NA	NA	NA	NA
Chlorotrifluoroethene (Freon-1113)	UG/L	5	350	370 J	26	630 J	540 J
1,1-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	UG/L	5	NA	NA	NA	NA	NA
Ethylbenzene	UG/L	5	NA	NA	NA	NA	NA
2-Hexanone	UG/L	50	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	UG/L	-	NA	NA	NA	NA	NA
Tetrachloroethene	UG/L	5	NA	NA	NA	NA	NA
Trichloroethene	UG/L	5	NA	NA	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	5	53 J	18	1.6	67 J	59 J
Vinyl Chloride	UG/L	2	NA	NA	NA	NA	NA
Xylene (total)	UG/L	5	NA	NA	NA	NA	NA
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	5	9.5	6.3 J	0.94 J	11	9.7
Dissolved Gases							
Methane	UG/L	-	6,200	8,300	2,000	6,400	6,600
Total Metals							
Iron	UG/L	300	NA	NA	23,600	NA	NA
Dissolved Metals							
Iron	UG/L	300	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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TABLE 3
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-07R	MW-07R	MW-07R	MW-07R	MW-07R
Sample ID			20101006MW-07RV15N	20110406MW-07RV15N	20110913MW07RV15N	20120411MW-07RV15FD	20120411MW-07RV15N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			10/06/10	04/06/11	09/13/11	04/11/12	04/11/12
Parameter	**Units**	**Criteria***				Field Duplicate (1-1)	
Miscellaneous Parameters							
Alkalinity, Total (as CaCO3)	MG/L	-	NA	NA	406	NA	NA
Chloride	MG/L	250	NA	NA	NA	NA	NA
Dehalococcoides ethenogenes	CEQ/mL	-	NA	NA	248	NA	NA
Hardness (as CaCO3)	MG/L	-	NA	NA	637	NA	NA
Nitrogen, Ammonia (As N)	MG/L	2	NA	NA	NA	NA	NA
Nitrogen, Kjeldahl, Total	MG/L	-	NA	NA	NA	NA	NA
Nitrogen, Nitrate	MG/L	10	NA	NA	0.1 U	NA	NA
Nitrogen, Nitrate-Nitrite	MG/L	10	NA	NA	NA	NA	NA
Sulfate	MG/L	250	13 J	25.8	12.2	18.9	17.7
Total Organic Carbon	MG/L	-	NA	NA	11.3	NA	NA
Ferrous Iron (field)	MG/L	-	NA	NA	NA	NA	NA
Ferric Iron (lab)	MG/L	-	NA	NA	NA	NA	NA
Fluoride	MG/L	1.5	NA	NA	NA	NA	NA
Oil & Grease	MG/L	-	NA	NA	NA	NA	NA
Field Parameter							
Dissolved Oxygen	MG/L	-	4.05	0.00	0.00	NA	0.0
Ferrous Iron	MG/L	-	NA	NA	20.1	NA	NA
Ferric Iron (calculated)	MG/L	-	NA	NA	3.5	NA	NA
Oxidation-Reduction Potential	mV	-	-113	-83	-109	NA	-82
pH	S.U.	-	6.82	6.39	6.86	NA	6.72
Specific Conductance	MS/CM	-	2.03	3.40	3.28	NA	2.10
Temperature	DEG C	-	21.42	12.08	22.4	NA	13.63

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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Location ID			MW-07R	MW-07R	MW-07R	MW-07R	MW-07R
Sample ID			20101006MW-07RV15N	20110406MW-07RV15N	20110913MW07RV15N	20120411MW-07RV15FD	20120411MW-07RV15N
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			10/06/10	04/06/11	09/13/11	04/11/12	04/11/12
Parameter	**Units**	**Criteria***				Field Duplicate (1-1)	
Field Parameter							
Turbidity	NTU	-	14.3	0.0	0.1	NA	8.2

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

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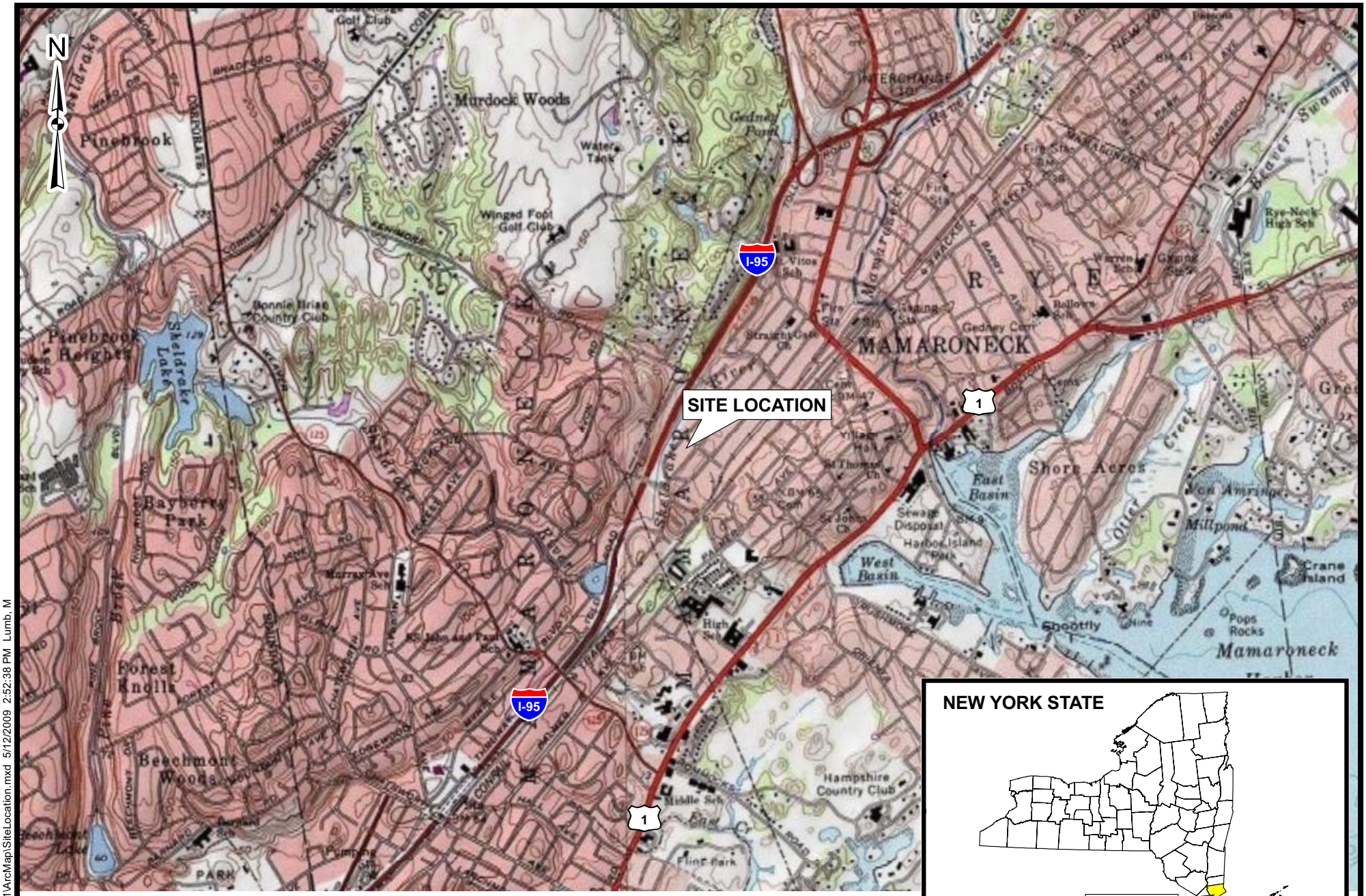
FIGURES



SOURCE: USGS Topographical Quadrangle Mount Vernon, New York, 1979 and Mamaroneck, New York, 1985.

URS

SITE LOCATION MAP

FIGURE 1

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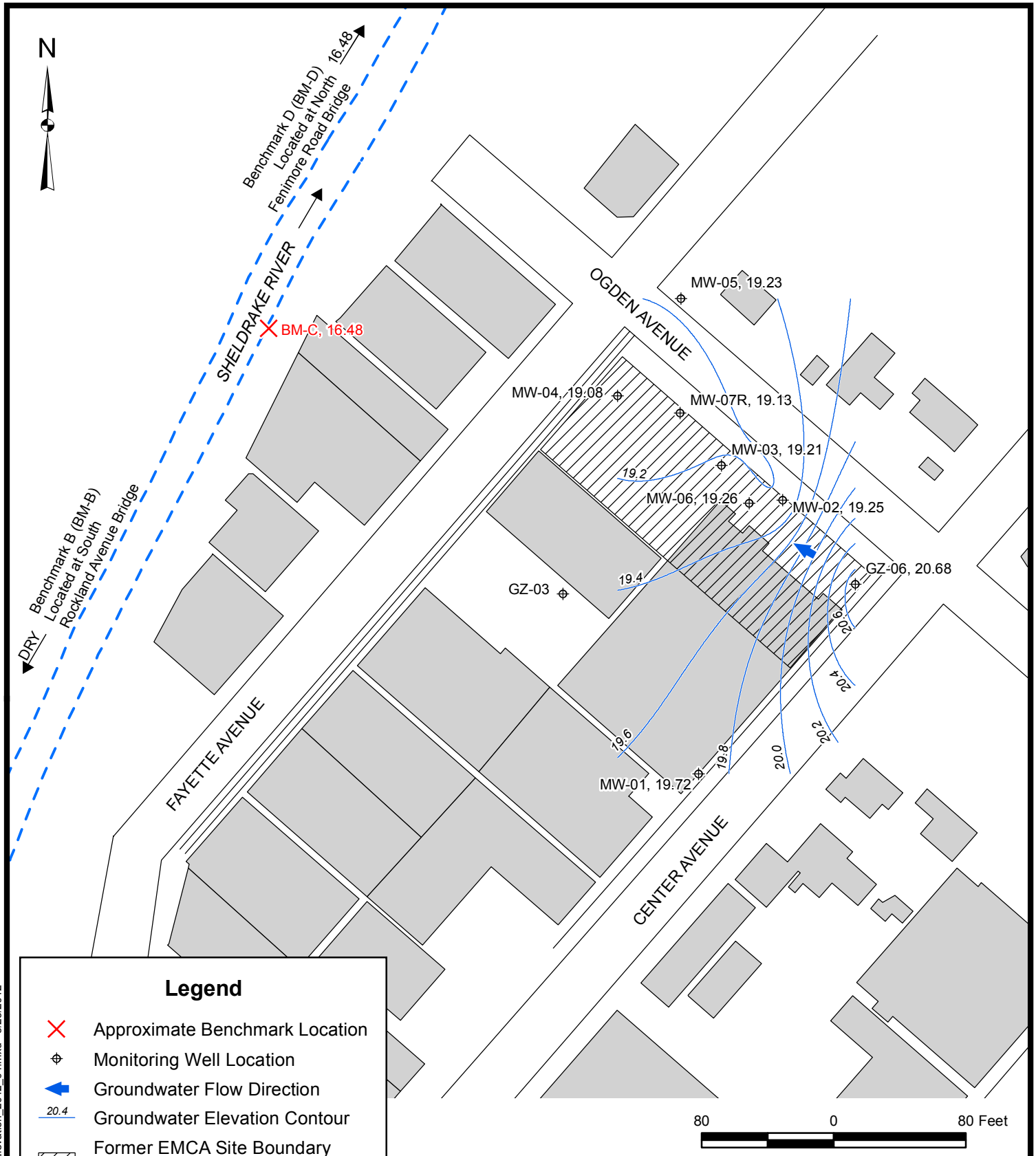

Legend

- Approximate Benchmark Location
- Monitoring Well Location
- Groundwater Flow Direction
- 20.4 Groundwater Elevation Contour
- Former EMCA Site Boundary (Approximate)

MW-05, 19.23

Location ID

Groundwater Elevation (based upon URS survey datum)

NOTES:

(1) Well MW-07 was replaced by well MW-07R on September 3, 2009.

(2) Benchmark C was originally established as a temporary benchmark off a tree branch overhanging the Sheldrake River between the north and south bridges. The approximate water surface elevation for this benchmark is now calculated by taking the average water surface elevation of Benchmark B and Benchmark D.

(3) A truck was parked over monitoring well GZ-03 making it inaccessible.

