



Groundwater Sampling and Analysis Report

December 2005 Sampling Event

**Former EMCA Site
Mamaroneck, New York**

Prepared for:

**Rohm & Haas
Corporate Remediation Group**

Prepared by:

URS

77 Goodell Street
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March 2006

**FORMER EMCA SITE
SITE NO. 360025
MAMARONECK, NEW YORK**

GROUNDWATER SAMPLING AND ANALYSIS REPORT

DECEMBER 2005 SAMPLING EVENT

Prepared for:

ROHM AND HAAS COMPANY

Submitted by:

URS CORPORATION

MARCH 2006

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1.0 INTRODUCTION

This report presents results of groundwater sampling and analysis conducted on December 20, 2005 at the Rohm and Haas former EMCA site located in Mamaroneck, New York (Figure 1). The sampling and analysis event was performed to evaluate groundwater conditions approximately 1 year following an Interim Remedial Measure (IRM). The IRM involved the injection of emulsified soybean oil and sodium lactate to stimulate biological processes that result in the reductive dechlorination of 1,1,2-trichloro- 1,2,2- trifluoroethane (Freon 113; CAS No. 76-13-1) in site groundwater. This is the second groundwater sampling event conducted following the IRM; the first event was undertaken in May 2005 (URS 2005).

2.0 GROUNDWATER SAMPLING AND ANALYSIS

Groundwater samples were collected 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 for the following parameters:

Parameter	Analytical Method
Freon 113	USEPA CLP OLM 04.2
Freon 123a	USEPA CLP OLM 04.2
Freon 1113	USEPA CLP OLM 04.2
Methane	RSK-175
Sulfate	375.4

3.0 RESULTS

Groundwater level data is provided on Table 1 and a groundwater elevation contour map is presented on Figure 2, which indicates that flow was generally westward towards the Sheldrake River.

Analytical results for groundwater samples collected on December 20, 2005 are summarized in Table 2. Laboratory data sheets and a data usability summary report for the December 20, 2005 samples are provided in Appendix B. Freon 113 concentrations are shown graphically on Figure 3 and analytical data plots are presented for Freon 113 (Figure 4 and 5), Freon 123a (Figure 6), sulfate (Figure 7), methane (Figure 8), dissolved oxygen (Figure 9) and oxidation reduction potential (Figure 10).

4.0 DATA ASSESSMENT

The groundwater analytical results for the December 20, 2005 sampling event indicate that Freon 113 concentrations have continued to decrease significantly across the site. Freon 113 was not detected in any of the wells sampled except for MW-02 (110 µg/L); this was the only well that contained Freon 113 above the New York State Class GA Water Quality Standard of 5 µg/L.

Freon 123a and Freon 1113 are expected reductive dechlorination daughter products. Freon 123a, which holds one less chlorine than Freon 113, decreased in all wells across the site and was detected only at MW-02 (15 µg/L), MW-03 (1 µg/L), and GZ-06 (2 µg/L). This indicates an overall depletion of the parent Freon 113. Freon 1113, which holds two less chlorines than Freon 1113, decreased in wells MW-02 and GZ-06 but increased slightly in MW-06 and MW-07. The slight increase is attributable to reductive dechlorination of Freon 113 and Freon 123a at these well locations. The recent data also indicates that the overall saturated zone within the IRM continued to become more reducing as evidenced by decreasing Freon, decreasing or stable dissolved oxygen, oxidation-reduction potential, and sulfate and increasing methane concentrations.

At MW-02, the concentrations of Freon 113 decreased from 1,200 µg/L in May 2005 to its current concentration of 110 µg/L (December 2005). Historical concentrations in this well ranged from a high of 2,400 µg/L in July 2001 to a low of 12 µg/L in December 2003 (Figure 3). The recent drop in Freon 113 concentration, the absence of sulfate, and the strong increase in methane at MW-02 indicates that conditions favorable to reductive dechlorination have been well established in the vicinity of this well location. Because the effects of EOSTM injection are expected to last at least 1-3 years, continued reduction of Freon at MW-02 is expected to occur.

5.0 FUTURE ACTIVITIES

The next groundwater-monitoring event is planned for August 2006 using the same wells that were sampled in December 2005 and the same analytical parameters. This event would fall about 21 months following the November 2004 IRM injection. No additional injections are planned at this time, since the favorable conditions present at the site in December 2005 are expected to persist for at least several months and may extend up to 2 more years.

REFERENCES

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

TABLES

TABLE 1
FORMER EMCA SITE, MAMARONECK, NEW YORK
GROUNDWATER ELEVATION MEASUREMENTS (12/20/05)

Location	Measuring Point Elevation (ft.)	Depth to Water (ft.)	Water Surface Elevation (ft.)
GZ-03	102.71	7.00	95.71
GZ-06	101.55	6.43	95.12
MW-02	99.18	4.71	94.47
MW-04	98.61	4.32	94.29
MW-05	98.14	3.76	94.38
MW-06	ND	4.90	ND
MW-07	ND	4.97	ND
WS-04	97.00	4.37	92.63

Notes:

ND = Not Determined

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

Location ID		GZ-06	GZ-06	GZ-06	GZ-06	GZ-06
Sample ID		GZ06_52103	GZ06	GZ06-091703	GZ-06-121803	GZ06
Matrix		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-	-
Date Sampled		05/21/03	07/23/03	09/17/03	12/18/03	07/22/04
Parameter	Units					
Volatiles						
Acetone	UG/L	5.0 U	10 U	5.0 U	5.0 U	NA
Benzene	UG/L	5.0 U	10 U	5.0 U	5.0 U	NA
Methyl ethyl ketone (2-Butanone)	UG/L	5.0 UR	10 UR	5.0 UR	5.0 UR	NA
Chlorotrifluoroethene (Freon-1113)	UG/L	0 U	0 U	5.4 NJ	0 U	24
1,1-Dichloroethene	UG/L	0.8 J	1.5 J	2.0 U	2.0 U	NA
cis-1,2-Dichloroethene	UG/L	5.0 U	10 U	5.0 U	5.0 U	NA
Ethylbenzene	UG/L	4.0 U	8 U	4.0 U	4.0 U	NA
2-Hexanone	UG/L	5.0 U	10 U	5.0 U	5.0 U	NA
4-Methyl-2-Pentanone	UG/L	5.0 U	10 U	5.0 U	5.0 U	NA
Tetrachloroethene	UG/L	0.6 J	2 U	0.5 J	1.0 U	NA
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	100	230	74	5.0 U	100 J
Vinyl Chloride	UG/L	5.0 U	10 U	5.0 U	5.0 U	NA
Xylene (total)	UG/L	5.0 U	10 U	5.0 U	5.0 U	NA
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	20	41	26	0.7 J	36
Dissolved Gases						
Methane	UG/L	140	98	89	5.9	48
Total Metals						
Iron	UG/L	2,390	866	517 J	173	NA
Dissolved Metals						
Iron	UG/L	2,290	778	583 J	85.3 B	NA
Miscellaneous Parameters						
Chloride	MG/L	559	474	477 J	218	1,610
Conductivity	UMHOS	2.27	1.99	1.98	1.11	5.25

Flags assigned during chemistry validation are shown.

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R - Rejected result; J - Estimated Result

NJ - Analyte is reported as tentatively identified compound at an estimated concentration.

Only Detected Results Reported.

Detection Limits shown are PQL

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

Location ID		GZ-06	GZ-06	GZ-06	GZ-06	GZ-06
Sample ID		GZ06_52103	GZ06	GZ06-091703	GZ-06-121803	GZ06
Matrix		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-	-
Date Sampled		05/21/03	07/23/03	09/17/03	12/18/03	07/22/04
Parameter	Units					
Miscellaneous Parameters						
Dissolved Oxygen	MG/L	0.76	0.50	0.48	6.86	1.15
Nitrogen, Ammonia (As N)	MG/L	0.1 U	0.1 U	0.1 U	0.1 U	NA
Nitrogen, Kjeldahl, Total	MG/L	0.5 U	0.7	1.3	0.57	NA
Nitrogen, Nitrate	MG/L	0.1 U	NA	0.58	0.1 U	NA
Nitrogen, Nitrate-Nitrite	MG/L	NA	0.12 J	NA	NA	NA
Oxidation Reduction Potential	mV	-110	-75	-129	73	-210
Sulfate	MG/L	25.2	27.5	32.4	5.0 U	20.8
Ferrous Iron (field)	MG/L	2.8	9.6	0.25	0.03	NA
Ferric Iron (lab)	MG/L	0.1 U	0.1 U	0.52	0.143	NA
Fluoride	MG/L	0.1 U	0.1 U	0.1 U	0.32	1.00 U
Oil & Grease	MG/L	NA	NA	5.21 UR	NA	NA

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

Location ID		GZ-06	GZ-06	MW-02	MW-02	MW-02
Sample ID		GZ-06	MW-GZ-06V08N	MW02-5-20-03	MW02-5-20-03DUP	DUP-7_22_03
Matrix		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-	-
Date Sampled		05/31/05	12/20/05	05/20/03	05/20/03	07/22/03
Parameter	Units				Field Duplicate (1-1)	Field Duplicate (1-1)
Volatiles						
Acetone	UG/L	NA	NA	140 J	130 J	50 UR
Benzene	UG/L	NA	NA	50 U	25 U	50 U
Methyl ethyl ketone (2-Butanone)	UG/L	NA	NA	50 UR	25 UR	50 UR
Chlorotrifluoroethene (Freon-1113)	UG/L	15	10 U	0 U	0 U	0 U
1,1-Dichloroethene	UG/L	NA	NA	4.4 J	5.1 J	8.2 J
cis-1,2-Dichloroethene	UG/L	NA	NA	50 U	25 U	50 U
Ethylbenzene	UG/L	NA	NA	40 U	20 U	40 U
2-Hexanone	UG/L	NA	NA	50 U	25 U	50 U
4-Methyl-2-Pentanone	UG/L	NA	NA	50 U	25 U	50 U
Tetrachloroethene	UG/L	NA	NA	10 U	5.0 U	10 U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	9.0 J	10 U	710	880	1,000
Vinyl Chloride	UG/L	NA	NA	50 U	25 U	50 U
Xylene (total)	UG/L	NA	NA	50 U	25 U	7.1 J
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	4.0 J	2.0 J	34 J	40	40 J
Dissolved Gases						
Methane	UG/L	310	74	26	32	54
Total Metals						
Iron	UG/L	NA	NA	27,800	28,300	30,100
Dissolved Metals						
Iron	UG/L	NA	NA	27,900	28,200	30,500
Miscellaneous Parameters						
Chloride	MG/L	NA	NA	338	338	307
Conductivity	UMHOS	1.43	1.16	1.68	NA	NA

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

Location ID		GZ-06	GZ-06	MW-02	MW-02	MW-02
Sample ID		GZ-06	MW-GZ-06V08N	MW02-5-20-03	MW02-5-20-03DUP	DUP-7_22_03
Matrix		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-	-
Date Sampled		05/31/05	12/20/05	05/20/03	05/20/03	07/22/03
Parameter	Units				Field Duplicate (1-1)	Field Duplicate (1-1)
Miscellaneous Parameters						
Dissolved Oxygen	MG/L	0.11	0.03	0.36	NA	NA
Nitrogen, Ammonia (As N)	MG/L	NA	NA	3.3	3.4	4.1
Nitrogen, Kjeldahl, Total	MG/L	NA	NA	6.6	6.2	6.6
Nitrogen, Nitrate	MG/L	NA	NA	0.15	0.16	0.1 U
Nitrogen, Nitrate-Nitrite	MG/L	NA	NA	NA	NA	NA
Oxidation Reduction Potential	mV	-107	-59	-108	NA	NA
Sulfate	MG/L	14.2	31.7	44	46	32.3
Ferrous Iron (field)	MG/L	NA	NA	25.3	NA	25.7
Ferric Iron (lab)	MG/L	NA	NA	2.5	3	4.4
Fluoride	MG/L	NA	NA	0.28	0.3	0.37
Oil & Grease	MG/L	NA	NA	NA	NA	NA

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Detection Limits shown are PQL

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

Location ID		MW-02	MW-02	MW-02	MW-02	MW-02
Sample ID		MW02-7_22_03	MW02-091803	MW-02-121803	MW-02	MW-02
Matrix		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-	-
Date Sampled		07/22/03	09/18/03	12/18/03	07/22/04	05/31/05
Parameter	Units					
Volatiles						
Acetone	UG/L	50 UR	5.0 U	5.0 U	NA	NA
Benzene	UG/L	50 U	5.0 U	5.0 U	NA	NA
Methyl ethyl ketone (2-Butanone)	UG/L	50 UR	5.0 UR	5.0 UR	NA	NA
Chlorotrifluoroethene (Freon-1113)	UG/L	0 U	0 U	0 U	14	120
1,1-Dichloroethene	UG/L	7.5 J	2.0 U	2.0 U	NA	NA
cis-1,2-Dichloroethene	UG/L	50 U	5.0 U	5.0 U	NA	NA
Ethylbenzene	UG/L	3.4 J	4.0 U	4.0 U	NA	NA
2-Hexanone	UG/L	50 U	5.0 U	5.0 U	NA	NA
4-Methyl-2-Pentanone	UG/L	50 U	5.0 U	5.0 U	NA	NA
Tetrachloroethene	UG/L	10 U	1.0 U	1.0 U	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	1,000	54	12	21 J	1,200
Vinyl Chloride	UG/L	50 U	5.0 U	5.0 U	NA	NA
Xylene (total)	UG/L	11 J	5.0 U	5.0 U	NA	NA
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	41 J	7.8	3.3 J	4 J	86 J
Dissolved Gases						
Methane	UG/L	52	410	320	140	2,000
Total Metals						
Iron	UG/L	30,900	63,800 J	69,000	NA	NA
Dissolved Metals						
Iron	UG/L	30,500	60,900 J	69,300	NA	NA
Miscellaneous Parameters						
Chloride	MG/L	283	839	769	238	NA
Conductivity	UMHOS	1.65	3.17	3.28	2.34	1.19

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

Location ID		MW-02	MW-02	MW-02	MW-02	MW-02
Sample ID		MW02-7_22_03	MW02-091803	MW-02-121803	MW-02	MW-02
Matrix		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-	-
Date Sampled		07/22/03	09/18/03	12/18/03	07/22/04	05/31/05
Parameter	Units					
Miscellaneous Parameters						
Dissolved Oxygen	MG/L	0.26	0.53	0 U	0.91	0 U
Nitrogen, Ammonia (As N)	MG/L	3.8	11.5	11.9	NA	NA
Nitrogen, Kjeldahl, Total	MG/L	6.1	17.1	16.9	NA	NA
Nitrogen, Nitrate	MG/L	0.1	0.1 U	0.1 U	NA	NA
Nitrogen, Nitrate-Nitrite	MG/L	NA	NA	NA	NA	NA
Oxidation Reduction Potential	mV	-190	-99	-108	-133	-140
Sulfate	MG/L	32.5	4.8	5.0 U	15.2	25.2
Ferrous Iron (field)	MG/L	28.0	49.3	6.3	NA	NA
Ferric Iron (lab)	MG/L	2.9	48.3	62.7	NA	NA
Fluoride	MG/L	0.39	0.3	0.31	0.294	NA
Oil & Grease	MG/L	NA	5 U	NA	NA	NA

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Only Detected Results Reported.

