



December 17, 2010

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  
October 2010 Sampling Event**

Dear Mr. Lee:

Enclosed are two bound copies and a CD containing the Groundwater Sampling and Analysis Report for the October 2010 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**

A handwritten signature in black ink, appearing to read "Bruce J. Przybyl", is positioned above the printed name and title.

Bruce J. Przybyl  
Project Manager

Enc.

cc: Mr. Nathan Walz, NYSDOH (w/attachments)  
Mr. Ed Tokarski, Dow (w/attachments)  
Mr. Louis Vetere, Cablevision (w/attachments)  
Ms. Sally Dewes, NYSDEC (e-mail of LOT)  
File: 11172730/C-1

# **Groundwater Sampling and Analysis Report October 2010 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

**December 2010**

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

**GROUNDWATER SAMPLING AND ANALYSIS REPORT  
OCTOBER 2010 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**

**DECEMBER 2010**

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## 1.0 INTRODUCTION

This report presents the results of groundwater monitoring conducted on October 6, 2010 at the former EMCA site located in Mamaroneck, New York (Figure 1) pursuant to the Site Management Plan approved for the site (URS, 2010b). The monitoring program generates data used to monitor the effectiveness of remedial actions performed at the site from 2003 to 2010.

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 twelfth groundwater sampling event since the interim remedial measure in 2004, the seventh following the supplemental injection event in 2007, and the fourth 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. Remediation goals were achieved for four consecutive monitoring events at monitoring well GZ-06; therefore sampling at well GZ-06 has been discontinued. 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  | 8260B               |
| Freon 123a | 8260B               |
| Freon 1113 | 8260B               |
| Methane    | RSK-175/Method 3810 |

| Parameter | Analytical Method |
|-----------|-------------------|
| Sulfate   | 375.4             |

### 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 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 October 2010 results are provided in Appendix B. Freon 113, 123a and 1113 concentrations 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 graph form on Figure 12.

### 4.0 DATA ASSESSMENT

The groundwater analytical data collected in October 2010 is the fourth 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 June 24, 2010. These results were presented in the previous Groundwater Sampling and Analysis Report for June 2010 (URS, 2010a). The groundwater analytical results for the October 2010 sampling event indicate that Freon 113 concentrations were either at or below the remedial goal of 5 µg/L or not detected at three of the five wells sampled. Freon 113 was detected above 5

µg/L at MW-02 (580 µg/L), decreasing from 670 J µg/L, and at MW-07R (53 J µg/L), increasing from 1.1 J µg/L, in June 2010.

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 (June 2010), Freon 123a increased at MW-07R (1.8 µg/L to 9.5 µg/L) and decreased at MW-02 (37 µg/L to 26 µg/L), MW-03 (0.5 J µg/L to non-detect), and MW-06 (0.57 J µg/L to non-detect). Freon 123a has never been detected at MW-04.

Freon 1113, which holds two less chlorines than Freon 113, decreased in concentration from the June 2010 event at MW-02 (240 µg/L to 180 µg/L), MW-03 (26 µg/L to 4.6 µg/L), MW-04 (12 µg/L to 2.8 µg/L), MW-06 (68 J µg/L to 61 µg/L), and MW-07R (390 µg/L to 350 µg/L).

The October 2010 sulfate concentrations decreased at all locations compared to the previous event. This trend indicates generally more favorable conditions for biological degradation of the Freon compounds.

Methane concentrations increased at MW-03 and decreased at MW-02, MW-04, MW-06, and MW-07R, compared to the previous event. Dissolved oxygen concentrations increased substantially at MW-02 (0.64 mg/L to 6.21 mg/L) and MW-07R (0.69 mg/L to 4.05 mg/L), and decreased to 0 mg/L at MW-03, MW-04 and MW-06.

Oxidation-reduction potentials fluctuated slightly in all wells from the previous event. The range generally became less reducing ranging from between -124 to -170 millivolts in the June 2010 event to between -96 to -129 millivolts in the October 2010 event.

## **5.0 CONCLUSIONS**

A relative comparison of data from the October 2010 event with the June 2010 event, including Freon 113 and its degradation products and various indicator parameters, is presented in Table 4. Comparative data from these events is also discussed in Section 4.

The Freon data trends generally show a continuing, but diminishing, impact of the August-September 2009 supplemental injection event, particularly at MW-02 and MW-07R. Freon 113 concentrations increased at MW-07R, decreased slightly at MW-02, and remained the same at non-detect at the remaining three wells (MW-03, MW-04, and MW-06) in October 2010. Freon 113 daughter product Freon 123a increased at MW-07R, decreased at MW-02, MW-03 and MW-06, and was non-detect at MW-04 in the October 2010 event. A decreasing trend of the Freon 113 daughter product Freon 1113 was apparent in all locations.

Oxidation-reduction potentials fluctuated 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 appear to have a less reducing range (-96 to -129 millivolts). Sulfate, which is a competing electron acceptor with Freon, decreased at all well locations.

Methane concentrations increased at MW-03 and decreased at MW-02, MW-04, MW-06, and MW-07R. Dissolved oxygen concentrations increased at MW-02 and MW-07R, and decreased at MW-03, MW-04 and MW-06. These changes suggest that there is stable biological activity present at MW-03 and decreased activity at MW-02 and MW-07R.

## **6.0 CONTINGENCY TRIGGER EVALUATION**

A comparison of the current round of data to the contingency measure trigger criteria is presented below. These criteria are presented in the Site Management Plan (URS, 2010b).

| TRIGGER CRITERIA                                                                                                                                                                                                                                                                                                                                                                                                                         |                | ANALYSIS                                                                                                                                                                                                                                                                                                                                                                                                     |                |      |          |      |          |      |         |      |         |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------|----------|------|----------|------|---------|------|---------|-------------------------------------------|
| <p>1. A successive increase of 100-percent or greater in Freon 113 concentrations for two consecutive events at any monitored well, assuming that the remediation goal (5 µg/L) is exceeded in at least one of the monitoring events. For example, a well concentration that increased from 4 µg/L to 8 µg/L to 16 µg/L over two consecutive events would trigger contingency measures.</p>                                              |                | <p>No contingency criteria triggered.</p> <ul style="list-style-type: none"><li>Freon 113 was detected at 53 J µg/L at MW-07R in October 2010, increasing from 1.1 J µg/L in June 2010. This increase is greater than 100-percent.</li><li>Although contingency measures are not triggered, measures will be triggered by a detection of 106 µg/L or greater at MW-07R in the next sampling event.</li></ul> |                |      |          |      |          |      |         |      |         |                                           |
| <p>2. Freon 113 is confirmed at MW-04 at a concentration greater than the remediation goal (5 µg/L).</p>                                                                                                                                                                                                                                                                                                                                 |                | <p>No contingency criteria triggered.</p>                                                                                                                                                                                                                                                                                                                                                                    |                |      |          |      |          |      |         |      |         |                                           |
| <p>3. The maximum detected Freon 113 concentration at any well is greater than a maximum target level, as shown below.</p> <table><tr><th>YEAR</th><th>TARGET MAXIMUM</th></tr><tr><td>2011</td><td>320 µg/L</td></tr><tr><td>2012</td><td>160 µg/L</td></tr><tr><td>2013</td><td>80 µg/L</td></tr><tr><td>2014</td><td>40 µg/L</td></tr></table> <p>Once 40 µg/L is achieved after 2014, Criteria #1 becomes the relevant criteria.</p> |                | YEAR                                                                                                                                                                                                                                                                                                                                                                                                         | TARGET MAXIMUM | 2011 | 320 µg/L | 2012 | 160 µg/L | 2013 | 80 µg/L | 2014 | 40 µg/L | <p>No contingency criteria triggered.</p> |
| YEAR                                                                                                                                                                                                                                                                                                                                                                                                                                     | TARGET MAXIMUM |                                                                                                                                                                                                                                                                                                                                                                                                              |                |      |          |      |          |      |         |      |         |                                           |
| 2011                                                                                                                                                                                                                                                                                                                                                                                                                                     | 320 µg/L       |                                                                                                                                                                                                                                                                                                                                                                                                              |                |      |          |      |          |      |         |      |         |                                           |
| 2012                                                                                                                                                                                                                                                                                                                                                                                                                                     | 160 µg/L       |                                                                                                                                                                                                                                                                                                                                                                                                              |                |      |          |      |          |      |         |      |         |                                           |
| 2013                                                                                                                                                                                                                                                                                                                                                                                                                                     | 80 µg/L        |                                                                                                                                                                                                                                                                                                                                                                                                              |                |      |          |      |          |      |         |      |         |                                           |
| 2014                                                                                                                                                                                                                                                                                                                                                                                                                                     | 40 µg/L        |                                                                                                                                                                                                                                                                                                                                                                                                              |                |      |          |      |          |      |         |      |         |                                           |

Based on this analysis, contingency measures are not triggered by the October 2010 sampling event.

## **7.0 NEXT STEPS**

Based on experience with past events, the duration of significant impact of substrate injections appears to be on the order of about 1 to 2 years. Reductive dechlorination may resume at a significant pace into 2011. The next sampling event is scheduled for April 2011. This event will be used to evaluate the pace of reductive dechlorination at the site, particularly in the vicinity of MW-02 and MW-07R.

## REFERENCES

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- URS Inc., 2006a. *Groundwater Sampling and Analysis Report, December 2005 Sampling Event, Former EMCA Site, Site No. 360025, Mamaroneck, New York.* March.
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- 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.
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- URS Inc., 2009b. *2009 Supplemental Injection Work Plan, Former EMCA Site, Site No 360025, Mamaroneck, New York.* July.

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

## **TABLES**

**TABLE 1**  
**GROUNDWATER ELEVATION MEASUREMENTS (October 2010)**  
**FORMER EMCA SITE, MAMARONECK, NEW YORK**

| Location                                                                          | Measuring Point<br>Elevation <sup>1</sup><br>(ft.) | Depth to Water <sup>2</sup><br>(ft.) | Water Surface Elevation<br>(ft.) |
|-----------------------------------------------------------------------------------|----------------------------------------------------|--------------------------------------|----------------------------------|
| GZ-03 <sup>3</sup>                                                                | 26.16                                              | NA                                   | NA                               |
| GZ-06                                                                             | 28.02                                              | 7.39                                 | 20.63                            |
| MW-01                                                                             | 25.74                                              | 5.21                                 | 20.53                            |
| MW-02                                                                             | 25.63                                              | 5.57                                 | 20.06                            |
| MW-03                                                                             | 25.59                                              | 5.55                                 | 20.04                            |
| MW-04                                                                             | 25.31                                              | 5.49                                 | 19.82                            |
| MW-05                                                                             | 24.63                                              | 4.61                                 | 20.02                            |
| MW-06                                                                             | 25.77                                              | 5.69                                 | 20.08                            |
| MW-07R                                                                            | 25.63                                              | 5.72                                 | 19.91                            |
| Benchmark B<br>(Sheldrake River - South<br>Bridge)                                | 32.21                                              | 13.30                                | 18.91                            |
| Benchmark C <sup>4</sup><br>(Sheldrake River - between<br>North and South Bridge) | --                                                 | --                                   | 17.86                            |
| Benchmark D<br>(Sheldrake River - North<br>Bridge)                                | 27.41                                              | 10.60                                | 16.81                            |

Notes:

- 1) All of the monitoring well and benchmark locations were resurveyed on 6/25/2010.
  - 2) Water elevation for all wells and benchmarks was collected on 10/6/2010.
  - 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-06             |
|---------------------------------------------------|-------|-----------|-------------------|-------------------|-------------------|-----------------------|-------------------|
| Sample ID                                         |       |           | 20101006MW-02V08N | 20101006MW-03V09N | 20101006MW-04V08N | 20101006MW-06V13N     | 20101006MW-06V13N |
| Matrix                                            |       |           | Groundwater       | Groundwater       | Groundwater       | Groundwater           | Groundwater       |
| Depth Interval (ft)                               |       |           | -                 | -                 | -                 | -                     | -                 |
| Date Sampled                                      |       |           | 10/06/10          | 10/06/10          | 10/06/10          | 10/06/10              | 10/06/10          |
| Parameter                                         | Units | Criteria* |                   |                   |                   | Field Duplicate (1-1) |                   |
| <b>Volatiles</b>                                  |       |           |                   |                   |                   |                       |                   |
| Chlorotrifluoroethene (Freon-1113)                | UG/L  | 5         | 180               | 4.6               | 2.8               | 61                    | 57                |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113) | UG/L  | 5         | 580               | 1 U               | 1 U               | 1 U                   | 1 U               |
| 1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)   | UG/L  | 5         | 26                | 1 U               | 1 U               | 1 U                   | 1 U               |
| <b>Dissolved Gases</b>                            |       |           |                   |                   |                   |                       |                   |
| Methane                                           | UG/L  | -         | 6,200             | 7,400             | 2,400             | 8,300                 | 8,800             |
| <b>Miscellaneous Parameters</b>                   |       |           |                   |                   |                   |                       |                   |
| Sulfate                                           | MG/L  | 250       | 36.9 J            | 5.1 J             | 5.5 J             | 36.8 J                | 34.5 J            |
| <b>Field Parameter</b>                            |       |           |                   |                   |                   |                       |                   |
| Dissolved Oxygen                                  | MG/L  | -         | 6.21              | 0                 | 0                 | NA                    | 0                 |
| Oxidation Reduction Potential                     | mV    | -         | -107              | -116              | -96               | NA                    | -129              |
| pH                                                | S.U.  | -         | 6.76              | 6.73              | 6.86              | NA                    | 6.97              |
| Specific Conductance                              | MS/CM | -         | 1.91              | 1.68              | 1.48              | NA                    | 0.879             |
| Temperature                                       | DEG C | -         | 19.45             | 20.19             | 21.38             | NA                    | 18.25             |
| Turbidity                                         | NTU   | -         | 11.9              | 6.3               | 3.7               | NA                    | 0                 |

\*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**

|                                                   |              |                  |                    |
|---------------------------------------------------|--------------|------------------|--------------------|
| <b>Location ID</b>                                |              |                  | MW-07R             |
| <b>Sample ID</b>                                  |              |                  | 20101006MW-07R/1EN |
| <b>Matrix</b>                                     |              |                  | Groundwater        |
| <b>Depth Interval (ft)</b>                        |              |                  | -                  |
| <b>Date Sampled</b>                               |              |                  | 10/06/10           |
| <b>Parameter</b>                                  | <b>Units</b> | <b>Criteria*</b> |                    |
| <b>Volatiles</b>                                  |              |                  |                    |
| Chlorotrifluoroethene (Freon-1113)                | UG/L         | 5                | 350                |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113) | UG/L         | 5                | 53 J               |
| 1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)   | UG/L         | 5                | 9.5                |
| <b>Dissolved Gases</b>                            |              |                  |                    |
| Methane                                           | UG/L         | -                | 6,200              |
| <b>Miscellaneous Parameters</b>                   |              |                  |                    |
| Sulfate                                           | MG/L         | 250              | 13 J               |
| <b>Field Parameter</b>                            |              |                  |                    |
| Dissolved Oxygen                                  | MG/L         | -                | 4.05               |
| Oxidation Reduction Potential                     | mV           | -                | -113               |
| pH                                                | S.U.         | -                | 6.82               |
| Specific Conductance                              | MS/CM        | -                | 2.03               |
| Temperature                                       | DEG C        | -                | 21.42              |
| Turbidity                                         | NTU          | -                | 14.3               |

\*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* |                   |             |             |             |              |
| <b>Volatiles</b>                                    |       |           |                   |             |             |             |              |
| 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                | 5.0 UR      | 10 UR       | 5.0 UR      | 5.0 UR       |
| 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-1,1,2,2-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        |
| <b>Dissolved Gases</b>                              |       |           |                   |             |             |             |              |
| Methane                                             | UG/L  | -         | 5.0 U             | 140         | 98          | 89          | 5.9          |
| <b>Total Metals</b>                                 |       |           |                   |             |             |             |              |
| Iron                                                | UG/L  | 300       | NA                | 2,390       | 866         | 517 J       | 173          |
| <b>Dissolved Metals</b>                             |       |           |                   |             |             |             |              |
| 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

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Only Detected Results Reported.

**Detection Limits shown are PQL**

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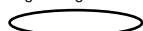
([LOGDATE] BETWEEN #05/01/03# AND #10/06/10#) AND [MATRIX] = 'WG' AND ( [SACODE] = 'N' OR [SACODE] = 'FD' )

**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* |                   |             |             |             |              |
| <b>Miscellaneous Parameters</b> |       |           |                   |             |             |             |              |
| Chloride                        | MG/L  | 250       | NA                | 559         | 474         | 477 J       | 218          |
| 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        |
| 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          | 5.21 UR     | NA           |
| <b>Field Parameter</b>          |       |           |                   |             |             |             |              |
| Dissolved Oxygen                | MG/L  | -         | 0.52              | 0.76        | 0.5         | 0.48        | 6.86         |
| 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           |
| 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.



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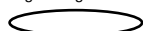
([LOGDATE] BETWEEN #05/01/03# AND #10/6/10#) AND [MATRIX] = 'WG' AND ([SACODE] = 'N' OR [SACODE] = 'FD')

**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* |             |             |              |             |                 |
| <b>Volatiles</b>                                  |       |           |             |             |              |             |                 |
| 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           |
| <b>Dissolved Gases</b>                            |       |           |             |             |              |             |                 |
| Methane                                           | UG/L  | -         | 48          | 310         | 74           | 140         | 180             |
| <b>Total Metals</b>                               |       |           |             |             |              |             |                 |
| Iron                                              | UG/L  | 300       | NA          | NA          | NA           | NA          | NA              |
| <b>Dissolved Metals</b>                           |       |           |             |             |              |             |                 |
| 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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([LOGDATE] BETWEEN #05/01/03# AND #10/6/10#) 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* |             |             |              |             |                 |
| <b>Miscellaneous Parameters</b> |       |           |             |             |              |             |                 |
| Chloride                        | MG/L  | 250       | 1,610       | 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            |
| 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              |
| <b>Field Parameter</b>          |       |           |             |             |              |             |                 |
| Dissolved Oxygen                | MG/L  | -         | 1.15        | 0.11        | 0.03         | 5.67        | 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              |
| 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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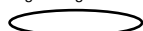
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**TABLE 3**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**FORMER EMCA SITE, MAMARONECK, NEW YORK**

| 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) |                   |                  |                 |                  |
| <b>Volatiles</b>                                  |       |           |                       |                   |                  |                 |                  |
| 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             |
| <b>Dissolved Gases</b>                            |       |           |                       |                   |                  |                 |                  |
| Methane                                           | UG/L  | -         | 210                   | 360               | 23               | 5,900           | 880              |
| <b>Total Metals</b>                               |       |           |                       |                   |                  |                 |                  |
| Iron                                              | UG/L  | 300       | NA                    | NA                | NA               | NA              | NA               |
| <b>Dissolved Metals</b>                           |       |           |                       |                   |                  |                 |                  |
| 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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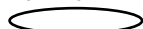
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**TABLE 3**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**FORMER EMCA SITE, MAMARONECK, NEW YORK**

| 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) |                   |                  |                 |                  |
| <b>Miscellaneous Parameters</b> |       |           |                       |                   |                  |                 |                  |
| Chloride                        | MG/L  | 250       | 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             |
| 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               |
| <b>Field Parameter</b>          |       |           |                       |                   |                  |                 |                  |
| Dissolved Oxygen                | MG/L  | -         | NA                    | 4.17              | 1.18             | 4.1             | 0.91             |
| 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             |
| 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 #10/6/10#) 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) |
| <b>Volatiles</b>                                    |       |           |                   |                   |                   |              |                       |
| 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                | 50 UR        | 25 UR                 |
| 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-1,1,2,2-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                    |
| <b>Dissolved Gases</b>                              |       |           |                   |                   |                   |              |                       |
| Methane                                             | UG/L  | -         | 8,700             | 5,000             | 98                | 26           | 32                    |
| <b>Total Metals</b>                                 |       |           |                   |                   |                   |              |                       |
| Iron                                                | UG/L  | 300       | NA                | NA                | NA                | 27,800       | 28,300                |
| <b>Dissolved Metals</b>                             |       |           |                   |                   |                   |              |                       |
| 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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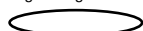
([LOGDATE] BETWEEN #05/01/03# AND #10/01/10#) AND ([MATRIX] = 'WG' AND ([SACODE] = 'N' OR [SACODE] = 'FD'))

**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) |
| Miscellaneous Parameters      |       |           |                   |                   |                   |              |                       |
| Chloride                      | MG/L  | 250       | NA                | NA                | NA                | 338          | 338                   |
| 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                  |
| 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                    |
| 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                    |
| 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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([LOGDATE] BETWEEN #05/01/03# AND #10/6/10#) 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) |              |             |              |             |
| <b>Volatiles</b>                                    |       |           |                       |              |             |              |             |
| Acetone                                             | UG/L  | 50        | 50 UR                 | 50 UR        | 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        | 50 UR                 | 50 UR        | 5.0 UR      | 5.0 UR       | 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-1,1,2,2-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         |
| <b>Dissolved Gases</b>                              |       |           |                       |              |             |              |             |
| Methane                                             | UG/L  | -         | 54                    | 52           | 410         | 320          | 140         |
| <b>Total Metals</b>                                 |       |           |                       |              |             |              |             |
| Iron                                                | UG/L  | 300       | 30,100                | 30,900       | 63,800 J    | 69,000       | NA          |
| <b>Dissolved Metals</b>                             |       |           |                       |              |             |              |             |
| 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.