URS

GROUNDWATER ELEVATION MAP (APRIL 11, 2012)

FIGURE 2

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N

SHELDRAKE RIVER

FAYETTE AVENUE

OGDEN AVENUE

CENTER AVENUE

MW-04	10/99	7/00	7/01	5/03	12/03	7/04	5/05	12/05	8/06	2/07	8/07	2/08	8/08	2/09	10/09	2/10	6/10	10/10	4/11	9/11	4/12
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	11	ND	ND	ND	ND	0.7 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorotrifluoroethene (Freon-1113)	ND	ND	ND	ND	ND	ND	1.0 J	ND	0.7 J	0.6 J	ND	1.0 J	ND	1.0J	15	7.7 J	12	2.8	5J	1.2	7.2 J

MW-05	7/00	7/01	5/03	12/03	7/04
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	7	ND	ND	ND	0.5 J
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	ND	ND	ND	ND	ND
Chlorotrifluoroethene (Freon-1113)	ND	ND	ND	ND	ND

MW-03	10/99	7/00	7/01	5/03	7/03	9/03	12/03	7/04	5/05	12/05	8/06	2/07	8/07	2/08	8/08	2/09	10/09	2/10	6/10	10/10	4/11	9/11	4/12
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	17000	11000	13000	5800	68	26	150	4900 J	2 J	ND	ND	10	2.0 J	0.5 J	ND	5.0J	0.9J	ND	ND	ND	32	5.4	20 J
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	ND	ND	ND	78 J	43	180	170	3900	14	1.0 J	0.8 J	48	7.0 J	4.0 J	1.0 J	40	2.1	ND	0.5J	ND	99J	9.4	36
Chlorotrifluoroethene (Freon-1113)	ND	ND	ND	ND	7	6.2	ND	68 J	83	2.0 J	51	39	54	13 J	10	38	20	17 J	26	4.6	110J	82	150 J

MW-07/07R	6/03	7/03	9/03	12/03	7/04	5/05	12/05	8/06	2/07	8/07	2/08	8/08	2/09	10/09	2/10	6/10	10/10	4/11	9/11	4/12
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	5400	8500	6100	370	110 J	ND	ND	ND	ND	6.0 J	ND	3.0 J	46	580	18 J	1.1J	53J	18	1.6	67 J
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	68 J	130 J	130 J	940	50	2.0 J	ND	1.0 J	3.0 J	10	0.9 J	16	20	76	8.1	1.8	9.5	6.3J	0.9J	11
Chlorotrifluoroethene (Freon-1113)	ND	ND	ND	ND	210	140	47	97	89	82	92	170	150	370	150 J	390	350	370J	26	630 J

MW-02	10/99	7/00	7/01	5/03	7/03	9/03	12/03	7/04	5/05	12/05	8/06	11/06	2/07	8/07	2/08	8/08	2/09	10/09	2/10	6/10	10/10	4/11	9/11	4/12
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	740	1700	2400	880	1000	54	12	21 J	1200	110	890	100	800	290	830 J	700	1300	1200	76 J	670	580	920	490	1200 J
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	ND	ND	ND	40	41 J	7.8	3.3 J	4 J	86 J	15	110	10	95	40	72	38 J	34J	51	6.1	37	26	33J	26	57
Chlorotrifluoroethene (Freon-1113)	ND	ND	ND	ND	ND	ND	ND	14	120	18	200	21	84	61	120 J	160	81J	300	92 J	240	180	110J	180	140 J

GZ-03	8/07
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	ND
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	ND
Chlorotrifluoroethene (Freon-1113)	ND

GZ-06	5/88	3/89	10/99	7/00	7/01	5/03	7/03	9/03	12/03	7/04	5/05	12/05	8/06	11/06	2/07	8/07	2/08	8/08	2/09
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	1274	200	49	900	250	100	230	74	ND	100 J	9 J	ND	74	2.0 J	14	13	ND	ND	ND
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	ND	ND	ND	ND	ND	20	41	26	0.7 J	36	4.0 J	2.0 J	23	2.0 J	4.0 J	10	ND	ND	ND
Chlorotrifluoroethene (Freon-1113)	ND	ND	ND	ND	ND	ND	ND	5.4	ND	24	15	ND	13	2.0 J	1.0 J	2.0 J	ND	ND	ND

MW-06	6/03	7/03	9/03	12/03	7/04	5/05	12/05	8/06	2/07	8/07	2/08	8/08	2/09	10/09	2/10	6/10	10/10	4/11	9/11	4/12
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	220	180	97	250	140 J	1.0 J	ND	ND	3 J	ND	ND	ND	2.0J	ND	ND	ND	ND	33	ND	82 J
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	8.8 J	9.5	8.6	14	23	16	ND	ND	8 J	0.6 J	ND	ND	35	ND	3.6	0.57 J	ND	38J	4.4	28
Chlorotrifluoroethene (Freon-1113)	ND	5.7	ND	ND	5 J	6.0 J	6.0 J	ND	100	21	8.0 J	4.0 J	34	6.4	35 J	68 J	61	96J	30	230 J

MW-01	8/07
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	ND
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	ND
Chlorotrifluoroethene (Freon-1113)	ND

Legend

- Existing Monitoring Well Location
- Generalized Groundwater Flow Direction
- Concentration Exceeds NYSDEC TOGS (1.1.1) Class GA Standards

All Analytical Results are Reported in UG/L

NOTES:

Well, MW-07, was replaced by well, MW-07R, on September 3, 2009.
ND - Not Detected
NS - Not Sampled because injected substrate was present in the well.

- 7/00 - Pre-Pilot Injection Sampling Dates
- 12/03 - Post-Pilot Injection/Pre-IRM Injection Sampling Dates
- 12/05 - Post-IRM Injection Sampling Dates
- 2/08 - Post-2007 Supplemental Injection Sampling Dates
- 10/09 - Post-2009 Supplemental Injection Sampling Dates

100 0 100 Feet

FORMER EMCA SITE
SUMMARY OF FREON DETECTIONS IN GROUNDWATER

URS

FIGURE 3

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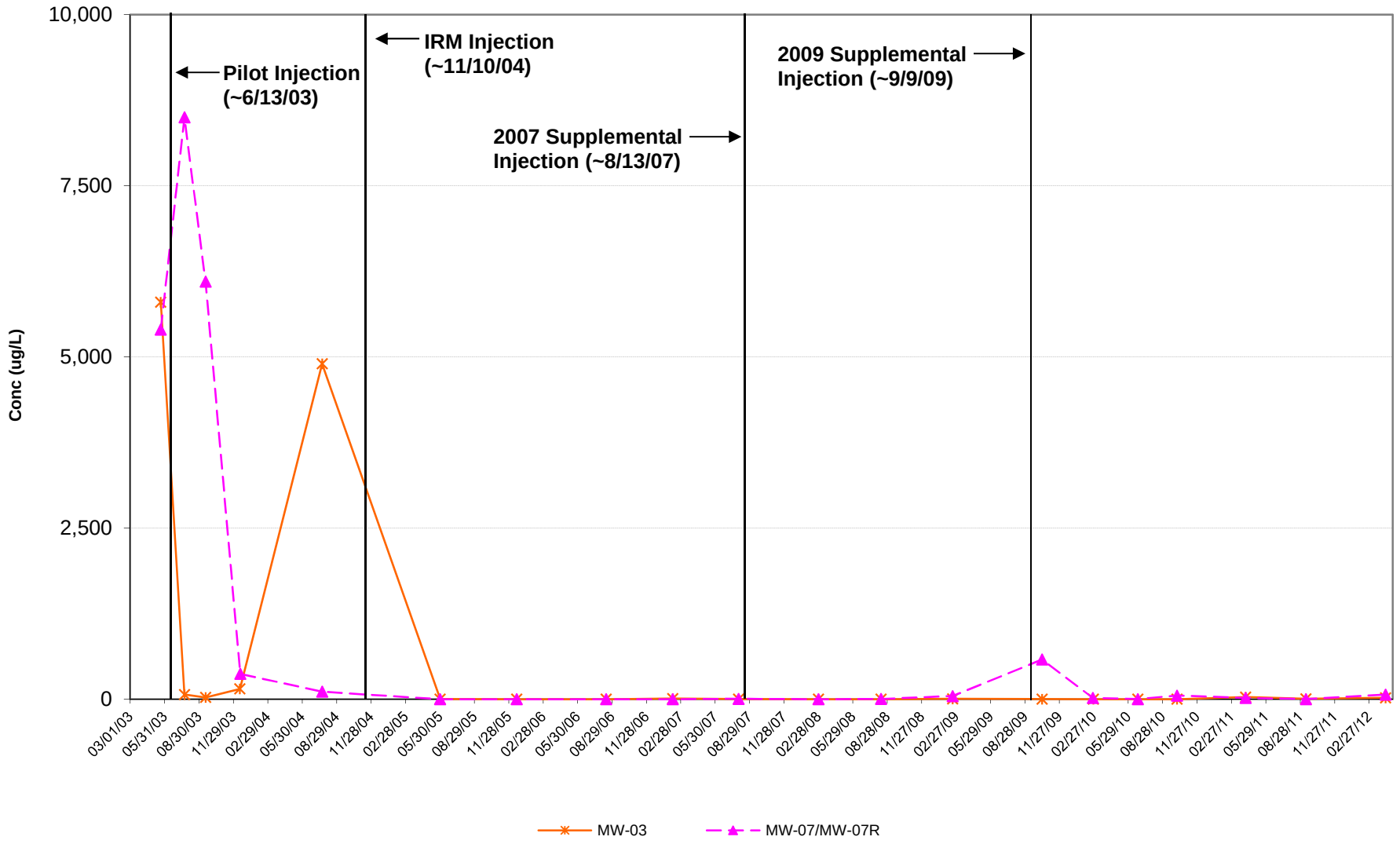
FIGURE 4
FORMER EMCA SITE
Freon 113 Concentrations, MW-03 and MW-07/07R



N:\11172730.00000\WORD\DRAFT\GW SAR Reports\Apr 2012 GW SAR\Figures\GW Data Plots_Time Scaled Long_Apr 2012 - Figure 4

FIGURE 5
FORMER EMCA SITE
Freon 113 Concentrations, GZ-06, MW-02, and MW-06

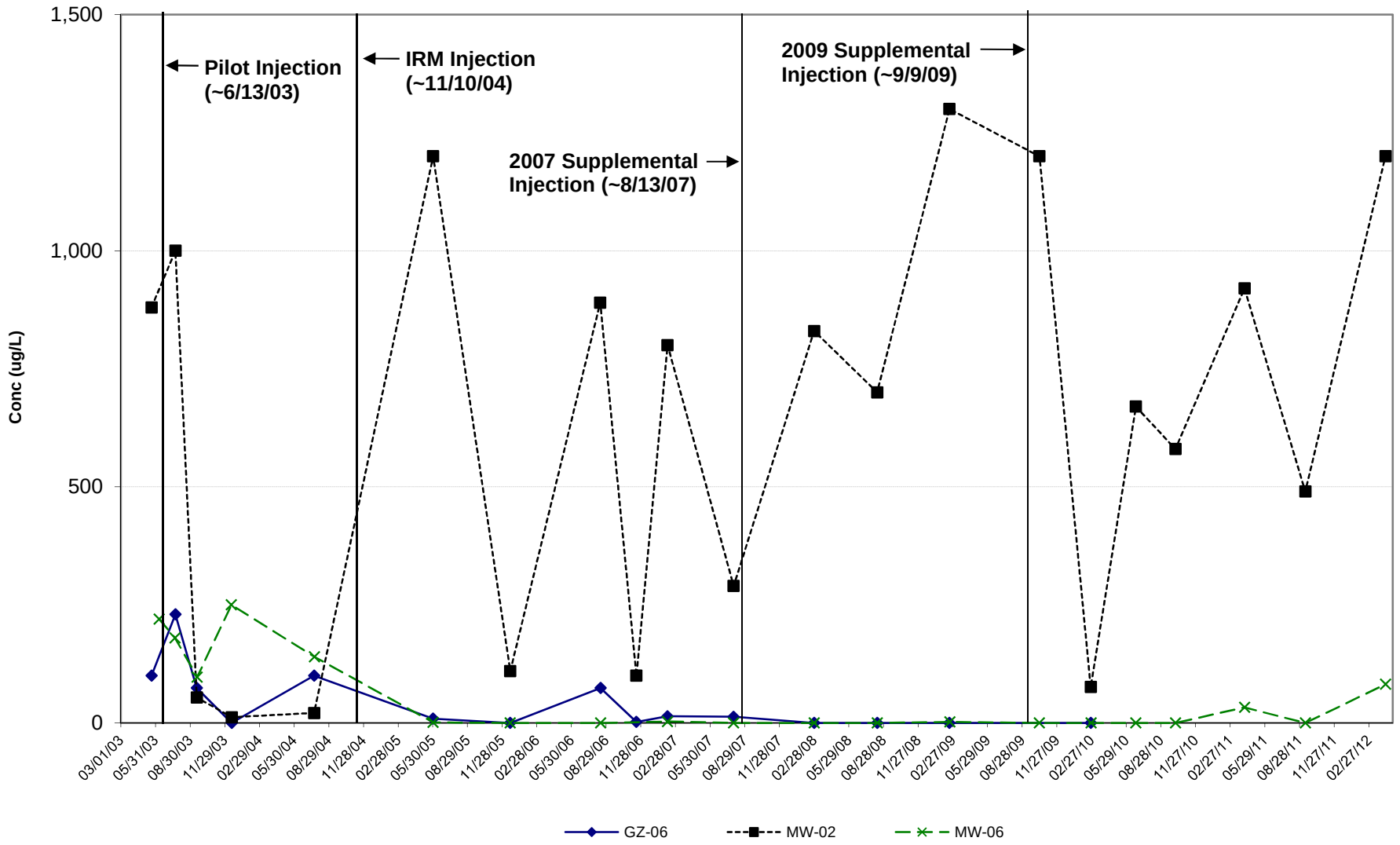


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FIGURE 6
FORMER EMCA SITE
Freon 123a Concentrations