Detection Limits shown are PQL

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

Location ID		MW-02	MW-03	MW-03	MW-03	MW-03
Sample ID		MW-02V06N	MW03_52103	MW03	DUP-91703	MW03-091703
Matrix		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-	-
Date Sampled		12/20/05	05/21/03	07/23/03	09/17/03	09/17/03
Parameter	Units				Field Duplicate (1-1)	
Volatiles						
Acetone	UG/L	NA	250 U	78	110	110
Benzene	UG/L	NA	250 U	2.3	2.2	1.8
Methyl ethyl ketone (2-Butanone)	UG/L	NA	250 UR	130 J	69 J	65 J
Chlorotrifluoroethene (Freon-1113)	UG/L	18	0 U	7.0 NJ	6.2 NJ	0 U
1,1-Dichloroethene	UG/L	NA	33 J	2.0 U	2.0 U	2.0 U
cis-1,2-Dichloroethene	UG/L	NA	250 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	UG/L	NA	200 U	0.3 J	4.0 U	4.0 U
2-Hexanone	UG/L	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	NA	50 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	110	5,800	68	26	16
Vinyl Chloride	UG/L	NA	250 U	5.0 U	5.0 U	5.0 U
Xylene (total)	UG/L	NA	250 U	1.1 J	5.0 U	5.0 U
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	15	78 J	43	180	110
Dissolved Gases						
Methane	UG/L	5,800	86	56	2,400	2,500
Total Metals						
Iron	UG/L	NA	1,170	150,000	174,000 J	178,000 J
Dissolved Metals						
Iron	UG/L	NA	267	152,000	187,000 J	186,000 J
Miscellaneous Parameters						
Chloride	MG/L	NA	113	143	99.2 J	91.5 J
Conductivity	UMHOS	2.51	0.638	4.35	NA	1.64

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

Location ID		MW-02	MW-03	MW-03	MW-03	MW-03
Sample ID		MW-02V06N	MW03_52103	MW03	DUP-91703	MW03-091703
Matrix		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-	-
Date Sampled		12/20/05	05/21/03	07/23/03	09/17/03	09/17/03
Parameter	Units				Field Duplicate (1-1)	
Miscellaneous Parameters						
Dissolved Oxygen	MG/L	0 U	0.58	0 U	NA	0.01
Nitrogen, Ammonia (As N)	MG/L	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	NA	2	NA	0.1 U	0.1 U
Nitrogen, Nitrate-Nitrite	MG/L	NA	NA	0.1 UJ	NA	NA
Oxidation Reduction Potential	mV	-137	40	-103	NA	-90
Sulfate	MG/L	5 U	32.7	26.9	5.0 U	5.0 U
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	NA	0.28	0.44	0.27	0.2
Oil & Grease	MG/L	NA	NA	NA	9.26 R	9.26 R

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Only Detected Results Reported.

Detection Limits shown are PQL

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

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	Field Duplicate (1-1)				
Volatiles						
Acetone	UG/L	130 J	120 J	NA	NA	NA
Benzene	UG/L	10 U	10 U	NA	NA	NA
Methyl ethyl ketone (2-Butanone)	UG/L	39 J	38 J	NA	NA	NA
Chlorotrifluoroethene (Freon-1113)	UG/L	0 U	0 U	68 J	83	2.0 J
1,1-Dichloroethene	UG/L	4.0 U	4 U	NA	NA	NA
cis-1,2-Dichloroethene	UG/L	10 U	10 U	NA	NA	NA
Ethylbenzene	UG/L	8.0 U	8 U	NA	NA	NA
2-Hexanone	UG/L	10 U	10 U	NA	NA	NA
4-Methyl-2-Pentanone	UG/L	10 U	10 U	NA	NA	NA
Tetrachloroethene	UG/L	4.9	4.6	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	150	150	4,900 J	2.0 J	10 U
Vinyl Chloride	UG/L	10 U	10 U	NA	NA	NA
Xylene (total)	UG/L	10 U	10 U	NA	NA	NA
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	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	156,000	164,000	NA	NA	NA
Dissolved Metals						
Iron	UG/L	167,000	176,000	NA	NA	NA
Miscellaneous Parameters						
Chloride	MG/L	224	192	71.7	NA	NA
Conductivity	UMHOS	NA	1.99	2.40	3.19	1.20

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Detection Limits shown are PQL

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

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	Field Duplicate (1-1)				
Miscellaneous Parameters						
Dissolved Oxygen	MG/L	NA	0.35	1.05	1.24	0 U
Nitrogen, Ammonia (As N)	MG/L	1.4	1.2	NA	NA	NA
Nitrogen, Kjeldahl, Total	MG/L	4.0	4.0	NA	NA	NA
Nitrogen, Nitrate	MG/L	0.1 U	0.1 U	NA	NA	NA
Nitrogen, Nitrate-Nitrite	MG/L	NA	NA	NA	NA	NA
Oxidation Reduction Potential	mV	NA	-59	-143	-133	-151
Sulfate	MG/L	5.0 U	5.0 U	5.0 U	5.0 U	5 U
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	0.22	0.25	0.397	NA	NA
Oil & Grease	MG/L	NA	NA	NA	NA	NA

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Detection Limits shown are PQL

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

Location ID		MW-04	MW-04	MW-04	MW-04	MW-04
Sample ID		MW04-5-20-03	MW-04_121703	Dup1	MW-04	MW-04
Matrix		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-	-
Date Sampled		05/20/03	12/17/03	07/22/04	07/22/04	05/31/05
Parameter	Units			Field Duplicate (1-1)		
Volatiles						
Acetone	UG/L	5.0 U	5.0 U	NA	NA	NA
Benzene	UG/L	5.0 U	5.0 U	NA	NA	NA
Methyl ethyl ketone (2-Butanone)	UG/L	5.0 UR	5.0 UR	NA	NA	NA
Chlorotrifluoroethene (Freon-1113)	UG/L	0 U	0 U	10 U	10 U	1.0 J
1,1-Dichloroethene	UG/L	2.0 U	2.0 U	NA	NA	NA
cis-1,2-Dichloroethene	UG/L	5.0 U	5.0 U	NA	NA	NA
Ethylbenzene	UG/L	4.0 U	4.0 U	NA	NA	NA
2-Hexanone	UG/L	5.0 U	5.0 U	NA	NA	NA
4-Methyl-2-Pentanone	UG/L	5.0 U	5.0 U	NA	NA	NA
Tetrachloroethene	UG/L	1.0 U	1.0 U	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	5.0 U	5.0 U	10 UJ	0.7 J	10 U
Vinyl Chloride	UG/L	5.0 U	5.0 U	NA	NA	NA
Xylene (total)	UG/L	5.0 U	5.0 U	NA	NA	NA
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	5.0 U	5.0 U	10 U	10 U	10 U
Dissolved Gases						
Methane	UG/L	380	35	69	99	190
Total Metals						
Iron	UG/L	18,400	3,640	NA	NA	NA
Dissolved Metals						
Iron	UG/L	18,500	3,760	NA	NA	NA
Miscellaneous Parameters						
Chloride	MG/L	238	294	158	161	NA
Conductivity	UMHOS	1.61	0.99	NA	1.05	1.85

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Detection Limits shown are PQL

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

Location ID		MW-04	MW-04	MW-04	MW-04	MW-04
Sample ID		MW04-5-20-03	MW-04_121703	Dup1	MW-04	MW-04
Matrix		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-	-
Date Sampled		05/20/03	12/17/03	07/22/04	07/22/04	05/31/05
Parameter	Units			Field Duplicate (1-1)		
Miscellaneous Parameters						
Dissolved Oxygen	MG/L	0.54	0 U	NA	0.82	0 U
Nitrogen, Ammonia (As N)	MG/L	1.6	1.2	NA	NA	NA
Nitrogen, Kjeldahl, Total	MG/L	6.2	1.9	NA	NA	NA
Nitrogen, Nitrate	MG/L	0.1 U	0.1 U	NA	NA	NA
Nitrogen, Nitrate-Nitrite	MG/L	NA	NA	NA	NA	NA
Oxidation Reduction Potential	mV	-115	0 U	NA	-136	-126
Sulfate	MG/L	5.0 U	9.4	10.8	10.8	14.2
Ferrous Iron (field)	MG/L	17.6	2.2	NA	NA	NA
Ferric Iron (lab)	MG/L	0.76	1.3	NA	NA	NA
Fluoride	MG/L	0.27	0.19	0.304	0.302	NA
Oil & Grease	MG/L	NA	NA	NA	NA	NA

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Detection Limits shown are PQL

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

Location ID		MW-04	MW-05	MW-05	MW-05	MW-06
Sample ID		MW-04VION	MW05_52103	MW-05-121803	MW-05	MW06-6-10-03
Matrix		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-	-
Date Sampled		12/20/05	05/21/03	12/18/03	07/23/04	06/10/03
Parameter	Units					
Volatiles						
Acetone	UG/L	NA	5.0 U	5.0 U	NA	10 U
Benzene	UG/L	NA	5.0 U	5.0 U	NA	10 U
Methyl ethyl ketone (2-Butanone)	UG/L	NA	5.0 UR	5.0 UR	NA	10 UR
Chlorotrifluoroethene (Freon-1113)	UG/L	10 U	0 U	0 U	10 U	0 U
1,1-Dichloroethene	UG/L	NA	2.0 U	2.0 U	NA	4 U
cis-1,2-Dichloroethene	UG/L	NA	5.0 U	5.0 U	NA	10 U
Ethylbenzene	UG/L	NA	4.0 U	4.0 U	NA	8 U
2-Hexanone	UG/L	NA	5.0 U	5.0 U	NA	10 U
4-Methyl-2-Pentanone	UG/L	NA	5.0 U	5.0 U	NA	10 U
Tetrachloroethene	UG/L	NA	0.4 J	1.0 U	NA	2 U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	10 U	5.0 U	5.0 U	0.5 J	220
Vinyl Chloride	UG/L	NA	5.0 U	5.0 U	NA	10 U
Xylene (total)	UG/L	NA	5.0 U	5.0 U	NA	10 U
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	10 U	5.0 U	5.0 U	10 U	8.8 J
Dissolved Gases						
Methane	UG/L	400	27	6.7	47	49
Total Metals						
Iron	UG/L	NA	2,110	15,500	NA	14,400
Dissolved Metals						
Iron	UG/L	NA	1,670	39.7 U	NA	14,300
Miscellaneous Parameters						
Chloride	MG/L	NA	49.8	27.5	63.9	184
Conductivity	UMHOS	1.47	0.426	0.629	0.463	0.741

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

Location ID		MW-04	MW-05	MW-05	MW-05	MW-06
Sample ID		MW-04VION	MW05_52103	MW-05-121803	MW-05	MW06-6-10-03
Matrix		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-	-
Date Sampled		12/20/05	05/21/03	12/18/03	07/23/04	06/10/03
Parameter	Units					
Miscellaneous Parameters						
Dissolved Oxygen	MG/L	0 U	0.37	0 U	0.97	0.93
Nitrogen, Ammonia (As N)	MG/L	NA	0.25	0.1 U	NA	0.19
Nitrogen, Kjeldahl, Total	MG/L	NA	3.6	0.61	NA	0.72
Nitrogen, Nitrate	MG/L	NA	0.22	0.18	NA	0.33
Nitrogen, Nitrate-Nitrite	MG/L	NA	NA	NA	NA	NA
Oxidation Reduction Potential	mV	-161	26	121	46	-145
Sulfate	MG/L	6.66	50.1	61.4	42.3	32
Ferrous Iron (field)	MG/L	NA	1.7	0.07	NA	14.3
Ferric Iron (lab)	MG/L	NA	0.43	15.4	NA	0.12
Fluoride	MG/L	NA	0 U	0.12	0.103	0.46
Oil & Grease	MG/L	NA	NA	NA	NA	NA

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Detection Limits shown are PQL

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

Location ID		MW-06	MW-06	MW-06	MW-06	MW-06
Sample ID		MW06-7_22_03	MW06-091803	MW-06_121703	MW-06	Field-Dup
Matrix		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-	-
Date Sampled		07/22/03	09/18/03	12/17/03	07/23/04	05/31/05
Parameter	Units					Field Duplicate (1-1)
Volatiles						
Acetone	UG/L	5.0 U	5.0 U	10 U	NA	NA
Benzene	UG/L	5.0 U	5.0 U	10 U	NA	NA
Methyl ethyl ketone (2-Butanone)	UG/L	5.0 UR	5.0 UR	10 UR	NA	NA
Chlorotrifluoroethene (Freon-1113)	UG/L	5.7 NJ	0 U	0 U	5 J	6.0 J
1,1-Dichloroethene	UG/L	1.2 J	2.0 U	4 U	NA	NA
cis-1,2-Dichloroethene	UG/L	1.7 J	1.4 J	1.3 J	NA	NA
Ethylbenzene	UG/L	4.0 U	4.0 U	8 U	NA	NA
2-Hexanone	UG/L	5.0 U	5.0 U	10 U	NA	NA
4-Methyl-2-Pentanone	UG/L	5.0 U	5.0 U	10 U	NA	NA
Tetrachloroethene	UG/L	1.0 U	1.0 U	2 U	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	180	97	250	140 J	1.0 J
Vinyl Chloride	UG/L	1.2 J	5.0 U	10 U	NA	NA
Xylene (total)	UG/L	5.0 U	5.0 U	10 U	NA	NA
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	9.5	8.6	14	23	16
Dissolved Gases						
Methane	UG/L	81	99	78	40	3,600
Total Metals						
Iron	UG/L	10,500	8,370 J	7,690	NA	NA
Dissolved Metals						
Iron	UG/L	10,300	8,470 J	7,670	NA	NA
Miscellaneous Parameters						
Chloride	MG/L	82.3	74.6	84.0	60.5	NA
Conductivity	UMHOS	0.866	0.581	602	0.513	NA

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

Location ID		MW-06	MW-06	MW-06	MW-06	MW-06
Sample ID		MW06-7_22_03	MW06-091803	MW-06_121703	MW-06	Field-Dup
Matrix		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-	-
Date Sampled		07/22/03	09/18/03	12/17/03	07/23/04	05/31/05
Parameter	Units					Field Duplicate (1-1)
Miscellaneous Parameters						
Dissolved Oxygen	MG/L	1.07	0 U	0 U	1.04	NA
Nitrogen, Ammonia (As N)	MG/L	0.33	0.31	0.36	NA	NA
Nitrogen, Kjeldahl, Total	MG/L	1.1	0.88	0.79	NA	NA
Nitrogen, Nitrate	MG/L	0.1 U	0.1 U	0.1 UJ	NA	NA
Nitrogen, Nitrate-Nitrite	MG/L	NA	NA	NA	NA	NA
Oxidation Reduction Potential	mV	-155	-143	-110	-64	NA
Sulfate	MG/L	30.5	39.2	39.1	33.5	5.0 U
Ferrous Iron (field)	MG/L	8.6	6.0	8.7	NA	NA
Ferric Iron (lab)	MG/L	1.9	8.4	1.0 U	NA	NA
Fluoride	MG/L	0.56	0.37	0.42	0.467	NA
Oil & Grease	MG/L	NA	5 U	NA	NA	NA