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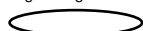
([LOGDATE] BETWEEN #05/01/03# AND #10/6/10#) AND [MATRIX] = 'WG' AND ([SACODE] = 'N' OR [SACODE] = 'FD')

**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) |              |             |              |             |
| Miscellaneous Parameters      |       |           |                       |              |             |              |             |
| Chloride                      | MG/L  | 250       | 307                   | 283          | 839         | 769          | 238         |
| 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        |
| 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        |
| 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          |
| Turbidity                     | NTU   | -         | NA                    | NA           | NA          | NA           | NA          |

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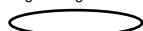
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**TABLE 3**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**FORMER EMCA SITE, MAMARONECK, NEW YORK**

| 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* |             |             |             |                  |                   |
| <b>Volatiles</b>                                    |       |           |             |             |             |                  |                   |
| 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-1,1,2,2-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                |
| <b>Dissolved Gases</b>                              |       |           |             |             |             |                  |                   |
| Methane                                             | UG/L  | -         | 2,000       | 5,800       | 5,500       | 4,300            | 6,300             |
| <b>Total Metals</b>                                 |       |           |             |             |             |                  |                   |
| Iron                                                | UG/L  | 300       | NA          | NA          | NA          | NA               | NA                |
| <b>Dissolved Metals</b>                             |       |           |             |             |             |                  |                   |
| 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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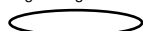
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**TABLE 3**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**FORMER EMCA SITE, MAMARONECK, NEW YORK**

| 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* |             |             |             |                  |                   |
| <b>Miscellaneous Parameters</b> |       |           |             |             |             |                  |                   |
| Chloride                        | MG/L  | 250       | 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              |
| 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                |
| <b>Field Parameter</b>          |       |           |             |             |             |                  |                   |
| Dissolved Oxygen                | MG/L  | -         | 0 U         | 0 U         | 4.92        | NA               | 1.56              |
| 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                |
| 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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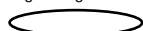
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**TABLE 3**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**FORMER EMCA SITE, MAMARONECK, NEW YORK**

| 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* |                   |                  |                  |                   |                   |
| <b>Volatiles</b>                                  |       |           |                   |                  |                  |                   |                   |
| 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                |
| <b>Dissolved Gases</b>                            |       |           |                   |                  |                  |                   |                   |
| Methane                                           | UG/L  | -         | 2,900             | 6,400            | 6,200            | 8,000             | 6,100             |
| <b>Total Metals</b>                               |       |           |                   |                  |                  |                   |                   |
| Iron                                              | UG/L  | 300       | NA                | NA               | NA               | NA                | NA                |
| <b>Dissolved Metals</b>                           |       |           |                   |                  |                  |                   |                   |
| 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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**Detection Limits shown are PQL**

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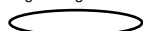
([LOGDATE] BETWEEN #05/01/03# AND #10/6/10#) AND [MATRIX] = 'WG' AND ([SACODE] = 'N' OR [SACODE] = 'FD')

**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                       |       |           | 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* |                   |                  |                  |                   |                   |
| <b>Miscellaneous Parameters</b> |       |           |                   |                  |                  |                   |                   |
| Chloride                        | MG/L  | 250       | 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              |
| 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                |
| <b>Field Parameter</b>          |       |           |                   |                  |                  |                   |                   |
| Dissolved Oxygen                | MG/L  | -         | 0.31              | 2.87             | 0 U              | 0 U               | 0.00              |
| 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             |
| 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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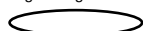
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**TABLE 3**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**FORMER EMCA SITE, MAMARONECK, NEW YORK**

| Location ID                                         |       |           | MW-02             | MW-02             | MW-02             | MW-03       | MW-03       |
|-----------------------------------------------------|-------|-----------|-------------------|-------------------|-------------------|-------------|-------------|
| Sample ID                                           |       |           | 20100225MW-02V08N | 20100624MW-02V08N | 20101006MW-02V08N | MW03_52103  | MW03        |
| Matrix                                              |       |           | Groundwater       | Groundwater       | Groundwater       | Groundwater | Groundwater |
| Depth Interval (ft)                                 |       |           | -                 | -                 | -                 | -           | -           |
| Date Sampled                                        |       |           | 02/25/10          | 06/24/10          | 10/06/10          | 05/21/03    | 07/23/03    |
| Parameter                                           | Units | Criteria* |                   |                   |                   |             |             |
| <b>Volatiles</b>                                    |       |           |                   |                   |                   |             |             |
| Acetone                                             | UG/L  | 50        | NA                | NA                | NA                | 250 U       | 78          |
| Benzene                                             | UG/L  | 1         | NA                | NA                | NA                | 250 U       | 2.3         |
| Methyl ethyl ketone (2-Butanone)                    | UG/L  | 50        | NA                | NA                | NA                | 250 UR      | 130 J       |
| Chlorotrifluoroethene (Freon-1113)                  | UG/L  | 5         | 92 J              | 240               | 180               | 0 U         | 7.0 NJ      |
| 1,1-Dichloroethene                                  | UG/L  | 5         | NA                | NA                | NA                | 33 J        | 2.0 U       |
| cis-1,2-Dichloroethene                              | UG/L  | 5         | NA                | NA                | NA                | 250 U       | 5.0 U       |
| trans-1,2-Dichloroethene                            | UG/L  | 5         | NA                | NA                | NA                | 250 U       | 5.0 U       |
| Ethylbenzene                                        | UG/L  | 5         | NA                | NA                | NA                | 200 U       | 0.3 J       |
| 2-Hexanone                                          | UG/L  | 50        | NA                | NA                | NA                | 250 U       | 5.0 U       |
| 4-Methyl-2-Pentanone                                | UG/L  | -         | NA                | NA                | NA                | 250 U       | 5.0 U       |
| Tetrachloroethene                                   | UG/L  | 5         | NA                | NA                | NA                | 50 U        | 1.0 U       |
| Trichloroethene                                     | UG/L  | 5         | NA                | NA                | NA                | 50 U        | 1.0 U       |
| 1,1,2-Trichloro-1,1,2,2-trifluoroethane (Freon-113) | UG/L  | 5         | 76 J              | 670               | 580               | 5,800       | 68          |
| Vinyl Chloride                                      | UG/L  | 2         | NA                | NA                | NA                | 250 U       | 5.0 U       |
| Xylene (total)                                      | UG/L  | 5         | NA                | NA                | NA                | 250 U       | 1.1 J       |
| 1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)     | UG/L  | 5         | 6.1               | 37                | 26                | 78 J        | 43          |
| <b>Dissolved Gases</b>                              |       |           |                   |                   |                   |             |             |
| Methane                                             | UG/L  | -         | 7,500             | 8,400             | 6,200             | 86          | 56          |
| <b>Total Metals</b>                                 |       |           |                   |                   |                   |             |             |
| Iron                                                | UG/L  | 300       | NA                | NA                | NA                | 1,170       | 150,000     |
| <b>Dissolved Metals</b>                             |       |           |                   |                   |                   |             |             |
| Iron                                                | UG/L  | 300       | NA                | NA                | NA                | 267         | 152,000     |

\*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 #10/06/10#) 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-03       | MW-03       |
|---------------------------------|-------|-----------|-------------------|-------------------|-------------------|-------------|-------------|
| Sample ID                       |       |           | 20100225MW-02V08N | 20100624MW-02V08N | 20101006MW-02V08N | MW03_52103  | MW03        |
| Matrix                          |       |           | Groundwater       | Groundwater       | Groundwater       | Groundwater | Groundwater |
| Depth Interval (ft)             |       |           | -                 | -                 | -                 | -           | -           |
| Date Sampled                    |       |           | 02/25/10          | 06/24/10          | 10/06/10          | 05/21/03    | 07/23/03    |
| Parameter                       | Units | Criteria* |                   |                   |                   |             |             |
| <b>Miscellaneous Parameters</b> |       |           |                   |                   |                   |             |             |
| Chloride                        | MG/L  | 250       | NA                | NA                | NA                | 113         | 143         |
| Nitrogen, Ammonia (As N)        | MG/L  | 2         | NA                | NA                | NA                | 0.36        | 2.7         |
| Nitrogen, Kjeldahl, Total       | MG/L  | -         | NA                | NA                | NA                | 1.3         | 10.8        |
| Nitrogen, Nitrate               | MG/L  | 10        | NA                | NA                | NA                | 2           | NA          |
| Nitrogen, Nitrate-Nitrite       | MG/L  | 10        | NA                | NA                | NA                | NA          | 0.1 UJ      |
| Sulfate                         | MG/L  | 250       | 5 U               | 38.9              | 36.9 J            | 32.7        | 26.9        |
| Ferrous Iron (field)            | MG/L  | -         | NA                | NA                | NA                | 0.5         | 3.7         |
| Ferric Iron (lab)               | MG/L  | -         | NA                | NA                | NA                | 0.67        | 146         |
| Fluoride                        | MG/L  | 1.5       | NA                | NA                | NA                | 0.28        | 0.44        |
| Oil & Grease                    | MG/L  | -         | NA                | NA                | NA                | NA          | NA          |
| <b>Field Parameter</b>          |       |           |                   |                   |                   |             |             |
| Dissolved Oxygen                | MG/L  | -         | 0.00              | 0.64              | 6.21              | 0.58        | 0 U         |
| Oxidation Reduction Potential   | mV    | -         | -147              | -136              | -107              | 40          | -103        |
| pH                              | S.U.  | -         | 6.57              | 8.91              | 6.76              | NA          | NA          |
| Specific Conductance            | MS/CM | -         | 4.48              | 1.70              | 1.91              | 0.638       | 4.35        |
| Temperature                     | DEG C | -         | 9.33              | 16.71             | 19.45             | NA          | NA          |
| Turbidity                       | NTU   | -         | 0                 | 3.0               | 11.9              | 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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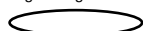
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**TABLE 3**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**FORMER EMCA SITE, MAMARONECK, NEW YORK**

| Location ID                                         |       |           | MW-03                 | MW-03       | MW-03                 | MW-03        | MW-03       |
|-----------------------------------------------------|-------|-----------|-----------------------|-------------|-----------------------|--------------|-------------|
| Sample ID                                           |       |           | DUP-91703             | MW03-091703 | DUP1_121703           | MW-03_121703 | MW-03       |
| Matrix                                              |       |           | Groundwater           | Groundwater | Groundwater           | Groundwater  | Groundwater |
| Depth Interval (ft)                                 |       |           | -                     | -           | -                     | -            | -           |
| Date Sampled                                        |       |           | 09/17/03              | 09/17/03    | 12/17/03              | 12/17/03     | 07/23/04    |
| Parameter                                           | Units | Criteria* | Field Duplicate (1-1) |             | Field Duplicate (1-1) |              |             |
| <b>Volatiles</b>                                    |       |           |                       |             |                       |              |             |
| Acetone                                             | UG/L  | 50        | 110                   | 110         | 130 J                 | 120 J        | NA          |
| Benzene                                             | UG/L  | 1         | 2.2                   | 1.8         | 10 U                  | 10 U         | NA          |
| Methyl ethyl ketone (2-Butanone)                    | UG/L  | 50        | 69 J                  | 65 J        | 39 J                  | 38 J         | NA          |
| Chlorotrifluoroethene (Freon-1113)                  | UG/L  | 5         | 6.2 NJ                | 0 U         | 0 U                   | 0 U          | 68 J        |
| 1,1-Dichloroethene                                  | UG/L  | 5         | 2.0 U                 | 2.0 U       | 4.0 U                 | 4 U          | NA          |
| cis-1,2-Dichloroethene                              | UG/L  | 5         | 5.0 U                 | 5.0 U       | 10 U                  | 10 U         | NA          |
| trans-1,2-Dichloroethene                            | UG/L  | 5         | 5.0 U                 | 5.0 U       | 10 U                  | 10 U         | NA          |
| Ethylbenzene                                        | UG/L  | 5         | 4.0 U                 | 4.0 U       | 8.0 U                 | 8 U          | NA          |
| 2-Hexanone                                          | UG/L  | 50        | 19                    | 16          | 10 U                  | 10 U         | NA          |
| 4-Methyl-2-Pentanone                                | UG/L  | -         | 11                    | 11          | 10 U                  | 10 U         | NA          |
| Tetrachloroethene                                   | UG/L  | 5         | 1.0 U                 | 1.0 U       | 4.9                   | 4.6          | NA          |
| Trichloroethene                                     | UG/L  | 5         | 1.0 U                 | 1.0 U       | 2.0 U                 | 2 U          | NA          |
| 1,1,2-Trichloro-1,1,2,2-trifluoroethane (Freon-113) | UG/L  | 5         | 26                    | 16          | 150                   | 150          | 4,900 J     |
| Vinyl Chloride                                      | UG/L  | 2         | 5.0 U                 | 5.0 U       | 10 U                  | 10 U         | NA          |
| Xylene (total)                                      | UG/L  | 5         | 5.0 U                 | 5.0 U       | 10 U                  | 10 U         | NA          |
| 1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)     | UG/L  | 5         | 180                   | 110         | 170                   | 160          | 3,900       |
| <b>Dissolved Gases</b>                              |       |           |                       |             |                       |              |             |
| Methane                                             | UG/L  | -         | 2,400                 | 2,500       | 7,200                 | 4,900        | 2,700       |
| <b>Total Metals</b>                                 |       |           |                       |             |                       |              |             |
| Iron                                                | UG/L  | 300       | 174,000 J             | 178,000 J   | 156,000               | 164,000      | NA          |
| <b>Dissolved Metals</b>                             |       |           |                       |             |                       |              |             |
| Iron                                                | UG/L  | 300       | 187,000 J             | 186,000 J   | 167,000               | 176,000      | NA          |

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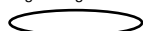
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**TABLE 3**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**FORMER EMCA SITE, MAMARONECK, NEW YORK**

| Location ID                     |       |           | MW-03                 | MW-03       | MW-03                 | MW-03        | MW-03       |
|---------------------------------|-------|-----------|-----------------------|-------------|-----------------------|--------------|-------------|
| Sample ID                       |       |           | DUP-91703             | MW03-091703 | DUP1_121703           | MW-03_121703 | MW-03       |
| Matrix                          |       |           | Groundwater           | Groundwater | Groundwater           | Groundwater  | Groundwater |
| Depth Interval (ft)             |       |           | -                     | -           | -                     | -            | -           |
| Date Sampled                    |       |           | 09/17/03              | 09/17/03    | 12/17/03              | 12/17/03     | 07/23/04    |
| Parameter                       | Units | Criteria* | Field Duplicate (1-1) |             | Field Duplicate (1-1) |              |             |
| <b>Miscellaneous Parameters</b> |       |           |                       |             |                       |              |             |
| Chloride                        | MG/L  | 250       | 99.2 J                | 91.5 J      | 224                   | 192          | 71.7        |
| Nitrogen, Ammonia (As N)        | MG/L  | 2         | 0.86                  | 0.95        | 1.4                   | 1.2          | NA          |
| Nitrogen, Kjeldahl, Total       | MG/L  | -         | 4.5                   | 4.4         | 4.0                   | 4.0          | NA          |
| Nitrogen, Nitrate               | MG/L  | 10        | 0.1 U                 | 0.1 U       | 0.1 U                 | 0.1 U        | 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       |
| Ferrous Iron (field)            | MG/L  | -         | 25.5                  | 27.9        | 23.5                  | 30.0         | NA          |
| Ferric Iron (lab)               | MG/L  | -         | 67.0                  | 93.0        | 132                   | 134          | NA          |
| Fluoride                        | MG/L  | 1.5       | 0.27                  | 0.2         | 0.22                  | 0.25         | 0.397       |
| Oil & Grease                    | MG/L  | -         | 9.26 R                | 9.26 R      | NA                    | NA           | NA          |
| <b>Field Parameter</b>          |       |           |                       |             |                       |              |             |
| Dissolved Oxygen                | MG/L  | -         | NA                    | 0.01        | NA                    | 0.35         | 1.05        |
| Oxidation Reduction Potential   | mV    | -         | NA                    | -90         | NA                    | -59          | -143        |
| pH                              | S.U.  | -         | NA                    | NA          | NA                    | NA           | NA          |
| Specific Conductance            | MS/CM | -         | NA                    | 1.64        | NA                    | 1.99         | 2.40        |
| Temperature                     | DEG C | -         | NA                    | NA          | NA                    | NA           | NA          |
| 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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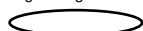
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**TABLE 3**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**FORMER EMCA SITE, MAMARONECK, NEW YORK**

| Location ID                                       |       |           | MW-03       | MW-03       | MW-03       | MW-03             | MW-03             |
|---------------------------------------------------|-------|-----------|-------------|-------------|-------------|-------------------|-------------------|
| Sample ID                                         |       |           | MW-03       | MW-03VION   | MW-03V15N   | 20070207MW-03V10N | 20070731MW-03V10N |
| Matrix                                            |       |           | Groundwater | Groundwater | Groundwater | Groundwater       | Groundwater       |
| Depth Interval (ft)                               |       |           | -           | -           | -           | -                 | -                 |
| Date Sampled                                      |       |           | 05/31/05    | 12/20/05    | 08/14/06    | 02/07/07          | 07/31/07          |
| Parameter                                         | Units | Criteria* |             |             |             |                   |                   |
| <b>Volatiles</b>                                  |       |           |             |             |             |                   |                   |
| 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         | 83          | 2.0 J       | 51          | 39                | 54                |
| 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       | 10 U        | 10 U        | 10                | 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         | 14          | 1.0 J       | 0.8 J       | 48                | 7.0 J             |
| <b>Dissolved Gases</b>                            |       |           |             |             |             |                   |                   |
| Methane                                           | UG/L  | -         | 6,300       | 10,000      | 7,400       | 15,000            | 4,500             |
| <b>Total Metals</b>                               |       |           |             |             |             |                   |                   |
| Iron                                              | UG/L  | 300       | NA          | NA          | NA          | NA                | NA                |
| <b>Dissolved Metals</b>                           |       |           |             |             |             |                   |                   |
| 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

B - Value between Instrument Detection Limit and Contract Required Detection Limit.

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NA - Not Analyzed

R - Rejected

Only Detected Results Reported.

**Detection Limits shown are PQL**

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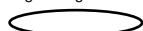
([LOGDATE] BETWEEN #05/01/03# AND #10/06/10#) AND ([MATRIX] = 'WG' AND ([SACODE] = 'N' OR [SACODE] = 'FD'))

**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-03       | MW-03VION   | MW-03V15N   | 20070207MW-03V10N | 20070731MW-03V10N |
| Matrix                          |       |           | Groundwater | Groundwater | Groundwater | Groundwater       | Groundwater       |
| Depth Interval (ft)             |       |           | -           | -           | -           | -                 | -                 |
| Date Sampled                    |       |           | 05/31/05    | 12/20/05    | 08/14/06    | 02/07/07          | 07/31/07          |
| Parameter                       | Units | Criteria* |             |             |             |                   |                   |
| <b>Miscellaneous Parameters</b> |       |           |             |             |             |                   |                   |
| Chloride                        | MG/L  | 250       | 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       | 5.0 U       | 7.80              | 38.4              |
| 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                |
| <b>Field Parameter</b>          |       |           |             |             |             |                   |                   |
| Dissolved Oxygen                | MG/L  | -         | 1.24        | 0 U         | 5.36        | 2.44              | 0.22              |
| Oxidation Reduction Potential   | mV    | -         | -133        | -151        | -123        | -116              | -79.7             |
| pH                              | S.U.  | -         | NA          | NA          | NA          | NA                | 6.15              |
| Specific Conductance            | MS/CM | -         | 3.19        | 1.20        | 0.946       | 0.91              | 1.309             |
| Temperature                     | DEG C | -         | NA          | NA          | NA          | NA                | NA                |
| 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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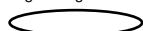
([LOGDATE] BETWEEN #05/01/03# AND #10/6/10#) AND [MATRIX] = 'WG' AND ([SACODE] = 'N' OR [SACODE] = 'FD')

**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                                         |       |           | 20080228MW03V10N | 20080812MW03V10FD     | 20080812MW03V10N | 20090218MW-03V10N | 20091013MW-03V10FD    |
| Matrix                                            |       |           | Groundwater      | Groundwater           | Groundwater      | Groundwater       | Groundwater           |
| Depth Interval (ft)                               |       |           | -                | -                     | -                | -                 | -                     |
| Date Sampled                                      |       |           | 02/28/08         | 08/12/08              | 08/12/08         | 02/18/09          | 10/13/09              |
| Parameter                                         | Units | Criteria* |                  | Field Duplicate (1-1) |                  |                   | Field Duplicate (1-1) |
| <b>Volatiles</b>                                  |       |           |                  |                       |                  |                   |                       |
| 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         | 13 J             | 10                    | 10               | 38                | 20                    |
| 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         | 0.5 J            | 10 U                  | 10 U             | 5.0 J             | 0.92 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         | 4.0 J            | 1.0 J                 | 1.0 J            | 40                | 2.1                   |
| <b>Dissolved Gases</b>                            |       |           |                  |                       |                  |                   |                       |
| Methane                                           | UG/L  | -         | 18,000           | 10,000                | 8,400            | 13,000            | 5,300                 |
| <b>Total Metals</b>                               |       |           |                  |                       |                  |                   |                       |
| Iron                                              | UG/L  | 300       | NA               | NA                    | NA               | NA                | NA                    |
| <b>Dissolved Metals</b>                           |       |           |                  |                       |                  |                   |                       |
| 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

B - Value between Instrument Detection Limit and Contract Required Detection Limit.

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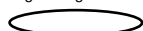
([LOGDATE] BETWEEN #05/01/03# AND #10/6/10#) AND [MATRIX] = 'WG' AND ([SACODE] = 'N' OR [SACODE] = 'FD')

**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                       |       |           | 20080228MW03V10N | 20080812MW03V10FD     | 20080812MW03V10N | 20090218MW-03V10N | 20091013MW-03V10FD    |
| Matrix                          |       |           | Groundwater      | Groundwater           | Groundwater      | Groundwater       | Groundwater           |
| Depth Interval (ft)             |       |           | -                | -                     | -                | -                 | -                     |
| Date Sampled                    |       |           | 02/28/08         | 08/12/08              | 08/12/08         | 02/18/09          | 10/13/09              |
| Parameter                       | Units | Criteria* |                  | Field Duplicate (1-1) |                  |                   | Field Duplicate (1-1) |
| <b>Miscellaneous Parameters</b> |       |           |                  |                       |                  |                   |                       |
| Chloride                        | MG/L  | 250       | 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       | 14.1             | 30.0                  | 28.1             | 50.7 J            | 4.6 J                 |
| 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                    |
| <b>Field Parameter</b>          |       |           |                  |                       |                  |                   |                       |
| Dissolved Oxygen                | MG/L  | -         | 2.94             | NA                    | 0 U              | 0 U               | NA                    |
| Oxidation Reduction Potential   | mV    | -         | -123.0           | NA                    | -149             | -185              | NA                    |
| pH                              | S.U.  | -         | 6.15             | NA                    | 6.36             | 6.06              | NA                    |
| Specific Conductance            | MS/CM | -         | 1.36             | NA                    | 1.69             | 2.08              | NA                    |
| Temperature                     | DEG C | -         | 11.6             | NA                    | 17.8             | 12.87             | NA                    |
| Turbidity                       | NTU   | -         | 41               | NA                    | 2                | 5                 | 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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([LOGDATE] BETWEEN #05/01/03# AND #10/06/10#) 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-04        |
|---------------------------------------------------|-------|-----------|-------------------|-------------------|-------------------|-------------------|--------------|
| Sample ID                                         |       |           | 20091013MW-03V10N | 20100226MW-03V09N | 20100624MW-03V09N | 20101006MW-03V09N | MW04-5-20-03 |
| Matrix                                            |       |           | Groundwater       | Groundwater       | Groundwater       | Groundwater       | Groundwater  |
| Depth Interval (ft)                               |       |           | -                 | -                 | -                 | -                 | -            |
| Date Sampled                                      |       |           | 10/13/09          | 02/26/10          | 06/24/10          | 10/06/10          | 05/20/03     |
| Parameter                                         | Units | Criteria* |                   |                   |                   |                   |              |
| <b>Volatiles</b>                                  |       |           |                   |                   |                   |                   |              |
| Acetone                                           | UG/L  | 50        | NA                | NA                | NA                | NA                | 5.0 U        |
| Benzene                                           | UG/L  | 1         | NA                | NA                | NA                | NA                | 5.0 U        |
| Methyl ethyl ketone (2-Butanone)                  | UG/L  | 50        | NA                | NA                | NA                | NA                | 5.0 UR       |
| Chlorotrifluoroethene (Freon-1113)                | UG/L  | 5         | 19                | 17 J              | 26                | 4.6               | 0 U          |
| 1,1-Dichloroethene                                | UG/L  | 5         | NA                | NA                | NA                | NA                | 2.0 U        |
| cis-1,2-Dichloroethene                            | UG/L  | 5         | NA                | NA                | NA                | NA                | 5.0 U        |
| trans-1,2-Dichloroethene                          | UG/L  | 5         | NA                | NA                | NA                | NA                | 5.0 U        |
| Ethylbenzene                                      | UG/L  | 5         | NA                | NA                | NA                | NA                | 4.0 U        |
| 2-Hexanone                                        | UG/L  | 50        | NA                | NA                | NA                | NA                | 5.0 U        |
| 4-Methyl-2-Pentanone                              | UG/L  | -         | NA                | NA                | NA                | NA                | 5.0 U        |
| Tetrachloroethene                                 | UG/L  | 5         | NA                | NA                | NA                | NA                | 1.0 U        |
| Trichloroethene                                   | UG/L  | 5         | NA                | NA                | NA                | NA                | 1.0 U        |
| 1,1,2-Trichloro-1,1,2-trifluoroethane (Freon-113) | UG/L  | 5         | 0.82 J            | 1 UJ              | 1 U               | 1 U               | 5.0 U        |
| Vinyl Chloride                                    | UG/L  | 2         | NA                | NA                | NA                | NA                | 5.0 U        |
| Xylene (total)                                    | UG/L  | 5         | NA                | NA                | NA                | NA                | 5.0 U        |
| 1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)   | UG/L  | 5         | 1.9               | 1 U               | 0.5 J             | 1 U               | 5.0 U        |
| <b>Dissolved Gases</b>                            |       |           |                   |                   |                   |                   |              |
| Methane                                           | UG/L  | -         | 4,800             | 13,000            | 6,000             | 7,400             | 380          |
| <b>Total Metals</b>                               |       |           |                   |                   |                   |                   |              |
| Iron                                              | UG/L  | 300       | NA                | NA                | NA                | NA                | 18,400       |
| <b>Dissolved Metals</b>                           |       |           |                   |                   |                   |                   |              |
| Iron                                              | UG/L  | 300       | NA                | NA                | NA                | NA                | 18,500       |