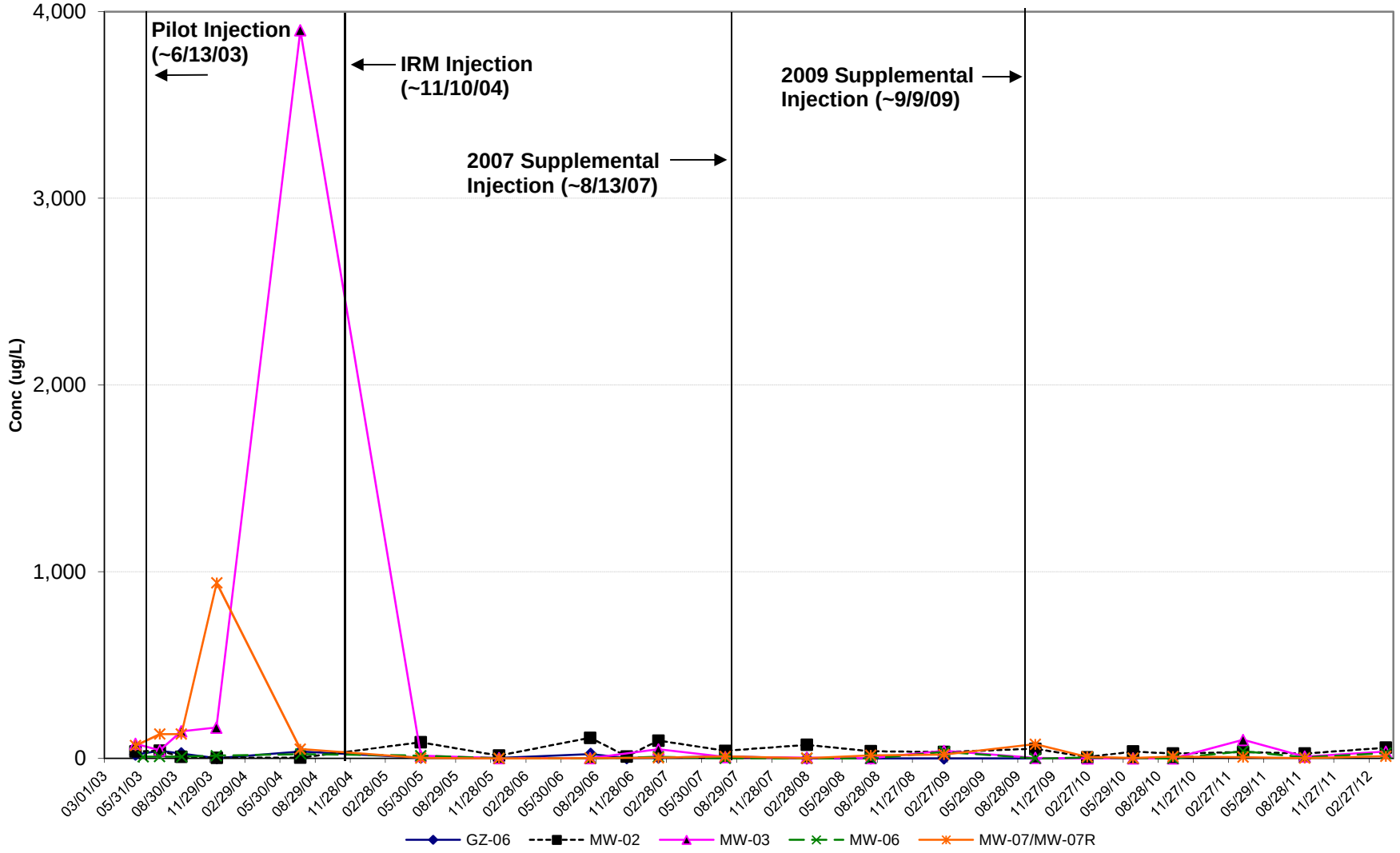

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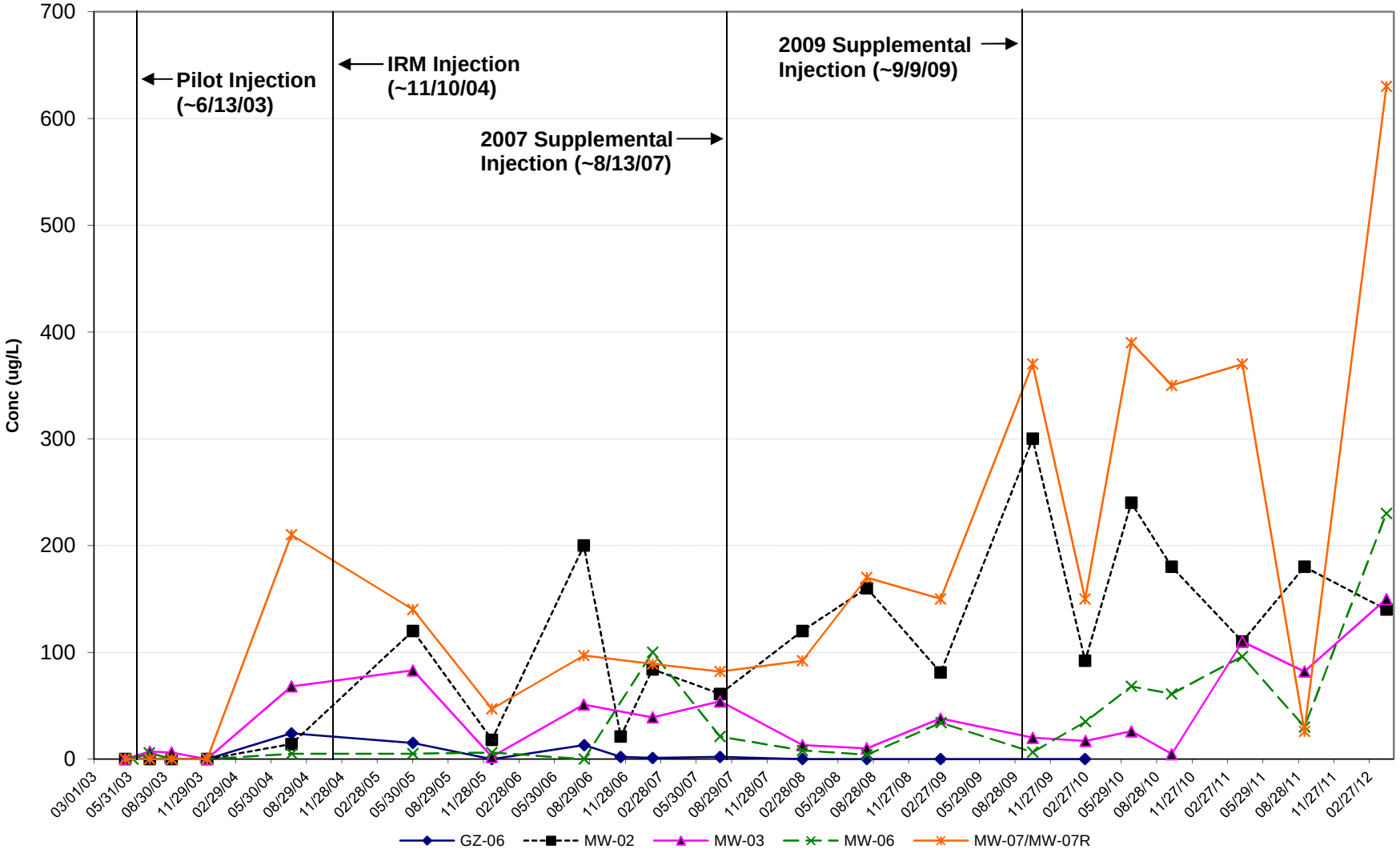
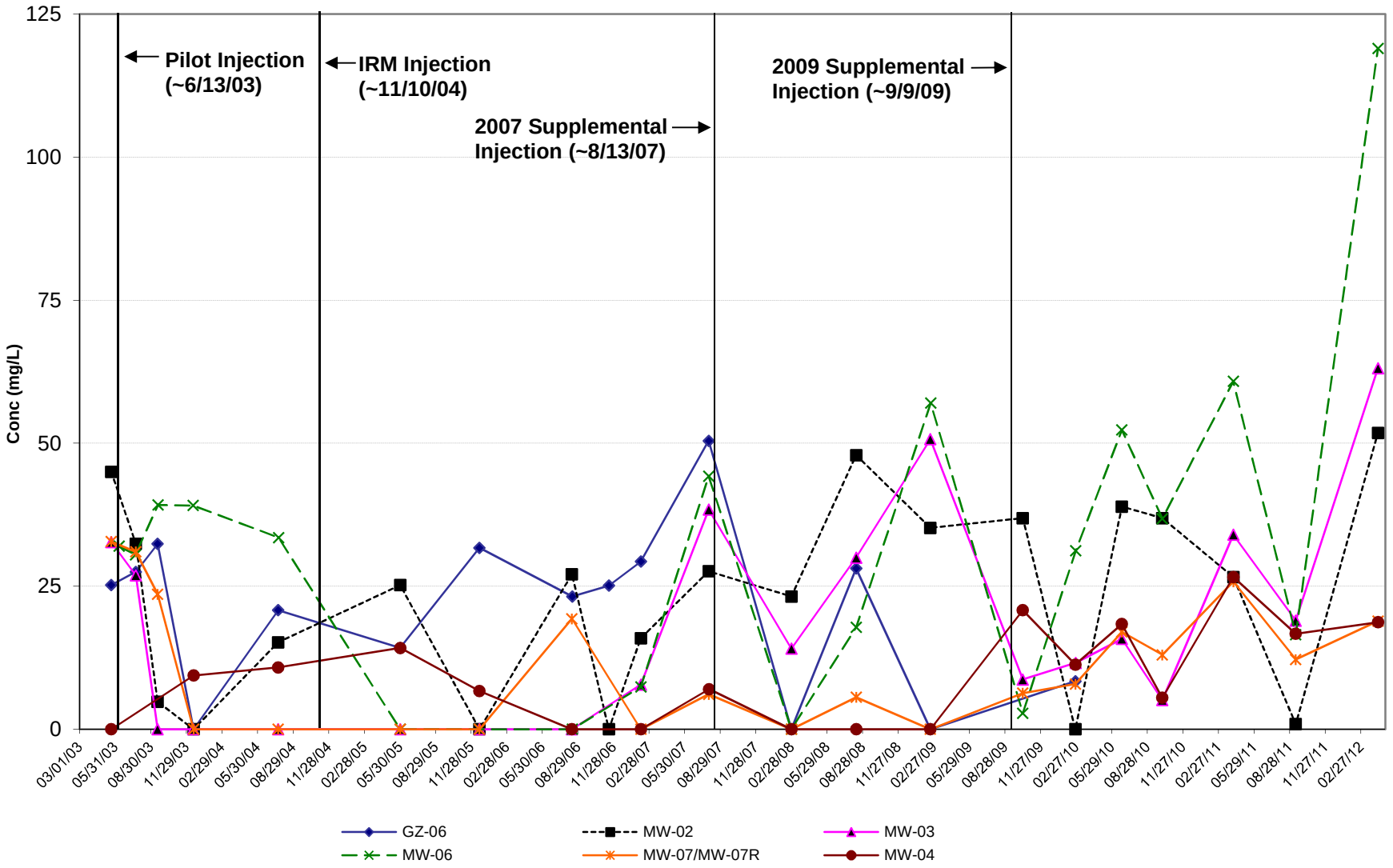
FIGURE 7
FORMER EMCA SITE
Freon 1113 Concentrations