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Detection Limits shown are PQL

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

Location ID		MW-06	MW-06	MW-06	MW-07	MW-07
Sample ID		MW-06	MW-06V15FD	MW-06V15N	MW07-6-10-03	MW07
Matrix		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-	-
Date Sampled		05/31/05	12/20/05	12/20/05	06/10/03	07/23/03
Parameter	Units	Field Duplicate (1-1)				
Volatiles						
Acetone	UG/L	NA	NA	NA	250 U	500 U
Benzene	UG/L	NA	NA	NA	250 U	500 U
Methyl ethyl ketone (2-Butanone)	UG/L	NA	NA	NA	250 UR	500 UR
Chlorotrifluoroethene (Freon-1113)	UG/L	5.0 J	6.0 J	6.0 J	0 U	0 U
1,1-Dichloroethene	UG/L	NA	NA	NA	100 U	68 J
cis-1,2-Dichloroethene	UG/L	NA	NA	NA	250 U	500 U
Ethylbenzene	UG/L	NA	NA	NA	200 U	400 U
2-Hexanone	UG/L	NA	NA	NA	250 U	500 U
4-Methyl-2-Pentanone	UG/L	NA	NA	NA	250 U	500 U
Tetrachloroethene	UG/L	NA	NA	NA	50 U	100 U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	1.0 J	10 U	10 U	5,400	8,500
Vinyl Chloride	UG/L	NA	NA	NA	250 U	500 U
Xylene (total)	UG/L	NA	NA	NA	250 U	500 U
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	14	10 UJ	10 UJ	68 J	130 J
Dissolved Gases						
Methane	UG/L	3,300	6,700	5,600	740	420
Total Metals						
Iron	UG/L	NA	NA	NA	21,300	21,200
Dissolved Metals						
Iron	UG/L	NA	NA	NA	20,800	20,800
Miscellaneous Parameters						
Chloride	MG/L	NA	NA	NA	140	168
Conductivity	UMHOS	1.13	NA	1.29	0.93	1.11

Flags assigned during chemistry validation are shown.

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Only Detected Results Reported.

Detection Limits shown are PQL

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

Location ID		MW-06	MW-06	MW-06	MW-07	MW-07
Sample ID		MW-06	MW-06V15FD	MW-06V15N	MW07-6-10-03	MW07
Matrix		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-	-
Date Sampled		05/31/05	12/20/05	12/20/05	06/10/03	07/23/03
Parameter	Units		Field Duplicate (1-1)			
Miscellaneous Parameters						
Dissolved Oxygen	MG/L	0 U	NA	0 U	0.90	0.10
Nitrogen, Ammonia (As N)	MG/L	NA	NA	NA	0.39	0.6
Nitrogen, Kjeldahl, Total	MG/L	NA	NA	NA	1.2	1.8
Nitrogen, Nitrate	MG/L	NA	NA	NA	0.1 U	NA
Nitrogen, Nitrate-Nitrite	MG/L	NA	NA	NA	NA	0.1 UJ
Oxidation Reduction Potential	mV	-140	NA	-140	-130	-108
Sulfate	MG/L	5.0 U	5 U	5 U	32.8	31
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	NA	NA	NA	0.33	0.25
Oil & Grease	MG/L	NA	NA	NA	NA	NA

Flags assigned during chemistry validation are shown.

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NJ - Analyte is reported as tentatively identified compound at an estimated concentration.

Only Detected Results Reported.

Detection Limits shown are PQL

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

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					
Volatiles						
Acetone	UG/L	250 U	50 U	NA	NA	NA
Benzene	UG/L	250 U	14	NA	NA	NA
Methyl ethyl ketone (2-Butanone)	UG/L	250 UR	50 UR	NA	NA	NA
Chlorotrifluoroethene (Freon-1113)	UG/L	0 U	0 U	210	140	47
1,1-Dichloroethene	UG/L	100 U	20 U	NA	NA	NA
cis-1,2-Dichloroethene	UG/L	250 U	50 U	NA	NA	NA
Ethylbenzene	UG/L	200 U	49	NA	NA	NA
2-Hexanone	UG/L	250 U	50 U	NA	NA	NA
4-Methyl-2-Pentanone	UG/L	250 U	50 U	NA	NA	NA
Tetrachloroethene	UG/L	50 U	10 U	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	6,100	370	110 J	10 U	10 U
Vinyl Chloride	UG/L	250 U	50 U	NA	NA	NA
Xylene (total)	UG/L	250 U	50 U	NA	NA	NA
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	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	32,700 J	38,900	NA	NA	NA
Dissolved Metals						
Iron	UG/L	32,500 J	38,900	NA	NA	NA
Miscellaneous Parameters						
Chloride	MG/L	300 J	328	303	NA	NA
Conductivity	UMHOS	1.44	1.94	1.69	1.75	1.65

Flags assigned during chemistry validation are shown.

NA - Not Analyzed; U - Non-Detect

R - Rejected result; J - Estimated Result

NJ - Analyte is reported as tentatively identified compound at an estimated concentration.

Only Detected Results Reported.

Detection Limits shown are PQL

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

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					
Miscellaneous Parameters						
Dissolved Oxygen	MG/L	0 U	3.33	0.88	0 U	0 U
Nitrogen, Ammonia (As N)	MG/L	0.66	0.99	NA	NA	NA
Nitrogen, Kjeldahl, Total	MG/L	2.1	2.8	NA	NA	NA
Nitrogen, Nitrate	MG/L	0.1 U	0.1 U	NA	NA	NA
Nitrogen, Nitrate-Nitrite	MG/L	NA	NA	NA	NA	NA
Oxidation Reduction Potential	mV	-118	-115	-153	-152	-169
Sulfate	MG/L	23.6	5.0 U	5.0 U	5.0 U	5 U
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	0.24	0.19	0.190	NA	NA
Oil & Grease	MG/L	5.44 U	NA	NA	NA	NA

Flags assigned during chemistry validation are shown.

NA - Not Analyzed; U - Non-Detect

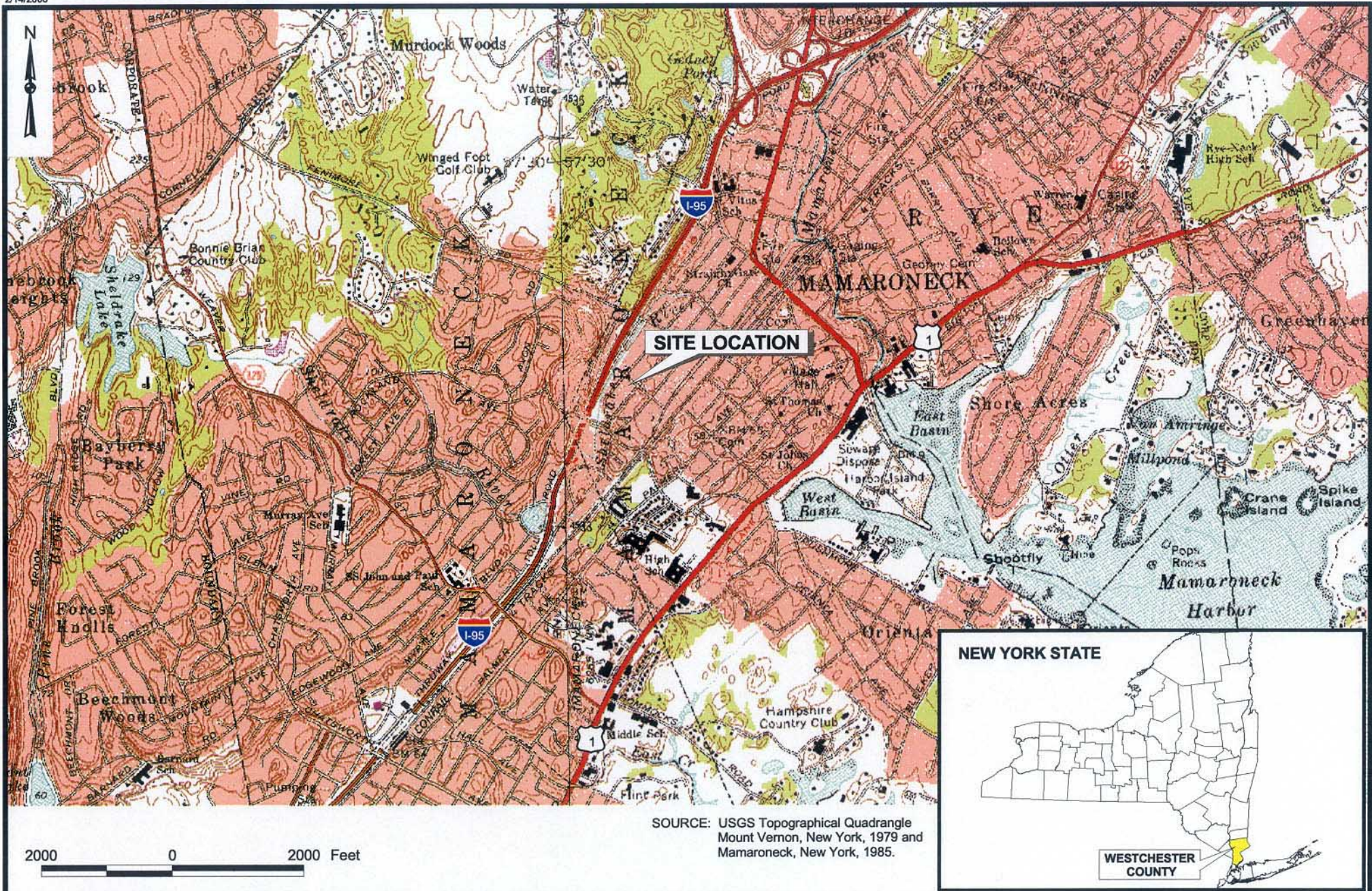
R - Rejected result; J - Estimated Result

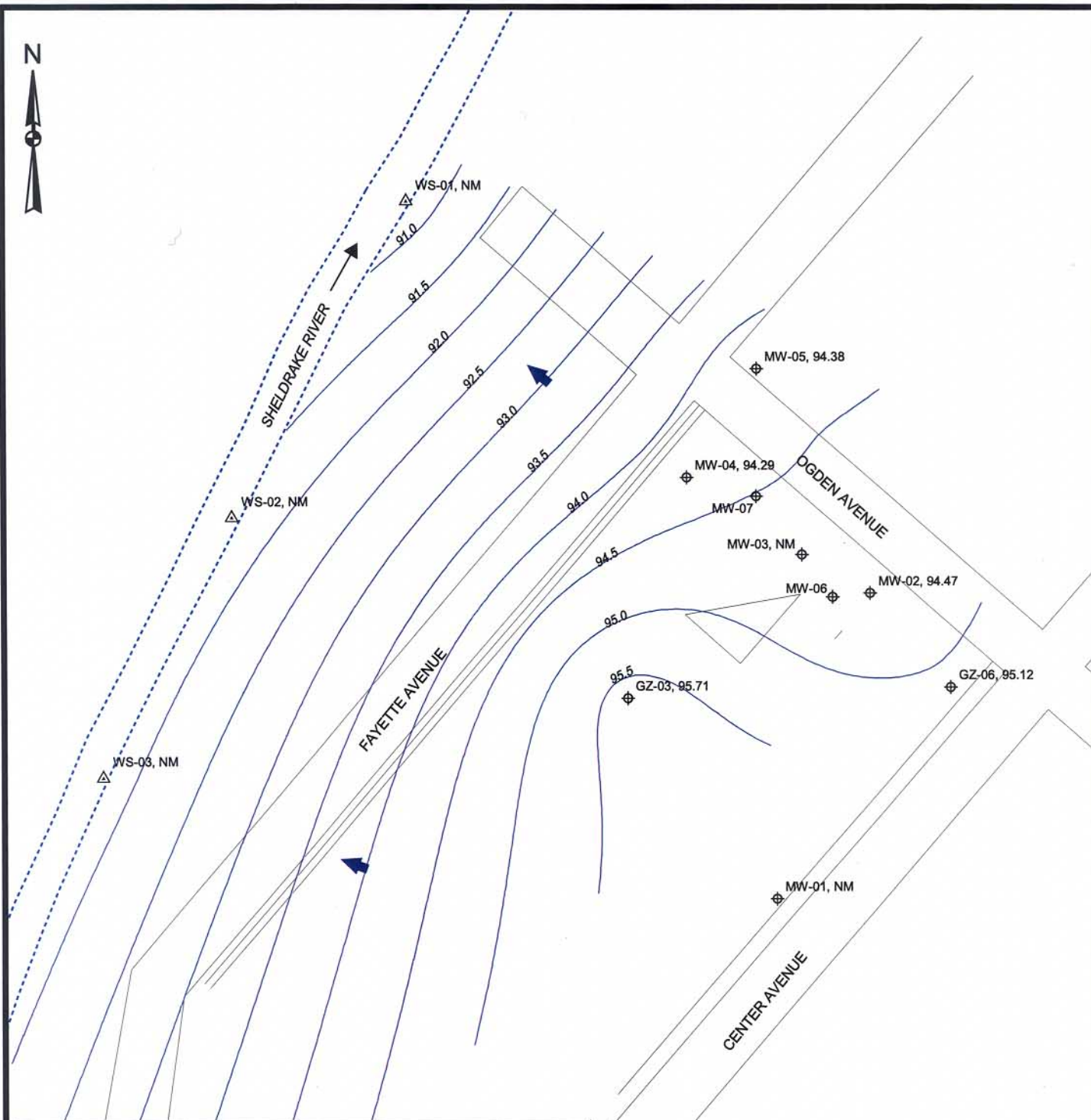
NJ - Analyte is reported as tentatively identified compound at an estimated concentration.

Only Detected Results Reported.

Detection Limits shown are PQL

FIGURES





Legend



Monitoring Well Location



Stream Gauge Location



Former EMCA Site Boundary (Approximate)

92.0

Groundwater Elevation Contour

MW-05, 94.38

Location
ID

Groundwater
Elevation
(based upon URS
survey datum)

NOTES:

- (1) NM - Not Measured
- (2) Groundwater elevation contours between elevation 94.0 and elevation 91.0 were estimated using previous data from 5/19/03, 7/22/03 and 9/17/03.

