nationalgrid

Thomas Campbell
Project Manager

September 9, 2009

Douglas MacNeal, P.E., Project Manager
New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Western Remedial Action, 11th Floor
625 Broadway
Albany, New York 12233-7010

Re: Supplemental Groundwater Investigation
Rockaway Park Former MGP Site
Site # 2-41-029

Dear Mr. MacNeal:

National Grid conducted a supplemental groundwater investigation at the Rockaway Park former MGP Site (the Site). The investigation was conducted in response to community concerns raised by Assemblywoman Audrey I. Pheffer that impacted groundwater extends south of the Site beneath adjacent residential properties.

The results of the supplemental groundwater investigation are presented in the attached report entitled:

"Supplemental Groundwater Investigation
Rockaway Park Former MGP Site
Beach Channel Drive
Rockaway Park, New York
AOC Index No. D1-0001-98-11"

By copy of this letter, the above-referenced document has also been forwarded to the parties named below.

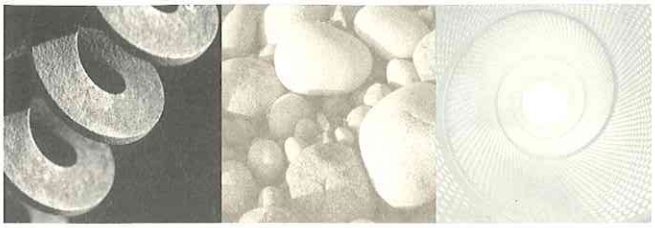
If you have any questions, feel free to contact me at (516) 545-2555.

Sincerely,

Melissa J. Allen for:

Thomas J. Campbell
Project Manager

Enclosure
cc: S. Selmer (NYSDOH)
A. Morenzi (NYSDEC, Region 2)
T. Leissing (National Grid)
F. Murphy (National Grid)
M. O'Neil (GEI)



GEI Consultants

Geotechnical
Environmental and
Water Resources
Engineering

Supplemental Groundwater Investigation

Rockaway Park Former MGP Site

Beach Channel Drive
Rockaway Park, New York
AOC Index No. D1-0001-98-11

Submitted to:
National Grid
175 East Old Country Road
Hicksville, New York 11801

Submitted by:
GEI Consultants, Inc.
110 Walt Whitman Road, Suite 204
Huntington Station, New York 11746
631-760-9300

September 9, 2009

Project #093150-1-1103

Melissa J. Tetta

Matthew J. O'Neil, P.E.
Project Manager

Table of Contents

Table of Contents (cont.)

Appendices

H:\WPROC\Project\KEYSPAN\Rockaway\2009 GW Investigation\Report\RP_2009_GW_Report.doc

Abbreviations and Acronyms

AOC	Administrative Order on Consent
BTEX	Benzene, Toluene, Ethylbenzene, Xylene
GEI	GEI Consultants, Inc.
MGP	Manufactured Gas Plant
MTBE	Methyl Tertiary Butyl Ether
NAPL	Non-aqueous Phase Liquids
NAVD88	North American Vertical Datum, 1988
NYSDEC	New York State Department of Environmental Conservation
PAH	Polycyclic Aromatic Hydrocarbon
PVC	Polyvinyl Chloride
QHEA	Qualitative Human Exposure Assessment
RI	Remedial Investigation

MEASUREMENTS

ft	feet
ppm	Parts per million
ug/L	Micrograms per Liter

Executive Summary

This report presents the results of the recent groundwater investigation conducted at and adjacent to the Rockaway Park former manufactured gas plant (MGP) site located along Beach Channel Drive between Rockaway Freeway and Beach 108th Street in Rockaway Park, Queens County, New York. The groundwater investigation was conducted in accordance with the New York Department of Environmental Conservation (NYSDEC)-approved work plan prepared by GEI Consultants, Inc. (GEI), dated February 23, 2009 and an Administrative Order on Consent (AOC) (Index No. D2-0001-98-11). The groundwater investigation was performed to address community concerns that impacted groundwater extends south of the former MGP site beneath adjacent residential properties. To address these concerns the work was performed to meet the following two objectives:

- Demonstrate the shallow groundwater conditions at and south of the former MGP site.
- Confirm the current flow direction of shallow groundwater during high and low tide.