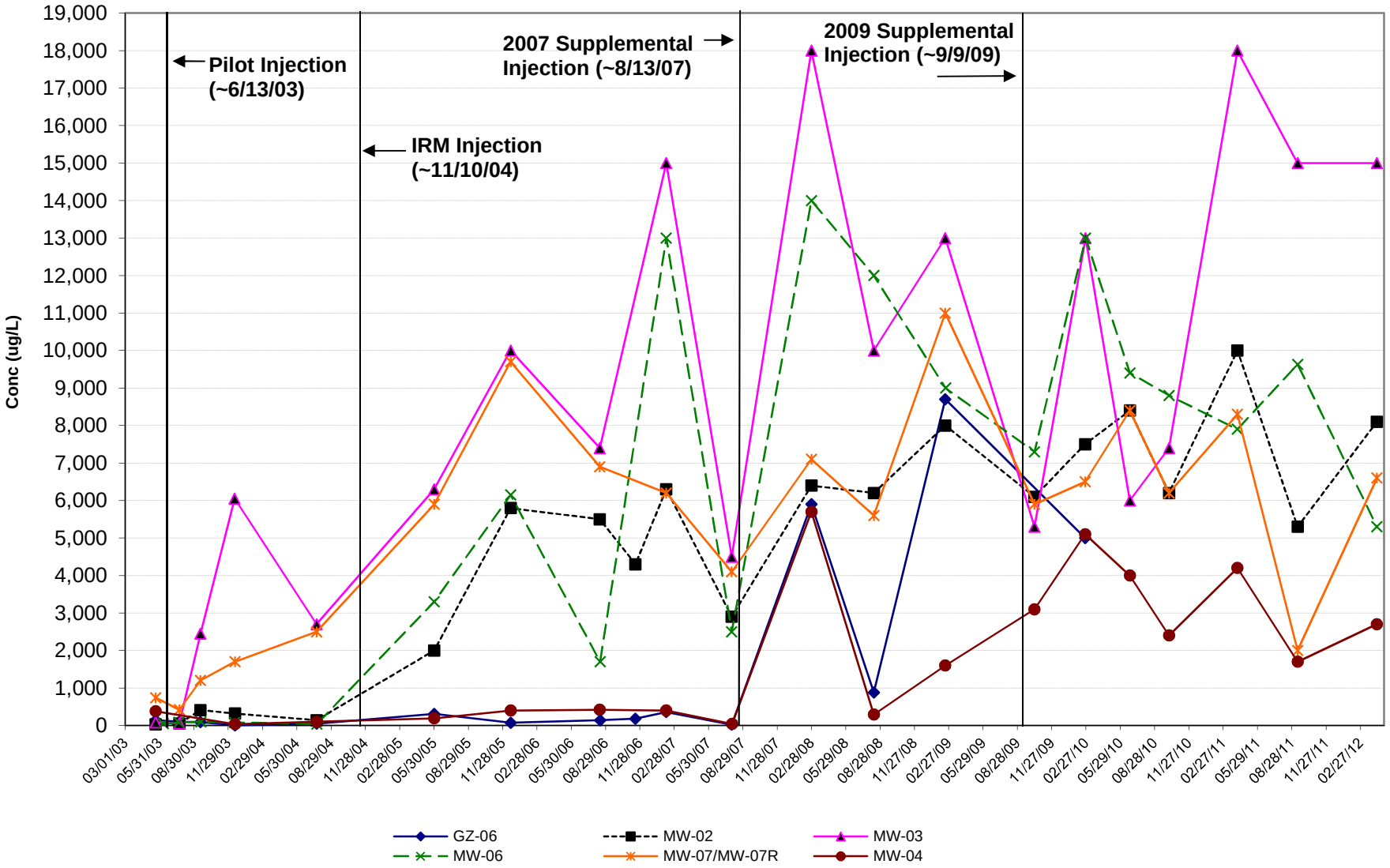
N:\11172730.00000\WORD\DRAFT\GW SAR Reports\Apr 2012 GW SAR\Figures\GW Data Plots_Time Scaled Long_Apr 2012 - Figure 7

FIGURE 8
FORMER EMCA SITE
Sulfate Concentrations



N:\11172730.00000\WORD\DRAFT\GW SAR Reports\Apr 2012 GW SAR\Figures\GW Data Plots_Time Scaled Long_Apr 2012 - Figure 8

FIGURE 9
FORMER EMCA SITE
Methane Concentrations



N:\11172730.00000\WORD\DRAFT\GW SAR Reports\Apr 2012 GW SAR\Figures\GW Data Plots_Time Scaled Long_Apr 2012 - Figure 9

FIGURE 10
FORMER EMCA SITE
Dissolved Oxygen Concentrations

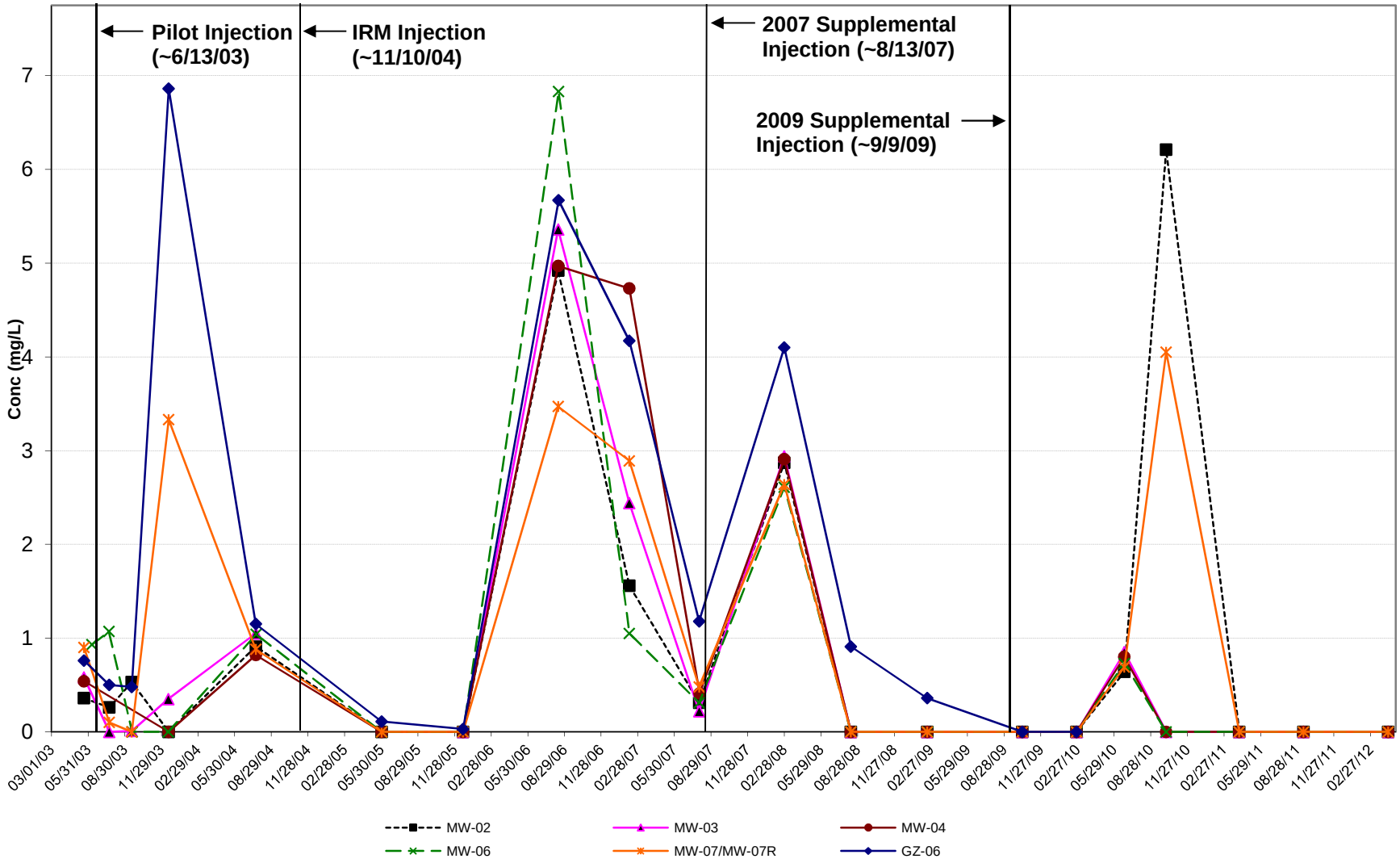


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FIGURE 11
FORMER EMCA SITE
Oxidation-Reduction Potential