80 0 80 Feet

URS

FORMER EMCA SITE
GROUNDWATER ELEVATION CONTOUR
MAP (DECEMBER 2005)

FIGURE 2

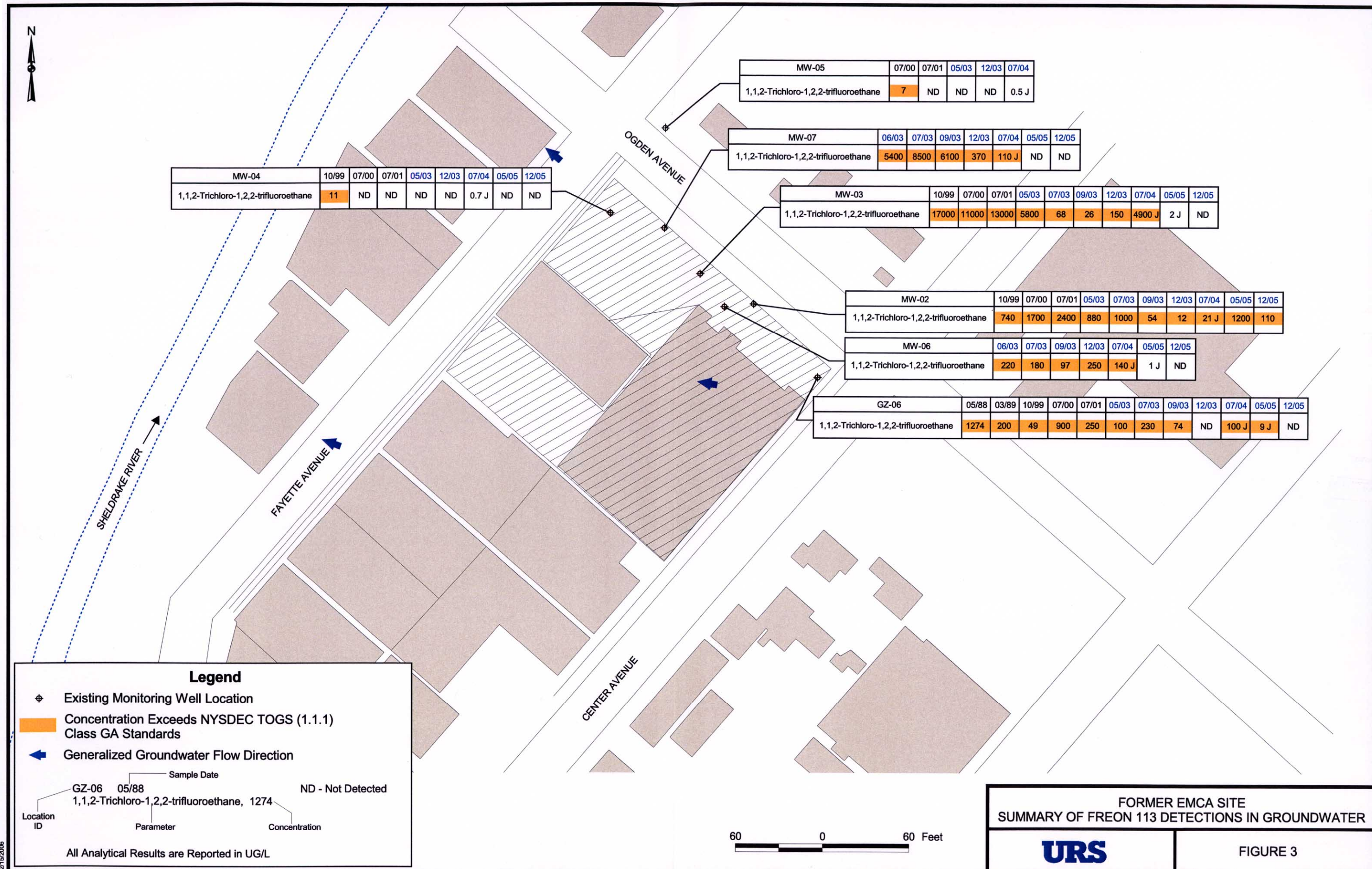


FIGURE 4
FORMER EMCA SITE
Freon 113 Concentrations, MW-03 and MW-07

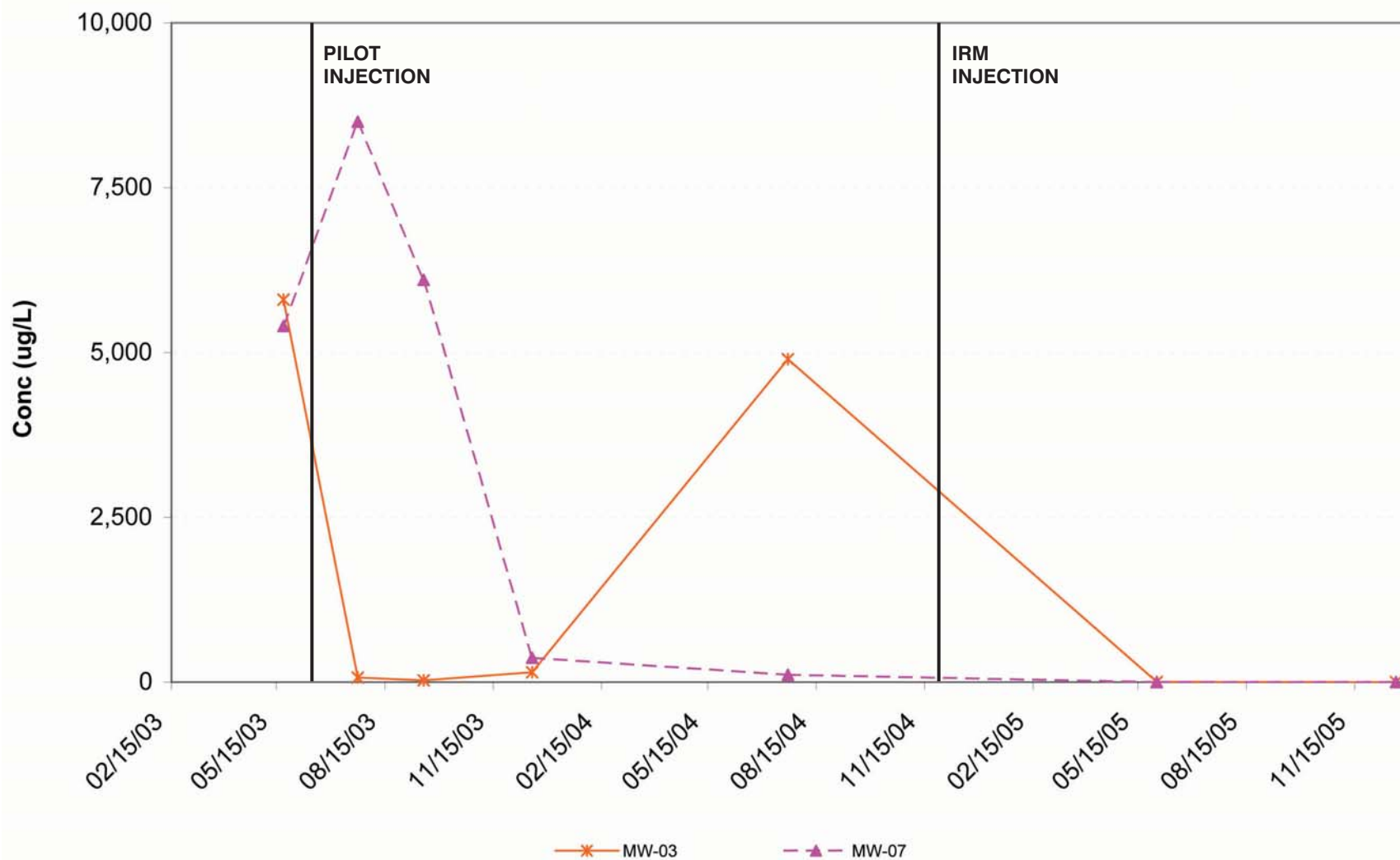


FIGURE 5
FORMER EMCA SITE

Freon 113 Concentrations, GZ-06, MW-02, and MW-06

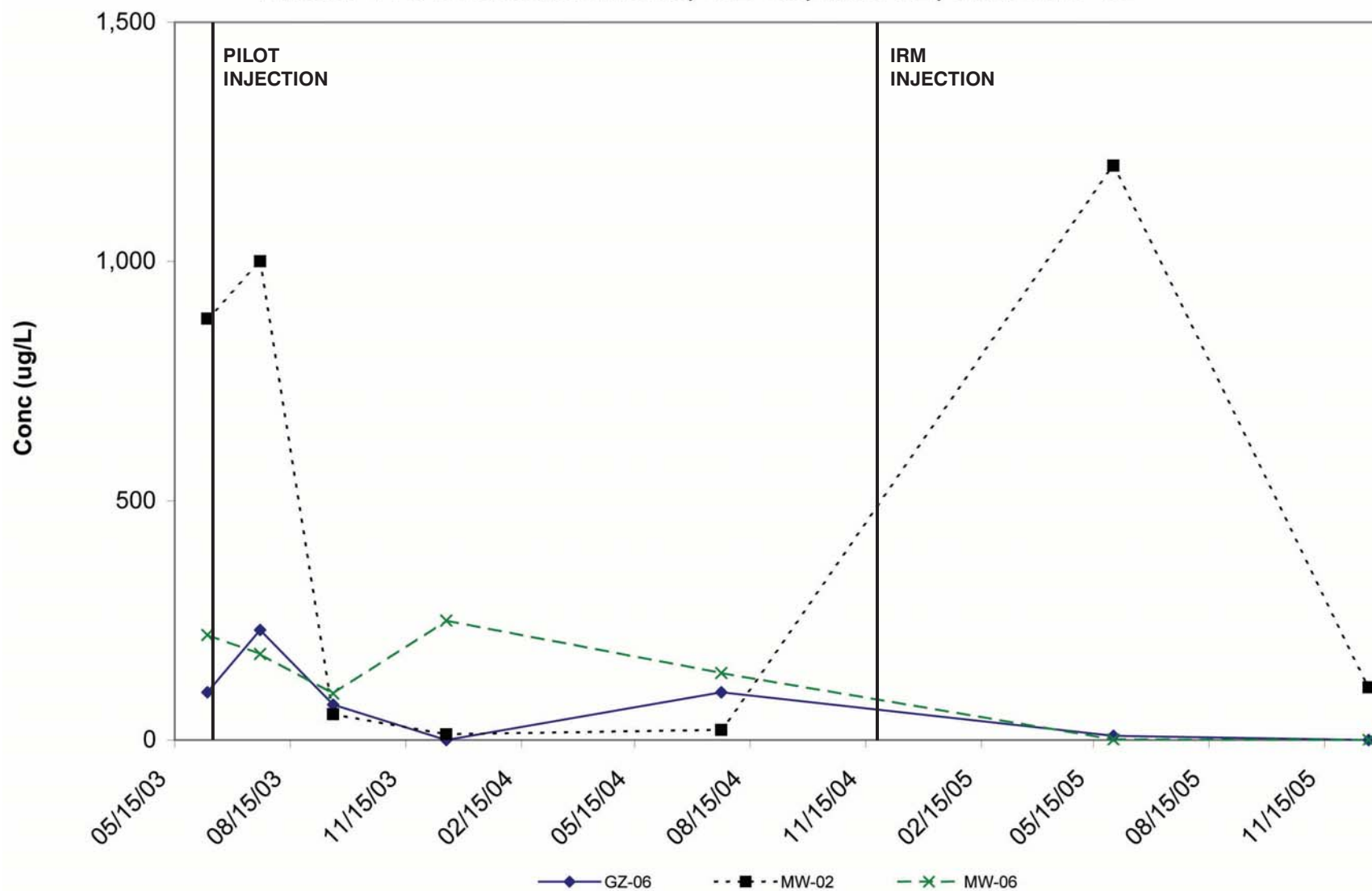


FIGURE 6
FORMER EMCA SITE