Both of these objectives were met during this investigation. The tidal study confirmed the results of the tidal study presented in the 2004 Remedial Investigation (RI) report. The shallow groundwater at the Site flows north from the Site during low tide and groundwater from the Site is stagnant or flows north during high tide. Shallow groundwater does not flow south from the Site to the residential properties during either tidal condition.

The analytical results of groundwater samples collected from the monitoring wells on the Site were consistent with the results of groundwater samples collected during the RI. There were no detections of site contaminants in the groundwater samples collected from the four new monitoring wells installed south of the Site. Shallow groundwater to the south of the Site, and on the residential properties, is not being impacted by the Site.

1. Introduction

1.1 Objectives

This report presents the results of the recent groundwater investigation conducted at and adjacent to the Rockaway Park former manufactured gas plant (MGP) site located along Beach Channel Drive between Rockaway Freeway and Beach 108th Street in Rockaway Park, Queens County, New York. The groundwater investigation was conducted in accordance with the New York Department of Environmental Conservation (NYSDEC)-approved work plan prepared by GEI Consultants, Inc. (GEI), dated February 23, 2009 and an Administrative Order on Consent (AOC) (Index No. D2-0001-98-11). The groundwater investigation was performed to address community concerns that impacted groundwater extends south of the former MGP site beneath adjacent residential properties. To address these concerns the work was performed to meet the following two objectives:

- Demonstrate the shallow groundwater conditions at and south of the former MGP site.
- Confirm the current flow direction of shallow groundwater during high and low tide.

Both of these objectives were met during this investigation. Shallow groundwater does not flow south from the Site to the residential properties during either tidal condition. Shallow groundwater to the south of the Site, and on the residential properties, is not being impacted by the Site.

1.2 Investigation Scope

To meet the objectives stated above, the groundwater investigation included the following field tasks:

- Installation of four shallow groundwater monitoring wells south of the Site.
- Collection of groundwater samples from existing and newly installed shallow groundwater monitoring wells.
- Collection of synoptic water level measurements from shallow groundwater monitoring wells during a two day tidal study.
- In addition, the shallow and intermediate intervals for monitoring well cluster RPMW-16 will be reinstalled in the original location between the residences and the metropolitan transit authority railroad tracks.

1.3 Shallow Groundwater Summary

The scope of this investigation was limited to the shallow groundwater at the Site based on the results of the 2004 NYSDEC-approved Remedial Investigation (RI). A brief summary of the data collected during the RI which was used to determine the scope is presented below. The complete results are presented in the RI.

There is one shallow, unconfined aquifer beneath the Site. During the RI, monitoring wells were installed at consistent, yet arbitrary, depth intervals in order to evaluate different groundwater zones of the aquifer. The zones selected are identified as follows:

- Shallow "S" (wells screened at the water table ranging from 2 to 17 feet),
- Intermediate "I" (wells screened from 17 to 45 feet),
- Deep "D" (wells screened from 45 to 90 feet),
- Deep (2) "D2" (wells screened from 90 to 105 feet).

Groundwater sampling was conducted south of the Site during the Remedial Investigation between 2000 and 2002. Samples were collected in the Shallow, Intermediate, and Deep groundwater zones south of the rail road property from both permanent monitoring well clusters and temporary groundwater probe points. In the shallow groundwater zone, 11 samples were collected and only three low level detections of potential MGP-related compounds were observed at concentrations of less than 10 micrograms per liter (ug/L) (RPGP-09, RPGP-23, RPMW-16S). In the intermediate groundwater zone, 11 samples were detected and only one sample contained low level detections of potential MGP-related compound at concentrations of less than 30 ug/L (RPMW-16I). In the deep groundwater zone, 15 samples were collected and no potential MGP-related compounds were detected. Based on these results of the 2000 and 2002 sampling, there did not appear to be MGP-related groundwater impacts south of the rail road tracks.