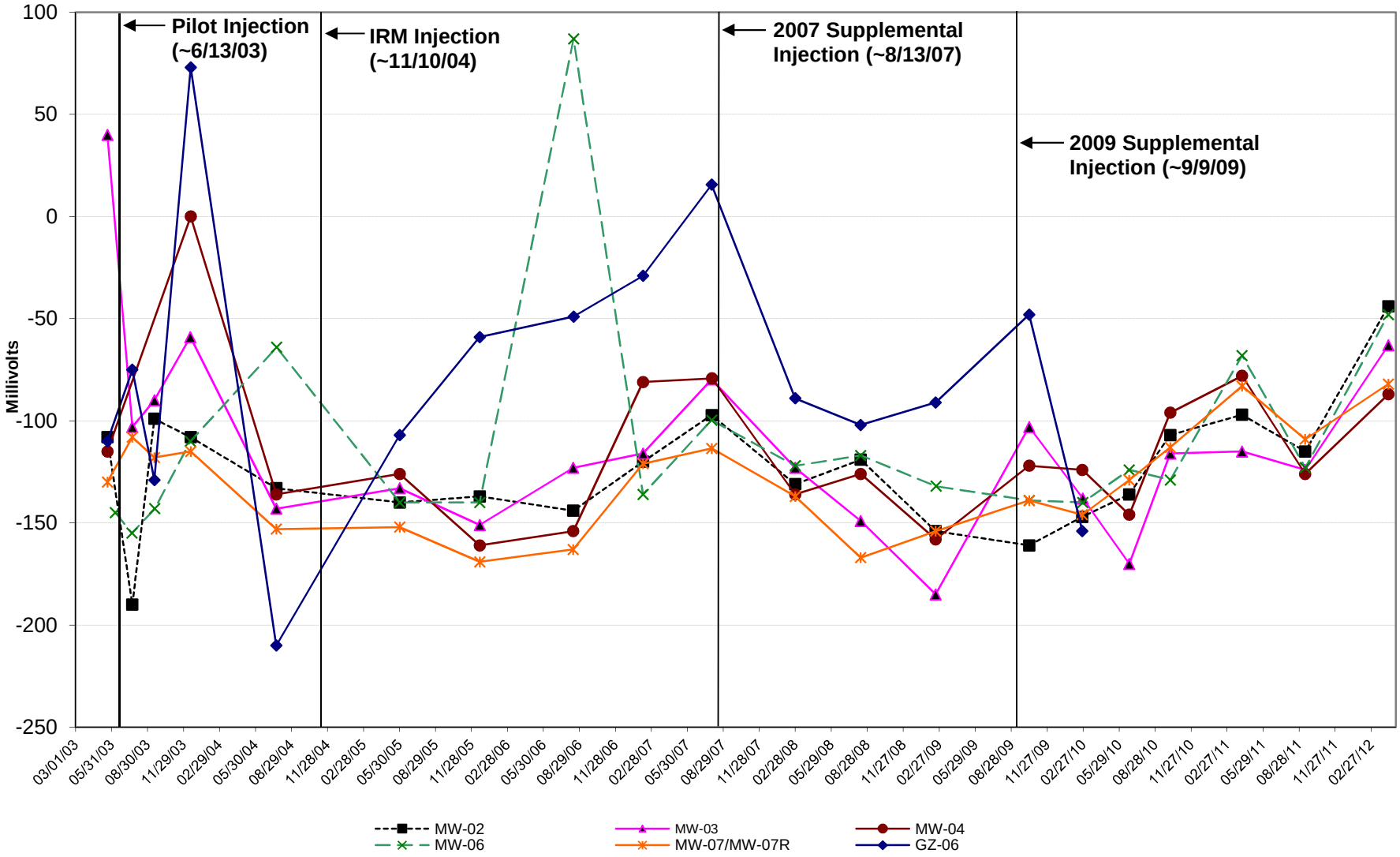

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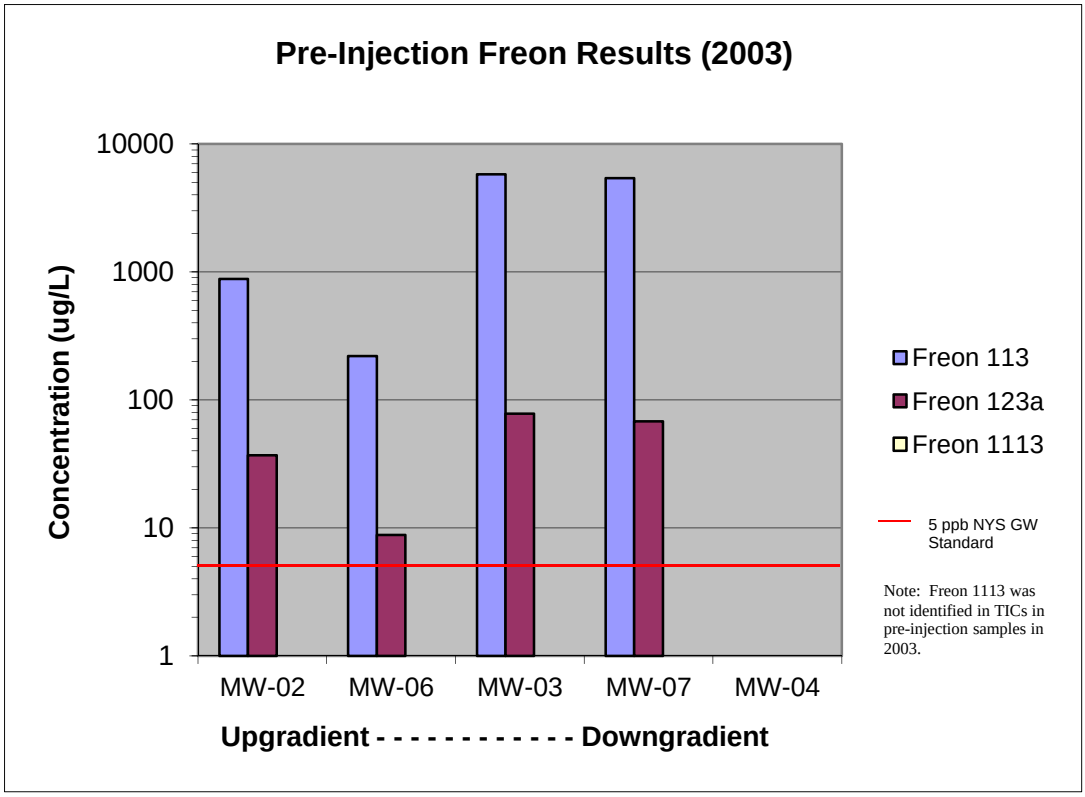
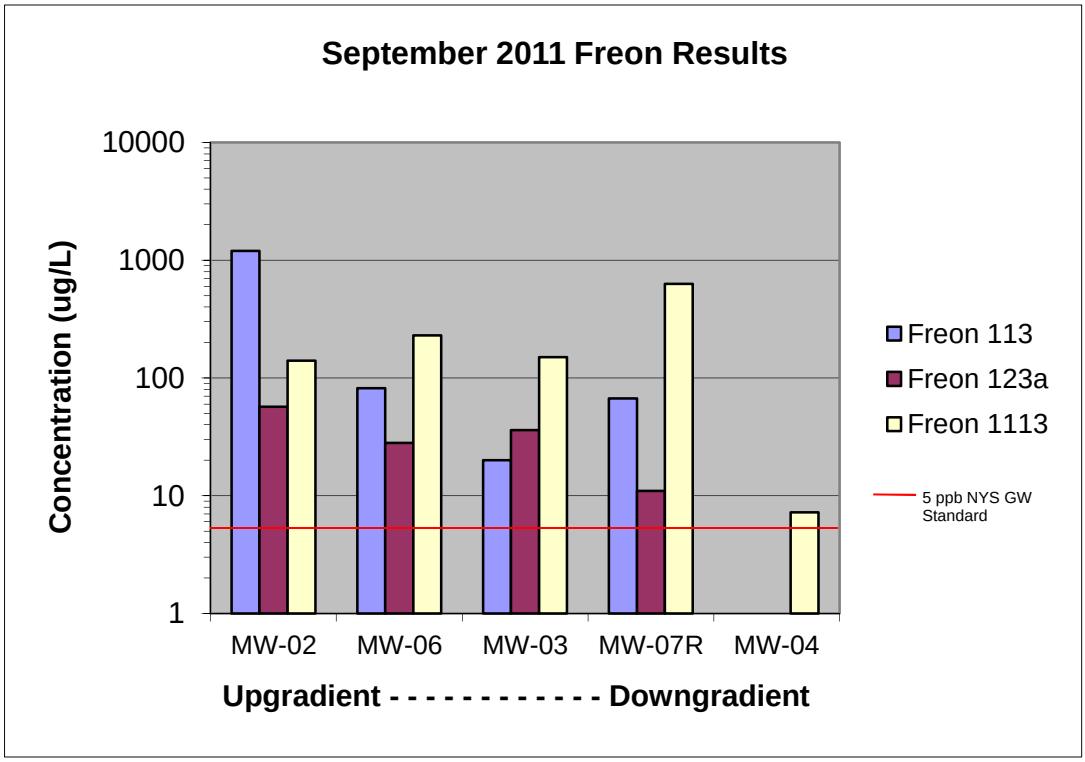
FIGURE 12
FORMER EMCA SITE - FREON CONCENTRATIONS
PRE-INJECTION AND CURRENT RESULTS





APPENDIX A

LOW FLOW GROUNDWATER PURGING/SAMPLING LOGS

LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

Project: Rohm and Haas - Former EMCA Site Site: Former EMCA Site Well I.D.: MW-02

Date: 4/11/2012 Sampling Personnel: Tim Ifkovich Company: URS Corporation

Purging/Sampling Device: Low Flow Peristaltic Pump (GeoPump 2) Tubing Type: HDPE and Silicone Pump/Tubing Inlet Location: Midpoint of Saturated Screen

Measuring Point: Below Top of Riser Initial Depth to Water: 6.38' Depth to Well Bottom: 11.80' Well Diameter: 1" Screen Length: 10'

Casing Type: PVC Volume in 1 Well Casing (liters): 0.83 Estimated Purge Volume (liters): 11.03

Sample ID: 20120411MW-02V08N Sample Time: 1445 QA/QC: None

Sample Parameters: Freon 113, 1113, 123a; Methane; and Sulfate

Notes: Clear, very slight sulfury odor

PURGE PARAMETERS

TIME	pH	TEMP (^{0}C)	COND. (mS/cm)	DISS. O_2 (mg/l)	TURB. (NTU)	ORP (mV)	FLOW RATE (ml/min.)	DEPTH TO WATER (btor)
1410	6.61	13.66	2.09	0.0	14.8	-18	315	6.45
1415	6.58	13.54	2.05	0.0	10.9	-27	315	6.45
1420	6.57	13.48	1.98	0.0	3.1	-34	315	6.45
1425	6.57	13.46	1.93	0.0	1.2	-38	315	6.45
1430	6.57	13.46	1.91	0.0	0.0	-40	315	6.45
1435	6.57	13.45	1.88	0.0	0.0	-42	315	6.45
1440	6.56	13.45	1.87	0.0	0.0	-43	315	6.45
1445	6.56	13.45	1.86	0.0	0.0	-44	315	6.45
Tolerance:	**0.1**	**---**	**3%**	**10%**	**10%**	**+ or - 10**	**---**	

Information: WATER VOLUMES--0.75 inch diameter well = 87 ml/ft; 1 inch diameter well = 154 ml/ft; 2 inch diameter well = 617 ml/ft; 4 inch diameter well = 2470 ml/ft (vol $_{cyl} = \pi r^2 h$)

LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

Project: Rohm and Haas - Former EMCA Site Site: Former EMCA Site Well I.D.: MW-03

Date: 4/11/2012 Sampling Personnel: Tim Ifkovich Company: URS Corporation

Purging/ Sampling Device: Low Flow Peristaltic Pump (GeoPump 2) Tubing Type: HDPE and Silicone Pump/Tubing Inlet Location: Midpoint of Saturated Screen

Measuring Point: Below Top of Riser Initial Depth to Water: 6.38' Depth to Well Bottom: 14.23' Well Diameter: 1" Screen Length: 10'

Casing Type: PVC Volume in 1 Well Casing (liters): 1.21 Estimated Purge Volume (liters): 10.85

Sample ID: 20120411MW-03V09N Sample Time: 1219 QA/QC: None

Sample Parameters: Freon 113, 1113, 123a; Methane; and Sulfate

Notes: Clear

PURGE PARAMETERS

TIME	pH	TEMP (^{0}C)	COND. (mS/cm)	DISS. O_2 (mg/l)	TURB. (NTU)	ORP (mV)	FLOW RATE (ml/min.)	DEPTH TO WATER (btor)
1144	7.04	13.34	1.06	3.32	14.5	-3	310	6.58
1149	6.57	13.12	1.04	1.92	11.6	-26	310	6.58
1154	6.58	13.15	1.03	1.28	6.6	-38	310	6.58
1159	6.60	13.20	1.03	1.06	2.2	-49	310	6.58
1204	6.59	13.21	1.03	0.0	3.1	-52	310	6.58
1209	6.63	13.35	1.03	0.0	1.3	-57	310	6.58
1214	6.64	13.35	1.02	0.0	0.1	-61	310	6.58
1219	6.64	13.35	1.02	0.0	0.0	-63	310	6.58
Tolerance:	**0.1**	**---**	**3%**	**10%**	**10%**	**+ or - 10**	**---**	

Information: WATER VOLUMES--0.75 inch diameter well = 87 ml/ft; 1 inch diameter well = 154 ml/ft; 2 inch diameter well = 617 ml/ft; 4 inch diameter well = 2470 ml/ft (vol $_{cyl} = \pi r^2 h$)

LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

Project: Rohm and Haas - Former EMCA Site Site: Former EMCA Site Well I.D.: MW-04

Date: 4/11/2012 Sampling Personnel: Tim Ifkovich Company: URS Corporation

Purging/ Sampling Device:	Low Flow Peristaltic Pump (GeoPump 2)			Tubing Type:	HDPE and Silicone		Pump/Tubing Inlet Location:	Midpoint of Saturated Screen	
Measuring Point:	Below Top of Riser	Initial Depth to Water:	6.23'	Depth to Well Bottom:	11.59'	Well Diameter:	1"	Screen Length:	10'
Casing Type:	PVC			Volume in 1 Well Casing (liters):	0.83		Estimated Purge Volume (liters):	10.05	

Sample ID: 20120411MW-04V08N Sample Time: 0954 QA/QC: None

Sample Parameters: Freon 113, 1113, 123a; Methane; and Sulfate

Notes: Clear, slight sulfury odor

PURGE PARAMETERS

TIME	pH	TEMP (^{0}C)	COND. (mS/cm)	DISS. O_2 (mg/l)	TURB. (NTU)	ORP (mV)	FLOW RATE (ml/min.)	DEPTH TO WATER (btor)
0919	6.04	12.58	1.47	0.0	14.8	84	255	6.41
0924	6.71	13.51	1.44	0.0	12.5	-58	255	6.43
0929	6.75	13.71	1.44	0.0	15.2	-70	300	6.47
0934	6.76	13.66	1.43	0.0	31.6	-77	300	6.48
0939	6.78	13.70	1.40	0.0	20.4	-81	300	6.48
0944	6.75	13.88	1.39	0.0	19.8	-82	300	6.48
0949	6.79	14.05	1.38	0.0	11.6	-86	300	6.49
0954	6.80	14.07	1.38	0.0	8.9	-87	300	6.49
Tolerance:	**0.1**	**---**	**3%**	**10%**	**10%**	**+ or - 10**	**---**	

Information: WATER VOLUMES--0.75 inch diameter well = 87 ml/ft; 1 inch diameter well = 154 ml/ft; 2 inch diameter well = 617 ml/ft; 4 inch diameter well = 2470 ml/ft (vol $_{cyl} = \pi r^2 h$)

LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

Project: Rohm and Haas - Former EMCA Site | Site: Former EMCA Site | Well I.D.: MW-06

Date: 4/11/2012 | Sampling Personnel: Tim Ifkovich | Company: URS Corporation

Purging/ Sampling Device:	Low Flow Peristaltic Pump (GeoPump 2)		Tubing Type:	HDPE and Silicone		Pump/Tubing Inlet Location:	Midpoint of Saturated Screen
Measuring Point:	Below Top of Riser	Initial Depth to Water: 6.51'	Depth to Well Bottom:	18.62'	Well Diameter:	1"	Screen Length: 10'
Casing Type:	PVC		Volume in 1 Well Casing (liters):	1.86		Estimated Purge Volume (liters):	9.1
Sample ID:	20120411MW-06V13N and 20120411MW-06V13MS and 20120411MW-06V13SD		Sample Time:	1329		QA/QC:	MS/MSD