Freon 123a Concentrations

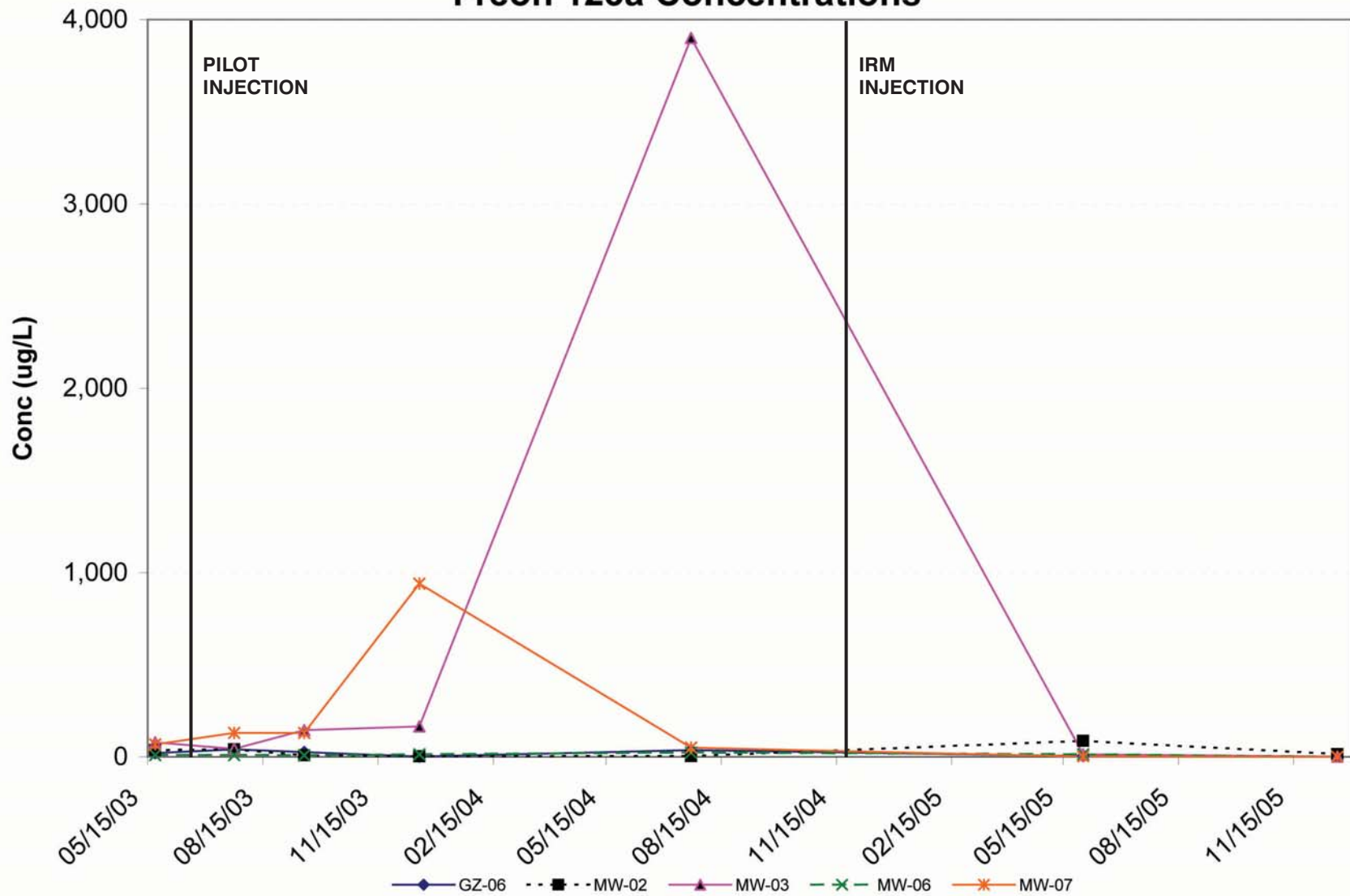


FIGURE 7
FORMER EMCA SITE
Sulfate Concentrations

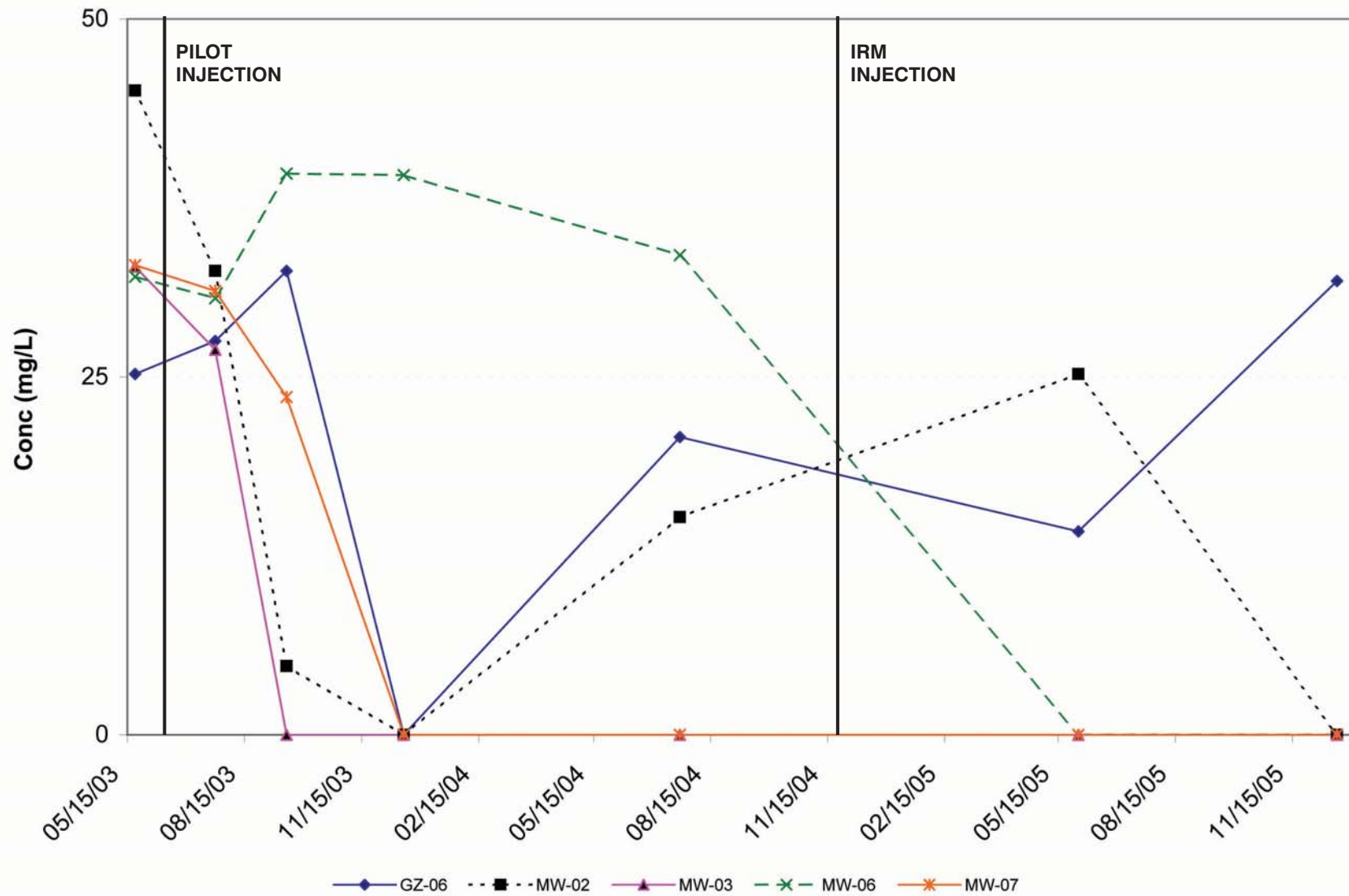


FIGURE 8
FORMER EMCA SITE
Methane Concentrations

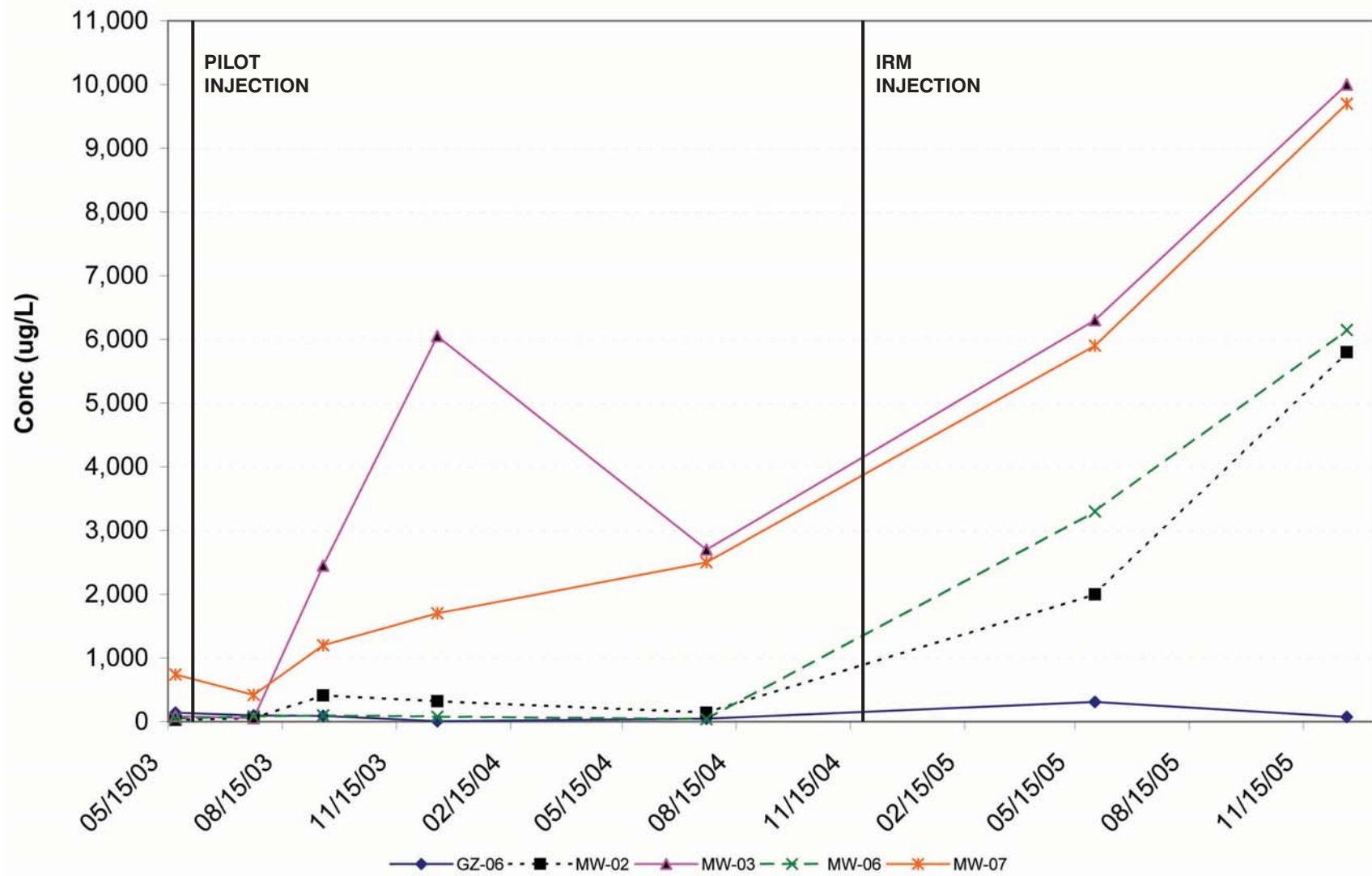


FIGURE 9
FORMER EMCA SITE
Dissolved Oxygen Concentrations

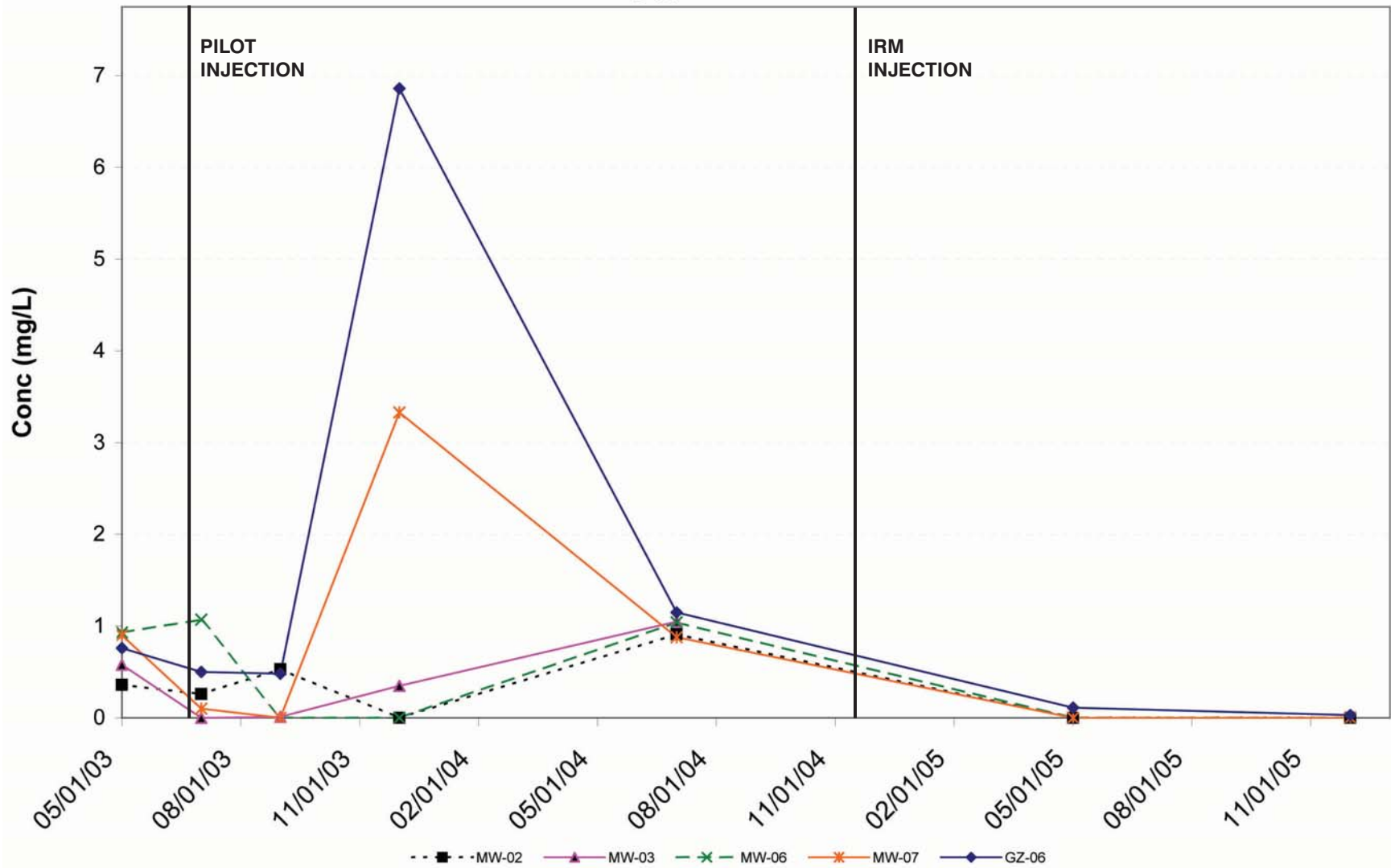
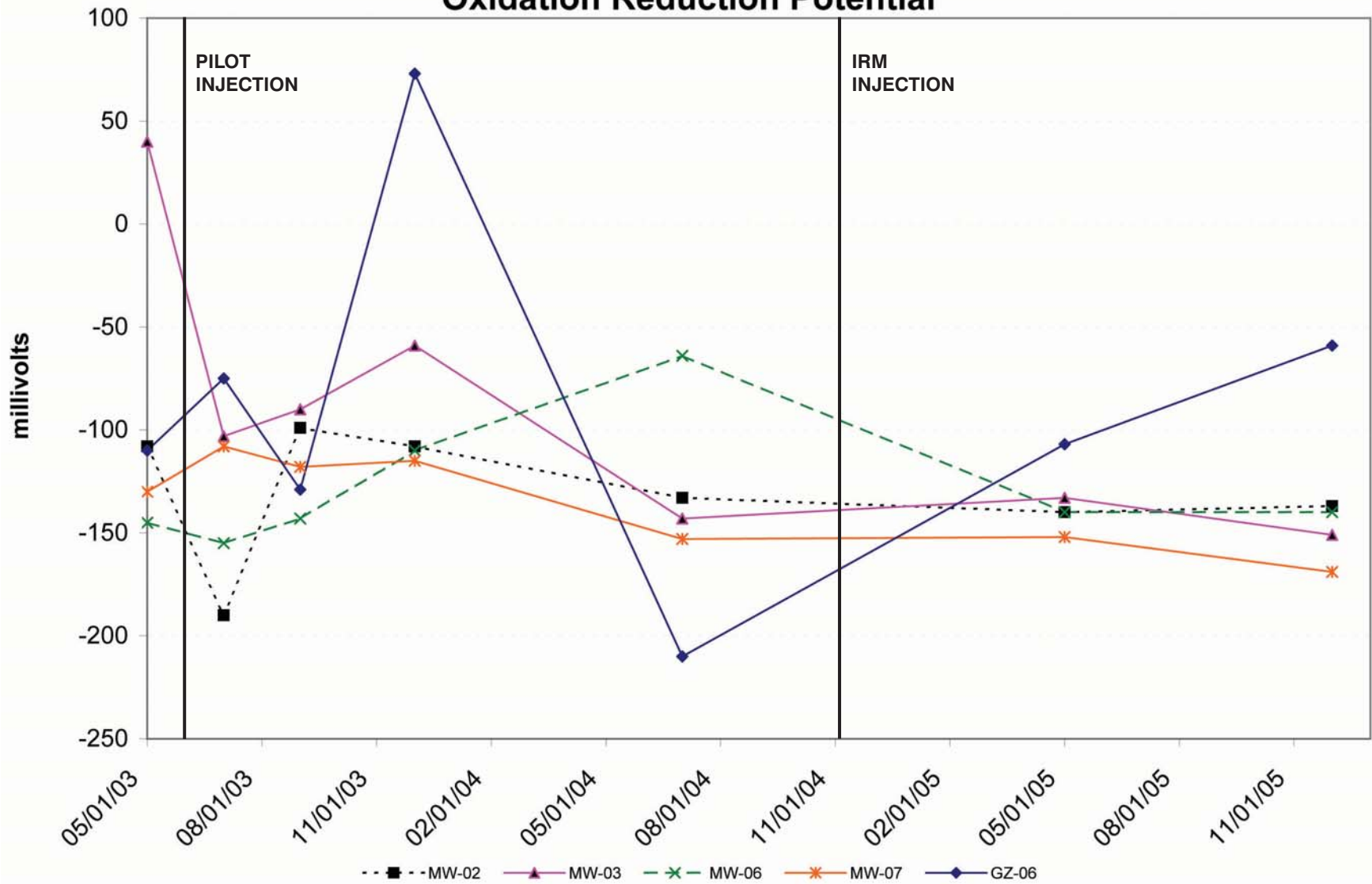