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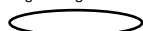
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**TABLE 3**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**FORMER EMCA SITE, MAMARONECK, NEW YORK**

| Location ID                     |       |           | MW-03             | MW-03             | MW-03             | MW-03             | MW-04        |
|---------------------------------|-------|-----------|-------------------|-------------------|-------------------|-------------------|--------------|
| Sample ID                       |       |           | 20091013MW-03V10N | 20100226MW-03V09N | 20100624MW-03V09N | 20101006MW-03V09N | MW04-5-20-03 |
| Matrix                          |       |           | Groundwater       | Groundwater       | Groundwater       | Groundwater       | Groundwater  |
| Depth Interval (ft)             |       |           | -                 | -                 | -                 | -                 | -            |
| Date Sampled                    |       |           | 10/13/09          | 02/26/10          | 06/24/10          | 10/06/10          | 05/20/03     |
| Parameter                       | Units | Criteria* |                   |                   |                   |                   |              |
| <b>Miscellaneous Parameters</b> |       |           |                   |                   |                   |                   |              |
| Chloride                        | MG/L  | 250       | NA                | NA                | NA                | NA                | 238          |
| Nitrogen, Ammonia (As N)        | MG/L  | 2         | NA                | NA                | NA                | NA                | 1.6          |
| Nitrogen, Kjeldahl, Total       | MG/L  | -         | NA                | NA                | NA                | NA                | 6.2          |
| 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       | 8.7               | 11.6              | 15.8              | 5.1 J             | 5.0 U        |
| Ferrous Iron (field)            | MG/L  | -         | NA                | NA                | NA                | NA                | 17.6         |
| Ferric Iron (lab)               | MG/L  | -         | NA                | NA                | NA                | NA                | 0.76         |
| Fluoride                        | MG/L  | 1.5       | NA                | NA                | NA                | NA                | 0.27         |
| Oil & Grease                    | MG/L  | -         | NA                | NA                | NA                | NA                | NA           |
| <b>Field Parameter</b>          |       |           |                   |                   |                   |                   |              |
| Dissolved Oxygen                | MG/L  | -         | 0.00              | 0.00              | 0.85              | 0                 | 0.54         |
| Oxidation Reduction Potential   | mV    | -         | -103              | -138              | -170              | -116              | -115         |
| pH                              | S.U.  | -         | 5.87              | 6.32              | 9.28              | 6.73              | NA           |
| Specific Conductance            | MS/CM | -         | 1.85              | 3.39              | 1.50              | 1.68              | 1.61         |
| Temperature                     | DEG C | -         | 18.68             | 8.95              | 16.51             | 20.19             | NA           |
| Turbidity                       | NTU   | -         | 8.7               | 94                | 5.1               | 6.3               | 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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NA - Not Analyzed

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([LOGDATE] BETWEEN #05/01/03# AND #10/06/10#) 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_121703 | Dup1                  | MW-04       | MW-04       | MW-04VION   |
| Matrix                                            |       |           | Groundwater  | Groundwater           | Groundwater | Groundwater | Groundwater |
| Depth Interval (ft)                               |       |           | -            | -                     | -           | -           | -           |
| Date Sampled                                      |       |           | 12/17/03     | 07/22/04              | 07/22/04    | 05/31/05    | 12/20/05    |
| Parameter                                         | Units | Criteria* |              | Field Duplicate (1-1) |             |             |             |
| <b>Volatiles</b>                                  |       |           |              |                       |             |             |             |
| Acetone                                           | UG/L  | 50        | 5.0 U        | NA                    | NA          | NA          | NA          |
| Benzene                                           | UG/L  | 1         | 5.0 U        | NA                    | NA          | NA          | NA          |
| Methyl ethyl ketone (2-Butanone)                  | UG/L  | 50        | 5.0 UR       | NA                    | NA          | NA          | NA          |
| Chlorotrifluoroethene (Freon-1113)                | UG/L  | 5         | 0 U          | 10 U                  | 10 U        | 1.0 J       | 10 U        |
| 1,1-Dichloroethene                                | UG/L  | 5         | 2.0 U        | NA                    | NA          | NA          | NA          |
| cis-1,2-Dichloroethene                            | UG/L  | 5         | 5.0 U        | NA                    | NA          | NA          | NA          |
| trans-1,2-Dichloroethene                          | UG/L  | 5         | 5.0 U        | NA                    | NA          | NA          | NA          |
| Ethylbenzene                                      | UG/L  | 5         | 4.0 U        | NA                    | NA          | NA          | NA          |
| 2-Hexanone                                        | UG/L  | 50        | 5.0 U        | NA                    | NA          | NA          | NA          |
| 4-Methyl-2-Pentanone                              | UG/L  | -         | 5.0 U        | NA                    | NA          | NA          | NA          |
| Tetrachloroethene                                 | UG/L  | 5         | 1.0 U        | NA                    | NA          | NA          | NA          |
| Trichloroethene                                   | UG/L  | 5         | 1.0 U        | NA                    | NA          | NA          | NA          |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113) | UG/L  | 5         | 5.0 U        | 10 UJ                 | 0.7 J       | 10 U        | 10 U        |
| Vinyl Chloride                                    | UG/L  | 2         | 5.0 U        | NA                    | NA          | NA          | NA          |
| Xylene (total)                                    | UG/L  | 5         | 5.0 U        | NA                    | NA          | NA          | NA          |
| 1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)   | UG/L  | 5         | 5.0 U        | 10 U                  | 10 U        | 10 U        | 10 U        |
| <b>Dissolved Gases</b>                            |       |           |              |                       |             |             |             |
| Methane                                           | UG/L  | -         | 35           | 69                    | 99          | 190         | 400         |
| <b>Total Metals</b>                               |       |           |              |                       |             |             |             |
| Iron                                              | UG/L  | 300       | 3,640        | NA                    | NA          | NA          | NA          |
| <b>Dissolved Metals</b>                           |       |           |              |                       |             |             |             |
| Iron                                              | UG/L  | 300       | 3,760        | 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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([LOGDATE] BETWEEN #05/01/03# AND #10/6/10#) 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_121703 | Dup1                  | MW-04       | MW-04       | MW-04VION   |
| Matrix                        |       |           | Groundwater  | Groundwater           | Groundwater | Groundwater | Groundwater |
| Depth Interval (ft)           |       |           | -            | -                     | -           | -           | -           |
| Date Sampled                  |       |           | 12/17/03     | 07/22/04              | 07/22/04    | 05/31/05    | 12/20/05    |
| Parameter                     | Units | Criteria* |              | Field Duplicate (1-1) |             |             |             |
| Miscellaneous Parameters      |       |           |              |                       |             |             |             |
| Chloride                      | MG/L  | 250       | 294          | 158                   | 161         | NA          | NA          |
| Nitrogen, Ammonia (As N)      | MG/L  | 2         | 1.2          | NA                    | NA          | NA          | NA          |
| Nitrogen, Kjeldahl, Total     | MG/L  | -         | 1.9          | NA                    | NA          | NA          | NA          |
| Nitrogen, Nitrate             | MG/L  | 10        | 0.1 U        | NA                    | NA          | NA          | NA          |
| Nitrogen, Nitrate-Nitrite     | MG/L  | 10        | NA           | NA                    | NA          | NA          | NA          |
| Sulfate                       | MG/L  | 250       | 9.40         | 10.8                  | 10.8        | 14.2        | 6.66        |
| Ferrous Iron (field)          | MG/L  | -         | 2.2          | NA                    | NA          | NA          | NA          |
| Ferric Iron (lab)             | MG/L  | -         | 1.3          | NA                    | NA          | NA          | NA          |
| Fluoride                      | MG/L  | 1.5       | 0.19         | 0.304                 | 0.302       | NA          | NA          |
| Oil & Grease                  | MG/L  | -         | NA           | NA                    | NA          | NA          | NA          |
| Field Parameter               |       |           |              |                       |             |             |             |
| Dissolved Oxygen              | MG/L  | -         | 0 U          | NA                    | 0.82        | 0 U         | 0 U         |
| Oxidation Reduction Potential | mV    | -         | 0 U          | NA                    | -136        | -126        | -161        |
| pH                            | S.U.  | -         | NA           | NA                    | NA          | NA          | NA          |
| Specific Conductance          | MS/CM | -         | 0.99         | NA                    | 1.05        | 1.85        | 1.47        |
| Temperature                   | DEG C | -         | NA           | NA                    | NA          | NA          | NA          |
| 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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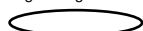
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**TABLE 3**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**FORMER EMCA SITE, MAMARONECK, NEW YORK**

| Location ID                                       |       |           | MW-04       | MW-04             | MW-04             | MW-04            | MW-04            |
|---------------------------------------------------|-------|-----------|-------------|-------------------|-------------------|------------------|------------------|
| Sample ID                                         |       |           | MW-04V15N   | 20070207MW-04V10N | 20070801MW-04V10N | 20080228MW04V10N | 20080812MW04V08N |
| Matrix                                            |       |           | Groundwater | Groundwater       | Groundwater       | Groundwater      | Groundwater      |
| Depth Interval (ft)                               |       |           | -           | -                 | -                 | -                | -                |
| Date Sampled                                      |       |           | 08/14/06    | 02/07/07          | 08/01/07          | 02/28/08         | 08/12/08         |
| Parameter                                         | Units | Criteria* |             |                   |                   |                  |                  |
| <b>Volatiles</b>                                  |       |           |             |                   |                   |                  |                  |
| 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         | 0.7 J       | 0.6 J             | 10 U              | 1.0 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 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         | 10 U        | 10 U              | 10 U              | 10 U             | 10 U             |
| <b>Dissolved Gases</b>                            |       |           |             |                   |                   |                  |                  |
| Methane                                           | UG/L  | -         | 420         | 400               | 43                | 5,700            | 290              |
| <b>Total Metals</b>                               |       |           |             |                   |                   |                  |                  |
| Iron                                              | UG/L  | 300       | NA          | NA                | NA                | NA               | NA               |
| <b>Dissolved Metals</b>                           |       |           |             |                   |                   |                  |                  |
| 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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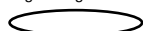
([LOGDATE] BETWEEN #05/01/03# AND #10/6/10#) AND ([MATRIX] = 'WG' AND ([SACODE] = 'N' OR [SACODE] = 'FD'))

**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-04V15N   | 20070207MW-04V10N | 20070801MW-04V10N | 20080228MW04V10N | 20080812MW04V08N |
| Matrix                          |       |           | Groundwater | Groundwater       | Groundwater       | Groundwater      | Groundwater      |
| Depth Interval (ft)             |       |           | -           | -                 | -                 | -                | -                |
| Date Sampled                    |       |           | 08/14/06    | 02/07/07          | 08/01/07          | 02/28/08         | 08/12/08         |
| Parameter                       | Units | Criteria* |             |                   |                   |                  |                  |
| <b>Miscellaneous Parameters</b> |       |           |             |                   |                   |                  |                  |
| Chloride                        | MG/L  | 250       | 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             | 7.0               | 5 U              | 5 U              |
| 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               |
| <b>Field Parameter</b>          |       |           |             |                   |                   |                  |                  |
| Dissolved Oxygen                | MG/L  | -         | 4.97        | 4.73              | 0.41              | 2.91             | 0 U              |
| Oxidation Reduction Potential   | mV    | -         | -154        | -81               | -79.2             | -136.0           | -126             |
| pH                              | S.U.  | -         | NA          | NA                | 6.59              | 6.45             | 6.65             |
| Specific Conductance            | MS/CM | -         | 1.14        | 0.804             | 1.241             | 1.16             | 0.531            |
| Temperature                     | DEG C | -         | NA          | NA                | NA                | 9.19             | 21.3             |
| Turbidity                       | NTU   | -         | NA          | NA                | NA                | 9                | 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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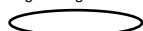
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**TABLE 3**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**FORMER EMCA SITE, MAMARONECK, NEW YORK**

| Location ID                                       |       |           | MW-04                 | MW-04             | MW-04             | MW-04                 | MW-04             |
|---------------------------------------------------|-------|-----------|-----------------------|-------------------|-------------------|-----------------------|-------------------|
| Sample ID                                         |       |           | 20090218MW-04V08FD    | 20090218MW-04V08N | 20091013MW-04V08N | 20100225MW04V08FD     | 20100225MW-04V08N |
| Matrix                                            |       |           | Groundwater           | Groundwater       | Groundwater       | Groundwater           | Groundwater       |
| Depth Interval (ft)                               |       |           | -                     | -                 | -                 | -                     | -                 |
| Date Sampled                                      |       |           | 02/18/09              | 02/18/09          | 10/13/09          | 02/25/10              | 02/25/10          |
| Parameter                                         | Units | Criteria* | Field Duplicate (1-1) |                   |                   | Field Duplicate (1-1) |                   |
| <b>Volatiles</b>                                  |       |           |                       |                   |                   |                       |                   |
| 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                 | 1.0 J             | 15                | 6.6 J                 | 7.7 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                  | 10 U              | 1 U               | 1 UJ                  | 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         | 10 U                  | 10 U              | 1 U               | 1 U                   | 1 U               |
| <b>Dissolved Gases</b>                            |       |           |                       |                   |                   |                       |                   |
| Methane                                           | UG/L  | -         | 1,600                 | 1,600             | 3,100             | 5,200                 | 5,100             |
| <b>Total Metals</b>                               |       |           |                       |                   |                   |                       |                   |
| Iron                                              | UG/L  | 300       | NA                    | NA                | NA                | NA                    | NA                |
| <b>Dissolved Metals</b>                           |       |           |                       |                   |                   |                       |                   |
| 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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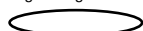
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**TABLE 3**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**FORMER EMCA SITE, MAMARONECK, NEW YORK**

| Location ID                     |       |           | MW-04                 | MW-04             | MW-04             | MW-04                 | MW-04             |
|---------------------------------|-------|-----------|-----------------------|-------------------|-------------------|-----------------------|-------------------|
| Sample ID                       |       |           | 20090218MW-04V08N     | 20090218MW-04V08N | 20091013MW-04V08N | 20100225MW04V08FD     | 20100225MW-04V08N |
| Matrix                          |       |           | Groundwater           | Groundwater       | Groundwater       | Groundwater           | Groundwater       |
| Depth Interval (ft)             |       |           | -                     | -                 | -                 | -                     | -                 |
| Date Sampled                    |       |           | 02/18/09              | 02/18/09          | 10/13/09          | 02/25/10              | 02/25/10          |
| Parameter                       | Units | Criteria* | Field Duplicate (1-1) |                   |                   | Field Duplicate (1-1) |                   |
| <b>Miscellaneous Parameters</b> |       |           |                       |                   |                   |                       |                   |
| Chloride                        | MG/L  | 250       | 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                  | 5 UJ              | 20.8              | 13                    | 11.3              |
| 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                |
| <b>Field Parameter</b>          |       |           |                       |                   |                   |                       |                   |
| Dissolved Oxygen                | MG/L  | -         | NA                    | 0 U               | 0.00              | NA                    | 0.00              |
| Oxidation Reduction Potential   | mV    | -         | NA                    | -158              | -122              | NA                    | -124              |
| pH                              | S.U.  | -         | NA                    | 6.33              | 6.43              | NA                    | 6.50              |
| Specific Conductance            | MS/CM | -         | NA                    | 1.75              | 1.83              | NA                    | 2.14              |
| Temperature                     | DEG C | -         | NA                    | 9.36              | 19.37             | NA                    | 8.34              |
| Turbidity                       | NTU   | -         | NA                    | 4                 | 4.6               | NA                    | 1.5               |

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

| Location ID                                         |       |           | MW-04             | MW-04             | MW-05       | MW-05        | MW-05       |
|-----------------------------------------------------|-------|-----------|-------------------|-------------------|-------------|--------------|-------------|
| Sample ID                                           |       |           | 20100624MW-04V08N | 20101006MW-04V08N | MW05_52103  | MW-05-121803 | MW-05       |
| Matrix                                              |       |           | Groundwater       | Groundwater       | Groundwater | Groundwater  | Groundwater |
| Depth Interval (ft)                                 |       |           | -                 | -                 | -           | -            | -           |
| Date Sampled                                        |       |           | 06/24/10          | 10/06/10          | 05/21/03    | 12/18/03     | 07/23/04    |
| Parameter                                           | Units | Criteria* |                   |                   |             |              |             |
| <b>Volatiles</b>                                    |       |           |                   |                   |             |              |             |
| Acetone                                             | UG/L  | 50        | NA                | NA                | 5.0 U       | 5.0 U        | NA          |
| Benzene                                             | UG/L  | 1         | NA                | NA                | 5.0 U       | 5.0 U        | NA          |
| Methyl ethyl ketone (2-Butanone)                    | UG/L  | 50        | NA                | NA                | 5.0 UR      | 5.0 UR       | NA          |
| Chlorotrifluoroethene (Freon-1113)                  | UG/L  | 5         | 12                | 2.8               | 0 U         | 0 U          | 10 U        |
| 1,1-Dichloroethene                                  | UG/L  | 5         | NA                | NA                | 2.0 U       | 2.0 U        | NA          |
| cis-1,2-Dichloroethene                              | UG/L  | 5         | NA                | NA                | 5.0 U       | 5.0 U        | NA          |
| trans-1,2-Dichloroethene                            | UG/L  | 5         | NA                | NA                | 5.0 U       | 5.0 U        | NA          |
| Ethylbenzene                                        | UG/L  | 5         | NA                | NA                | 4.0 U       | 4.0 U        | NA          |
| 2-Hexanone                                          | UG/L  | 50        | NA                | NA                | 5.0 U       | 5.0 U        | NA          |
| 4-Methyl-2-Pentanone                                | UG/L  | -         | NA                | NA                | 5.0 U       | 5.0 U        | NA          |
| Tetrachloroethene                                   | UG/L  | 5         | NA                | NA                | 0.4 J       | 1.0 U        | NA          |
| Trichloroethene                                     | UG/L  | 5         | NA                | NA                | 1.0 U       | 1.0 U        | NA          |
| 1,1,2-Trichloro-1,1,2,2-trifluoroethane (Freon-113) | UG/L  | 5         | 1 U               | 1 U               | 5.0 U       | 5.0 U        | 0.5 J       |
| Vinyl Chloride                                      | UG/L  | 2         | NA                | NA                | 5.0 U       | 5.0 U        | NA          |
| Xylene (total)                                      | UG/L  | 5         | NA                | NA                | 5.0 U       | 5.0 U        | NA          |
| 1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)     | UG/L  | 5         | 1 U               | 1 U               | 5.0 U       | 5.0 U        | 10 U        |
| <b>Dissolved Gases</b>                              |       |           |                   |                   |             |              |             |
| Methane                                             | UG/L  | -         | 4,000             | 2,400             | 27          | 6.7          | 47          |
| <b>Total Metals</b>                                 |       |           |                   |                   |             |              |             |
| Iron                                                | UG/L  | 300       | NA                | NA                | 2,110       | 15,500       | NA          |
| <b>Dissolved Metals</b>                             |       |           |                   |                   |             |              |             |
| Iron                                                | UG/L  | 300       | NA                | NA                | 1,670       | 39.7 U       | 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**

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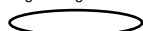
([LOGDATE] BETWEEN #05/01/03# AND #10/06/10#) AND ([MATRIX] = 'WG' AND ([SACODE] = 'N' OR [SACODE] = 'FD'))

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

| Location ID                     |       |           | MW-04             | MW-04             | MW-05       | MW-05        | MW-05       |
|---------------------------------|-------|-----------|-------------------|-------------------|-------------|--------------|-------------|
| Sample ID                       |       |           | 20100624MW-04V08N | 20101006MW-04V08N | MW05_52103  | MW-05-121803 | MW-05       |
| Matrix                          |       |           | Groundwater       | Groundwater       | Groundwater | Groundwater  | Groundwater |
| Depth Interval (ft)             |       |           | -                 | -                 | -           | -            | -           |
| Date Sampled                    |       |           | 06/24/10          | 10/06/10          | 05/21/03    | 12/18/03     | 07/23/04    |
| Parameter                       | Units | Criteria* |                   |                   |             |              |             |
| <b>Miscellaneous Parameters</b> |       |           |                   |                   |             |              |             |
| Chloride                        | MG/L  | 250       | NA                | NA                | 49.8        | 27.5         | 63.9        |
| Nitrogen, Ammonia (As N)        | MG/L  | 2         | NA                | NA                | 0.25        | 0.1 U        | NA          |
| Nitrogen, Kjeldahl, Total       | MG/L  | -         | NA                | NA                | 3.6         | 0.61         | NA          |
| Nitrogen, Nitrate               | MG/L  | 10        | NA                | NA                | 0.22        | 0.18         | NA          |
| Nitrogen, Nitrate-Nitrite       | MG/L  | 10        | NA                | NA                | NA          | NA           | NA          |
| Sulfate                         | MG/L  | 250       | 18.4              | 5.5 J             | 50.1        | 61.4         | 42.3        |
| Ferrous Iron (field)            | MG/L  | -         | NA                | NA                | 1.7         | 0.07         | NA          |
| Ferric Iron (lab)               | MG/L  | -         | NA                | NA                | 0.43        | 15.4         | NA          |
| Fluoride                        | MG/L  | 1.5       | NA                | NA                | 0 U         | 0.12         | 0.103       |
| Oil & Grease                    | MG/L  | -         | NA                | NA                | NA          | NA           | NA          |
| <b>Field Parameter</b>          |       |           |                   |                   |             |              |             |
| Dissolved Oxygen                | MG/L  | -         | 0.80              | 0                 | 0.37        | 0 U          | 0.97        |
| Oxidation Reduction Potential   | mV    | -         | -146              | -96               | 26          | 121          | 46          |
| pH                              | S.U.  | -         | 8.99              | 6.86              | NA          | NA           | NA          |
| Specific Conductance            | MS/CM | -         | 1.84              | 1.48              | 0.426       | 0.629        | 0.463       |
| Temperature                     | DEG C | -         | 18.45             | 21.38             | NA          | NA           | NA          |
| Turbidity                       | NTU   | -         | 1.9               | 3.7               | 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 #10/06/10#) AND [MATRIX] = 'WG' AND ([SCODE] = 'N' OR [SCODE] = '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                                         |       |           | MW06-6-10-03 | MW06-7_22_03 | MW06-091803 | MW-06_121703 | MW-06       |
| Matrix                                            |       |           | Groundwater  | Groundwater  | Groundwater | Groundwater  | Groundwater |
| Depth Interval (ft)                               |       |           | -            | -            | -           | -            | -           |
| Date Sampled                                      |       |           | 06/10/03     | 07/22/03     | 09/18/03    | 12/17/03     | 07/23/04    |
| Parameter                                         | Units | Criteria* |              |              |             |              |             |
| <b>Volatiles</b>                                  |       |           |              |              |             |              |             |
| Acetone                                           | UG/L  | 50        | 10 U         | 5.0 U        | 5.0 U       | 10 U         | NA          |
| Benzene                                           | UG/L  | 1         | 10 U         | 5.0 U        | 5.0 U       | 10 U         | NA          |
| Methyl ethyl ketone (2-Butanone)                  | UG/L  | 50        | 10 UR        | 5.0 UR       | 5.0 UR      | 10 UR        | NA          |
| Chlorotrifluoroethene (Freon-1113)                | UG/L  | 5         | 0 U          | 5.7 NJ       | 0 U         | 0 U          | 5 J         |
| 1,1-Dichloroethene                                | UG/L  | 5         | 4 U          | 1.2 J        | 2.0 U       | 4 U          | NA          |
| cis-1,2-Dichloroethene                            | UG/L  | 5         | 10 U         | 1.7 J        | 1.4 J       | 1.3 J        | NA          |
| trans-1,2-Dichloroethene                          | UG/L  | 5         | 10 U         | 5.0 U        | 5.0 U       | 10 U         | NA          |
| Ethylbenzene                                      | UG/L  | 5         | 8 U          | 4.0 U        | 4.0 U       | 8 U          | NA          |
| 2-Hexanone                                        | UG/L  | 50        | 10 U         | 5.0 U        | 5.0 U       | 10 U         | NA          |
| 4-Methyl-2-Pentanone                              | UG/L  | -         | 10 U         | 5.0 U        | 5.0 U       | 10 U         | NA          |
| Tetrachloroethene                                 | UG/L  | 5         | 2 U          | 1.0 U        | 1.0 U       | 2 U          | NA          |
| Trichloroethene                                   | UG/L  | 5         | 2 U          | 1.0 U        | 1.0 U       | 2 U          | NA          |
| 1,1,2-Trichloro-1,1,2-trifluoroethane (Freon-113) | UG/L  | 5         | 220          | 180          | 97          | 250          | 140 J       |
| Vinyl Chloride                                    | UG/L  | 2         | 10 U         | 1.2 J        | 5.0 U       | 10 U         | NA          |
| Xylene (total)                                    | UG/L  | 5         | 10 U         | 5.0 U        | 5.0 U       | 10 U         | NA          |
| 1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)   | UG/L  | 5         | 8.8 J        | 9.5          | 8.6         | 14           | 23          |
| <b>Dissolved Gases</b>                            |       |           |              |              |             |              |             |
| Methane                                           | UG/L  | -         | 49           | 81           | 99          | 78           | 40          |
| <b>Total Metals</b>                               |       |           |              |              |             |              |             |
| Iron                                              | UG/L  | 300       | 14,400       | 10,500       | 8,370 J     | 7,690        | NA          |
| <b>Dissolved Metals</b>                           |       |           |              |              |             |              |             |
| Iron                                              | UG/L  | 300       | 14,300       | 10,300       | 8,470 J     | 7,670        | 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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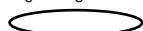
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**TABLE 3**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**FORMER EMCA SITE, MAMARONECK, NEW YORK**

| Location ID                     |       |           | MW-06        | MW-06        | MW-06       | MW-06        | MW-06       |
|---------------------------------|-------|-----------|--------------|--------------|-------------|--------------|-------------|
| Sample ID                       |       |           | MW06-6-10-03 | MW06-7_22_03 | MW06-091803 | MW-06_121703 | MW-06       |
| Matrix                          |       |           | Groundwater  | Groundwater  | Groundwater | Groundwater  | Groundwater |
| Depth Interval (ft)             |       |           | -            | -            | -           | -            | -           |
| Date Sampled                    |       |           | 06/10/03     | 07/22/03     | 09/18/03    | 12/17/03     | 07/23/04    |
| Parameter                       | Units | Criteria* |              |              |             |              |             |
| <b>Miscellaneous Parameters</b> |       |           |              |              |             |              |             |
| Chloride                        | MG/L  | 250       | 184          | 82.3         | 74.6        | 84.0         | 60.5        |
| Nitrogen, Ammonia (As N)        | MG/L  | 2         | 0.19         | 0.33         | 0.31        | 0.36         | NA          |
| Nitrogen, Kjeldahl, Total       | MG/L  | -         | 0.72         | 1.1          | 0.88        | 0.79         | NA          |
| Nitrogen, Nitrate               | MG/L  | 10        | 0.33         | 0.1 U        | 0.1 U       | 0.1 UJ       | NA          |
| Nitrogen, Nitrate-Nitrite       | MG/L  | 10        | NA           | NA           | NA          | NA           | NA          |
| Sulfate                         | MG/L  | 250       | 32.0         | 30.5         | 39.2        | 39.1         | 33.5        |
| Ferrous Iron (field)            | MG/L  | -         | 14.3         | 8.6          | 6.0         | 8.7          | NA          |
| Ferric Iron (lab)               | MG/L  | -         | 0.12         | 1.9          | 8.4         | 1.0 U        | NA          |
| Fluoride                        | MG/L  | 1.5       | 0.46         | 0.56         | 0.37        | 0.42         | 0.467       |
| Oil & Grease                    | MG/L  | -         | NA           | NA           | 5 U         | NA           | NA          |
| <b>Field Parameter</b>          |       |           |              |              |             |              |             |
| Dissolved Oxygen                | MG/L  | -         | 0.93         | 1.07         | 0 U         | 0 U          | 1.04        |
| Oxidation Reduction Potential   | mV    | -         | -145         | -155         | -143        | -110         | -64         |
| pH                              | S.U.  | -         | NA           | NA           | NA          | NA           | NA          |
| Specific Conductance            | MS/CM | -         | 0.741        | 0.866        | 0.581       | 0.602        | 0.513       |
| Temperature                     | DEG C | -         | NA           | NA           | NA          | NA           | NA          |
| 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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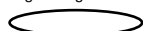
([LOGDATE] BETWEEN #05/01/03# AND #10/6/10#) AND [MATRIX] = 'WG' AND ([SACODE] = 'N' OR [SACODE] = 'FD')