A tidal study, completed at the Site in 2000, was included in the RI Report. The study showed that during both high and low tide, shallow groundwater at the southern boundary of the Site flowed northeast and northwest toward Jamaica Bay. At low tide, groundwater in the intermediate, deep, and deep (2) zones generally flowed north to Jamaica Bay. At high tide. Groundwater in the intermediate, deep, and deep (2) groundwater zones flowed south. However, based on the groundwater sampling conducted in 2000 and 2002, impacted groundwater did not reach the sample locations collected south of the rail road tracks.

The Qualitative Human Exposure Assessment (QHEA) indicated that the only potential pathways for exposure to impacts in groundwater are through dermal contact, inhalation, or ingestion. Groundwater at the Site or the adjacent areas is not used for drinking water; therefore, there is no complete exposure pathway for ingestion of groundwater. As described

in the QHEA, dermal contact to impacted groundwater would only be possible through direct excavation to the water table depth during construction activities. However, at the off-site residential properties south of the Site, dermal contact is an incomplete pathway because the groundwater sampling determined that the groundwater is not impacted. Similarly, inhalation is not a complete pathway because of the lack of impacts in the shallow groundwater.

1.4 Groundwater Sample Location Selection

The locations of the detections in the shallow and intermediate zones during the RI were the primary driver in determining the sampling locations for this investigation. Monitoring well RPGP-23S was installed in the location of the low level detections at temporary groundwater monitoring probe point RPGP-16. Monitoring well RPMW-16S was proposed for the location of the low level shallow detections observed at temporary groundwater monitoring probe point RPGP-09 and the former RPMW-16S location. Monitoring well RPMW-16I was proposed for the location of the low level detections observed at the former RPMW-16I location. Three additional locations were chosen for shallow groundwater monitoring wells to provide a lateral east to west boundary south of the rail road tracks. The temporary groundwater probe points RPGP-14, RPGP-02, and RPGP-08 were replaced with monitoring wells RPMW-24S, RPMW-25S, and RPMW-26S, respectively. Groundwater impacts were not observed at any of these three locations during the RI.

2. 2009 Groundwater Sampling Event

The existing monitoring wells located on the Site or adjacent to the Site were sampled in February and March 2009 before remedial excavations or the barrier installation began. Since many of the well locations on site were scheduled for abandonment, the well sampling and the tidal study were completed prior to negotiating access to the private properties for installation of the new monitoring wells.

2.1 Existing Monitoring Well Inspection

Each of the existing monitoring wells was inspected prior to sampling. At monitoring well RPMW-16S, asphalt was observed inside the well box and inside the well casing. It appears that the well was damaged during the paving of Rockaway Beach Boulevard. The NYSDEC was notified of the asphalt in the monitoring well and agreed that the well should not be sampled due to the presence of asphalt in the monitoring well. The NYSDEC required that the well be gauged with a weighted bailer to determine if a non-aqueous phase liquid (NAPL) was present in the monitoring well. No NAPL was observed in the bailer or on the outside of the bailer and there was no odor observed from the groundwater. Although the well was not sampled, it was used as a monitoring point for the tidal study. Per the NYSDEC, the elevation of the monitoring well was confirmed via survey.

2.2 Monitoring Well Installation

National Grid installed four additional small-diameter monitoring wells south of the Site in April and May, 2009. Monitoring wells RPMW-25S and RPMW-26S were installed within the road right-of-way on Beach 108th Street and Beach 109th Street, respectively, on April 27, 2009. Monitoring wells RPMW-23S and RPMW-24S were installed on private properties on May 20, 2009. All four monitoring wells were developed on June 10, 2009 and sampled on June 24, 2009. The well logs for each of the new monitoring wells are included in Appendix A. The soil conditions at each monitoring well location were continuously logged in the field. No odors or visual evidence of MGP-related impacts were observed in the soil or groundwater from the new monitoring well locations.