FIGURE 10
FORMER EMCA SITE

Oxidation Reduction Potential



APPENDIX A

**LOW FLOW GROUNDWATER
PURGING/SAMPLING LOGS**

LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

Project: 11174053.00000 Site: Former EMCA Site Well I.D.: GZ-06

Date: 12/20/2005 Sampling Personnel: Eric Lovendowski Company: URS Corporation

Purging/
Sampling
Device: Low Flow Peristaltic Pump (GeoPump 2) Tubing Type: Teflon-lined HDPE & Silicone Pump/Tubing Inlet Location: Midpoint of saturated portion of screen

Measuring Point: Below Top of Riser Initial Depth to Water (ft.): 6.43 Depth to Well Bottom (ft.): 15.31 Well Diameter (in): 2 Screen Length (ft.): 10

Casing Type: PVC Volume in 1 Well Casing (liters): 5.5 Estimated Purge Volume (liters): 8.5

Sample ID: 20051220GZ-06V08N Sample Time: 11:17 QA/QC: 20051220GZ-06V08MS
20051220GZ-06V08SD

Sample Parameters: Freon 113, Freon 1113, Freon 123a, Sulfate, & Methane

PURGE PARAMETERS

TIME	pH	TEMP (°C)	COND. (mS/cm)	DISS. O ₂ (mg/l)	TURB. (NTU)	Eh (mV)	FLOW RATE (ml/min.)	DEPTH TO WATER (btor)
10:44	7.05	12.92	1.62	3.18	728	-125	250	6.50
10:49	7.09	14.22	1.57	2.18	271	-80	250	6.52
10:54	7.19	14.22	1.37	1.02	179	-63	250	6.81
10:59	7.22	13.58	1.16	0.01	109	-47	250	6.82
11:04	7.22	13.45	1.16	0.02	50.3	-52	250	6.82
11:09	7.21	13.39	1.16	0.05	28.9	-57	250	6.82
11:14	7.21	13.37	1.16	0.03	25.1	-59	250	6.82
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: 11174053.00000 Site: Former EMCA Site Well I.D.: MW-02

Date: 12/20/2005 Sampling Personnel: Eric Lovendowski Company: URS Corporation

Purging/
Sampling
Device: Low Flow Peristaltic Pump (GeoPump 2) Tubing Type: Teflon-lined HDPE & Silicone Pump/Tubing Inlet Location: Midpoint of saturated portion of screen

Measuring Point: Below Top of Riser Initial Depth to Water (ft.): 4.71 Depth to Well Bottom (ft.): 16 Well Diameter (in): 1 Screen Length (ft.): 13

Casing Type: PVC Volume in 1 Well Casing (liters): 1.7 Estimated Purge Volume (liters): 8.5

Sample ID: 20051220MW-02V06N Sample Time: 12:07 QA/QC: None

Sample Parameters: Freon 113, Freon 1113, Freon 123a, Sulfate, & Methane

PURGE PARAMETERS

TIME	pH	TEMP (°C)	COND. (mS/cm)	DISS. O ₂ (mg/l)	TURB. (NTU)	Eh (mV)	FLOW RATE (ml/min.)	DEPTH TO WATER (btor)
11:34	7.06	12.38	2.56	1.03	183	-125	250	4.90
11:39	7.05	12.41	2.57	0.09	126	-140	250	4.92
11:44	7.03	12.51	2.59	0.00	93.9	-151	250	4.92
11:49	7.03	12.75	2.55	0.00	48.4	-149	250	4.92
11:54	7.03	12.81	2.54	0.00	45.9	-142	250	4.92
11:59	7.04	12.68	2.52	0.00	43.7	-139	250	4.92
12:04	7.04	12.68	2.51	0.00	43.0	-137	250	4.92
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: 11174053.00000 Site: Former EMCA Site Well I.D.: MW-03

Date: 12/20/2005 Sampling Personnel: Eric Lovendowski Company: URS Corporation

Purging/ Sampling Device:	Low Flow Peristaltic Pump (GeoPump 2)			Tubing Type:	Teflon-lined HDPE & Silicone		Pump/Tubing Inlet Location:	Midpoint of saturated portion of screen	
Measuring Point:	Below Top of Riser	Initial Depth to Water (ft.):	*	Depth to Well Bottom (ft.):	14.30	Well Diameter (in):	1	Screen Length (ft.):	10
Casing Type:	PVC			Volume in 1 Well Casing (liters):	*	Estimated Purge Volume (liters):	6.5		

Sample ID:	20051220MW-03V10N	Sample Time:	14:27	QA/QC:	None
------------	-------------------	--------------	-------	--------	------

Sample Paramaters: Freon 113, Freon 1113, Freon 123a, Sulfate, & Methane

*unable to take water level due to car parked on well

water slightly cloudy

PURGE PARAMETERS

TIME	pH	TEMP (°C)	COND. (mS/cm)	DISS. O ₂ (mg/l)	TURB. (NTU)	Eh (mV)	FLOW RATE (ml/min.)	DEPTH TO WATER (btor)
13:45	6.77	12.6	1.75	3.10	190	-67	200	*
13:50	6.76	13.7	1.67	0.04	134	-118	200	*
13:55	6.78	14.2	1.44	0.03	119	-128	200	*
14:00	6.76	14.2	1.33	0.00	117	-137	200	*
14:05	6.82	14.6	1.27	0.05	96	-145	200	*
14:10	6.77	14.62	1.23	0.00	82	-149	200	*
14:15	6.77	14.66	1.20	0.00	68	-151	200	*
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 ($\text{vol}_{\text{cyl}} = \pi r^2 h$)

LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

Project: 11174053.00000 Site: Former EMCA Site Well I.D.: MW-04

Date: 12/20/2005 Sampling Personnel: Eric Lovendowski Company: URS Corporation

Purging/
Sampling
Device: Low Flow Peristaltic Pump (GeoPump 2) Tubing Type: Teflon-lined HDPE & Silicone Pump/Tubing Inlet Location: Midpoint of saturated portion of screen

Measuring Point: Below Top of Riser Initial Depth to Water (ft.): 4.32 Depth to Well Bottom (ft.): 10.56 Well Diameter (in): 1 Screen Length (ft.): 10

Casing Type: PVC Volume in 1 Well Casing (liters): 1.0 Estimated Purge Volume (liters):

Sample ID: 20051220MW-04V10N Sample Time: 16:08 QA/QC: None

Sample Parameters: Freon 113, Freon 1113, Freon 123a, Sulfate, & Methane

PURGE PARAMETERS

TIME	pH	TEMP (°C)	COND. (mS/cm)	DISS. O ₂ (mg/l)	TURB. (NTU)	Eh (mV)	FLOW RATE (ml/min.)	DEPTH TO WATER (btor)
15:28	7.05	12.93	0.24	2.22	>1100	--	200	4.62
15:33	7.06	12.18	0.33	0.46	548.0	-179	200	4.65
15:38	7.05	11.91	0.33	0.13	216.0	-186	200	4.65
15:43	7.05	12.37	1.45	0.00	112.0	-137	200	4.65
15:48	7.06	12.36	1.44	0.00	107.0	-143	200	4.65
15:53	7.06	12.34	1.44	0.00	66.5	-149	200	4.65
15:58	7.07	12.32	1.47	0.00	59.2	-161	200	4.65
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_{cyt} = $\pi r^2 h$)

LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

Project: 11174053.00000 Site: Former EMCA Site Well I.D.: MW-05

Date: Sampling Personnel: Eric Lovendowski Company: URS Corporation

Purging/ Sampling Device:	Low Flow Peristaltic Pump (GeoPump 2)			Tubing Type:	Teflon-lined HDPE & Silicone		Pump/Tubing Inlet Location:	Midpoint of saturated portion of screen	
Measuring Point:	Below Top of Riser	Initial Depth to Water (ft.):	3.76	Depth to Well Bottom (ft.):	15.60	Well Diameter (in):	1	Screen Length (ft.):	12
Casing Type:	PVC			Volume in 1 Well Casing (liters):	1.8	Estimated Purge Volume (liters):			

Sample ID: _____ Sample Time: _____ QA/QC: _____

Sample Paramaters: Not sampled

PURGE PARAMETERS

[illegible]

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 ($\text{vol}_{\text{cyl}} = \pi r^2 h$)

LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

Project: 11174053.00000 Site: Former EMCA Site Well I.D.: MW-06

Date: 12/20/2005 Sampling Personnel: Eric Lovendowski Company: URS Corporation

Purging/
Sampling
Device: Low Flow Peristaltic Pump (GeoPump 2) Tubing Type: Teflon-lined HDPE & Silicone Pump/Tubing Inlet Location: Midpoint of saturated portion of screen

Measuring Point: Below Top of Riser Initial Depth to Water (ft.): 4.90 Depth to Well Bottom (ft.): 13.74 Well Diameter (in): 1 Screen Length (ft.): 10

Casing Type: PVC Volume in 1 Well Casing (liters): 1.4 Estimated Purge Volume (liters): 8.5

Sample ID: 20051220MW-06V15N Sample Time: 10:25 QA/QC: 20051220MW-06V15FD

Sample Parameters: Freon 113, Freon 1113, Freon 123a, Sulfate, & Methane Only 2 VOA for methane on duplicate sample

Note: Slightly cloudy

PURGE PARAMETERS

TIME	pH	TEMP (°C)	COND. (mS/cm)	DISS. O ₂ (mg/l)	TURB. (NTU)	Eh (mV)	FLOW RATE (ml/min.)	DEPTH TO WATER (btor)
09:53	7.13	11.98	1.72	3.25	735	-88	250	4.95
09:58	6.93	12.86	1.69	0.02	620	-95	250	5.40
10:03	6.87	13.17	1.62	0.45	457	-112	250	5.40
10:08	6.85	13.28	1.43	0.17	128	-128	250	5.40
10:13	6.91	13.18	1.33	0.05	108	-132	250	5.40
10:18	6.94	13.12	1.31	0.01	92	-138	250	5.40
10:23	6.96	13.19	1.29	0.00	93	-140	250	5.40
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_{cyt} = $\pi r^2 h$)

LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

Project: 11174053.00000 Site: Former EMCA Site Well I.D.: MW-07

Date: 12/20/2005 Sampling Personnel: Eric Lovendowski Company: URS Corporation

Purging/
Sampling
Device: Low Flow Peristaltic Pump (GeoPump 2) Tubing Type: Teflon-lined HDPE & Silicone Pump/Tubing Inlet Location: Midpoint of saturated portion of screen

Measuring Point: Below Top of Riser Initial Depth to Water (ft.): 4.97 Depth to Well Bottom (ft.): 19.92 Well Diameter (in): 1 Screen Length (ft.): 10

Casing Type: PVC Volume in 1 Well Casing (liters): 2.3 Estimated Purge Volume (liters): 8

Sample ID: 20051220MW-07V15N Sample Time: 13:32 QA/QC: None

Sample Parameters: Freon 113, Freon 1113, Freon 123a, Sulfate, & Methane

PURGE PARAMETERS

TIME	pH	TEMP (°C)	COND. (mS/cm)	DISS. O ₂ (mg/l)	TURB. (NTU)	Eh (mV)	FLOW RATE (ml/min.)	DEPTH TO WATER (btor)
12:59	6.99	14.83	1.98	1.03	>1100	-111	250	5.20
13:04	6.98	14.93	1.94	0.05	274	-153	250	5.20
13:09	6.98	14.84	1.88	0.00	107	-160	250	5.20
13:14	6.98	14.99	1.78	0.00	15.4	-163	250	5.20
13:19	6.98	15.04	1.73	0.00	11.2	-166	250	5.20
13:24	6.99	15.03	1.68	0.00	10.8	-169	250	5.20
13:29	6.99	15.12	1.65	0.00	10.9	-169	250	5.20
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

DATA USABILITY SUMMARY REPORT

PILOT STUDY

DECEMBER 2005 SAMPLING EVENT

**FORMER EMCA SITE
SITE NO. 360025
MAMARONECK, NEW YORK**

Analyses Performed by:

**SEVERN TRENT LABORATORIES, INC.
777 NEW DURHAM ROAD
EDISON, NEW JERSEY 08817**

Prepared for:

**ROHM & HAAS COMPANY
3100 STATE ROAD
CROYDON, PA 19021**

Prepared by:

**URS CORPORATION
77 GOODELL STREET
BUFFALO, NY 14203**

FEBRUARY 2006

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III. DATA DELIVERABLE COMPLETENESS	2
IV. PRESERVATION/HOLDING TIMES/SAMPLE RECEIPT	2
V. NONCONFORMANCES	2
VI. SUMMARY	2

TABLES (Following Text)

Table 1	Sample and Analysis Summary
Table 2	Groundwater Analytical Results
Table 3	Field QC Analytical Results

ATTACHMENTS

Attachment A – Validated Form 1's

Attachment B – Support Documentation

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 *Guidance for the Development of Data Usability Summary Reports*, dated June 1999. This DUSR discusses the results for the groundwater samples collected from the Pilot Study conducted at the Former EMCA Site located in Mamaroneck, New York.

II. ANALYTICAL METHODOLOGIES

The data being evaluated are for six groundwater samples, one field duplicate, one matrix spike/matrix spike duplicate (MS/MSD), and one trip blank collected on December 20, 2005. Table 1 summarizes the samples collected and the requested analytical parameters. The analytical laboratory that performed the analyses is Severn Trent Laboratories, Inc. (Edison, NJ). The samples were analyzed for the following parameters:

<u>Parameter</u>	<u>Method No.</u>	<u>References</u>
Volatile Organic Compounds (VOCs)*	OLM04.2	1
Methane, Ethane, Ethene	RSK-175	2
Sulfate	375.4	1

References:

1. NYSDEC Analytical Services Protocol, June 2000.
2. USEPA, R.S. Kerr Environmental Research Laboratory, March 15, 1989.

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).

A limited data validation was performed following the guidelines in USEPA Region II *Contract Laboratory Program Organics Data Review and Preliminary Review for Statement of Work OLM04.2*, SOP No. HW-6, Revision 12, March 2001 and USEPA Region II *Evaluation of Metals Data for the Contract Laboratory Program, based on SOW 3/90*, Revision XI, January 1992. The validated analytical results are presented in Tables 2 and 3. Copies of the validated laboratory results (i.e., Form 1's) are presented in Attachment A. Copies of the case narratives and 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.