**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                                         |       |           | Field-Dup             | MW-06       | MW-06V15FD            | MW-06V15N   | MW-06V15FD            |
| Matrix                                            |       |           | Groundwater           | Groundwater | Groundwater           | Groundwater | Groundwater           |
| Depth Interval (ft)                               |       |           | -                     | -           | -                     | -           | -                     |
| Date Sampled                                      |       |           | 05/31/05              | 05/31/05    | 12/20/05              | 12/20/05    | 08/15/06              |
| Parameter                                         | Units | Criteria* | Field Duplicate (1-1) |             | Field Duplicate (1-1) |             | Field Duplicate (1-1) |
| <b>Volatiles</b>                                  |       |           |                       |             |                       |             |                       |
| 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         | 6.0 J                 | 5.0 J       | 6.0 J                 | 6.0 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         | 1.0 J                 | 1.0 J       | 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         | 16                    | 14          | 10 UJ                 | 10 UJ       | 10 U                  |
| <b>Dissolved Gases</b>                            |       |           |                       |             |                       |             |                       |
| Methane                                           | UG/L  | -         | 3,600                 | 3,300       | 6,700                 | 5,600       | 1,600                 |
| <b>Total Metals</b>                               |       |           |                       |             |                       |             |                       |
| Iron                                              | UG/L  | 300       | NA                    | NA          | NA                    | NA          | NA                    |
| <b>Dissolved Metals</b>                           |       |           |                       |             |                       |             |                       |
| 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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Advanced Selection: WG Oct10 Tab3  
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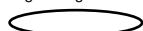
([LOGDATE] BETWEEN #05/01/03# AND #10/6/10#) AND [MATRIX] = 'WG' AND ([SACODE] = 'N' OR [SACODE] = 'FD')

**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                       |       |           | Field-Dup             | MW-06       | MW-06V15FD            | MW-06V15N   | MW-06V15FD            |
| Matrix                          |       |           | Groundwater           | Groundwater | Groundwater           | Groundwater | Groundwater           |
| Depth Interval (ft)             |       |           | -                     | -           | -                     | -           | -                     |
| Date Sampled                    |       |           | 05/31/05              | 05/31/05    | 12/20/05              | 12/20/05    | 08/15/06              |
| Parameter                       | Units | Criteria* | Field Duplicate (1-1) |             | Field Duplicate (1-1) |             | Field Duplicate (1-1) |
| <b>Miscellaneous Parameters</b> |       |           |                       |             |                       |             |                       |
| Chloride                        | MG/L  | 250       | 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       | 5.0 U                 | 5.0 U       | 5.0 U                 |
| 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                    |
| <b>Field Parameter</b>          |       |           |                       |             |                       |             |                       |
| Dissolved Oxygen                | MG/L  | -         | NA                    | 0 U         | NA                    | 0 U         | NA                    |
| Oxidation Reduction Potential   | mV    | -         | NA                    | -140        | NA                    | -140        | NA                    |
| pH                              | S.U.  | -         | NA                    | NA          | NA                    | NA          | NA                    |
| Specific Conductance            | MS/CM | -         | NA                    | 1.13        | NA                    | 1.29        | NA                    |
| Temperature                     | DEG C | -         | NA                    | NA          | NA                    | NA          | NA                    |
| 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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Only Detected Results Reported.

**Detection Limits shown are PQL**

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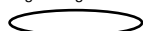
([LOGDATE] BETWEEN #05/01/03# AND #10/6/10#) AND [MATRIX] = 'WG' AND ([SACODE] = 'N' OR [SACODE] = 'FD')

**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-06V15N   | 20070207MW-06V15N     | 20070207MW-06V15N | 20070731MW-06V15N     | 20070731MW-06V15N |
| Matrix                                            |       |           | Groundwater | Groundwater           | Groundwater       | Groundwater           | Groundwater       |
| Depth Interval (ft)                               |       |           | -           | -                     | -                 | -                     | -                 |
| Date Sampled                                      |       |           | 08/15/06    | 02/07/07              | 02/07/07          | 07/31/07              | 07/31/07          |
| Parameter                                         | Units | Criteria* |             | Field Duplicate (1-1) |                   | Field Duplicate (1-1) |                   |
| <b>Volatiles</b>                                  |       |           |             |                       |                   |                       |                   |
| 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        | 100                   | 100               | 18                    | 21                |
| 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        | 3.0 J                 | 3.0 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         | 10 U        | 8.0 J                 | 8.0 J             | 0.5 J                 | 0.6 J             |
| <b>Dissolved Gases</b>                            |       |           |             |                       |                   |                       |                   |
| Methane                                           | UG/L  | -         | 1,700       | 12,000                | 13,000            | 3,800                 | 2,500             |
| <b>Total Metals</b>                               |       |           |             |                       |                   |                       |                   |
| Iron                                              | UG/L  | 300       | NA          | NA                    | NA                | NA                    | NA                |
| <b>Dissolved Metals</b>                           |       |           |             |                       |                   |                       |                   |
| 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

B - Value between Instrument Detection Limit and Contract Required Detection Limit.

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

UJ - Not detected above the estimated quantitation limit

U - Non-Detect

NA - Not Analyzed

R - Rejected

Only Detected Results Reported.

**Detection Limits shown are PQL**

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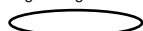
([LOGDATE] BETWEEN #05/01/03# AND #10/6/10#) AND [MATRIX] = 'WG' AND ([SACODE] = 'N' OR [SACODE] = 'FD')

**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-06V15N   | 20070207MW-06V15N     | 20070207MW-06V15N | 20070731MW-06V15N     | 20070731MW-06V15N |
| Matrix                          |       |           | Groundwater | Groundwater           | Groundwater       | Groundwater           | Groundwater       |
| Depth Interval (ft)             |       |           | -           | -                     | -                 | -                     | -                 |
| Date Sampled                    |       |           | 08/15/06    | 02/07/07              | 02/07/07          | 07/31/07              | 07/31/07          |
| Parameter                       | Units | Criteria* |             | Field Duplicate (1-1) |                   | Field Duplicate (1-1) |                   |
| <b>Miscellaneous Parameters</b> |       |           |             |                       |                   |                       |                   |
| Chloride                        | MG/L  | 250       | 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       | 7.40                  | 7.00              | 41.8                  | 44.2              |
| 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                |
| <b>Field Parameter</b>          |       |           |             |                       |                   |                       |                   |
| Dissolved Oxygen                | MG/L  | -         | 6.83        | NA                    | 1.05              | NA                    | 0.31              |
| Oxidation Reduction Potential   | mV    | -         | 87          | NA                    | -136              | NA                    | -99.7             |
| pH                              | S.U.  | -         | NA          | NA                    | NA                | NA                    | 6.38              |
| Specific Conductance            | MS/CM | -         | 0.033       | NA                    | 0.79              | NA                    | 1.050             |
| Temperature                     | DEG C | -         | NA          | NA                    | NA                | NA                    | NA                |
| 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 #10/6/10#) 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                                         |       |           | 20080228MW06V15FD     | 20080228MW06V15N | 20080812MW06V13N | 20090219MW-06V13N | 20091013MW-06V13N |
| Matrix                                            |       |           | Groundwater           | Groundwater      | Groundwater      | Groundwater       | Groundwater       |
| Depth Interval (ft)                               |       |           | -                     | -                | -                | -                 | -                 |
| Date Sampled                                      |       |           | 02/28/08              | 02/28/08         | 08/12/08         | 02/19/09          | 10/13/09          |
| Parameter                                         | Units | Criteria* | Field Duplicate (1-1) |                  |                  |                   |                   |
| <b>Volatiles</b>                                  |       |           |                       |                  |                  |                   |                   |
| 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         | 8.0 J                 | 8.0 J            | 4.0 J            | 34                | 6.4               |
| 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             | 2.0 J             | 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             | 35                | 1 U               |
| <b>Dissolved Gases</b>                            |       |           |                       |                  |                  |                   |                   |
| Methane                                           | UG/L  | -         | 12,000                | 14,000           | 12,000           | 9,000             | 7,300             |
| <b>Total Metals</b>                               |       |           |                       |                  |                  |                   |                   |
| Iron                                              | UG/L  | 300       | NA                    | NA               | NA               | NA                | NA                |
| <b>Dissolved Metals</b>                           |       |           |                       |                  |                  |                   |                   |
| 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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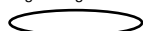
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**TABLE 3**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**FORMER EMCA SITE, MAMARONECK, NEW YORK**

| Location ID                     |       |           | MW-06                 | MW-06            | MW-06            | MW-06             | MW-06             |
|---------------------------------|-------|-----------|-----------------------|------------------|------------------|-------------------|-------------------|
| Sample ID                       |       |           | 20080228MW06V15FD     | 20080228MW06V15N | 20080812MW06V13N | 20090219MW-06V13N | 20091013MW-06V13N |
| Matrix                          |       |           | Groundwater           | Groundwater      | Groundwater      | Groundwater       | Groundwater       |
| Depth Interval (ft)             |       |           | -                     | -                | -                | -                 | -                 |
| Date Sampled                    |       |           | 02/28/08              | 02/28/08         | 08/12/08         | 02/19/09          | 10/13/09          |
| Parameter                       | Units | Criteria* | Field Duplicate (1-1) |                  |                  |                   |                   |
| <b>Miscellaneous Parameters</b> |       |           |                       |                  |                  |                   |                   |
| Chloride                        | MG/L  | 250       | 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              | 17.8             | 57.0 J            | 2.8 J             |
| 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                |
| <b>Field Parameter</b>          |       |           |                       |                  |                  |                   |                   |
| Dissolved Oxygen                | MG/L  | -         | NA                    | 2.61             | 0 U              | 0 U               | 0.00              |
| Oxidation Reduction Potential   | mV    | -         | NA                    | -122.0           | -117             | -132              | -139              |
| pH                              | S.U.  | -         | NA                    | 6.24             | 6.37             | 6.30              | 6.57              |
| Specific Conductance            | MS/CM | -         | NA                    | 1.21             | 1.47             | 0.84              | 1.79              |
| Temperature                     | DEG C | -         | NA                    | 12.2             | 17.0             | 13.23             | 17.80             |
| Turbidity                       | NTU   | -         | NA                    | 9                | 5                | 8                 | 2.2               |

\*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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([LOGDATE] BETWEEN #05/01/03# AND #10/6/10#) 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-07        |
|-----------------------------------------------------|-------|-----------|-------------------|-------------------|-----------------------|-------------------|--------------|
| Sample ID                                           |       |           | 20100226MW-06V13N | 20100624MW-06V13N | 20101006MW-06V13N     | 20101006MW-06V13N | MW07-6-10-03 |
| Matrix                                              |       |           | Groundwater       | Groundwater       | Groundwater           | Groundwater       | Groundwater  |
| Depth Interval (ft)                                 |       |           | -                 | -                 | -                     | -                 | -            |
| Date Sampled                                        |       |           | 02/26/10          | 06/24/10          | 10/06/10              | 10/06/10          | 06/10/03     |
| Parameter                                           | Units | Criteria* |                   |                   | Field Duplicate (1-1) |                   |              |
| <b>Volatiles</b>                                    |       |           |                   |                   |                       |                   |              |
| Acetone                                             | UG/L  | 50        | NA                | NA                | NA                    | NA                | 250 U        |
| Benzene                                             | UG/L  | 1         | NA                | NA                | NA                    | NA                | 250 U        |
| Methyl ethyl ketone (2-Butanone)                    | UG/L  | 50        | NA                | NA                | NA                    | NA                | 250 UR       |
| Chlorotrifluoroethene (Freon-1113)                  | UG/L  | 5         | 35 J              | 68 J              | 61                    | 57                | 0 U          |
| 1,1-Dichloroethene                                  | UG/L  | 5         | NA                | NA                | NA                    | NA                | 100 U        |
| cis-1,2-Dichloroethene                              | UG/L  | 5         | NA                | NA                | NA                    | NA                | 250 U        |
| trans-1,2-Dichloroethene                            | UG/L  | 5         | NA                | NA                | NA                    | NA                | 250 U        |
| Ethylbenzene                                        | UG/L  | 5         | NA                | NA                | NA                    | NA                | 200 U        |
| 2-Hexanone                                          | UG/L  | 50        | NA                | NA                | NA                    | NA                | 250 U        |
| 4-Methyl-2-Pentanone                                | UG/L  | -         | NA                | NA                | NA                    | NA                | 250 U        |
| Tetrachloroethene                                   | UG/L  | 5         | NA                | NA                | NA                    | NA                | 50 U         |
| Trichloroethene                                     | UG/L  | 5         | NA                | NA                | NA                    | NA                | 50 U         |
| 1,1,2-Trichloro-1,1,2,2-trifluoroethane (Freon-113) | UG/L  | 5         | 1 UJ              | 1 U               | 1 U                   | 1 U               | 5,400        |
| Vinyl Chloride                                      | UG/L  | 2         | NA                | NA                | NA                    | NA                | 250 U        |
| Xylene (total)                                      | UG/L  | 5         | NA                | NA                | NA                    | NA                | 250 U        |
| 1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)     | UG/L  | 5         | 3.6               | 0.57 J            | 1 U                   | 1 U               | 68 J         |
| <b>Dissolved Gases</b>                              |       |           |                   |                   |                       |                   |              |
| Methane                                             | UG/L  | -         | 13,000            | 9,400             | 8,300                 | 8,800             | 740          |
| <b>Total Metals</b>                                 |       |           |                   |                   |                       |                   |              |
| Iron                                                | UG/L  | 300       | NA                | NA                | NA                    | NA                | 21,300       |
| <b>Dissolved Metals</b>                             |       |           |                   |                   |                       |                   |              |
| Iron                                                | UG/L  | 300       | NA                | NA                | NA                    | NA                | 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-06             | MW-07        |
|---------------------------------|-------|-----------|-------------------|-------------------|-----------------------|-------------------|--------------|
| Sample ID                       |       |           | 20100226MW-06V13N | 20100624MW-06V13N | 20101006MW-06V13N     | 20101006MW-06V13N | MW07-6-10-03 |
| Matrix                          |       |           | Groundwater       | Groundwater       | Groundwater           | Groundwater       | Groundwater  |
| Depth Interval (ft)             |       |           | -                 | -                 | -                     | -                 | -            |
| Date Sampled                    |       |           | 02/26/10          | 06/24/10          | 10/06/10              | 10/06/10          | 06/10/03     |
| Parameter                       | Units | Criteria* |                   |                   | Field Duplicate (1-1) |                   |              |
| <b>Miscellaneous Parameters</b> |       |           |                   |                   |                       |                   |              |
| Chloride                        | MG/L  | 250       | NA                | NA                | NA                    | NA                | 140          |
| Nitrogen, Ammonia (As N)        | MG/L  | 2         | NA                | NA                | NA                    | NA                | 0.39         |
| Nitrogen, Kjeldahl, Total       | MG/L  | -         | NA                | NA                | NA                    | NA                | 1.2          |
| 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       | 31.2              | 52.3              | 36.8 J                | 34.5 J            | 32.8         |
| Ferrous Iron (field)            | MG/L  | -         | NA                | NA                | NA                    | NA                | 20.2         |
| Ferric Iron (lab)               | MG/L  | -         | NA                | NA                | NA                    | NA                | 1            |
| Fluoride                        | MG/L  | 1.5       | NA                | NA                | NA                    | NA                | 0.33         |
| Oil & Grease                    | MG/L  | -         | NA                | NA                | NA                    | NA                | NA           |
| <b>Field Parameter</b>          |       |           |                   |                   |                       |                   |              |
| Dissolved Oxygen                | MG/L  | -         | 0.00              | 0.73              | NA                    | 0                 | 0.9          |
| Oxidation Reduction Potential   | mV    | -         | -140              | -124              | NA                    | -129              | -130         |
| pH                              | S.U.  | -         | 6.46              | 8.81              | NA                    | 6.97              | NA           |
| Specific Conductance            | MS/CM | -         | 2.48              | 0.958             | NA                    | 0.879             | 0.93         |
| Temperature                     | DEG C | -         | 11.80             | 17.79             | NA                    | 18.25             | NA           |
| Turbidity                       | NTU   | -         | 39                | 0.45              | NA                    | 0                 | 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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B - Value between Instrument Detection Limit and Contract Required Detection Limit.

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Advanced Selection: WG Oct10 Tab3

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([LOGDATE] BETWEEN #05/01/03# AND #10/6/10#) 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        | MW07-91703  | MW-07_121703 | MW-07       | MW-07       |
| Matrix                                              |       |           | Groundwater | Groundwater | Groundwater  | Groundwater | Groundwater |
| Depth Interval (ft)                                 |       |           | -           | -           | -            | -           | -           |
| Date Sampled                                        |       |           | 07/23/03    | 09/17/03    | 12/17/03     | 07/22/04    | 05/31/05    |
| Parameter                                           | Units | Criteria* |             |             |              |             |             |
| <b>Volatiles</b>                                    |       |           |             |             |              |             |             |
| Acetone                                             | UG/L  | 50        | 500 U       | 250 U       | 50 U         | NA          | NA          |
| Benzene                                             | UG/L  | 1         | 500 U       | 250 U       | 14           | NA          | NA          |
| Methyl ethyl ketone (2-Butanone)                    | UG/L  | 50        | 500 UR      | 250 UR      | 50 UR        | NA          | NA          |
| Chlorotrifluoroethene (Freon-1113)                  | UG/L  | 5         | 0 U         | 0 U         | 0 U          | 210         | 140         |
| 1,1-Dichloroethene                                  | UG/L  | 5         | 68 J        | 100 U       | 20 U         | NA          | NA          |
| cis-1,2-Dichloroethene                              | UG/L  | 5         | 500 U       | 250 U       | 50 U         | NA          | NA          |
| trans-1,2-Dichloroethene                            | UG/L  | 5         | 500 U       | 250 U       | 50 U         | NA          | NA          |
| Ethylbenzene                                        | UG/L  | 5         | 400 U       | 200 U       | 49           | NA          | NA          |
| 2-Hexanone                                          | UG/L  | 50        | 500 U       | 250 U       | 50 U         | NA          | NA          |
| 4-Methyl-2-Pentanone                                | UG/L  | -         | 500 U       | 250 U       | 50 U         | NA          | NA          |
| Tetrachloroethene                                   | UG/L  | 5         | 100 U       | 50 U        | 10 U         | NA          | NA          |
| Trichloroethene                                     | UG/L  | 5         | 100 U       | 50 U        | 10 U         | NA          | NA          |
| 1,1,2-Trichloro-1,1,2,2-trifluoroethane (Freon-113) | UG/L  | 5         | 8,500       | 6,100       | 370          | 110 J       | 10 U        |
| Vinyl Chloride                                      | UG/L  | 2         | 500 U       | 250 U       | 50 U         | NA          | NA          |
| Xylene (total)                                      | UG/L  | 5         | 500 U       | 250 U       | 50 U         | NA          | NA          |
| 1,2-Dichloro-1,1,2,2-trifluoroethane (Freon-123A)   | UG/L  | 5         | 130 J       | 130 J       | 940          | 50          | 2.0 J       |
| <b>Dissolved Gases</b>                              |       |           |             |             |              |             |             |
| Methane                                             | UG/L  | -         | 420         | 1,200       | 1,700        | 2,500       | 5,900       |
| <b>Total Metals</b>                                 |       |           |             |             |              |             |             |
| Iron                                                | UG/L  | 300       | 21,200      | 32,700 J    | 38,900       | NA          | NA          |
| <b>Dissolved Metals</b>                             |       |           |             |             |              |             |             |
| Iron                                                | UG/L  | 300       | 20,800      | 32,500 J    | 38,900       | 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

B - Value between Instrument Detection Limit and Contract Required Detection Limit.

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

UJ - Not detected above the estimated quantitation limit

U - Non-Detect

NA - Not Analyzed

R - Rejected

Only Detected Results Reported.