Sample Parameters: Freon 113, 1113, 123a; Methane; and Sulfate

Notes: Clear

PURGE PARAMETERS

TIME	pH	TEMP (^{0}C)	COND. (mS/cm)	DISS. O_2 (mg/l)	TURB. (NTU)	ORP (mV)	FLOW RATE (ml/min.)	DEPTH TO WATER (btor)
1254	6.83	14.36	1.84	0.0	72.4	8	260	6.67
1259	6.79	14.07	1.54	0.0	18.5	-3	260	6.67
1304	6.82	14.05	1.37	0.0	9.4	-21	260	6.67
1309	6.83	14.04	1.31	0.0	7.8	-30	260	6.67
1314	6.85	13.99	1.23	0.0	4.5	-39	260	6.67
1319	6.85	13.99	1.21	0.0	3.5	-44	260	6.67
1324	6.86	14.07	1.18	0.0	0.0	-49	260	6.67
1329	6.81	14.04	1.06	0.0	0.0	-48	260	6.67
Tolerance:	**0.1**	**---**	**3%**	**10%**	**10%**	**+ or - 10**	**---**	

Information: WATER VOLUMES--0.75 inch diameter well = 87 ml/ft; 1 inch diameter well = 154 ml/ft; 2 inch diameter well = 617 ml/ft; 4 inch diameter well = 2470 ml/ft ($vol_{cyl} = \pi r^2 h$)

LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

Project: Rohm and Haas - Former EMCA Site Site: Former EMCA Site Well I.D.: MW-07R

Date: 4/11/2012 Sampling Personnel: Tim Ifkovich Company: URS Corporation

Purging/ Sampling Device:	Low Flow Peristaltic Pump (GeoPump 2)			Tubing Type:	HDPE and Silicone		Pump/Tubing Inlet Location:	Midpoint of Saturated Screen	
Measuring Point:	Below Top of Riser	Initial Depth to Water:	6.50'	Depth to Well Bottom:	19.92'	Well Diameter:	1"	Screen Length:	10'
Casing Type:	PVC			Volume in 1 Well Casing (liters):	2.07		Estimated Purge Volume (liters):	16.75	

Sample ID: 20120411MW-07RV15N and 20120411MW-07RV15FD Sample Time: 1115 QA/QC: FD

Sample Parameters: Freon 113, 1113, 123a; Methane; and Sulfate

Notes: Clear, slight sulfury odor, slight sheen

PURGE PARAMETERS

TIME	pH	TEMP (^{0}C)	COND. (mS/cm)	DISS. O_2 (mg/l)	TURB. (NTU)	ORP (mV)	FLOW RATE (ml/min.)	DEPTH TO WATER (btor)
1020	6.82	13.55	2.11	0.0	70.1	-49	450	6.65
1025	6.75	13.53	2.14	0.0	73.1	-63	450	6.65
1030	6.75	13.53	2.12	0.0	68.4	-72	450	6.65
1035	6.74	13.50	2.12	0.0	39.4	-76	400	6.65
1040	6.75	13.57	2.11	0.0	26.4	-79	400	6.65
1045	6.75	13.59	2.11	0.0	20.3	-81	400	6.65
1050	6.75	13.61	2.11	0.0	13.6	-82	400	6.65
1055	6.70	13.63	2.10	0.0	10.2	-79	400	6.65
1100	6.72	13.63	2.10	0.0	8.2	-82	400	6.65
Tolerance:	**0.1**	**---**	**3%**	**10%**	**10%**	**+ or - 10**	**---**	

Information: WATER VOLUMES--0.75 inch diameter well = 87 ml/ft; 1 inch diameter well = 154 ml/ft; 2 inch diameter well = 617 ml/ft; 4 inch diameter well = 2470 ml/ft (vol $_{cyl} = \pi r^2 h$)

APPENDIX B

DATA USABILITY SUMMARY REPORT

APPENDIX B

DATA USABILITY SUMMARY REPORT

APRIL 2012 SAMPLING EVENT

FORMER EMCA SITE
SITE NO. 360025
MAMARONECK, NEW YORK

Analyses Performed by:

TESTAMERICA LABORATORIES, INC.
777 New Durham Road
Edison, New Jersey 08817

Prepared for:

The Dow Chemical Company
(Formerly ROHM & HAAS Company)
3100 State Road
Croydon, PA 19021

Prepared by:

URS CORPORATION
77 Goodell Street
Buffalo, New York 14203

MAY 2012

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I. INTRODUCTION

This Data Usability Summary Report (DUSR) has been prepared following the guidelines provided in New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation *DER-10, Technical Guidance for Site Investigation and Remediation, Appendix 2B - Guidance for Data Deliverables and the Development of Data Usability Summary Reports*, May 2010. This DUSR discusses the analytical data for five (5) groundwater samples, one field duplicate, one matrix spike/matrix spike duplicate (MS/MSD) pair, and one trip blank collected by URS personnel on April 11, 2012, as summarized on Table B-1. The samples were collected as part of the semi-annual groundwater monitoring event at the Former EMCA Site located in Mamaroneck, New York.

II. ANALYTICAL METHODOLOGIES

The groundwater samples were analyzed by TestAmerica Laboratories, Inc., located in Edison, New Jersey for the following parameters:

Parameter	Method No.	References
Volatile Organic Compounds (VOCs)*	SW8260B	1
Methane	RSK-175/SW3810	2
Sulfate	ASTM D516-90	3

Notes:

* - VOCs include 1,1,2-trichloro-1,2,2-trifluoroethane (Freon-113), 1,2-dichloro-1,1,2-trifluoroethane (Freon-123A), and chlorotrifluoroethene (Freon-1113).

References:

1 NYSDEC Analytical Services Protocol, July 2005.
2 USEPA, R.S. Kerr Environmental Research Laboratory, March 15, 1989.
3 ASTM International, most recent version.

III. DATA VALIDATION

A limited data validation was performed following the guidelines in USEPA Region II *Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260B, SOP No. HW-24, Rev. #2,* August 2008 and the intent of USEPA Region II *Validating Metals for the Contract Laboratory Program, based on SOW – ILM05.3*, SOP No. HW-2, Revision 13,

September 2006. The validated groundwater and field quality control (QC) analytical results are presented in Tables B-2 and B-3, respectively. Copies of the validated laboratory results (i.e., Form 1's) are presented in Attachment A. Copies of the case narrative, chain-of-custody, and documentation supporting the qualification of data are presented in Attachment B. Only problems affecting data usability are discussed in this report.

IV. DATA DELIVERABLE COMPLETENESS

The laboratory deliverable data packages were in accordance with NYSDEC Analytical Services Protocol (ASP) Category B requirements.

V. PRESERVATION / SAMPLE RECEIPT / HOLDING TIMES

All samples were received by the laboratory intact, properly preserved, and under proper chain-of-custody (COC). All sample analyses were performed within method holding times.

VI. NONCONFORMANCES

Instrument Calibration

The VOC initial calibration (ICAL) average relative response factor (RRF) for chlorotrifluoroethene (Freon-1113) was less than 0.05. In addition, the RRF for this compound in the continuing calibration (CCAL) was also less than 0.05. The detected results for all groundwater samples were qualified 'J', while the non-detect result in the trip blank was qualified 'R'.

The VOC CCAL percent difference for 1,1,2-trichloro-1,2,2-trifluoroethane (Freon-113) was greater than 25%. The results for this compound for all groundwater samples and trip blank were qualified 'J' or 'UJ'.

Documentation supporting data qualification (i.e., Forms 5, 6 and 7) are presented in Attachment B.

Blank Contamination

The methane method blank exhibited contamination. Since the methane concentrations for the associate samples were several orders of magnitude greater than the method blank concentration, no qualification of the data was necessary.

Matrix Spike/Matrix Spike Duplicate Recoveries

The VOC and methane MS/MSD for sample 20120411MW-06V13N were outside QC limits. Since the parent sample concentrations were significantly greater than the spike levels (i.e., greater than 4 times), the MS/MSD percent recoveries are not used to qualify the data. Note, the associated laboratory control samples (LCS) were within QC limits.

VII. SUMMARY

All sample analyses were found to be compliant with the method and validation criteria, except where previously noted. Those results qualified 'J' or 'UJ' (estimated) during the data validation are considered conditionally usable, while those results qualified 'R' are considered unusable.

TABLE B-1
SAMPLE AND ANALYSIS SUMMARY - APRIL 2012
FORMER EMCA SITE, MAMARONECK, NEW YORK

SDG Nos.	Sample ID	Matrix	Date of Collection	VOCs*	Methane	Sulfate	Comments
460-39005-1	20120411MW-04V08N	GW	04/11/12	X	X	X	---
	20120411MW-07RV15N	GW		X	X	X	---
	20120411MW-07RV15FD	GW		X	X	X	Field Duplicate of MW-07R
	20120411MW-03V09N	GW		X	X	X	---
	20120411MW-06V13N	GW		X	X	X	MS/MSD
	20120411MW-02V08N	GW		X	X	X	---
	20120411TB1	Water		X	X	---	Trip Blank

Notes:
* - Volatile Organic Compounds (VOCs) include 1,1,2-trichloro-1,2,2-trifluoroethane (Freon-113); 1,2-dichloro-1,1,2-trifluoroethane (Freon-123a); and chlorotrifluoroethene (Freon-1113).

X - Parameter requested.
--- - Parameter not requested/analyzed or no comment.
GW - Groundwater
MS/MSD - Matrix Spike/Matrix Spike Duplicate

TABLE B-2
GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-02	MW-03	MW-04	MW-06	MW-07R
Sample ID			20120411MW-02V08N	20120411MW-03V09N	20120411MW-04V08N	20120411MW-06V13N	20120411MW-07RV15FD
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			04/11/12	04/11/12	04/11/12	04/11/12	04/11/12
Parameter	Units	Criteria*					Field Duplicate (1-1)
Volatiles							
Chlorotrifluoroethene (Freon-1113)	UG/L	5	140 J	150 J	7.2 J	230 J	630 J
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	5	1,200 J	20 J	1 UJ	82 J	67 J
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	5	57	36	1 U	28	11
Dissolved Gases							
Methane	UG/L	-	8,100	15,000	2,700	5,300	6,400
Miscellaneous Parameters							
Sulfate	MG/L	250	51.8	63.1	18.7	119	18.9

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

Flags assigned during chemistry validation are shown.

( ) Concentration Exceeds Criteria

U - Non-Detect

UJ - Not detected above the estimated quantitation limit

J - The reported concentration is an estimated value

MADE BY: __PRF_05/09/12___ CHKD BY: 5/22/12

Detection Limits shown are PQL

N:\111172730.00000\DB\PROGRAM\EDMS.mde
Printed: 5/9/2012 10:53:10 AM
[LOGDATE] = #4/11/2012# AND [MATRIX] = 'WG'

TABLE B-2
GROUNDWATER ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			MW-07R
Sample ID			20120411MW-07RV15N
Matrix			Groundwater
Depth Interval (ft)			-
Date Sampled			04/11/12
Parameter	**Units**	**Criteria***	
Volatiles			
Chlorotrifluoroethene (Freon-1113)	UG/L	5	540 J
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	5	59 J
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	5	9.7
Dissolved Gases			
Methane	UG/L	-	6,600
Miscellaneous Parameters			
Sulfate	MG/L	250	17.7

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

Flags assigned during chemistry validation are shown.

(oval) Concentration Exceeds Criteria

U - Non-Detect

UJ - Not detected above the estimated quantitation limit

J - The reported concentration is an estimated value

MADE BY: __PRF_05/09/12___ CHKD BY: 5/22/12

Detection Limits shown are PQL

TABLE B-3
FIELD QC ANALYTICAL RESULTS
FORMER EMCA SITE, MAMARONECK, NEW YORK

Location ID			FIELDQC
Sample ID			20120411TB1
Matrix			Water
Depth Interval (ft)			-
Date Sampled			04/11/12
Parameter	Units	Criteria*	Trip Blank (1-1)
Volatiles			
Chlorotrifluoroethene (Freon-1113)	UG/L	5	R
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	5	1 UJ
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	5	1 U
Dissolved Gases			
Methane	UG/L	-	2.7 U

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA, Revised April 2000.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

U - Non-Detect

UJ - Not detected above the estimated quantitation limit

R - Rejected result

MADE BY: __PRF_05/09/12___ CHKD BY: _____ 5/23/12

Detection Limits shown are PQL

ATTACHMENT A

VALIDATED ANALYTICAL RESULTS (FORM 1's)

DEFINITIONS OF USEPA REGION II DATA QUALIFIERS

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.