III. DATA DELIVERABLE COMPLETENESS

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

IV. PRESERVATION/HOLDING TIMES/SAMPLE RECEIPT

All samples were received by the laboratory intact, properly preserved, and were analyzed within required holding times, except for the following instance. The chain-of-custody (COC) was not signed and dated by the laboratory upon receipt. The date of sample receipt was confirmed using the FedEx online tracking system, as presented in Attachment B

V. NONCONFORMANCES

Initial and Continuing Calibrations

The percent difference (%D) between the initial calibration (ICAL) average relative response factors (RRF) and the RRFs in the low level continuing calibration (CCAL) standard exceeded 25% for chlorotrifluoroethene and 1,2-dichlorotrifluoroethane. The results for these compounds in samples 20051220MW-06V15N and 20051220MW-06V15FD were qualified 'J' or 'UJ' as presented in Table 2.

VI. SUMMARY

All sample analyses were found to be compliant with the method criteria and are usable as reported, except where previously noted. Those results qualified 'J/UJ' are considered conditionally usable. URS does not recommend the re-collection of any samples at this time.

TABLE 1
SAMPLE AND ANALYSIS SUMMARY
FORMER EMCA SITE - PILOT STUDY

SDG No.	Sample ID	Matrix	Date of Collection	VOCs*	Methane, Ethane, Ethene	Sulfate	Comments
K765/K7651	20051220MW-06V15N	GW	12/20/05	X	X	X	---
	20051220MW-06V15FD	GW		X	X	X	Field Duplicate of MW-06
	20051220MW-07V15N	GW		X	X	X	---
	20051220MW-02V06N	GW		X	X	X	---
	20051220GZ-06V08N	GW		X	X	X	MS/MSD
	20051220MW-04V10N	GW		X	X	X	---
	20051220MW-03V10N	GW		X	X	X	---
	Trip Blank	Water		X	X	---	---

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

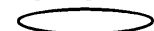
MS/MSD - Matrix Spike/Matrix Spike Duplicate

TABLE 2
FORMER EMCA SITE
GROUNDWATER ANALYTICAL RESULTS

Location ID			GZ-06	MW-02	MW-03	MW-04	MW-06
Sample ID			MW-GZ-06V08N	MW-02V06N	MW-03VION	MW-04VION	MW-06V15FD
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			12/20/05	12/20/05	12/20/05	12/20/05	12/20/05
Parameter	Units	Criteria*					Field Duplicate (1-1)
Volatiles							
Chlorotrifluoroethene (Freon-1113)	UG/L	5	10 U	18	2.0 J	10 U	6.0 J
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	5	10 U	110	10 U	10 U	10 U
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	5	2.0 J	15	1.0 J	10 U	10 UJ
Dissolved Gases							
Methane	UG/L	-	74	5,800	10,000	400	6,700
Miscellaneous Parameters							
Sulfate	MG/L	250	31.7	5 U	5 U	6.66	5 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 - Not detected above the reported quantitation limit

J - The reported concentration is an estimated value

Only Detected Results Reported.

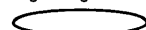
Detection Limits shown are PQL

TABLE 2
FORMER EMCA SITE
GROUNDWATER ANALYTICAL RESULTS

Location ID			MW-06	MW-07
Sample ID			MW-06V15N	MW-07V15N
Matrix			Groundwater	Groundwater
Depth Interval (ft)			-	-
Date Sampled			12/20/05	12/20/05
Parameter	Units	Criteria*		
Volatiles				
Chlorotrifluoroethene (Freon-1113)	UG/L	5	6.0 J	47
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	5	10 U	10 U
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	5	10 UJ	10 U
Dissolved Gases				
Methane	UG/L	-	5,600	9,700
Miscellaneous Parameters				
Sulfate	MG/L	250	5 U	5 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 - Not detected above the reported quantitation limit

J - The reported concentration is an estimated value

Only Detected Results Reported.

Detection Limits shown are PQL

TABLE 3
FORMER EMCA SITE
FIELD QC ANALYTICAL RESULTS

Location ID		FIELDQC
Sample ID		MTNTB
Matrix		Water
Depth Interval (ft)		-
Date Sampled		12/15/05
Parameter	Units	Trip Blank (1-1)
Volatiles		
Chlorotrifluoroethene (Freon-1113)	UG/L	10 U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	UG/L	10 U
1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)	UG/L	10 U
Dissolved Gases		
Methane	UG/L	5.0 U

Flags assigned during chemistry validation are shown.

U - Not detected above the reported quantitation limit

Detection Limits shown are PQL

ATTACHMENT A

VALIDATED 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.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-06V15N

Lab Name: STL EDISON

Contract: N/A

Lab Code: N/A

Case No.: N/A

SAS No.: N/A

SDG No.: K7651

Matrix: (soil/water) WATER

Lab Sample ID: 696526

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: B42348

Level: (low/med) LOW

Date Received: 12/21/05

% Moisture: not dec. _____

Date Analyzed: 12/29/05

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS NO.

COMPOUND

CONCENTRATION UNITS:

(ug/L or ug/Kg)

UG/L

Q

76-13-1	112-Trichlorotrifluoroethane	10	U
79-38-9	Chlorotrifluoroethene	6	8 J
354-23-4	1,2-Dichlorotrifluoroethane	10	8 UJ

2/14/06

FORM I VOA-1

OLM04.2

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-06V15FD

Lab Name: STL EDISON

Contract: N/A

Lab Code: N/A

Case No.: N/A

SAS No.: N/A

SDG No.: K7651

Matrix: (soil/water) WATER

Lab Sample ID: 696527

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: B42349

Level: (low/med) LOW

Date Received: 12/21/05

% Moisture: not dec. _____

Date Analyzed: 12/29/05

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS NO.

COMPOUND

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

76-13-1	112-Trichlorotrifluoroethane	10	U
79-38-9	Chlorotrifluoroethene	6	U J
354-23-4	1,2-Dichlorotrifluoroethane	10	U UJ

2/14/06
2

FORM I VOA-1

OLM04.2

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-03VION

Lab Name: STL EDISON

Contract: N/A

Lab Code: N/A

Case No.: N/A

SAS No.: N/A

SDG No.: K7651

Matrix: (soil/water) WATER

Lab Sample ID: 696528

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: B42356

Level: (low/med) LOW

Date Received: 12/21/05

% Moisture: not dec. _____

Date Analyzed: 12/30/05

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS NO.

COMPOUND

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L Q

76-13-1	112-Trichlorotrifluoroethane	10	U
79-38-9	Chlorotrifluoroethene	2	J
354-23-4	1,2-Dichlorotrifluoroethane	1	J

FORM I VOA-1

OLM04.2

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-04VION

Lab Name: STL EDISON

Contract: N/A

Lab Code: N/A

Case No.: N/A

SAS No.: N/A

SDG No.: K7651

Matrix: (soil/water) WATER

Lab Sample ID: 696529

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: B42357

Level: (low/med) LOW

Date Received: 12/21/05

% Moisture: not dec. _____

Date Analyzed: 12/30/05

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS NO.

COMPOUND

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L Q

76-13-1	112-Trichlorotrifluoroethane	10	U
79-38-9	Chlorotrifluoroethene	10	U
354-23-4	1,2-Dichlorotrifluoroethane	10	U

FORM I VOA-1

OLM04.2

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-GZ-06V08N

Lab Name: STL EDISON

Contract: N/A

Lab Code: N/A

Case No.: N/A

SAS No.: N/A

SDG No.: K7651

Matrix: (soil/water) WATER

Lab Sample ID: 696530

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: B42358

Level: (low/med) LOW

Date Received: 12/21/05

% Moisture: not dec. _____

Date Analyzed: 12/30/05

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS NO.

COMPOUND

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

76-13-1	112-Trichlorotrifluoroethane	10	U
79-38-9	Chlorotrifluoroethene	10	U
354-23-4	1,2-Dichlorotrifluoroethane	2	J

FORM I VOA-1

OLM04.2

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-02V06N

Lab Name: STL EDISON

Contract: N/A

Lab Code: N/A

Case No.: N/A

SAS No.: N/A

SDG No.: K7651

Matrix: (soil/water) WATER

Lab Sample ID: 696533

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: B42363

Level: (low/med) LOW

Date Received: 12/21/05

% Moisture: not dec. _____

Date Analyzed: 12/30/05

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS NO.

COMPOUND

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L Q

76-13-1	112-Trichlorotrifluoroethane	110	_____
79-38-9	Chlorotrifluoroethene	18	_____
354-23-4	1,2-Dichlorotrifluoroethane	15	_____

FORM I VOA-1

OLM04.2

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-07V15N

Lab Name: STL EDISON

Contract: N/A

Lab Code: N/A

Case No.: N/A

SAS No.: N/A

SDG No.: K7651

Matrix: (soil/water) WATER

Lab Sample ID: 696534

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: B42364

Level: (low/med) LOW

Date Received: 12/21/05

% Moisture: not dec. _____

Date Analyzed: 12/30/05

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS NO.

COMPOUND

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

76-13-1	112-Trichlorotrifluoroethane	10	U
79-38-9	Chlorotrifluoroethene	47	
354-23-4	1,2-Dichlorotrifluoroethane	10	U

FORM I VOA-1

OLM04.2

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: STL EDISON

Contract: N/A

MTNTB

Lab Code: N/A

Case No.: N/A

SAS No.: N/A

SDG No.: K7651

Matrix: (soil/water) WATER

Lab Sample ID: 696535

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: B42347

Level: (low/med) LOW

Date Received: 12/21/05

% Moisture: not dec. _____

Date Analyzed: 12/29/05

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND		
76-13-1	112-Trichlorotrifluoroethane	10	U
79-38-9	Chlorotrifluoroethene	10	U
354-23-4	1,2-Dichlorotrifluoroethane	10	U

FORM I VOA-1

OLM04.2

Client ID: MW-06V15N
Site: Rohm & Haas

Lab Sample No: 696526
Lab Job No: K765

Date Sampled: 12/20/05
Date Received: 12/21/05
Date Analyzed: 12/28/05
GC Column: GS-Q
Instrument ID: VSCREEN3.i
Lab File ID: scrc0086.d

Matrix: WATER
Level: MED
Purge Volume: 10.0 ml
Final Volume: 0.0 mL
Dilution Factor: 50.0

METHANE, ETHANE, ETHENE
METHOD 3810

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u> <u>Limit</u> <u>Units: ug/l</u>
Methane	5600	250

Client ID: MW-06V15FD
Site: Rohm & Haas

Lab Sample No: 696527
Lab Job No: K765

Date Sampled: 12/20/05
Date Received: 12/21/05
Date Analyzed: 12/28/05
GC Column: GS-Q
Instrument ID: VSCREEN3.i
Lab File ID: scrc0088.d

Matrix: WATER
Level: MED
Purge Volume: 10.0 ml
Final Volume: 0.0 mL
Dilution Factor: 100.0

METHANE, ETHANE, ETHENE
METHOD 3810

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u> <u>Limit</u> <u>Units: ug/l</u>
Methane	6700	500

Client ID: MW-03VION
Site: Rohm & Haas

Lab Sample No: 696528
Lab Job No: K765

Date Sampled: 12/20/05
Date Received: 12/21/05
Date Analyzed: 12/28/05
GC Column: GS-Q
Instrument ID: VSCREEN3.i
Lab File ID: scrc0089.d

Matrix: WATER
Level: MED
Purge Volume: 10.0 ml
Final Volume: 0.0 mL
Dilution Factor: 100.0

METHANE, ETHANE, ETHENE
METHOD 3810

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u> <u>Limit</u> <u>Units: ug/l</u>
Methane	10000	500

Client ID: MW-04VION
Site: Rohm & Haas

Lab Sample No: 696529
Lab Job No: K765

Date Sampled: 12/20/05
Date Received: 12/21/05
Date Analyzed: 12/28/05
GC Column: GS-Q
Instrument ID: VSCREEN3.i
Lab File ID: scrc0085.d

Matrix: WATER
Level: MED
Purge Volume: 10.0 ml
Final Volume: 0.0 mL
Dilution Factor: 5.0

METHANE, ETHANE, ETHENE
METHOD 3810

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u> <u>Limit</u> <u>Units: ug/l</u>
Methane	400	25

Client ID: MW-GZ-06V08N
Site: Rohm & Haas

Lab Sample No: 696530
Lab Job No: K765

Date Sampled: 12/20/05
Date Received: 12/21/05
Date Analyzed: 12/28/05
GC Column: GS-Q
Instrument ID: VSCREEN3.i
Lab File ID: scrc0096.d

Matrix: WATER
Level: MED
Purge Volume: 10.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

METHANE, ETHANE, ETHENE
METHOD 3810

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u> <u>Limit</u> <u>Units: ug/l</u>
Methane	74	5.0

Client ID: MW-02V06N
Site: Rohm & Haas

Lab Sample No: 696533
Lab Job No: K765

Date Sampled: 12/20/05
Date Received: 12/21/05
Date Analyzed: 12/28/05
GC Column: GS-Q
Instrument ID: VSCREEN3.i
Lab File ID: scrc0095.d

Matrix: WATER
Level: MED
Purge Volume: 10.0 ml
Final Volume: 0.0 mL
Dilution Factor: 100.0

METHANE, ETHANE, ETHENE
METHOD 3810

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u> <u>Limit</u> <u>Units: ug/l</u>
Methane	5800	500

Client ID: MW-07V15N
Site: Rohm & Haas

Lab Sample No: 696534
Lab Job No: K765

Date Sampled: 12/20/05
Date Received: 12/21/05
Date Analyzed: 12/28/05
GC Column: GS-Q
Instrument ID: VSCREEN3.i
Lab File ID: scrc0090.d

Matrix: WATER
Level: MED
Purge Volume: 10.0 ml
Final Volume: 0.0 mL
Dilution Factor: 100.0

METHANE, ETHANE, ETHENE
METHOD 3810

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u> <u>Limit</u> <u>Units: ug/l</u>
Methane	9700	500

Client ID: MTNTB
Site: Rohm & Haas

Lab Sample No: 696535
Lab Job No: K765

Date Sampled: 12/15/05
Date Received: 12/21/05
Date Analyzed: 12/28/05
GC Column: GS-Q
Instrument ID: VSCREEN3.i
Lab File ID: scrc0069.d

Matrix: WATER
Level: MED
Purge Volume: 10.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

METHANE, ETHANE, ETHENE
METHOD 3810

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Quantitation</u> <u>Limit</u> <u>Units: ug/l</u>
Methane	ND	5.0

Site: Rohm & Haas
Matrix: WATER

Lab Job No: K765
QA Batch: 2287

Sulfate

<u>STL Edison</u> <u>Sample #</u>	<u>Client ID</u>	<u>Date</u> <u>Sampled</u>	<u>Date</u> <u>Analyzed</u>	<u>Dilution</u> <u>Factor</u>	<u>Analytical</u> <u>Result</u> <u>Units: mg/l</u>
696526	MW-06V15N	12/20/05	12/22/05	1.0	ND
696527	MW-06V15FD	12/20/05	12/22/05	1.0	ND
696528	MW-03VION	12/20/05	12/22/05	1.0	ND
696529	MW-04VION	12/20/05	12/22/05	1.0	6.66
696530	MW-GZ-06V08N	12/20/05	12/29/05	1.0	31.7
696533	MW-02V06N	12/20/05	12/22/05	1.0	ND
696534	MW-07V15N	12/20/05	12/22/05	1.0	ND

Quantitation Limit for Sulfate is 5.0 mg/l.