**Detection Limits shown are PQL**

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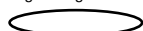
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**TABLE 3**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**FORMER EMCA SITE, MAMARONECK, NEW YORK**

| Location ID                     |       |           | MW-07       | MW-07       | MW-07        | MW-07       | MW-07       |
|---------------------------------|-------|-----------|-------------|-------------|--------------|-------------|-------------|
| Sample ID                       |       |           | MW07        | MW07-91703  | MW-07_121703 | MW-07       | MW-07       |
| Matrix                          |       |           | Groundwater | Groundwater | Groundwater  | Groundwater | Groundwater |
| Depth Interval (ft)             |       |           | -           | -           | -            | -           | -           |
| Date Sampled                    |       |           | 07/23/03    | 09/17/03    | 12/17/03     | 07/22/04    | 05/31/05    |
| Parameter                       | Units | Criteria* |             |             |              |             |             |
| <b>Miscellaneous Parameters</b> |       |           |             |             |              |             |             |
| Chloride                        | MG/L  | 250       | 168         | 300 J       | 328          | 303         | NA          |
| Nitrogen, Ammonia (As N)        | MG/L  | 2         | 0.6         | 0.66        | 0.99         | NA          | NA          |
| Nitrogen, Kjeldahl, Total       | MG/L  | -         | 1.8         | 2.1         | 2.8          | NA          | NA          |
| Nitrogen, Nitrate               | MG/L  | 10        | NA          | 0.1 U       | 0.1 U        | NA          | NA          |
| Nitrogen, Nitrate-Nitrite       | MG/L  | 10        | 0.1 UJ      | NA          | NA           | NA          | NA          |
| Sulfate                         | MG/L  | 250       | 31.0        | 23.6        | 5.0 U        | 5.0 U       | 5.0 U       |
| Ferrous Iron (field)            | MG/L  | -         | 19.8        | 33.8        | 19.5         | NA          | NA          |
| Ferric Iron (lab)               | MG/L  | -         | 1.4         | 14.1        | 19.4         | NA          | NA          |
| Fluoride                        | MG/L  | 1.5       | 0.25        | 0.24        | 0.19         | 0.190       | NA          |
| Oil & Grease                    | MG/L  | -         | NA          | 5.44 U      | NA           | NA          | NA          |
| <b>Field Parameter</b>          |       |           |             |             |              |             |             |
| Dissolved Oxygen                | MG/L  | -         | 0.1         | 0 U         | 3.33         | 0.88        | 0 U         |
| Oxidation Reduction Potential   | mV    | -         | -108        | -118        | -115         | -153        | -152        |
| pH                              | S.U.  | -         | NA          | NA          | NA           | NA          | NA          |
| Specific Conductance            | MS/CM | -         | 1.11        | 1.44        | 1.94         | 1.69        | 1.75        |
| Temperature                     | DEG C | -         | NA          | NA          | NA           | NA          | NA          |
| 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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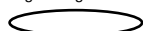
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**TABLE 3**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**FORMER EMCA SITE, MAMARONECK, NEW YORK**

| Location ID                                       |       |           | MW-07       | MW-07       | MW-07             | MW-07             | MW-07            |
|---------------------------------------------------|-------|-----------|-------------|-------------|-------------------|-------------------|------------------|
| Sample ID                                         |       |           | MW-07V15N   | MW-07V15N   | 20070207MW-07V15N | 20070731MW-07V15N | 20080228MW07V15N |
| Matrix                                            |       |           | Groundwater | Groundwater | Groundwater       | Groundwater       | Groundwater      |
| Depth Interval (ft)                               |       |           | -           | -           | -                 | -                 | -                |
| Date Sampled                                      |       |           | 12/20/05    | 08/14/06    | 02/07/07          | 07/31/07          | 02/28/08         |
| Parameter                                         | Units | Criteria* |             |             |                   |                   |                  |
| <b>Volatiles</b>                                  |       |           |             |             |                   |                   |                  |
| 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         | 47          | 97          | 89                | 82                | 92               |
| 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              | 6.0 J             | 10 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         | 10 U        | 1.0 J       | 3.0 J             | 10                | 0.9 J            |
| <b>Dissolved Gases</b>                            |       |           |             |             |                   |                   |                  |
| Methane                                           | UG/L  | -         | 9,700       | 6,900       | 6,200             | 4,100             | 7,100            |
| <b>Total Metals</b>                               |       |           |             |             |                   |                   |                  |
| Iron                                              | UG/L  | 300       | NA          | NA          | NA                | NA                | NA               |
| <b>Dissolved Metals</b>                           |       |           |             |             |                   |                   |                  |
| 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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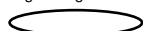
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**TABLE 3**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**FORMER EMCA SITE, MAMARONECK, NEW YORK**

| Location ID                     |       |           | MW-07       | MW-07       | MW-07             | MW-07             | MW-07             |
|---------------------------------|-------|-----------|-------------|-------------|-------------------|-------------------|-------------------|
| Sample ID                       |       |           | MW-07V15N   | MW-07V15N   | 20070207MW-07V15N | 20070731MW-07V15N | 20080228MW-07V15N |
| Matrix                          |       |           | Groundwater | Groundwater | Groundwater       | Groundwater       | Groundwater       |
| Depth Interval (ft)             |       |           | -           | -           | -                 | -                 | -                 |
| Date Sampled                    |       |           | 12/20/05    | 08/14/06    | 02/07/07          | 07/31/07          | 02/28/08          |
| Parameter                       | Units | Criteria* |             |             |                   |                   |                   |
| <b>Miscellaneous Parameters</b> |       |           |             |             |                   |                   |                   |
| Chloride                        | MG/L  | 250       | 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       | 19.3        | 5.0 U             | 6.1               | 5 U               |
| 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                |
| <b>Field Parameter</b>          |       |           |             |             |                   |                   |                   |
| Dissolved Oxygen                | MG/L  | -         | 0 U         | 3.47        | 2.89              | 0.48              | 2.64              |
| Oxidation Reduction Potential   | mV    | -         | -169        | -163        | -121              | -113.5            | -137.0            |
| pH                              | S.U.  | -         | NA          | NA          | NA                | 6.78              | 6.32              |
| Specific Conductance            | MS/CM | -         | 1.65        | 1.44        | 2.02              | 2.182             | 1.62              |
| Temperature                     | DEG C | -         | NA          | NA          | NA                | NA                | 9.03              |
| Turbidity                       | NTU   | -         | NA          | NA          | NA                | NA                | 54                |

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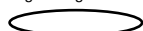
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**TABLE 3**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**FORMER EMCA SITE, MAMARONECK, NEW YORK**

| Location ID                                       |       |           | MW-07            | MW-07             | MW-07R            | MW-07R            | MW-07R                |
|---------------------------------------------------|-------|-----------|------------------|-------------------|-------------------|-------------------|-----------------------|
| Sample ID                                         |       |           | 20080812MW07V09N | 20090218MW-07V09N | 20091013MW-07V09N | 20100225MW-07V09N | 20100624MW-07V09N     |
| Matrix                                            |       |           | Groundwater      | Groundwater       | Groundwater       | Groundwater       | Groundwater           |
| Depth Interval (ft)                               |       |           | -                | -                 | -                 | -                 | -                     |
| Date Sampled                                      |       |           | 08/12/08         | 02/18/09          | 10/13/09          | 02/25/10          | 06/24/10              |
| Parameter                                         | Units | Criteria* |                  |                   |                   |                   | Field Duplicate (1-1) |
| <b>Volatiles</b>                                  |       |           |                  |                   |                   |                   |                       |
| 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         | 170              | 150               | 370 D             | 150 J             | 350 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         | 3.0 J            | 46                | 580 D             | 18 J              | 1.1 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         | 16               | 20                | 76                | 8.1               | 1.7 J                 |
| <b>Dissolved Gases</b>                            |       |           |                  |                   |                   |                   |                       |
| Methane                                           | UG/L  | -         | 5,600            | 11,000            | 5,900             | 6,500             | 8,100                 |
| <b>Total Metals</b>                               |       |           |                  |                   |                   |                   |                       |
| Iron                                              | UG/L  | 300       | NA               | NA                | NA                | NA                | NA                    |
| <b>Dissolved Metals</b>                           |       |           |                  |                   |                   |                   |                       |
| 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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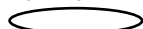
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**TABLE 3**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**FORMER EMCA SITE, MAMARONECK, NEW YORK**

| Location ID                     |       |           | MW-07            | MW-07             | MW-07R            | MW-07R            | MW-07R                |
|---------------------------------|-------|-----------|------------------|-------------------|-------------------|-------------------|-----------------------|
| Sample ID                       |       |           | 20080812MW07V09N | 20090218MW-07V09N | 20091013MW-07V09N | 20100225MW-07V09N | 20100624MW-07V09N     |
| Matrix                          |       |           | Groundwater      | Groundwater       | Groundwater       | Groundwater       | Groundwater           |
| Depth Interval (ft)             |       |           | -                | -                 | -                 | -                 | -                     |
| Date Sampled                    |       |           | 08/12/08         | 02/18/09          | 10/13/09          | 02/25/10          | 06/24/10              |
| Parameter                       | Units | Criteria* |                  |                   |                   |                   | Field Duplicate (1-1) |
| <b>Miscellaneous Parameters</b> |       |           |                  |                   |                   |                   |                       |
| Chloride                        | MG/L  | 250       | 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       | 5.6              | 5 UJ              | 6.3               | 7.9               | 17                    |
| 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                    |
| <b>Field Parameter</b>          |       |           |                  |                   |                   |                   |                       |
| Dissolved Oxygen                | MG/L  | -         | 0 U              | 0 U               | 0.00              | 0.00              | NA                    |
| Oxidation Reduction Potential   | mV    | -         | -167             | -154              | -139              | -146              | NA                    |
| pH                              | S.U.  | -         | 6.48             | 6.18              | 6.45              | 6.52              | NA                    |
| Specific Conductance            | MS/CM | -         | 1.99             | 2.01              | 2.74              | 2.79              | NA                    |
| Temperature                     | DEG C | -         | 17.3             | 12.11             | 18.36             | 10.69             | NA                    |
| Turbidity                       | NTU   | -         | 25               | 21                | 1.1               | 1.1               | 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

B - Value between Instrument Detection Limit and Contract Required Detection Limit.

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

UJ - Not detected above the estimated quantitation limit

U - Non-Detect

NA - Not Analyzed

R - Rejected

Only Detected Results Reported.

**Detection Limits shown are PQL**

Advanced Selection: WG Oct10 Tab3

N:\11172730.0000\08\PROGRAMEDMS.mde

Printed: 11/23/2010 11:16:36 AM

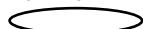
([LOGDATE] BETWEEN #05/01/03# AND #10/6/10#) AND [MATRIX] = 'WG' AND ([SACODE] = 'N' OR [SACODE] = 'FD')

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

| Location ID                                       |       |           | MW-07R             | MW-07R             |
|---------------------------------------------------|-------|-----------|--------------------|--------------------|
| Sample ID                                         |       |           | 20100624MW-07R/15N | 20101006MW-07R/15N |
| Matrix                                            |       |           | Groundwater        | Groundwater        |
| Depth Interval (ft)                               |       |           | -                  | -                  |
| Date Sampled                                      |       |           | 06/24/10           | 10/06/10           |
| Parameter                                         | Units | Criteria* |                    |                    |
| <b>Volatiles</b>                                  |       |           |                    |                    |
| Acetone                                           | UG/L  | 50        | NA                 | NA                 |
| Benzene                                           | UG/L  | 1         | NA                 | NA                 |
| Methyl ethyl ketone (2-Butanone)                  | UG/L  | 50        | NA                 | NA                 |
| Chlorotrifluoroethene (Freon-1113)                | UG/L  | 5         | 390                | 350                |
| 1,1-Dichloroethene                                | UG/L  | 5         | NA                 | NA                 |
| cis-1,2-Dichloroethene                            | UG/L  | 5         | NA                 | NA                 |
| trans-1,2-Dichloroethene                          | UG/L  | 5         | NA                 | NA                 |
| Ethylbenzene                                      | UG/L  | 5         | NA                 | NA                 |
| 2-Hexanone                                        | UG/L  | 50        | NA                 | NA                 |
| 4-Methyl-2-Pentanone                              | UG/L  | -         | NA                 | NA                 |
| Tetrachloroethene                                 | UG/L  | 5         | NA                 | NA                 |
| Trichloroethene                                   | UG/L  | 5         | NA                 | NA                 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113) | UG/L  | 5         | 1                  | 53 J               |
| Vinyl Chloride                                    | UG/L  | 2         | NA                 | NA                 |
| Xylene (total)                                    | UG/L  | 5         | NA                 | NA                 |
| 1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)   | UG/L  | 5         | 1.8                | 9.5                |
| <b>Dissolved Gases</b>                            |       |           |                    |                    |
| Methane                                           | UG/L  | -         | 8,400              | 6,200              |
| <b>Total Metals</b>                               |       |           |                    |                    |
| Iron                                              | UG/L  | 300       | NA                 | NA                 |
| <b>Dissolved Metals</b>                           |       |           |                    |                    |
| Iron                                              | UG/L  | 300       | 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

B - Value between Instrument Detection Limit and Contract Required Detection Limit.

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

UJ - Not detected above the estimated quantitation limit

U - Non-Detect

NA - Not Analyzed

R - Rejected

Only Detected Results Reported.

**Detection Limits shown are PQL**

Advanced Selection: WG Oct10 Tab3

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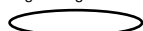
([LOGDATE] BETWEEN #05/01/03# AND #10/06/10#) AND [MATRIX] = 'WG' AND ([SACODE] = 'N' OR [SACODE] = 'FD')

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

| Location ID                     |       |           | MW-07R             | MW-07R             |
|---------------------------------|-------|-----------|--------------------|--------------------|
| Sample ID                       |       |           | 20100624MW-07R/15N | 20101006MW-07R/15N |
| Matrix                          |       |           | Groundwater        | Groundwater        |
| Depth Interval (ft)             |       |           | -                  | -                  |
| Date Sampled                    |       |           | 06/24/10           | 10/06/10           |
| Parameter                       | Units | Criteria* |                    |                    |
| <b>Miscellaneous Parameters</b> |       |           |                    |                    |
| Chloride                        | MG/L  | 250       | NA                 | NA                 |
| Nitrogen, Ammonia (As N)        | MG/L  | 2         | NA                 | NA                 |
| Nitrogen, Kjeldahl, Total       | MG/L  | -         | NA                 | NA                 |
| Nitrogen, Nitrate               | MG/L  | 10        | NA                 | NA                 |
| Nitrogen, Nitrate-Nitrite       | MG/L  | 10        | NA                 | NA                 |
| Sulfate                         | MG/L  | 250       | 11.2               | 13 J               |
| Ferrous Iron (field)            | MG/L  | -         | NA                 | NA                 |
| Ferric Iron (lab)               | MG/L  | -         | NA                 | NA                 |
| Fluoride                        | MG/L  | 1.5       | NA                 | NA                 |
| Oil & Grease                    | MG/L  | -         | NA                 | NA                 |
| <b>Field Parameter</b>          |       |           |                    |                    |
| Dissolved Oxygen                | MG/L  | -         | 0.69               | 4.05               |
| Oxidation Reduction Potential   | mV    | -         | -129               | -113               |
| pH                              | S.U.  | -         | 8.83               | 6.82               |
| Specific Conductance            | MS/CM | -         | 2.09               | 2.03               |
| Temperature                     | DEG C | -         | 16.45              | 21.42              |
| Turbidity                       | NTU   | -         | 0.35               | 14.3               |

\*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

B - Value between Instrument Detection Limit and Contract Required Detection Limit.

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

UJ - Not detected above the estimated quantitation limit

U - Non-Detect

NA - Not Analyzed

R - Rejected

Only Detected Results Reported.

**Detection Limits shown are PQL**

Advanced Selection: WG Oct10 Tab3  
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Printed: 11/23/2010 11:16:37 AM

([LOGDATE] BETWEEN #05/01/03# AND #10/6/10#) AND [MATRIX] = 'WG' AND ([SACODE] = 'N' OR [SACODE] = 'FD')

**Table 4**

**Comparison of June 2010 to October 2010 Data**

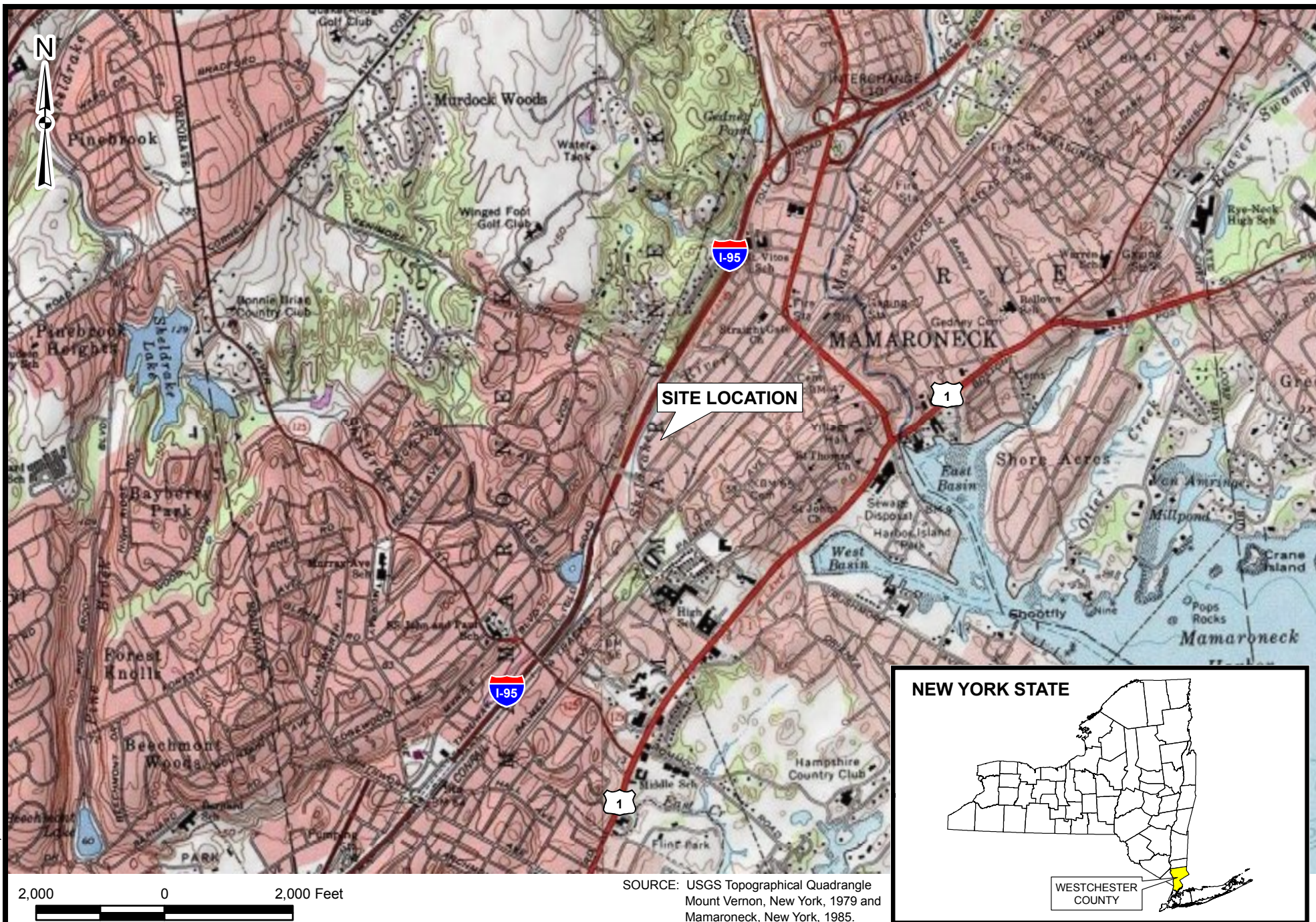
| Location  | Freon 113 | Freon 123a | Freon 1113 | Methane | Sulfate | ORP | DO |
|-----------|-----------|------------|------------|---------|---------|-----|----|
| MW-02     | ↓         | ↓          | ↓          | ↓       | ↓       | ↑   | ↑  |
| MW-03     | ↔         | ↓          | ↓          |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

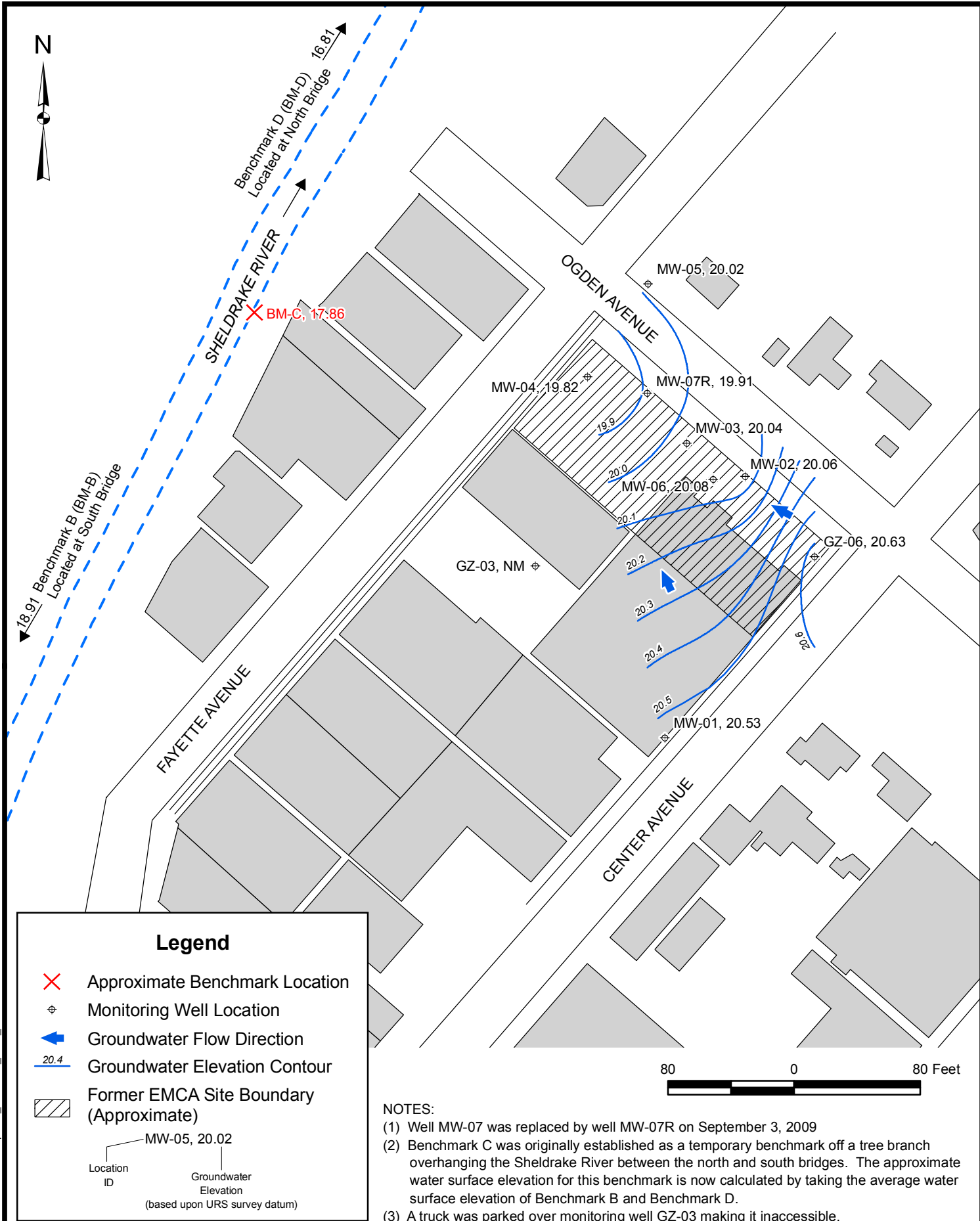
Legend

- ↓ Decrease from previous event
- ↑ Increase from previous event
- ↔ No significant change from previous event

Note: Remediation goals were achieved for four consecutive monitoring events at monitoring well GZ-06, therefore sampling at well GZ-06 has been discontinued.