R – The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

D – The sample results are reported from a separate secondary dilution analysis.

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-39005-1

SDG No.:

Client Sample ID: 20120411MW-04V08N | Lab Sample ID: 460-39005-1

Matrix: Water | Lab File ID: p56947.d

Analysis Method: 8260B | Date Collected: 04/11/2012 09:54

Sample wt/vol: 5(mL) | Date Analyzed: 04/18/2012 10:41

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 109751 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
76-13-1	Freon TF	0.080	U J	1.0	0.080
79-38-9	Chlorotrifluoroethene	7.2	J	1.0	0.18
354-23-4	1,2-Dichloro-1,1,2-trifluoroethane	0.84	U	1.0	0.84

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		70-130
2037-26-5	Toluene-d8 (Surr)	103		70-130
460-00-4	Bromofluorobenzene	106		70-130

5/8/12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison Job No.: 460-39005-1

SDG No.:

Client Sample ID: 20120411MW-07RV15N Lab Sample ID: 460-39005-2

Matrix: Water Lab File ID: p56959.d

Analysis Method: 8260B Date Collected: 04/11/2012 11:00

Sample wt/vol: 5(mL) Date Analyzed: 04/18/2012 15:29

Soil Aliquot Vol: Dilution Factor: 5

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 109751 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
76-13-1	Freon TF	59	J	5.0	0.40
79-38-9	Chlorotrifluoroethene	540	J	5.0	0.90
354-23-4	1,2-Dichloro-1,1,2-trifluoroethane	9.7		5.0	4.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		70-130
2037-26-5	Toluene-d8 (Surr)	97		70-130
460-00-4	Bromofluorobenzene	100		70-130

5/8/12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison Job No.: 460-39005-1

SDG No.:

Client Sample ID: 20120411MW-07RV15FD Lab Sample ID: 460-39005-3

Matrix: Water Lab File ID: p56960.d

Analysis Method: 8260B Date Collected: 04/11/2012 11:00

Sample wt/vol: 5(mL) Date Analyzed: 04/18/2012 15:53

Soil Aliquot Vol: Dilution Factor: 5

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 109751 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
76-13-1	Freon TF	67	J	5.0	0.40
79-38-9	Chlorotrifluoroethene	630	J	5.0	0.90
354-23-4	1,2-Dichloro-1,1,2-trifluoroethane	11		5.0	4.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		70-130
2037-26-5	Toluene-d8 (Surr)	96		70-130
460-00-4	Bromofluorobenzene	100		70-130

5/8/12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison Job No.: 460-39005-1

SDG No.:

Client Sample ID: 20120411MW-03V09N Lab Sample ID: 460-39005-4

Matrix: Water Lab File ID: p56950.d

Analysis Method: 8260B Date Collected: 04/11/2012 12:19

Sample wt/vol: 5(mL) Date Analyzed: 04/18/2012 11:53

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 109751 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
76-13-1	Freon TF	20	J	1.0	0.080
79-38-9	Chlorotrifluoroethene	150	J	1.0	0.18
354-23-4	1,2-Dichloro-1,1,2-trifluoroethane	36		1.0	0.84

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		70-130
2037-26-5	Toluene-d8 (Surr)	94		70-130
460-00-4	Bromofluorobenzene	97		70-130

5/8/12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison Job No.: 460-39005-1

SDG No.:

Client Sample ID: 20120411MW-06V13N Lab Sample ID: 460-39005-5

Matrix: Water Lab File ID: p56951.d

Analysis Method: 8260B Date Collected: 04/11/2012 13:29

Sample wt/vol: 5(mL) Date Analyzed: 04/18/2012 12:17

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 109751 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
76-13-1	Freon TF	82	J	1.0	0.080
79-38-9	Chlorotrifluoroethene	230	J	1.0	0.18
354-23-4	1,2-Dichloro-1,1,2-trifluoroethane	28		1.0	0.84

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		70-130
2037-26-5	Toluene-d8 (Surr)	95		70-130
460-00-4	Bromofluorobenzene	101		70-130

5/1/12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-39005-1

SDG No.:

Client Sample ID: 20120411MW-02V08N | Lab Sample ID: 460-39005-6

Matrix: Water | Lab File ID: p56961.d

Analysis Method: 8260B | Date Collected: 04/11/2012 14:45

Sample wt/vol: 5(mL) | Date Analyzed: 04/18/2012 16:17

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 109751 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
76-13-1	Freon TF	1200	J	10	0.80
79-38-9	Chlorotrifluoroethene	140	J	10	1.8
354-23-4	1,2-Dichloro-1,1,2-trifluoroethane	57		10	8.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		70-130
2037-26-5	Toluene-d8 (Surr)	94		70-130
460-00-4	Bromofluorobenzene	98		70-130

5/8/12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison Job No.: 460-39005-1

SDG No.:

Client Sample ID: 20120411TB1 Lab Sample ID: 460-39005-7

Matrix: Water Lab File ID: p56946.d

Analysis Method: 8260B Date Collected: 04/11/2012 00:00

Sample wt/vol: 5(mL) Date Analyzed: 04/18/2012 10:16

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 109751 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
76-13-1	Freon TF	0.080	U J	1.0	0.080
79-38-9	Chlorotrifluoroethene	0.18	U R	1.0	0.18
354-23-4	1,2-Dichloro-1,1,2-trifluoroethane	0.84	U	1.0	0.84

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		70-130
2037-26-5	Toluene-d8 (Surr)	94		70-130
460-00-4	Bromofluorobenzene	99		70-130

5/8/12
2

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison Job No.: 460-39005-1

SDG No.:

Client Sample ID: 20120411MW-04V08N Lab Sample ID: 460-39005-1

Matrix: Water Lab File ID: scrf3088.d

Analysis Method: 3810M Date Collected: 04/11/2012 09:54

Sample wt/vol: 10(mL) Date Analyzed: 04/13/2012 20:35

Soil Aliquot Vol: Dilution Factor: 5

Soil Extract Vol.: GC Column: GS-Q ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 109367 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	2700		13	8.5

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison Job No.: 460-39005-1

SDG No.:

Client Sample ID: 20120411MW-07RV15N Lab Sample ID: 460-39005-2

Matrix: Water Lab File ID: scrf3093.d

Analysis Method: 3810M Date Collected: 04/11/2012 11:00

Sample wt/vol: 10(mL) Date Analyzed: 04/13/2012 21:20

Soil Aliquot Vol: Dilution Factor: 20

Soil Extract Vol.: GC Column: GS-Q ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 109367 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	6600		54	34

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison Job No.: 460-39005-1

SDG No.:

Client Sample ID: 20120411MW-07RV15FD Lab Sample ID: 460-39005-3

Matrix: Water Lab File ID: scrf3094.d

Analysis Method: 3810M Date Collected: 04/11/2012 11:00

Sample wt/vol: 10(mL) Date Analyzed: 04/13/2012 21:30

Soil Aliquot Vol: Dilution Factor: 20

Soil Extract Vol.: GC Column: GS-Q ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 109367 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	6400		54	34

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison Job No.: 460-39005-1

SDG No.:

Client Sample ID: 20120411MW-03V09N Lab Sample ID: 460-39005-4

Matrix: Water Lab File ID: scrf3096.d

Analysis Method: 3810M Date Collected: 04/11/2012 12:19

Sample wt/vol: 10(mL) Date Analyzed: 04/13/2012 21:48

Soil Aliquot Vol: Dilution Factor: 50

Soil Extract Vol.: GC Column: GS-Q ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 109367 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	15000		130	85

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison Job No.: 460-39005-1

SDG No.:

Client Sample ID: 20120411MW-06V13N Lab Sample ID: 460-39005-5

Matrix: Water Lab File ID: scrf3090.d

Analysis Method: 3810M Date Collected: 04/11/2012 13:29

Sample wt/vol: 10(mL) Date Analyzed: 04/13/2012 20:53

Soil Aliquot Vol: Dilution Factor: 10

Soil Extract Vol.: GC Column: GS-Q ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 109367 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	5300		27	17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison Job No.: 460-39005-1

SDG No.:

Client Sample ID: 20120411MW-02V08N Lab Sample ID: 460-39005-6

Matrix: Water Lab File ID: scrf3138.d

Analysis Method: 3810M Date Collected: 04/11/2012 14:45

Sample wt/vol: 10(mL) Date Analyzed: 04/21/2012 01:11

Soil Aliquot Vol: Dilution Factor: 20

Soil Extract Vol.: GC Column: GS-Q ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 110125 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	8100		54	34

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison Job No.: 460-39005-1

SDG No.:

Client Sample ID: 20120411TB1 Lab Sample ID: 460-39005-7

Matrix: Water Lab File ID: scrf3119.d

Analysis Method: 3810M Date Collected: 04/11/2012 00:00

Sample wt/vol: 10(mL) Date Analyzed: 04/18/2012 22:45

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: GS-Q ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 109963 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	1.7	U	2.7	1.7

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 20120411MW-04V08N
Lab Sample ID: 460-39005-1
Lab Name: TestAmerica Edison
Job No.: 460-39005-1
SDG ID.:
Matrix: Water
Date Sampled: 04/11/2012 09:54
Reporting Basis: WET
Date Received: 04/12/2012 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
14808-79-8	Sulfate	18.7	5.0	1.1	mg/L			1	D516-90, 02

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 20120411MW-07RV15N
Lab Sample ID: 460-39005-2
Lab Name: TestAmerica Edison
Job No.: 460-39005-1
SDG ID.:
Matrix: Water
Date Sampled: 04/11/2012 11:00
Reporting Basis: WET
Date Received: 04/12/2012 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
14808-79-8	Sulfate	17.7	5.0	1.1	mg/L			1	D516-90, 02

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 20120411MW-07RV15FD
Lab Sample ID: 460-39005-3
Lab Name: TestAmerica Edison
Job No.: 460-39005-1
SDG ID.:
Matrix: Water
Date Sampled: 04/11/2012 11:00
Reporting Basis: WET
Date Received: 04/12/2012 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
14808-79-8	Sulfate	18.9	5.0	1.1	mg/L			1	D516-90, 02

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 20120411MW-03V09N
Lab Sample ID: 460-39005-4
Lab Name: TestAmerica Edison
Job No.: 460-39005-1
SDG ID.:
Matrix: Water
Date Sampled: 04/11/2012 12:19
Reporting Basis: WET
Date Received: 04/12/2012 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
14808-79-8	Sulfate	63.1	10.0	2.2	mg/L			2	D516-90, 02

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 20120411MW-06V13N
Lab Sample ID: 460-39005-5
Lab Name: TestAmerica Edison
Job No.: 460-39005-1
SDG ID.:
Matrix: Water
Date Sampled: 04/11/2012 13:29
Reporting Basis: WET
Date Received: 04/12/2012 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
14808-79-8	Sulfate	119	25.0	5.5	mg/L			5	D516-90, 02

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 20120411MW-02V08N
Lab Sample ID: 460-39005-6
Lab Name: TestAmerica Edison
Job No.: 460-39005-1
SDG ID.:
Matrix: Water
Date Sampled: 04/11/2012 14:45
Reporting Basis: WET
Date Received: 04/12/2012 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
14808-79-8	Sulfate	51.8	10.0	2.2	mg/L			2	D516-90, 02

ATTACHMENT B

SUPPORT DOCUMENTATION

CHAIN OF CUSTODY RECORD

URS

PROJECT NO. 41568877.00004

SITE NAME Former EMCA Site

SAMPLERS (PRINT/SIGNATURE) Tim Ifkovich Tim Ifkovich

LAB Test America - Edison NJ

COOLER 1 of 1

PAGE 1 of 1

DELIVERY SERVICE: Fed Ex AIRBILL NO.: 8771 3516 5808

TESTS: From 113,123,113 Sw 8260B; Methane RSK-175; Sulfate 375.4; DO

BOTTLE TYPE AND PRESERVATIVE

LOCATION IDENTIFIER	DATE	TIME	COMP/ GRAB	SAMPLE ID	MATRIX	TOTAL NO.# OF CONTAINERS	40 ml Vial (HCl)	40 ml Vial (HCl)	500 ml Poly	REMARKS	SAMPLE TYPE	BEGINNING DEPTH (IN FEET)	ENDING DEPTH (IN FEET)	FIELD LOT NO.# (IPPIMS ONLY)
MW-04	4/11/12	0954	G	20120411MW-04R2SN	WG	7	3	3	1	1	N			
MW-07S	4/11/12	1100	G	20120411MW-07SVOSN	WG	7	3	3	1	2	N			
MW-07R	4/11/12	1100	G	20120411MW-07RVOSFD	WG	7	3	3	1	3	FD			
MW-03	4/11/12	1219	G	20120411MW-03VOSN	WG	7	3	3	1	4	N			
MW-06	4/11/12	1329	G	20120411MW-06VOSN	WG	7	3	3	1	5	N			
MW-06	4/11/12	1329	G	20120411MW-06VOSMS	WG	7	3	3	1	5	MS			
MW-06	4/11/12	1329	G	20120411MW-06VOSSD	WG	7	3	3	1	5	SD			
MW-02	4/11/12	1445	G	20120411MW-02VOSN	WG	7	3	3	1	6	N			
Trip Blank	4/11/12	—	G	20120411TB1	WQ	6	3	3		7				