ATTACHMENT B

SUPPORT DOCUMENTATION

SDG NARRATIVE

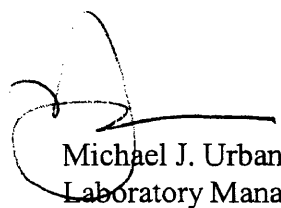
STL EDISON

SDG No. K7651

<u>STL Edison Sample</u>	<u>Client ID</u>
696526	20051220MW-06V15N
696527	20051220MW-06V15FD
696528	20051220MW-03VION
696529	20051220MW-04VION
696530	20051220MW-GZ-06V08N
696533	20051220MW-02V06N
696534	20051220MW-07V15N
696535	20051220MTNTB

<u>Fraction</u>	<u>Problems Encountered</u>	<u>Corrective Action Taken</u>
Volatiles	None	N/A

I certify that this data package is in compliance with the terms of the contract (OLM04.2) both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this data package has been authorized by the laboratory manager or his designee.

 1/18/01
Michael J. Urban
Laboratory Manager

CHAIN OF CUSTODY RECORD

PROJECT NO. 11172730-00000 SITE NAME Rohm-Hess - Former ENEA SITE
 SAMPLERS (PRINT/SIGNATURE) Eric Lovenduski / *EL*

DELIVERY SERVICE: FedEx AIRBILL NO.: 3544 4345 2004

LOCATION IDENTIFIER	DATE	TIME	COMPI GRAB	SAMPLE ID	MATRIX	TOTAL NO. OF CONTAINERS	BOTTLE TYPE AND PRESERVATIVE	TESTS	REMARKS	SAMPLE TYPE	BEGINNING DEPTH (IN FEET)	ENDING DEPTH (IN FEET)	FIELD LOT NO. # (HRIMS)
MW-06	12/20/05	1025	GRAB	20051220MW-06V15N	WG	7	3-40m vials L/HCl 1-250mL poly unplug	375.4 54.14 RSG-175 Methane 123A-QM- Freon 113/1113	K765	NI	-	-	-
FIELD DUP	12/20/05	—	GRAB	20051220MW-06V15FD	WG	6	3-40m vials L/HCl		2 vials for Methane 2 vials for Freon	FR	-	-	-
MW-03	12/20/05	1427	GRAB	20051220MW-03V10N	WG	5	3-40m vials L/HCl		2 vials for Methane 2 vials for Freon	NI	-	-	-
MW-04	12/20/05	1608	GRAB	20051220MW-04V10N	WG	45	3-40m vials L/HCl		2 vials for Methane 2 vials for Freon	NI	-	-	-
GZ-06	12/20/05	1117	GRAB	20051220GZ-06V08N	WG	7	3-40m vials L/HCl		2 vials for Methane 2 vials for Freon	MS	-	-	-
GZ-06	12/20/05	1117	GRAB	20051220GZ-06V08SD	WG	7	3-40m vials L/HCl		2 vials for Methane 2 vials for Freon	SD	-	-	-
GZ-06	12/20/05	1117	GRAB	20051220GZ-06V08SD	WG	5	3-40m vials L/HCl		2 vials for Methane 2 vials for Freon	NI	-	-	-
MW-02	12/20/05	1207	GRAB	20051220MW-02V06N	WG	5	3-40m vials L/HCl		2 vials for Methane 2 vials for Freon	NI	-	-	-
MW-07	12/20/05	1332	GRAB	20051220MW-07V15N	WG	5	3-40m vials L/HCl		2 vials for Methane 2 vials for Freon	NI	-	-	-
Rinse Blank	12/15/05	1615	GRAB	20051220MTNTB	WG	4	3-40m vials L/HCl		2 vials for Methane 2 vials for Freon	TB	-	-	-
Tri Blank	12/15/05	1615	GRAB	20051220MTNTB	WG	4	3-40m vials L/HCl		2 vials for Methane 2 vials for Freon	TB	-	-	-

LH - HAZARDOUS LIQUID WASTE
 LF - FLOATING/FREE PRODUCT ON GW TABLE

WO - OCEAN WATER
 WS - SURFACE WATER
 WQ - WATER FIELD QC

WL - LEACHATE
 GS - SOIL GAS
 WC - DRILLING WATER

WG - GROUND WATER
 SO - SOIL
 DC - DRILL CUTTINGS

SL - SLUDGE
 WP - DRINKING WATER
 WW - WASTE WATER

AA - AMBIENT AIR
 SE - SEDIMENT
 SH - HAZARDOUS SOLID WASTE

RB# - RINSE BLANK
 FR# - FIELD REPLICATE
 NS# - MATRIX SPIKE

(# - SEQUENTIAL NUMBER (FROM 1 TO 9) TO ACCOMMODATE MULTIPLE SAMPLES IN A SINGLE DAY)

SPECIAL INSTRUCTIONS

Samples shipped on ice

Contact Peter Fairbanks w/ questions

1-716-856-5636

RECEIVED BY (SIGNATURE)

DATE TIME

RECEIVED FOR LAB BY (SIGNATURE)

DATE TIME

RECEIVED BY (SIGNATURE)

DATE TIME

RECEIVED BY (SIGNATURE)

DATE TIME

Distribution: Original accompanies shipment, copy to coordinator field files

INTERNAL CUSTODY RECORD
AND
LABORATORY CHRONICLE
STL Edison

777 New Durham Road, Edison, New Jersey
08817

SDG No: K7651

Site: Rohm & Haas

Client: URS Greiner-NY

VOAMS

WATER - CLP - AGENCY

Lab Sample ID	Date Sampled	Date Received	Preparation Date	Technician's Name	Analysis Date	Analyst's Name	QA Batch
696526	12/20/2005	12/21/2005			12/29/2005	Tupayachi, Audberto	0725
696527	12/20/2005	12/21/2005			12/29/2005	Tupayachi, Audberto	0725
696528	12/20/2005	12/21/2005			12/30/2005	Tupayachi, Audberto	0725
696529	12/20/2005	12/21/2005			12/30/2005	Tupayachi, Audberto	0725
696530	12/20/2005	12/21/2005			12/30/2005	Tupayachi, Audberto	0725
696533	12/20/2005	12/21/2005			12/30/2005	Tupayachi, Audberto	0725
696534	12/20/2005	12/21/2005			12/30/2005	Tupayachi, Audberto	0725
696535	12/15/2005	12/21/2005			12/29/2005	Tupayachi, Audberto	0725

[United States Home](#)[Information Center](#) | [Custom](#)[Package / Envelope Services](#)[Office / Print Services](#)[Freight Services](#)[Expedited Servi](#)[Ship](#)[Track](#)[Manage My Account](#)[International Tools](#)Track Shipments
Detailed Results[Printable Version](#)[Quick Help](#)

Tracking number 854443452004
Signed for by Y.PANDYA
Ship date Dec 20, 2005
Delivery date Dec 21, 2005 9:41 AM
Status Delivered

Reference
Delivered to
Service type
Weight

11174053-00021
Shipping/Receiving
Priority Overnight
35.0 lbs.

Wrong Address?
Reduce future mistal
[FedEx Address Cher](#)

Shipping Freight?
FedEx has [LTL](#), [air fi](#)
[surface](#) and [air expe](#)
[multi piece package](#)
and [ocean freight](#).

Date/Time	Activity	Location	Details
Dec 21, 2005	9:41 AM	Delivered	
	8:50 AM	Departed FedEx location	NEWARK, NJ
	8:43 AM	On FedEx vehicle for delivery	EDISON, NJ
	8:39 AM	At local FedEx facility	EDISON, NJ
Dec 20, 2005	9:48 PM	Left origin	MENANDS, NY
	6:02 PM	Picked up	MENANDS, NY

[Signature proof](#)[Email results](#)[Track more shipments](#)

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Your Name: Your Email Address:

Email address

Language

Exception
updatesDelivery
updates

English

English

English

English

☐

☐

☐

☐

Select format: ☒ HTML ☐ Text ☐ Wireless

Add personal message:

Not available for Wireless or
non-English characters.☐By selecting this check box and the Submit button, I agree to these [Terms and Conditions](#)[Submit](#)

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: STL EDISON

Contract: N/A

Lab Code: N/A

Case No.: N/A

SAS No.: N/A

SDG No.: K7651

Lab File ID: B42342

BFB Injection Date: 12/29/05

Instrument ID: XVOAMS2

BFB Injection Time: 0840

GC Column: DB624

ID: 0.53 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	29.5
75	30.0 - 66.0% of mass 95	60.5
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.0
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	60.4
175	4.0 - 9.0% of mass 174	4.8 (7.9)1
176	93.0 - 101.0% of mass 174	57.6 (95.5)1
177	5.0 - 9.0% of mass 176	4.0 (7.0)2

1-Value is % mass 174

2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		BSTD363	B42343	12/29/05	0903
02	VBLKBV363	VBLKBV363	B42346	12/29/05	1106
03	MTNTB	696535	B42347	12/29/05	1138
04	MW-06V15N	696526	B42348	12/29/05	1205
05	MW-06V15FD	696527	B42349	12/29/05	1232
06					
07					
08					
09					
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12					
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19					
20					
21					
22					

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: STL EDISON Contract: N/A
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: K7651
 Instrument ID: XVOAMS2 Calibration Date: 12/29/05 Time: 0903
 Lab File ID: B42343 Init. Calib. Date(s): 12/28/05 12/29/05
 EPA Sample No. (VSTD050##): Init. Calib. Times: 2347 0134
 Heated Purge: (Y/N) N
 GC Column: DB624 ID: 0.53 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	2.203	2.446		11.0	
Chloromethane	0.595	0.566		-4.9	
Vinyl Chloride	0.900	0.796	0.100	-11.6	25.0
Bromomethane	0.409	0.332	0.100	-18.8	25.0
Chloroethane	0.416	0.507		21.9	
Trichlorofluoromethane	2.627	2.849		8.4	
1,1-Dichloroethene	1.257	1.105	0.100	-12.1	25.0
112-Trichlorotrifluoroethane	2.716	2.659		-2.1	
Acetone	0.617	0.705		14.3	
Carbon Disulfide	3.551	3.102		-12.6	
Methyl Acetate	1.574	1.141		-27.5	
Methylene Chloride	1.319	1.215		-7.9	
trans-1,2-Dichloroethene	1.422	1.301		-8.5	
Methyl tert-Butyl Ether	3.399	3.277		-3.6	
1,1-Dichloroethane	2.709	2.467	0.200	-8.9	25.0
cis-1,2-Dichloroethene	1.439	1.328		-7.7	
2-Butanone	0.863	0.667		-22.7	
Chloroform	3.531	3.311	0.200	-6.2	25.0
1,1,1-Trichloroethane	0.866	0.867	0.100	0.1	25.0
Cyclohexane	0.532	0.506		-4.9	
Carbon Tetrachloride	0.845	0.855	0.100	1.2	25.0
Benzene	1.008	0.926	0.500	-8.1	25.0
1,2-Dichloroethane	2.554	2.486	0.100	-2.7	25.0
Trichloroethene	0.496	0.477	0.300	-3.8	25.0
Methylcyclohexane	0.536	0.513		-4.3	

All other compounds must meet a minimum RRF of 0.010.

FORM VII VOA-1

OLM04.2

7B
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: STL EDISON Contract: N/A
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: K7651
 Instrument ID: XVOAMS2 Calibration Date: 12/29/05 Time: 0903
 Lab File ID: B42343 Init. Calib. Date(s): 12/28/05 12/29/05
 EPA Sample No. (VSTD050##): Init. Calib. Times: 2347 0134
 Heated Purge: (Y/N) N
 GC Column: DB624 ID: 0.53 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
1,2-Dichloropropane	0.443	0.404		-8.8	
Bromodichloromethane	0.999	0.987	0.200	-1.2	25.0
cis-1,3-Dichloropropene	0.648	0.606	0.200	-6.5	25.0
4-Methyl-2-Pentanone	0.711	0.581		-18.3	
Toluene	1.372	1.246	0.400	-9.2	25.0
trans-1,3-Dichloropropene	0.630	0.616	0.100	-2.2	25.0
1,1,2-Trichloroethane	0.428	0.402	0.100	-6.1	25.0
Tetrachloroethene	0.559	0.548	0.200	-2.0	25.0
2-Hexanone	0.480	0.408		-15.0	
Dibromochloromethane	0.786	0.802	0.100	2.0	25.0
1,2-Dibromoethane	0.951	0.921		-3.2	
Chlorobenzene	1.053	0.966	0.500	-8.3	25.0
Ethylbenzene	0.422	0.412	0.100	-2.4	25.0
Xylenes (Total)	0.552	0.511	0.300	-7.4	25.0
Styrene	0.915	0.855	0.300	-6.6	25.0
Bromoform	0.622	0.644	0.100	3.5	25.0
Isopropylbenzene	1.628	1.593		-2.1	
1,1,2,2-Tetrachloroethane	1.099	0.996	0.300	-9.4	25.0
1,3-Dichlorobenzene	0.698	0.754	0.600	8.0	25.0
1,4-Dichlorobenzene	1.057	1.072	0.500	1.4	25.0
1,2-Dichlorobenzene	0.777	0.811	0.400	4.4	25.0
1,2-Dibromo-3-chloropropane	0.360	0.351		-2.5	
1,2,4-Trichlorobenzene	0.580	0.623	0.200	7.4	25.0
TBA					999
a-Methylstyrene					
Chlorotrifluoroethene	1.282	1.658		29.3	999
1,2-Dichlorotrifluoroethane	3.272	4.214		28.8	999
=====	=====	=====	=====	=====	=====
Toluene-d8	1.197	1.189		-0.7	
Bromofluorobenzene	0.622	0.657	0.200	5.6	25.0
1,2-Dichloroethane-d4	2.145	2.178		1.5	

All other compounds must meet a minimum RRF of 0.010.

FORM VII VOA-2

OLM04.2



STL

Nonconformance Summary

STL Edison Job Number: K765

Client: URS Greiner-NY

Date: 1/16/2006

Sample Receipt:

Sample delivery conforms with requirements.

Volatile Organic Analysis (GC):

All data conforms with method requirements.

Wet Chemistry \ Microbiology:

All data conforms with method requirements.

I certify that the test results contained in this data package meet all requirements of NELAC both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

A handwritten signature in black ink that reads "Michael J. Urban".

Michael J. Urban
Laboratory Manager