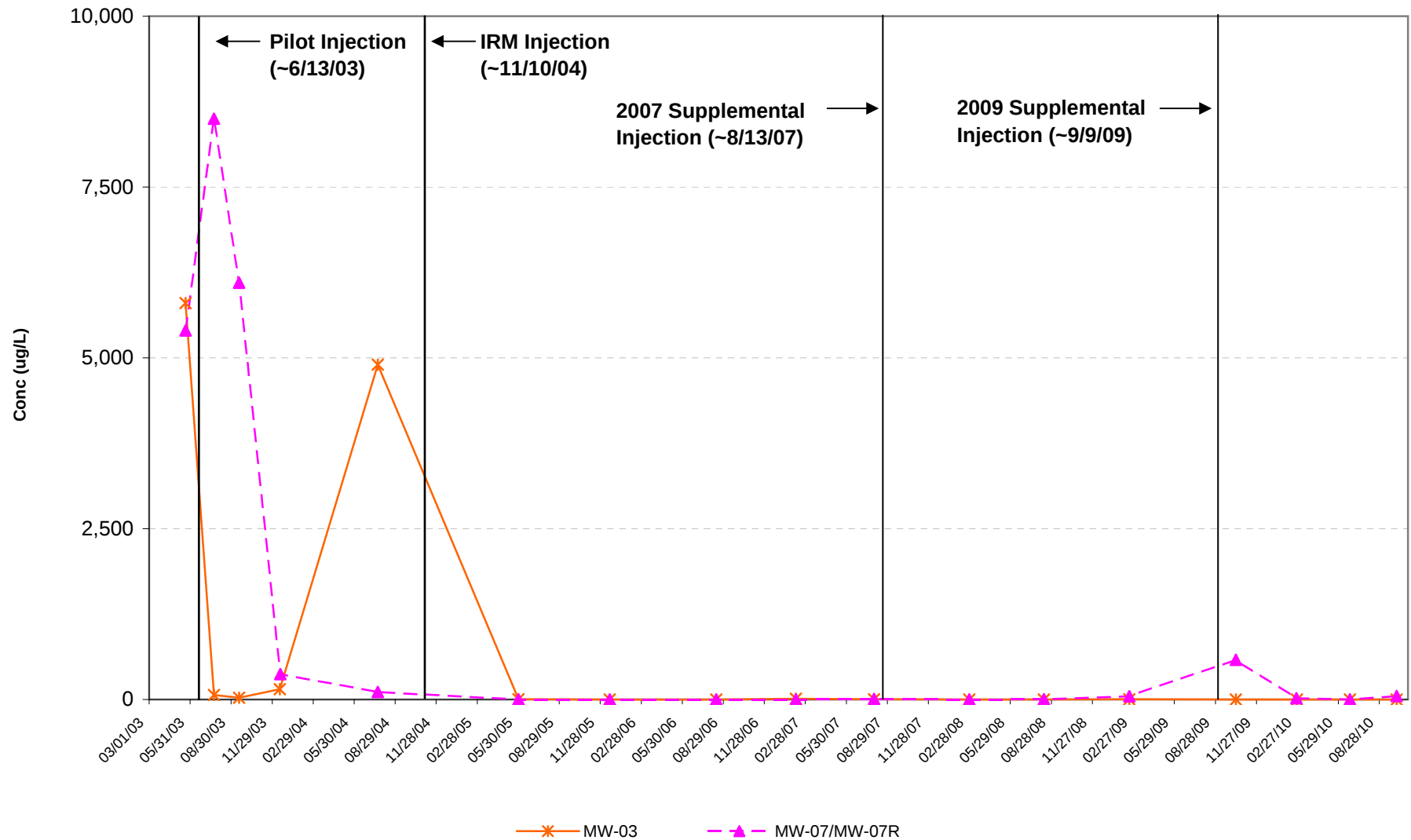
## **FIGURES**



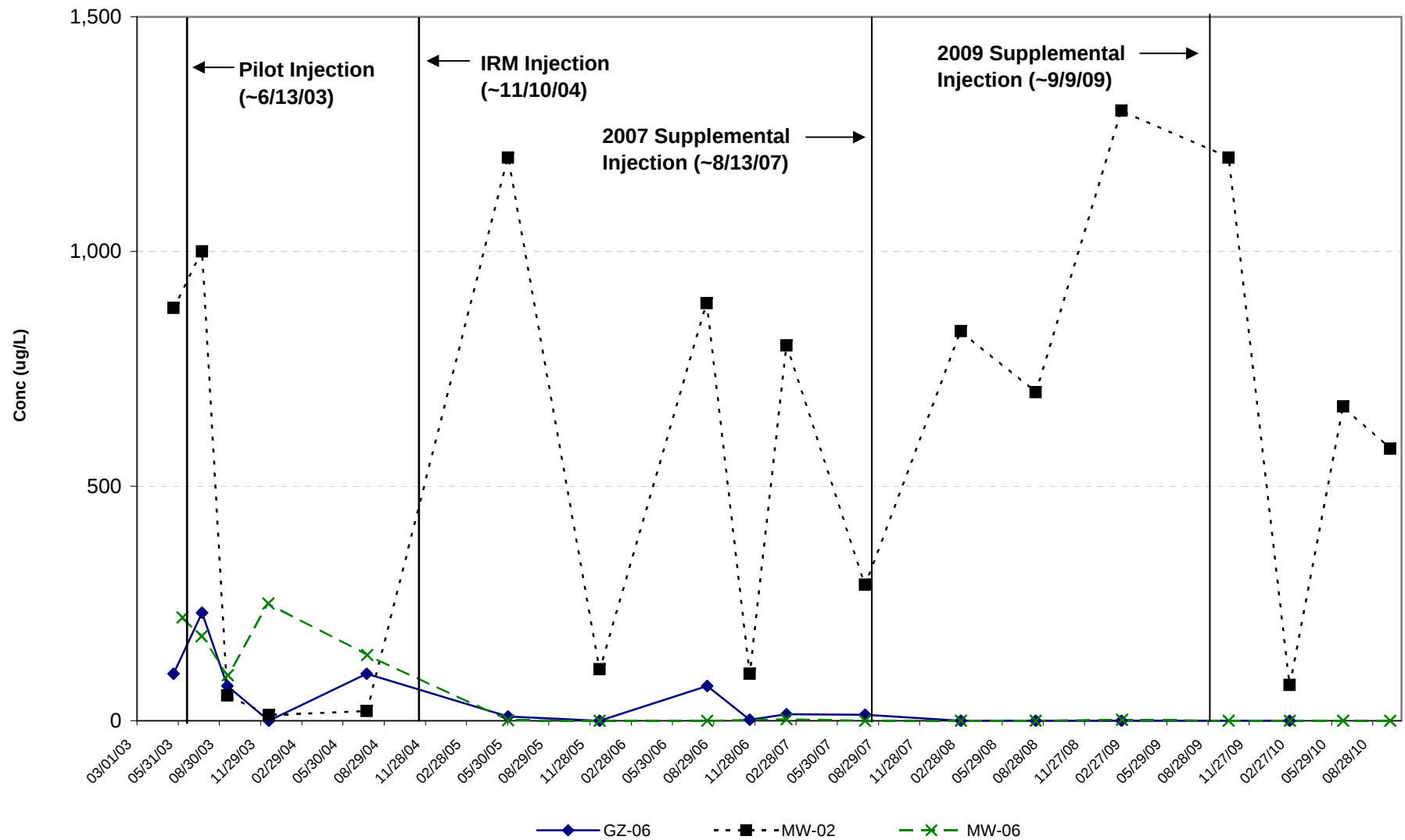




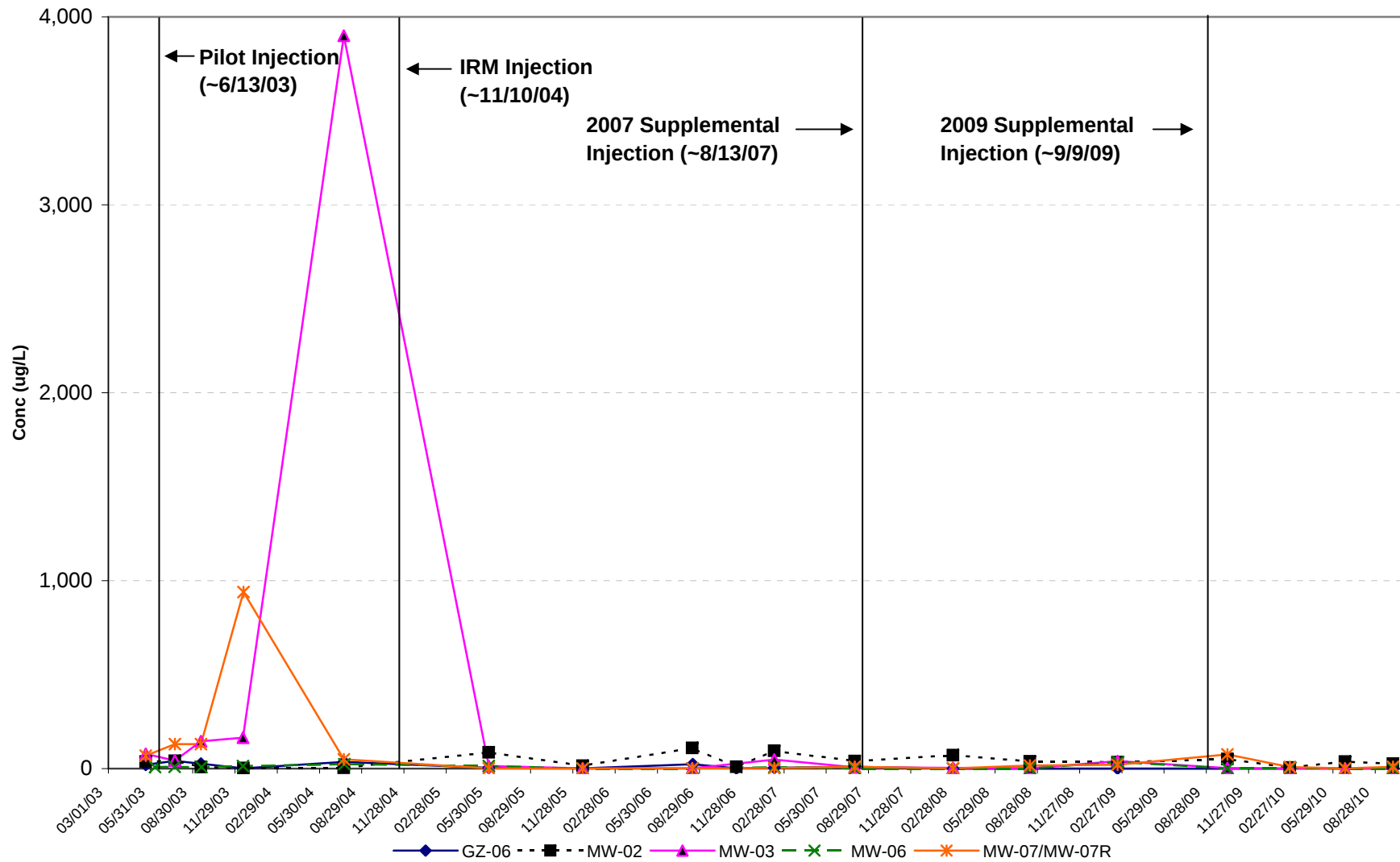
**FIGURE 4**  
**FORMER EMCA SITE**  
**Freon 113 Concentrations, MW-03 and MW-07/07R**



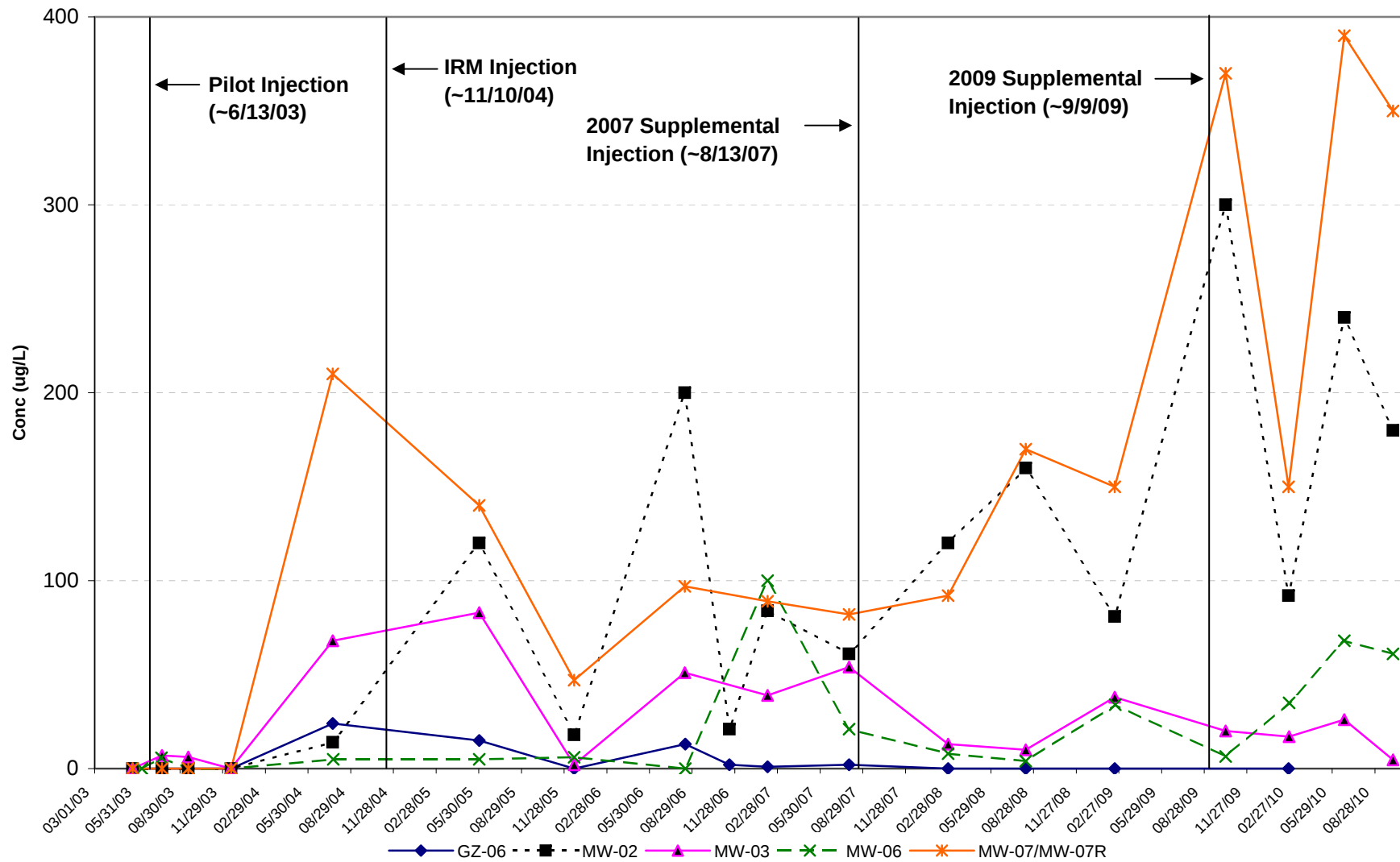
**FIGURE 5**  
**FORMER EMCA SITE**  
**Freon 113 Concentrations, GZ-06, MW-02, and MW-06**



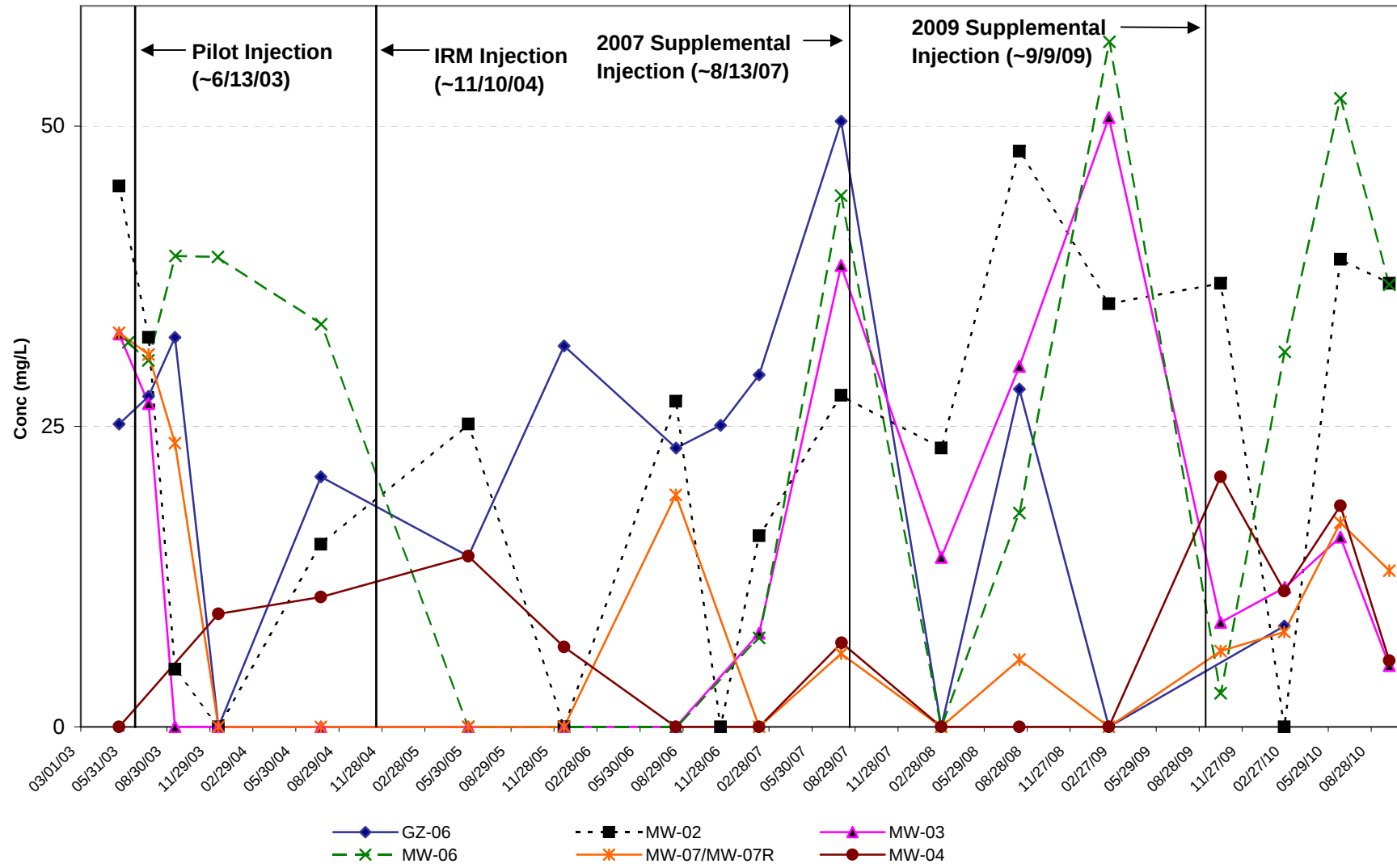
**FIGURE 6**  
**FORMER EMCA SITE**  
**Freon 123a Concentrations**



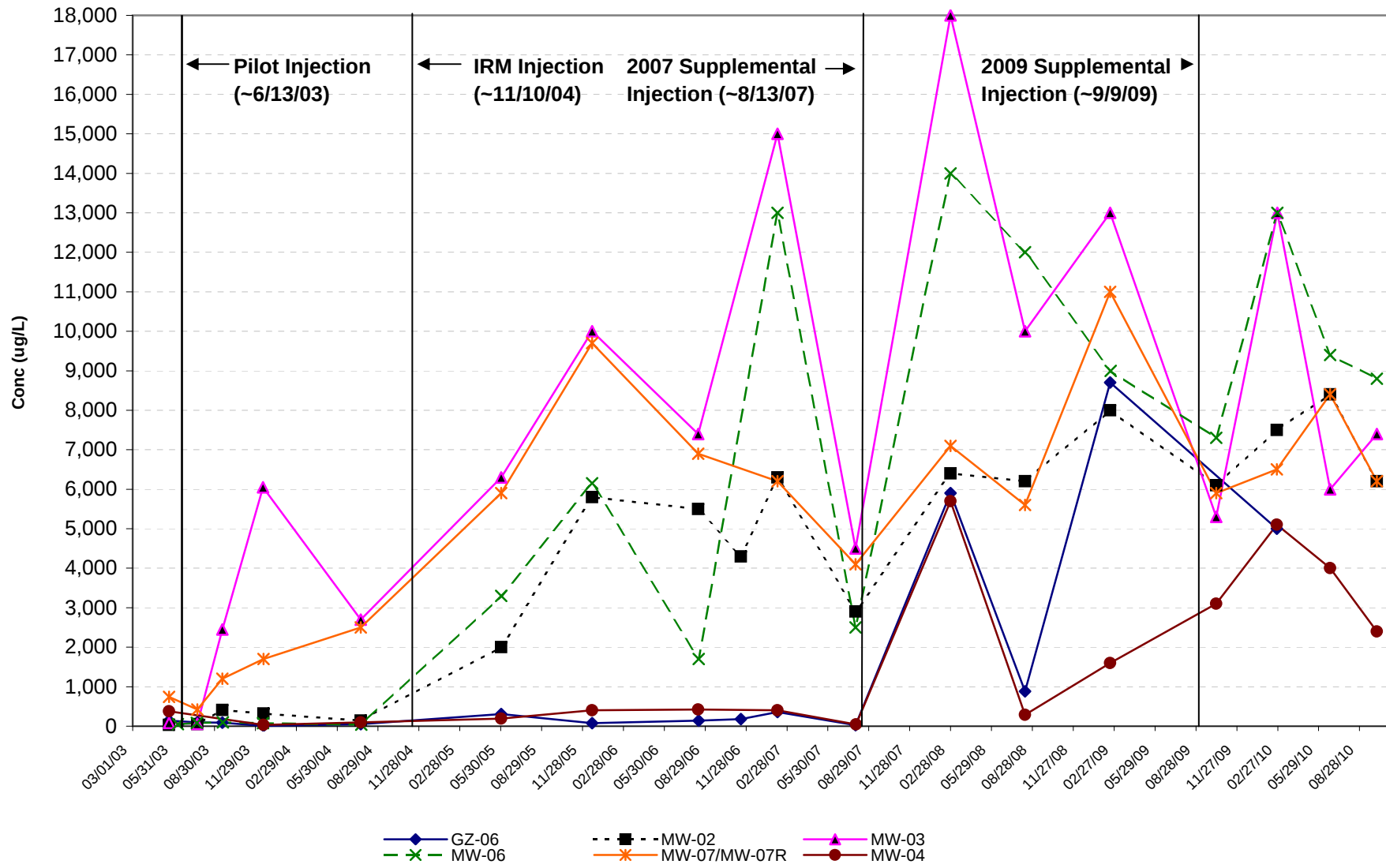
**FIGURE 7**  
**FORMER EMCA SITE**  
**Freon 1113 Concentrations**



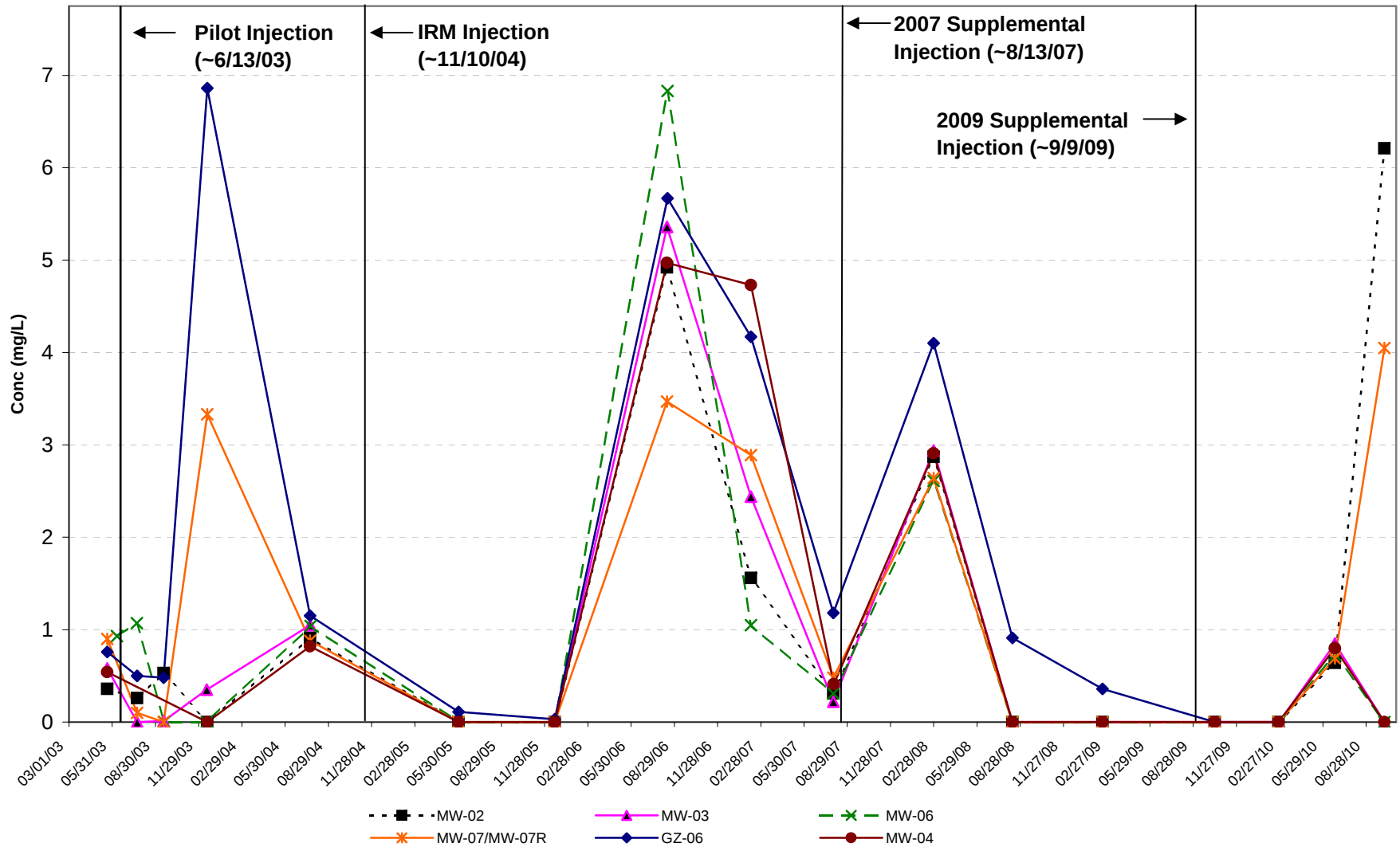
**FIGURE 8**  
**FORMER EMCA SITE**  
**Sulfate Concentrations**