MATRIX CODES: AA - AMBIENT AIR; SE - SEDIMENT; SH - HAZARDOUS SOLID WASTE; SL - SLUDGE; WP - DRINKING WATER; WW - WASTE WATER; WG - GROUND WATER; SO - SOIL; DC - DRILL CUTTINGS; WL - LEACHATE; GS - SOIL GAS; WC - DRILLING WATER; WO - OCEAN WATER; WS - SURFACE WATER; WQ - WATER FIELD QC; LH - HAZARDOUS LIQUID WASTE; LF - FLOATING/FREE PRODUCT ON GW TABLE

SAMPLE TYPE CODES: TB# - TRIP BLANK; SD# - MATRIX SPIKE DUPLICATE; RB# - RINSE BLANK; FR# - FIELD REPLICATE; N# - NORMAL ENVIRONMENTAL SAMPLE; MS# - MATRIX SPIKE; (# - SEQUENTIAL NUMBER (FROM 1 TO 9) TO ACCOMMODATE MULTIPLE SAMPLES IN A SINGLE DAY)

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	DATE	TIME
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LAB BY (SIGNATURE)	DATE	TIME
Tim Ifkovich	4/11/12	1610		4/12/2012	1000

SPECIAL INSTRUCTIONS: For Questions contact Pete Fairbanks @ 716-856-5636

SubWork

Distribution: Original accompanies shipment, copy to coordinator field files

URSF-076C/1 OF 1/CofCR/GCM

04/25/2012

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CASE NARRATIVE

Client: URS Corporation

Project: Former EMCA Site

Report Number: 460-39005-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT
The samples were received on 04/12/2012; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 4.3 C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

DISSOLVED HYDROCARBON GASES
Samples 460-39005-1 through 460-39005-7 were analyzed for dissolved hydrocarbon gases in accordance with EPA Method 3810M (Methane, Ethane, Ethene, Propane). The samples were analyzed on 04/13/2012 and 04/21/2012.

Methane was detected in method blank MB 460-109367/3 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 109367 were outside control limits for Methane due to the high concentration present in the parent sample relative to the spike amount. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Refer to the QC report for details.

Samples 460-39005-1(5X), 460-39005-2(20X), 460-39005-3(20X), 460-39005-4(50X), 460-39005-5(10X) and 460-39005-6(20X) required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the dissolved hydrocarbon gases analyses.

All other quality control parameters were within the acceptance limits.

VOLATILE ORGANIC COMPOUNDS (GC-MS)
Samples 460-39005-1 through 460-39005-7 were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 04/18/2012.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 109751 were outside control limits for 1,2-Dichloro-1,1,2-trifluoroethane and Chlorotrifluoroethene. Chlorotrifluoroethene was present at a high concentration in the parent sample relative to the spike amount. The associated laboratory control sample (LCS) recoveries met acceptance criteria.

The presence of the '4' qualifier in the report indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Refer to the QC report for details.

Samples 460-39005-2(5X), 460-39005-3(5X) and 460-39005-6(10X) required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the volatiles analyses.

All other quality control parameters were within the acceptance limits.

SULFATE

Samples 460-39005-1 through 460-39005-6 were analyzed for sulfate in accordance with ASTM Method D516-90. The samples were analyzed on 04/17/2012.

Samples 460-39005-4(2X), 460-39005-5(5X) and 460-39005-6(2X) required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No difficulties were encountered during the sulfate analyses.

All quality control parameters were within the acceptance limits.

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Edison Job No.: 460-39005-1

SDG No.:

Lab File ID: p56940.d BFB Injection Date: 04/18/2012

Instrument ID: VOAMS13 BFB Injection Time: 07:34

Analysis Batch No.: 109751

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.0	
75	30.0 - 60.0 % of mass 95	47.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.2	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	67.9	
175	5.0 - 9.0 % of mass 174	5.0	(7.4)1
176	95.0 - 101.0 % of mass 174	65.3	(96.2)1
177	5.0 - 9.0 % of mass 176	4.1	(6.2)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 460-109751/2	p56941.d	04/18/2012	07:56
	LCS 460-109751/3	p56942.d	04/18/2012	08:29
	MB 460-109751/4	p56944.d	04/18/2012	09:27
20120411TB1	460-39005-7	p56946.d	04/18/2012	10:16
20120411MW-04V08N	460-39005-1	p56947.d	04/18/2012	10:41
20120411MW-03V09N	460-39005-4	p56950.d	04/18/2012	11:53
20120411MW-06V13N	460-39005-5	p56951.d	04/18/2012	12:17
20120411MW-06V13N MS	460-39005-5 MS	p56956.d	04/18/2012	14:17
20120411MW-06V13N MSD	460-39005-5 MSD	p56957.d	04/18/2012	14:41
20120411MW-07RV15N	460-39005-2	p56959.d	04/18/2012	15:29
20120411MW-07RV15FD	460-39005-3	p56960.d	04/18/2012	15:53
20120411MW-02V08N	460-39005-6	p56961.d	04/18/2012	16:17

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Edison | Job No.: 460-39005-1 | Analy Batch No.: 109749

SDG No.:

Instrument ID: VOAMS13 | GC Column: DB-624 | ID: 0.18 (mm) | Heated Purge: (Y/N) N

Calibration Start Date: 04/18/2012 01:18 | Calibration End Date: 04/18/2012 03:18 | Calibration ID: 15198

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 460-109749/3	p56925.d
Level 2	IC 460-109749/4	p56926.d
Level 3	ICIS 460-109749/5	p56927.d
Level 4	IC 460-109749/6	p56928.d
Level 5	IC 460-109749/7	p56929.d
Level 6	IC 460-109749/9	p56930.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorotrifluoroethene	0.0183 0.0309	0.0222	0.0234	0.0254	0.0260	LinF		0.0303							0.9948		0.9900
Dichlorodifluoromethane	0.2277 0.2200	0.2422	0.2123	0.2220	0.2308	Ave		0.2258				4.5		15.0			
Chloromethane	0.2531 0.2167	0.2588	0.2163	0.2176	0.2226	Ave		0.2309			0.1000	8.5		15.0			
Vinyl chloride	0.2988 0.2435	0.2875	0.2398	0.2461	0.2549	Ave		0.2618				9.6		30.0			
Bromomethane	0.1201 0.1498	0.1278	0.1112	0.1134	0.1332	Ave		0.1259				11.4		15.0			
Chloroethane	0.1639 0.1293	0.1554	0.1285	0.1276	0.1289	Ave		0.1389				11.7		15.0			
n-Pentane	0.0355 0.0260	0.0283	0.0274	0.0289	0.0256	Ave		0.0286				12.7		15.0			
Trichlorofluoromethane	0.3772 0.3343	0.4001	0.3356	0.3385	0.3497	Ave		0.3559				7.6		15.0			
Isopropene	0.2920 0.2608	0.2882	0.2547	0.2766	0.2728	Ave		0.2742				5.4		15.0			
Ethyl ether	0.2117 0.1748	0.1915	0.1757	0.1791	0.1739	Ave		0.1844				8.0		15.0			
1,1-Dichloroethene	0.1776 0.1718	0.1757	0.1667	0.1701	0.1715	Ave		0.1722				2.3		30.0			
1,2-Dichloro-1,1,2-trifluoroethane	0.2649 0.2593	0.2607	0.2363	0.2493	0.2555	Ave		0.2543				4.1		15.0			
Ethanol	0.0015 0.0016	0.0013	0.0014	0.0014	0.0015	Ave		0.0015				6.9		15.0			
Carbon disulfide	0.6583 0.6160	0.6360	0.5767	0.6172	0.6233	Ave		0.6213				4.3		15.0			
Freon TF	0.2060 0.1815	0.2069	0.1818	0.1918	0.1919	Ave		0.1933				5.8		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Edison Job No.: 460-39005-1

SDG No.:

Lab Sample ID: CCVIS 460-109751/2 Calibration Date: 04/18/2012 07:56

Instrument ID: VOAMS13 Calib Start Date: 04/18/2012 01:18

GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 04/18/2012 03:18

Lab File ID: p56941.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorotrifluoroethene	LinF	0.0244	0.0231		15.2	20.0	-23.8	50.0
Dichlorodifluoromethane	Ave	0.2258	0.2011		17.8	20.0	-10.9	50.0
Chloromethane	Ave	0.2309	0.2093	0.1000	18.1	20.0	-9.3	50.0
Vinyl chloride	Ave	0.2618	0.2228		17.0	20.0	-14.9	20.0
Bromomethane	Ave	0.1259	0.1199		19.0	20.0	-4.8	50.0
Chloroethane	Ave	0.1389	0.1220		17.6	20.0	-12.2	50.0
n-Pentane	Ave	0.0286	0.0285		19.9	20.0	-0.5	50.0
Trichlorofluoromethane	Ave	0.3559	0.3144		17.7	20.0	-11.7	50.0
Isopropene	Ave	0.2742	0.2912		21.2	20.0	6.2	50.0
Ethyl ether	Ave	0.1844	0.2121		23.0	20.0	15.0	50.0
1,1-Dichloroethene	Ave	0.1722	0.1544		17.9	20.0	-10.3	20.0
1,2-Dichloro-1,1,2-trifluoro ethane	Ave	0.2543	0.1798		14.1	20.0	-29.3	50.0
Ethanol	Ave	0.0015	0.0015		3010	3000	0.5	50.0
Carbon disulfide	Ave	0.6213	0.7012		22.6	20.0	12.9	50.0
Freon TF	Ave	0.1933	0.2130		22.0	20.0	10.2	50.0
Iodomethane	LinF	0.1801	0.1521		12.2	20.0	-39.0	50.0
Acrolein	Ave	0.0449	0.0432		38.5	40.0	-3.7	99.0
Methylene Chloride	LinF	0.2469	0.2259		20.8	20.0	4.1	50.0
Acetone	LinF	0.0706	0.0839		27.2	20.0	36.2	50.0
trans-1,2-Dichloroethene	Ave	0.2204	0.2037		18.5	20.0	-7.6	50.0
Methyl acetate	Ave	0.0495	0.0591		23.9	20.0	19.5	50.0
Hexane	Ave	0.0493	0.0517		21.0	20.0	4.8	50.0
MTBE	Ave	0.6522	0.7600		23.3	20.0	16.5	50.0
TBA	Ave	0.0258	0.0283		438	400	9.6	50.0
Acetonitrile	LinF	0.0059	0.0073		605	400	51.3*	50.0
DIPE	Ave	0.6771	0.7852		23.2	20.0	16.0	50.0
1,1-Dichloroethane	Ave	0.3805	0.3623	0.1000	19.0	20.0	-4.8	50.0
Acrylonitrile	Ave	0.0900	0.0824		18.3	20.0	-8.5	50.0
Tert-butyl ethyl ether	Ave	0.6287	0.7137	0.0100	22.7	20.0	13.5	50.0
Vinyl acetate	Ave	0.4379	0.4872		22.3	20.0	11.3	50.0
cis-1,2-Dichloroethene	Ave	0.2470	0.2317		18.8	20.0	-6.2	50.0
2,2-Dichloropropane	Ave	0.3063	0.2776		18.1	20.0	-9.4	50.0
Cyclohexane	Ave	0.3516	0.3751		21.3	20.0	6.7	50.0
Bromochloromethane	Ave	0.1205	0.1193		19.8	20.0	-1.0	50.0
Chloroform	Ave	0.3942	0.3743		19.0	20.0	-5.1	20.0
Carbon tetrachloride	Ave	0.2690	0.2127		15.8	20.0	-20.9	50.0
Ethyl acetate	LinF	0.0283	0.0310		44.0	40.0	9.9	50.0
Tetrahydrofuran	Ave	0.0987	0.1132		22.9	20.0	14.7	50.0
1,1,1-Trichloroethane	Ave	0.3300	0.2890		17.5	20.0	-12.4	50.0
1,1-Dichloropropene	Ave	0.3212	0.2698		16.8	20.0	-16.0	50.0