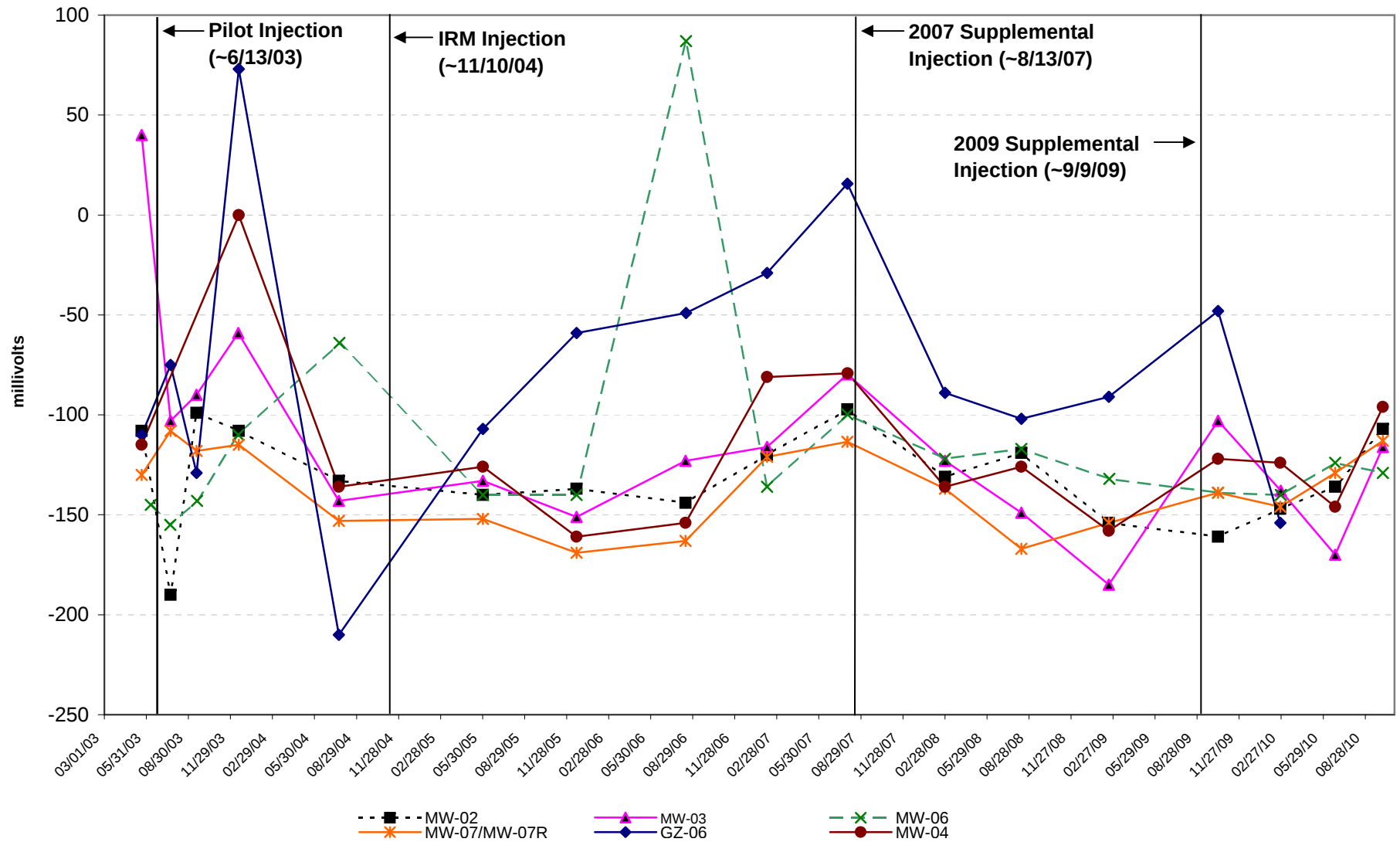
**FIGURE 9**  
**FORMER EMCA SITE**  
**Methane Concentrations**



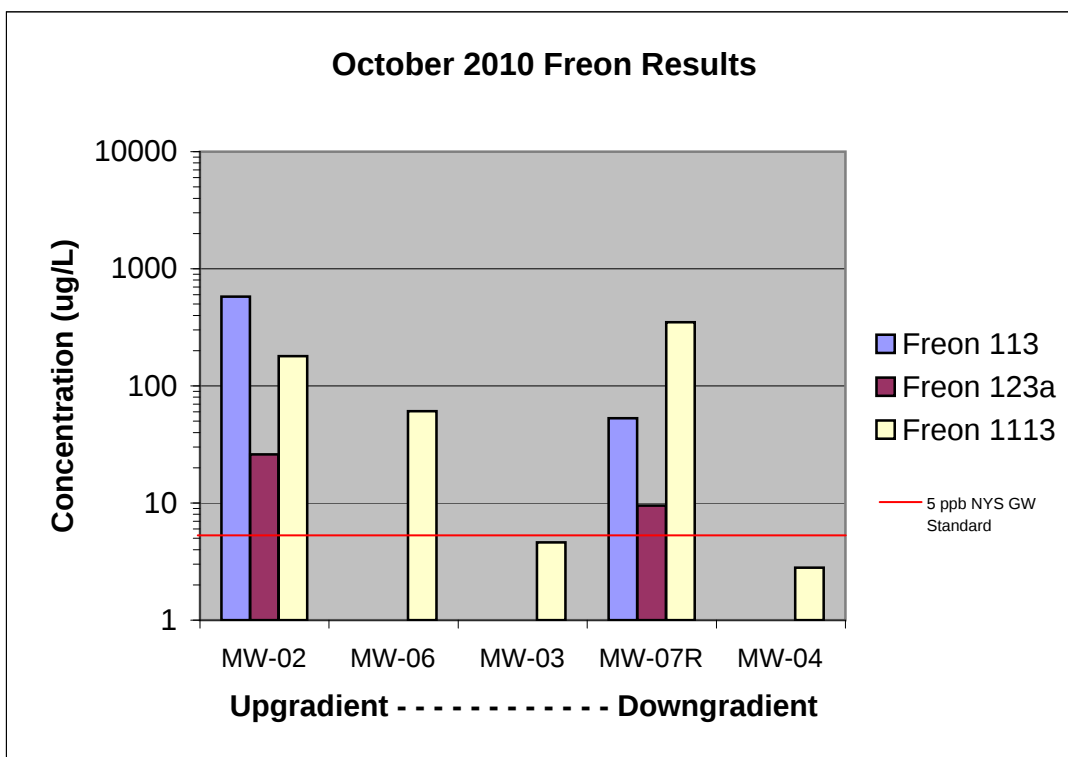
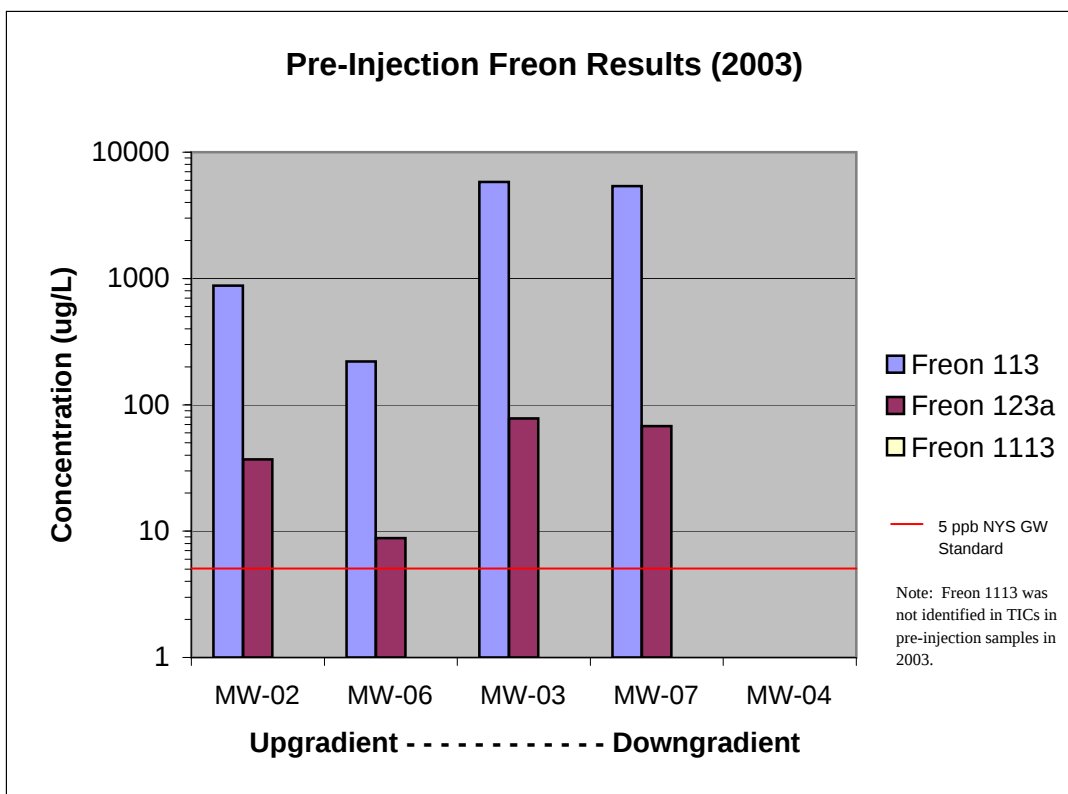
**FIGURE 10**  
**FORMER EMCA SITE**  
**Dissolved Oxygen Concentrations**



**FIGURE 11**  
**FORMER EMCA SITE**  
**Oxidation Reduction Potential**



**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: 10/6/2010      Sampling Personnel: Tim Ifkovich      Company: URS Corporation

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

|                  |                    |                         |      |                       |       |                |    |                |     |
|------------------|--------------------|-------------------------|------|-----------------------|-------|----------------|----|----------------|-----|
| Measuring Point: | Below Top of Riser | Initial Depth to Water: | 5.57 | Depth to Well Bottom: | 11.79 | Well Diameter: | 1" | Screen Length: | 10' |
|------------------|--------------------|-------------------------|------|-----------------------|-------|----------------|----|----------------|-----|

|              |     |                                   |     |                                  |      |
|--------------|-----|-----------------------------------|-----|----------------------------------|------|
| Casing Type: | PVC | Volume in 1 Well Casing (liters): | 1.0 | Estimated Purge Volume (liters): | 12.4 |
|--------------|-----|-----------------------------------|-----|----------------------------------|------|

|            |                   |              |      |        |    |
|------------|-------------------|--------------|------|--------|----|
| Sample ID: | 20101006MW-02V08N | Sample Time: | 1120 | QA/QC: | -- |
|------------|-------------------|--------------|------|--------|----|

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

Notes: slight sheen, darkish tint

## 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 ( $vql_w = \pi r^2 h$ )

## LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

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

Date: 10/6/2010      Sampling Personnel: Tim Ifkovich      Company: URS Corporation

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

|                  |                    |                         |      |                       |       |                |    |                |     |
|------------------|--------------------|-------------------------|------|-----------------------|-------|----------------|----|----------------|-----|
| Measuring Point: | Below Top of Riser | Initial Depth to Water: | 5.55 | Depth to Well Bottom: | 14.23 | Well Diameter: | 1" | Screen Length: | 10' |
|------------------|--------------------|-------------------------|------|-----------------------|-------|----------------|----|----------------|-----|

|              |     |                                   |     |                                  |     |
|--------------|-----|-----------------------------------|-----|----------------------------------|-----|
| Casing Type: | PVC | Volume in 1 Well Casing (liters): | 1.3 | Estimated Purge Volume (liters): | 9.8 |
|--------------|-----|-----------------------------------|-----|----------------------------------|-----|

|            |                   |              |      |        |    |
|------------|-------------------|--------------|------|--------|----|
| Sample ID: | 20101006MW-03V09N | Sample Time: | 1222 | QA/QC: | -- |
|------------|-------------------|--------------|------|--------|----|

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

Notes: slight sheen, blackish tint

## 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 ( $vql_w = \pi r^2 h$ )

## LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

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

Date: 10/6/2010      Sampling Personnel: Tim Ifkovich      Company: URS Corporation

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

|                  |                    |                         |      |                       |       |                |    |                |     |
|------------------|--------------------|-------------------------|------|-----------------------|-------|----------------|----|----------------|-----|
| Measuring Point: | Below Top of Riser | Initial Depth to Water: | 5.49 | Depth to Well Bottom: | 11.76 | Well Diameter: | 1" | Screen Length: | 10' |
|------------------|--------------------|-------------------------|------|-----------------------|-------|----------------|----|----------------|-----|

|              |     |                                   |     |                                  |     |
|--------------|-----|-----------------------------------|-----|----------------------------------|-----|
| Casing Type: | PVC | Volume in 1 Well Casing (liters): | 1.0 | Estimated Purge Volume (liters): | 8.7 |
|--------------|-----|-----------------------------------|-----|----------------------------------|-----|

|            |                   |              |      |        |    |
|------------|-------------------|--------------|------|--------|----|
| Sample ID: | 20101006MW-04V08N | Sample Time: | 1453 | QA/QC: | -- |
|------------|-------------------|--------------|------|--------|----|

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

Notes: clear

## 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 ( $vql_w = \pi r^2 h$ )

## LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

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

Date: 10/6/2010      Sampling Personnel: Tim Ifkovich      Company: URS Corporation

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

|                  |                    |                         |      |                       |       |                |    |                |     |
|------------------|--------------------|-------------------------|------|-----------------------|-------|----------------|----|----------------|-----|
| Measuring Point: | Below Top of Riser | Initial Depth to Water: | 5.69 | Depth to Well Bottom: | 18.62 | Well Diameter: | 1" | Screen Length: | 10' |
|------------------|--------------------|-------------------------|------|-----------------------|-------|----------------|----|----------------|-----|

|              |     |                                   |     |                                  |      |
|--------------|-----|-----------------------------------|-----|----------------------------------|------|
| Casing Type: | PVC | Volume in 1 Well Casing (liters): | 2.0 | Estimated Purge Volume (liters): | 13.3 |
|--------------|-----|-----------------------------------|-----|----------------------------------|------|

|            |                   |              |      |        |    |
|------------|-------------------|--------------|------|--------|----|
| Sample ID: | 20101006MW-06V13N | Sample Time: | 1000 | QA/QC: | FD |
|------------|-------------------|--------------|------|--------|----|

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

Notes: clear

## 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 ( $vql_w = \pi r^2 h$ )

## LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

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

Date: 10/6/2010      Sampling Personnel: Tim Ifkovich      Company: URS Corporation

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

|                  |                    |                         |      |                       |       |                |    |                |     |
|------------------|--------------------|-------------------------|------|-----------------------|-------|----------------|----|----------------|-----|
| Measuring Point: | Below Top of Riser | Initial Depth to Water: | 5.72 | Depth to Well Bottom: | 19.92 | Well Diameter: | 1" | Screen Length: | 10' |
|------------------|--------------------|-------------------------|------|-----------------------|-------|----------------|----|----------------|-----|

|              |     |                                   |     |                                  |      |
|--------------|-----|-----------------------------------|-----|----------------------------------|------|
| Casing Type: | PVC | Volume in 1 Well Casing (liters): | 2.2 | Estimated Purge Volume (liters): | 18.9 |
|--------------|-----|-----------------------------------|-----|----------------------------------|------|

|            |                    |              |      |        |        |
|------------|--------------------|--------------|------|--------|--------|
| Sample ID: | 20101006MW-07RV15N | Sample Time: | 1340 | QA/QC: | MS/MSD |
|------------|--------------------|--------------|------|--------|--------|

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

Notes: slight sheen, slightly cloudy, small black flecks, odor

## 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 ( $vql_w = \pi r^2 h$ )

**APPENDIX B**

**DATA USABILITY SUMMARY REPORT**

**APPENDIX B**

**DATA USABILITY SUMMARY REPORT**

**OCTOBER 2010 SAMPLING EVENT**

**FORMER EMCA SITE**

**SITE NO. 360025**

**MAMARONECK, NEW YORK**

**Analyses Performed by:**

**TESTAMERICA ANALYTICAL TESTING CORPORATION**

**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**

**NOVEMBER 2010**

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| IV. DATA DELIVERABLE COMPLETENESS .....             | B-2             |
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| VI. NONCONFORMANCES .....                           | B-2             |
| VII. SUMMARY .....                                  | B-3             |

## TABLES (Following Text)

|           |                                            |
|-----------|--------------------------------------------|
| Table B-1 | Sample and Analysis Summary – October 2010 |
| Table B-2 | Groundwater Analytical Results             |
| Table B-3 | Field QC Analytical Results                |

## ATTACHMENTS (Following Tables)

- Attachment A – Validated Analytical Results (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 *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 October 6, 2010, 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                            | EPA 375.4      | 1          |

### 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.

### **III. DATA VALIDATION**

A limited data validation was performed following the guidelines in USEPA Region II *Standard Operating Procedure for the Validation of Organic Data Acquired Using SW-846 Method 8260B*, SOP No. HW-24, Rev. #2, August 2008 and the intent of USEPA Region II *Evaluation of Metals Data 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 narratives, chain-of-custodies, 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**

#### **Matrix Spike/Matrix Spike Duplicate (MS/MSD)**

The VOC MS/MSD analyses of sample 20101006MW-07R exhibited low percent recoveries (%Rs) for Freon-113. The Freon-113 result for this sample was qualified 'J', as summarized on Table B-2. Documentation supporting the qualification of data (i.e., Form III) is presented in Attachment B.

The sulfate MS/MSD analyses of sample 20101006MW-07R exhibited low %Rs. The sulfate results for all groundwater samples were qualified 'J', as summarized on Table B-2. Documentation supporting the qualification of data (i.e., Form 5-IN) is presented in Attachment B.

## **VII. SUMMARY**

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

## **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.

**TABLE B-1**  
**SAMPLE AND ANALYSIS SUMMARY - OCTOBER 2010**  
**FORMER EMCA SITE, MAMARONECK, NEW YORK**

| SDG Nos.    | Sample ID          | Matrix | Date of Collection | VOCs* | Methane | Sulfate | Comments                 |
|-------------|--------------------|--------|--------------------|-------|---------|---------|--------------------------|
| 460-18485-1 | 20101006MW-06V13N  | GW     | 10/06/10           | X     | X       | X       | ---                      |
|             | 20101006MW-06V13FD | GW     |                    | X     | X       | X       | Field Duplicate of MW-06 |
|             | 20101006MW-02V08N  | GW     |                    | X     | X       | X       | ---                      |
|             | 20101006MW-03V09N  | GW     |                    | X     | X       | X       | ---                      |
|             | 20101006MW-07RV15N | GW     |                    | X     | X       | X       | MS/MSD                   |
|             | 20101006MW-04V08N  | GW     |                    | X     | X       | X       | ---                      |
|             | 20101006TB         | 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-06             |
|---------------------------------------------------|------------|-----------|-------------------|-------------------|-------------------|-----------------------|-------------------|
| Sample ID                                         |            |           | 20101006MW-02V08N | 20101006MW-03V09N | 20101006MW-04V08N | 20101006MW-06V13N     | 20101006MW-06V13N |
| Matrix                                            |            |           | Groundwater       | Groundwater       | Groundwater       | Groundwater           | Groundwater       |
| Depth Interval (ft)                               |            |           | -                 | -                 | -                 | -                     | -                 |
| Date Sampled                                      |            |           | 10/06/10          | 10/06/10          | 10/06/10          | 10/06/10              | 10/06/10          |
| Parameter                                         | Units      | Criteria* |                   |                   |                   | Field Duplicate (1-1) |                   |
| <b>Volatiles</b>                                  |            |           |                   |                   |                   |                       |                   |
| Chlorotrifluoroethene (Freon-1113)                | UG/L       | 5         | 180               | 4.6               | 2.8               | 61                    | 57                |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113) | UG/L       | 5         | 580               | 1 U               | 1 U               | 1 U                   | 1 U               |
| 1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)   | UG/L       | 5         | 26                | 1 U               | 1 U               | 1 U                   | 1 U               |
| <b>Dissolved Gases</b>                            |            |           |                   |                   |                   |                       |                   |
| Methane                                           | UG/L       | -         | 6,200             | 7,400             | 2,400             | 8,300                 | 8,800             |
| <b>Miscellaneous Parameters</b>                   |            |           |                   |                   |                   |                       |                   |
| Sulfate                                           | MG/L       | 250       | 36.9 J            | 5.1 J             | 5.5 J             | 36.8 J                | 34.5 J            |
| <b>Field Parameter</b>                            |            |           |                   |                   |                   |                       |                   |
| Dissolved Oxygen                                  | MG/L       | -         | 6.21              | 0                 | 0                 | NA                    | 0                 |
| Oxidation Reduction Potential                     | MILLIVOLTS | -         | -107              | -116              | -96               | NA                    | -129              |
| pH                                                | PH UNITS   | -         | 6.76              | 6.73              | 6.86              | NA                    | 6.97              |
| Specific Conductance                              | MS/CM      | -         | 1.91              | 1.68              | 1.48              | NA                    | 0.879             |
| Temperature                                       | DEG C      | -         | 19.45             | 20.19             | 21.38             | NA                    | 18.25             |
| Turbidity                                         | NTU        | -         | 11.9              | 6.3               | 3.7               | NA                    | 0                 |

\*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

MADE BY: \_\_PRF\_11/19/10\_\_ CHKD BY: dmf 11/19/10

Detection Limits shown are PQL

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

| Location ID                                       |            |           | MW-07R             |
|---------------------------------------------------|------------|-----------|--------------------|
| Sample ID                                         |            |           | 20101006MW-07R145M |
| Matrix                                            |            |           | Groundwater        |
| Depth Interval (ft)                               |            |           | -                  |
| Date Sampled                                      |            |           | 10/06/10           |
| Parameter                                         | Units      | Criteria* |                    |
| <b>Volatiles</b>                                  |            |           |                    |
| Chlorotrifluoroethene (Freon-1113)                | UG/L       | 5         | 350                |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113) | UG/L       | 5         | 53 J               |
| 1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)   | UG/L       | 5         | 9.5                |
| <b>Dissolved Gases</b>                            |            |           |                    |
| Methane                                           | UG/L       | -         | 6,200              |
| <b>Miscellaneous Parameters</b>                   |            |           |                    |
| Sulfate                                           | MG/L       | 250       | 13 J               |
| <b>Field Parameter</b>                            |            |           |                    |
| Dissolved Oxygen                                  | MG/L       | -         | 4.05               |
| Oxidation Reduction Potential                     | MILLIVOLTS | -         | -113               |
| pH                                                | PH UNITS   | -         | 6.82               |
| Specific Conductance                              | MS/CM      | -         | 2.03               |
| Temperature                                       | DEG C      | -         | 21.42              |
| Turbidity                                         | NTU        | -         | 14.3               |

\*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.

MADE BY: \_\_PRF\_11/19/10\_\_ CHKD BY: *duck* 11/19/10

Detection Limits shown are PQL

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

|                                                   |       |           |                  |
|---------------------------------------------------|-------|-----------|------------------|
| Location ID                                       |       |           | FIELDQC          |
| Sample ID                                         |       |           | 20101006TB       |
| Matrix                                            |       |           | Water            |
| Depth Interval (ft)                               |       |           | -                |
| Date Sampled                                      |       |           | 10/06/10         |
| Parameter                                         | Units | Criteria* | Trip Blank (1-1) |
| <b>Volatiles</b>                                  |       |           |                  |
| Chlorotrifluoroethene (Freon-1113)                | UG/L  | 5         | 1 U              |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113) | UG/L  | 5         | 1 U              |
| 1,2-Dichloro-1,1,2-trifluoroethane (Freon-123A)   | UG/L  | 5         | 1 U              |
| <b>Dissolved Gases</b>                            |       |           |                  |
| 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

MADE BY: \_\_PRF\_11/19/10\_\_ CHKD BY: duch 11/19/10

Detection Limits shown are PQL

**ATTACHMENT A**

**VALIDATED ANALYTICAL RESULTS (FORM 1's)**

**Analytical Data**

Client: URS Corporation

Job Number: 460-18485-1

Client Sample ID: 20101006MW-06V13N

Lab Sample ID: 460-18485-1

Date Sampled: 10/06/2010 1000

Client Matrix: Water

Date Received: 10/06/2010 1600

---

**3810M Methane, Ethene, Ethane, and Propane using Static Headspace**

|                |                 |                           |                        |           |
|----------------|-----------------|---------------------------|------------------------|-----------|
| Method:        | 3810M           | Analysis Batch: 460-52506 | Instrument ID:         | VOAGC2    |
| Preparation:   | N/A             |                           | Lab File ID:           | scr6058.d |
| Dilution:      | 50              |                           | Initial Weight/Volume: | 10 mL     |
| Date Analyzed: | 10/15/2010 1451 |                           | Final Weight/Volume:   | 10 mL     |
| Date Prepared: |                 |                           |                        |           |

| Analyte | Result (ug/L) | Qualifier | MDL | RL  |
|---------|---------------|-----------|-----|-----|
| Methane | 8800          |           | 22  | 130 |

# Analytical Data

Client: URS Corporation

Job Number: 460-18485-1

Client Sample ID: 20101006MW-06V13FD

Lab Sample ID: 460-18485-2

Client Matrix: Water

Date Sampled: 10/06/2010 1000

Date Received: 10/06/2010 1600

## 3810M Methane, Ethene, Ethane, and Propane using Static Headspace

|                |                 |                           |                        |            |
|----------------|-----------------|---------------------------|------------------------|------------|
| Method:        | 3810M           | Analysis Batch: 460-52506 | Instrument ID:         | VOAGC2     |
| Preparation:   | N/A             |                           | Lab File ID:           | scrf6056.d |
| Dilution:      | 25              |                           | Initial Weight/Volume: | 10 mL      |
| Date Analyzed: | 10/15/2010 1430 |                           | Final Weight/Volume:   | 10 mL      |
| Date Prepared: |                 |                           |                        |            |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---------|---------------|-----------|-----|----|
| Methane | 8300          |           | 11  | 67 |

**Analytical Data**

Client: URS Corporation

Job Number: 460-18485-1

Client Sample ID: 20101006MW-02V08N

Lab Sample ID: 460-18485-3

Date Sampled: 10/06/2010 1120

Client Matrix: Water

Date Received: 10/06/2010 1600

---

**3810M Methane, Ethene, Ethane, and Propane using Static Headspace**

|                |                 |                           |                        |           |
|----------------|-----------------|---------------------------|------------------------|-----------|
| Method:        | 3810M           | Analysis Batch: 460-52506 | Instrument ID:         | VOAGC2    |
| Preparation:   | N/A             |                           | Lab File ID:           | scr6055.d |
| Dilution:      | 20              |                           | Initial Weight/Volume: | 10 mL     |
| Date Analyzed: | 10/15/2010 1420 |                           | Final Weight/Volume:   | 10 mL     |
| Date Prepared: |                 |                           |                        |           |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---------|---------------|-----------|-----|----|
| Methane | 6200          |           | 8.6 | 54 |

## Analytical Data

Client: URS Corporation

Job Number: 460-18485-1

Client Sample ID: 20101006MW-03V09N

Lab Sample ID: 460-18485-4

Date Sampled: 10/06/2010 1222

Client Matrix: Water

Date Received: 10/06/2010 1600

---

### 3810M Methane, Ethene, Ethane, and Propane using Static Headspace

|                |                 |                           |                        |           |
|----------------|-----------------|---------------------------|------------------------|-----------|
| Method:        | 3810M           | Analysis Batch: 460-52506 | Instrument ID:         | VOAGC2    |
| Preparation:   | N/A             |                           | Lab File ID:           | scr6057.d |
| Dilution:      | 25              |                           | Initial Weight/Volume: | 10 mL     |
| Date Analyzed: | 10/15/2010 1441 |                           | Final Weight/Volume:   | 10 mL     |
| Date Prepared: |                 |                           |                        |           |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---------|---------------|-----------|-----|----|
| Methane | 7400          |           | 11  | 67 |

**Analytical Data**

Client: URS Corporation

Job Number: 460-18485-1

Client Sample ID: 20101006MW-07RV15N

Lab Sample ID: 460-18485-5

Date Sampled: 10/06/2010 1340

Client Matrix: Water

Date Received: 10/06/2010 1600

---

**3810M Methane, Ethene, Ethane, and Propane using Static Headspace**

|                |                 |                           |                        |            |
|----------------|-----------------|---------------------------|------------------------|------------|
| Method:        | 3810M           | Analysis Batch: 460-52506 | Instrument ID:         | VOAGC2     |
| Preparation:   | N/A             |                           | Lab File ID:           | scrf6052.d |
| Dilution:      | 20              |                           | Initial Weight/Volume: | 10 mL      |
| Date Analyzed: | 10/15/2010 1348 |                           | Final Weight/Volume:   | 10 mL      |
| Date Prepared: |                 |                           |                        |            |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---------|---------------|-----------|-----|----|
| Methane | 6200          |           | 8.6 | 54 |

**Analytical Data**

Client: URS Corporation

Job Number: 460-18485-1

Client Sample ID: 20101006MW-04V08N

Lab Sample ID: 460-18485-6

Date Sampled: 10/06/2010 1453

Client Matrix: Water

Date Received: 10/06/2010 1600

---

**3810M Methane, Ethene, Ethane, and Propane using Static Headspace**

|                |                 |                           |                        |            |
|----------------|-----------------|---------------------------|------------------------|------------|
| Method:        | 3810M           | Analysis Batch: 460-52506 | Instrument ID:         | VOAGC2     |
| Preparation:   | N/A             |                           | Lab File ID:           | scrf6059.d |
| Dilution:      | 10              |                           | Initial Weight/Volume: | 10 mL      |
| Date Analyzed: | 10/15/2010 1501 |                           | Final Weight/Volume:   | 10 mL      |
| Date Prepared: |                 |                           |                        |            |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---------|---------------|-----------|-----|----|
| Methane | 2400          |           | 4.3 | 27 |

**Analytical Data**

Client: URS Corporation

Job Number: 460-18485-1

Client Sample ID: 20101006TB

Lab Sample ID: 460-18485-7TB

Date Sampled: 10/06/2010 0000

Client Matrix: Water

Date Received: 10/06/2010 1600

---

**3810M Methane, Ethene, Ethane, and Propane using Static Headspace**

Method: 3810M

Analysis Batch: 460-52506

Instrument ID: VOAGC2

Preparation: N/A

Lab File ID: scr6051.d

Dilution: 1.0

Initial Weight/Volume: 10 mL

Date Analyzed: 10/15/2010 1338

Final Weight/Volume: 10 mL

Date Prepared:

| Analyte | Result (ug/L) | Qualifier | MDL  | RL  |
|---------|---------------|-----------|------|-----|
| Methane | 2.7           | U         | 0.43 | 2.7 |

**Analytical Data**

Client: URS Corporation

Job Number: 460-18485-1

Client Sample ID: 20101006MW-06V13N

Lab Sample ID: 460-18485-1

Date Sampled: 10/06/2010 1000

Client Matrix: Water

Date Received: 10/06/2010 1600

**8260B Volatile Organic Compounds (GC/MS)**

|                |                 |                           |                        |          |
|----------------|-----------------|---------------------------|------------------------|----------|
| Method:        | 8260B           | Analysis Batch: 460-52025 | Instrument ID:         | VOAMS13  |
| Preparation:   | 5030B           |                           | Lab File ID:           | p40847.d |
| Dilution:      | 1.0             |                           | Initial Weight/Volume: | 5 mL     |
| Date Analyzed: | 10/13/2010 0957 |                           | Final Weight/Volume:   | 5 mL     |
| Date Prepared: | 10/13/2010 0957 |                           |                        |          |

| Analyte                            | Result (ug/L) | Qualifier | MDL  | RL  |
|------------------------------------|---------------|-----------|------|-----|
| Freon TF                           | 1.0           | U         | 0.28 | 1.0 |
| Chlorotrifluoroethene              | 57            |           | 0.55 | 1.0 |
| 1,2-Dichloro-1,1,2-trifluoroethane | 1.0           | U         | 0.32 | 1.0 |

| Surrogate                    | %Rec | Qualifier | Acceptance Limits |
|------------------------------|------|-----------|-------------------|
| 1,2-Dichloroethane-d4 (Surr) | 100  |           | 70 - 122          |
| Toluene-d8 (Surr)            | 99   |           | 69 - 125          |
| Bromofluorobenzene           | 100  |           | 69 - 135          |

**Analytical Data**

Client: URS Corporation

Job Number: 460-18485-1

Client Sample ID: 20101006MW-06V13FD

Lab Sample ID: 460-18485-2

Date Sampled: 10/06/2010 1000

Client Matrix: Water

Date Received: 10/06/2010 1600

**8260B Volatile Organic Compounds (GC/MS)**

|                |                 |                 |           |                        |          |
|----------------|-----------------|-----------------|-----------|------------------------|----------|
| Method:        | 8260B           | Analysis Batch: | 460-52025 | Instrument ID:         | VOAMS13  |
| Preparation:   | 5030B           |                 |           | Lab File ID:           | p40848.d |
| Dilution:      | 1.0             |                 |           | Initial Weight/Volume: | 5 mL     |
| Date Analyzed: | 10/13/2010 1023 |                 |           | Final Weight/Volume:   | 5 mL     |
| Date Prepared: | 10/13/2010 1023 |                 |           |                        |          |

| Analyte                            | Result (ug/L) | Qualifier | MDL  | RL  |
|------------------------------------|---------------|-----------|------|-----|
| Freon TF                           | 1.0           | U         | 0.28 | 1.0 |
| Chlorotrifluoroethene              | 61            |           | 0.55 | 1.0 |
| 1,2-Dichloro-1,1,2-trifluoroethane | 1.0           | U         | 0.32 | 1.0 |

| Surrogate                    | %Rec | Qualifier | Acceptance Limits |
|------------------------------|------|-----------|-------------------|
| 1,2-Dichloroethane-d4 (Surr) | 100  |           | 70 - 122          |
| Toluene-d8 (Surr)            | 101  |           | 69 - 125          |
| Bromofluorobenzene           | 99   |           | 69 - 135          |

**Analytical Data**

Client: URS Corporation

Job Number: 460-18485-1

Client Sample ID: 20101006MW-02V08N

Lab Sample ID: 460-18485-3

Date Sampled: 10/06/2010 1120

Client Matrix: Water

Date Received: 10/06/2010 1600

**8260B Volatile Organic Compounds (GC/MS)**

|                |                 |                 |           |                        |          |
|----------------|-----------------|-----------------|-----------|------------------------|----------|
| Method:        | 8260B           | Analysis Batch: | 460-52025 | Instrument ID:         | VOAMS13  |
| Preparation:   | 5030B           |                 |           | Lab File ID:           | p40852.d |
| Dilution:      | 5.0             |                 |           | Initial Weight/Volume: | 5 mL     |
| Date Analyzed: | 10/13/2010 1209 |                 |           | Final Weight/Volume:   | 5 mL     |
| Date Prepared: | 10/13/2010 1209 |                 |           |                        |          |

| Analyte                            | Result (ug/L) | Qualifier | MDL | RL  |
|------------------------------------|---------------|-----------|-----|-----|
| Freon TF                           | 580           |           | 1.4 | 5.0 |
| Chlorotrifluoroethene              | 180           |           | 2.8 | 5.0 |
| 1,2-Dichloro-1,1,2-trifluoroethane | 26            |           | 1.6 | 5.0 |

| Surrogate                    | %Rec | Qualifier | Acceptance Limits |
|------------------------------|------|-----------|-------------------|
| 1,2-Dichloroethane-d4 (Surr) | 103  |           | 70 - 122          |
| Toluene-d8 (Surr)            | 101  |           | 69 - 125          |
| Bromofluorobenzene           | 100  |           | 69 - 135          |

**Analytical Data**

Client: URS Corporation

Job Number: 460-18485-1

Client Sample ID: 20101006MW-03V09N

Lab Sample ID: 460-18485-4

Date Sampled: 10/06/2010 1222

Client Matrix: Water

Date Received: 10/06/2010 1600

**8260B Volatile Organic Compounds (GC/MS)**

Method: 8260B

Analysis Batch: 460-52025

Instrument ID: VOAMS13

Preparation: 5030B

Lab File ID: p40849.d

Dilution: 1.0

Initial Weight/Volume: 5 mL

Date Analyzed: 10/13/2010 1050

Final Weight/Volume: 5 mL

Date Prepared: 10/13/2010 1050

| Analyte                            | Result (ug/L) | Qualifier | MDL  | RL  |
|------------------------------------|---------------|-----------|------|-----|
| Freon TF                           | 1.0           | U         | 0.28 | 1.0 |
| Chlorotrifluoroethene              | 4.6           |           | 0.55 | 1.0 |
| 1,2-Dichloro-1,1,2-trifluoroethane | 1.0           | U         | 0.32 | 1.0 |

| Surrogate                    | %Rec | Qualifier | Acceptance Limits |
|------------------------------|------|-----------|-------------------|
| 1,2-Dichloroethane-d4 (Surr) | 102  |           | 70 - 122          |
| Toluene-d8 (Surr)            | 102  |           | 69 - 125          |
| Bromofluorobenzene           | 104  |           | 69 - 135          |

**Analytical Data**

Client: URS Corporation

Job Number: 460-18485-1

Client Sample ID: 20101006MW-07RV15N

Lab Sample ID: 460-18485-5

Date Sampled: 10/06/2010 1340

Client Matrix: Water

Date Received: 10/06/2010 1600

**8260B Volatile Organic Compounds (GC/MS)**

|                |                 |                           |                        |          |
|----------------|-----------------|---------------------------|------------------------|----------|
| Method:        | 8260B           | Analysis Batch: 460-52025 | Instrument ID:         | VOAMS13  |
| Preparation:   | 5030B           |                           | Lab File ID:           | p40850.d |
| Dilution:      | 1.0             |                           | Initial Weight/Volume: | 5 mL     |
| Date Analyzed: | 10/13/2010 1116 |                           | Final Weight/Volume:   | 5 mL     |
| Date Prepared: | 10/13/2010 1116 |                           |                        |          |

| Analyte                            | Result (ug/L) | Qualifier | MDL  | RL  |
|------------------------------------|---------------|-----------|------|-----|
| Freon TF                           | 53 J          |           | 0.28 | 1.0 |
| Chlorotrifluoroethene              | 350           |           | 0.55 | 1.0 |
| 1,2-Dichloro-1,1,2-trifluoroethane | 9.5           |           | 0.32 | 1.0 |

| Surrogate                    | %Rec | Qualifier | Acceptance Limits |
|------------------------------|------|-----------|-------------------|
| 1,2-Dichloroethane-d4 (Surr) | 100  |           | 70 - 122          |
| Toluene-d8 (Surr)            | 100  |           | 69 - 125          |
| Bromofluorobenzene           | 101  |           | 69 - 135          |

11/18/10  
~

**Analytical Data**

Client: URS Corporation

Job Number: 460-18485-1

Client Sample ID: 20101006MW-04V08N

Lab Sample ID: 460-18485-6

Date Sampled: 10/06/2010 1453

Client Matrix: Water

Date Received: 10/06/2010 1600

**8260B Volatile Organic Compounds (GC/MS)**

|                |                 |                           |                        |          |
|----------------|-----------------|---------------------------|------------------------|----------|
| Method:        | 8260B           | Analysis Batch: 460-52025 | Instrument ID:         | VOAMS13  |
| Preparation:   | 5030B           |                           | Lab File ID:           | p40851.d |
| Dilution:      | 1.0             |                           | Initial Weight/Volume: | 5 mL     |
| Date Analyzed: | 10/13/2010 1142 |                           | Final Weight/Volume:   | 5 mL     |
| Date Prepared: | 10/13/2010 1142 |                           |                        |          |

| Analyte                            | Result (ug/L) | Qualifier | MDL  | RL  |
|------------------------------------|---------------|-----------|------|-----|
| Freon TF                           | 1.0           | U         | 0.28 | 1.0 |
| Chlorotrifluoroethene              | 2.8           |           | 0.55 | 1.0 |
| 1,2-Dichloro-1,1,2-trifluoroethane | 1.0           | U         | 0.32 | 1.0 |

| Surrogate                    | %Rec | Qualifier | Acceptance Limits |
|------------------------------|------|-----------|-------------------|
| 1,2-Dichloroethane-d4 (Surr) | 102  |           | 70 - 122          |
| Toluene-d8 (Surr)            | 100  |           | 69 - 125          |
| Bromofluorobenzene           | 100  |           | 69 - 135          |

**Analytical Data**

Client: URS Corporation

Job Number: 460-18485-1

Client Sample ID: 20101006TB

Lab Sample ID: 460-18485-7TB

Date Sampled: 10/06/2010 0000

Client Matrix: Water

Date Received: 10/06/2010 1600

**8260B Volatile Organic Compounds (GC/MS)**

Method: 8260B

Analysis Batch: 460-52025

Instrument ID: VOAMS13

Preparation: 5030B

Lab File ID: p40846.d

Dilution: 1.0

Initial Weight/Volume: 5 mL

Date Analyzed: 10/13/2010 0931

Final Weight/Volume: 5 mL

Date Prepared: 10/13/2010 0931

| Analyte                            | Result (ug/L) | Qualifier | MDL  | RL  |
|------------------------------------|---------------|-----------|------|-----|
| Freon TF                           | 1.0           | U         | 0.28 | 1.0 |
| Chlorotrifluoroethene              | 1.0           | U         | 0.55 | 1.0 |
| 1,2-Dichloro-1,1,2-trifluoroethane | 1.0           | U         | 0.32 | 1.0 |

| Surrogate                    | %Rec | Qualifier | Acceptance Limits |
|------------------------------|------|-----------|-------------------|
| 1,2-Dichloroethane-d4 (Surr) | 98   |           | 70 - 122          |
| Toluene-d8 (Surr)            | 98   |           | 69 - 125          |
| Bromofluorobenzene           | 101  |           | 69 - 135          |

**Analytical Data**

Client: URS Corporation

Job Number: 460-18485-1

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**General Chemistry**

Client Sample ID: 20101006MW-06V13N

Lab Sample ID: 460-18485-1

Date Sampled: 10/06/2010 1000

Client Matrix: Water

Date Received: 10/06/2010 1600

| Analyte | Result | Qual | Units | MDL  | RL  | Dil | Method      |
|---------|--------|------|-------|------|-----|-----|-------------|
| Sulfate | 34.5   | J    | mg/L  | 0.32 | 5.0 | 1.0 | D516-90, 02 |

Analysis Batch: 460-52834

Date Analyzed: 10/20/2010 1202

*11/9/10*

**Analytical Data**

Client: URS Corporation

Job Number: 460-18485-1

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**General Chemistry**

Client Sample ID: 20101006MW-06V13FD

Lab Sample ID: 460-18485-2

Date Sampled: 10/06/2010 1000

Client Matrix: Water

Date Received: 10/06/2010 1600

| Analyte | Result | Qual | Units | MDL  | RL  | Dil | Method      |
|---------|--------|------|-------|------|-----|-----|-------------|
| Sulfate | 36.8   | J    | mg/L  | 0.32 | 5.0 | 1.0 | D516-90, 02 |

Analysis Batch: 460-52834

Date Analyzed: 10/20/2010 1204

11/19/10 ✓

**Analytical Data**

Client: URS Corporation

Job Number: 460-18485-1

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**General Chemistry**

Client Sample ID: 20101006MW-02V08N

Lab Sample ID: 460-18485-3

Date Sampled: 10/06/2010 1120

Client Matrix: Water

Date Received: 10/06/2010 1600

| Analyte | Result | Qual | Units | MDL  | RL  | Dil | Method      |
|---------|--------|------|-------|------|-----|-----|-------------|
| Sulfate | 36.9   | J    | mg/L  | 0.32 | 5.0 | 1.0 | D516-90, 02 |

Analysis Batch: 460-52834      Date Analyzed: 10/20/2010 1204

11/19/10

**Analytical Data**

Client: URS Corporation

Job Number: 460-18485-1

---

**General Chemistry**

Client Sample ID: 20101006MW-03V09N

Lab Sample ID: 460-18485-4

Date Sampled: 10/06/2010 1222

Client Matrix: Water

Date Received: 10/06/2010 1600

| Analyte | Result | Qual | Units | MDL  | RL  | Dil | Method      |
|---------|--------|------|-------|------|-----|-----|-------------|
| Sulfate | 5.1    | J    | mg/L  | 0.32 | 5.0 | 1.0 | D516-90, 02 |

Analysis Batch: 460-52834      Date Analyzed: 10/20/2010 1204

*10/19/10*

**Analytical Data**

Client: URS Corporation

Job Number: 460-18485-1

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**General Chemistry**

Client Sample ID: 20101006MW-07RV15N

Lab Sample ID: 460-18485-5

Date Sampled: 10/06/2010 1340

Client Matrix: Water

Date Received: 10/06/2010 1600

| Analyte | Result | Qual | Units | MDL  | RL  | Dil | Method      |
|---------|--------|------|-------|------|-----|-----|-------------|
| Sulfate | 13.0   | J    | mg/L  | 0.32 | 5.0 | 1.0 | D516-90, 02 |

Analysis Batch: 460-52834      Date Analyzed: 10/20/2010 1330

11/19/10

**Analytical Data**

Client: URS Corporation

Job Number: 460-18485-1

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**General Chemistry**

Client Sample ID: 20101006MW-04V08N

Lab Sample ID: 460-18485-6

Date Sampled: 10/06/2010 1453

Client Matrix: Water

Date Received: 10/06/2010 1600

| Analyte | Result | Qual | Units | MDL  | RL  | Dil | Method      |
|---------|--------|------|-------|------|-----|-----|-------------|
| Sulfate | 5.5    | J    | mg/L  | 0.32 | 5.0 | 1.0 | D516-90, 02 |

Analysis Batch: 460-52834      Date Analyzed: 10/20/2010 1205

*11/19/10*

**ATTACHMENT B**

**SUPPORT DOCUMENTATION**

## CASE NARRATIVE

Client: URS Corporation

Project: Rohm and Haas - Former EMCA Site

Report Number: 460-18485-1

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 10/06/2010; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 4.5 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 460-18485-1 through 460-18485-7 were analyzed for dissolved hydrocarbon gases in accordance with EPA Method 3810M (Methane, Ethane, Ethene, Propane). The samples were analyzed on 10/15/2010.

The matrix spike (MS) recoveries for batch 52506 were outside control limits for Methane. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Refer to the QC report for details.

Samples 460-18485-1(50X), 460-18485-2(25X), 460-18485-3(20X), 460-18485-4(25X), 460-18485-5(20X) and 460-18485-6(10X) required dilution prior to analysis due to the abundance of target analytes. 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 460-18485-1 through 460-18485-7 were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 10/13/2010.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 52025 were outside control limits for 1,1,2-Trichloro-1,2,2-trifluoroethane and Chlorotrifluoroethene. The concentration of Chlorotrifluoroethene in the sample was too high relative to the spike amount. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Refer to the QC report for details.

Sample 460-18485-3(5X) 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 460-18485-1 through 460-18485-6 were analyzed for sulfate in accordance with ASTM Method D516-90. The samples were analyzed on 10/20/2010.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 52834 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Refer to the QC report for details.

No other difficulties were encountered during the sulfate analyses.

All other quality control parameters were within the acceptance limits.



FORM III  
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-18485-1  
SDG No.: \_\_\_\_\_  
Matrix: Water Level: Low Lab File ID: p40853.d  
Lab ID: 460-18485-5 MS Client ID: 20101006MW-07RV15N MS

| COMPOUND | SPIKE<br>ADDED<br>(ug/L) | SAMPLE<br>CONCENTRATION<br>(ug/L) | MS<br>CONCENTRATION<br>(ug/L) | MS<br>%<br>REC | QC<br>LIMITS<br>REC | # |
|----------|--------------------------|-----------------------------------|-------------------------------|----------------|---------------------|---|
| Freon TF | 20.0                     | 53                                | 56.4                          | 17             | 47-139              | F |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III  
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-18485-1  
 SDG No.: \_\_\_\_\_  
 Matrix: Water Level: Low Lab File ID: p40854.d  
 Lab ID: 460-18485-5 MSD Client ID: 20101006MW-07RV15N MSD

| COMPOUND | SPIKE<br>ADDED<br>(ug/L) | MSD<br>CONCENTRATION<br>(ug/L) | MSD      |          | QC LIMITS |        | # |
|----------|--------------------------|--------------------------------|----------|----------|-----------|--------|---|
|          |                          |                                | %<br>REC | %<br>RPD | RPD       | REC    |   |
| Freon TF | 20.0                     | 56.1                           | 16       | 0        | 30        | 47-139 | F |

# Column to be used to flag recovery and RPD values

5-IN  
MATRIX SPIKE SAMPLE RECOVERY  
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison

Job No.: 460-18485-1

SDG No.: \_\_\_\_\_

Matrix: Water

| Method                                 | Lab Sample ID     | Analyte | Result | C | Unit | Spike Amount | Pct. Rec. | Limits | RPD | RPD Limit | Q |
|----------------------------------------|-------------------|---------|--------|---|------|--------------|-----------|--------|-----|-----------|---|
| Batch ID: 52834 Date: 10/20/2010 13:27 |                   |         |        |   |      |              |           |        |     |           |   |
| D516-90<br>, 02                        | 460-18485-5       | Sulfate | 13.0   |   | mg/L |              |           |        |     |           |   |
| D516-90<br>, 02                        | 460-18485-5<br>MS | Sulfate | 23.35  |   | mg/L | 20.0         | 52        | 59-111 |     |           | F |

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

FORM V-IN