One monitoring well cluster planned for a fifth location identified in the NYSDEC-approved work plan (RPMW-16SR and RPMW-16SI) was not installed due to private property access. The final location requires access not only to the proposed sampling location property, but also two adjacent private properties to access the sampling location. National Grid is continuing to work with the private property owners to obtain access to this location. However, the locations of the four wells that have been installed and sampled appear sufficient to laterally bound any potential groundwater impacts south of the former MGP site.

2.3 Groundwater Sampling

All groundwater samples were analyzed for Benzene, Toluene, Ethylbenzene, Xylenes (BTEX), polycyclic aromatic hydrocarbons (PAHs), and methyl tertiary butyl ether (MTBE). The results of the analyses are presented in Table 1 and a summary is presented in Figure 1. A data usability report and the validated laboratory analytical Form 1 reports are included in Appendix B.

The results of the samples of the existing monitoring wells were consistent with the data collected during the Remedial Investigation (RI). All four wells located south of the Site did not have any detections of BTEX, PAHs, or MTBE.

3. Tidal Study

The tidal study was conducted using the existing monitoring wells located on the Site or adjacent to the Site in February 2009 before remedial excavations or the barrier installation began. Since many of the well locations on site were scheduled for abandonment, the tidal study was completed prior to negotiating access to the private properties for installation of the new monitoring wells.

3.1 Tidal Study Description

A 48-hour tidal study was conducted using the existing shallow monitoring wells at the Site as shown in Figures 2 and 3 and a stilling well installed as a tidal gauge in within Jamaica Bay at the bulkhead. A total of 11 shallow wells were equipped with data logging pressure transducers (Level Trolls®700) to record groundwater elevations within the wells. Data were collected for a two-day period to capture the differences during tidal cycles. During this period, weather data was collected to identify any significant events that may influence the groundwater levels or the surface barometric pressures.

Six Trolls were placed into their respective monitoring wells before the start of the study. Five Trolls were placed in the monitoring wells shortly after the beginning of the study. At the time of the installation, groundwater levels were also manually measured with a water level indicator. This same water level indicator was used to take two manual readings during the study (high tide and low tide) and one manual reading at the conclusion of the study when the Troll was removed. Water levels for RPMW-04S were not taken during the study due to access limitations, but were taken at installation and removal. Monitoring well RPMW-11S is constructed with 1-inch PVC casing, and water levels could not be taken while the Level Troll was installed. Water levels were taken at the time of installation and removal only.

3.2 Groundwater Elevation Data Evaluation

Following the completion of the study, the raw Troll depth data was used to calculate the groundwater table elevation in each well. At the beginning of the study, each Troll was programmed to record “depth” of water. Each Troll was individually programmed to record fresh, brackish, or salt water depth depending on their location at the Site. The stilling well Troll was programmed to record salt water depth. RPMW-01S, RPMW-02S, RPMW-03S, and RPMW-11S, all located just north of Beach Channel Drive and south of Long Island Sound, were programmed to record depth of brackish water. Chloride concentrations at these four wells have historically been between 500 and 30,000 parts per million (ppm), which is typically considered brackish.

Over the course of the study, if the groundwater table dropped, the Troll recorded the drop as a decrease in depth, and conversely, if the groundwater table rose, the Troll recorded the rise as an increase in depth. The initial manual groundwater level measurements were made shortly before or after the beginning of the study. The "depth" value of the Troll at the exact time of a manual measurement was used as the reference value for the monitoring well. If the first manual depth reading occurred during the study, then this value was used to establish the groundwater elevation. If the first manual water level was taken before the study began, a later manual reading was used to establish groundwater elevation because it did not correspond to a recorded "depth". The initial groundwater elevation was calculated using the following equation:

$$\text{Water Elevation}_1 = \text{Well Elevation} - \text{Manual WL}_1$$

Where:

- Water Elevation$_1$ = Water elevation (feet [ft] North American Vertical Datum, 1988 [NAVD88]) at the time of the first manual water level measurement
- Well Elevation=Well elevation data from survey (ft NAVD88)
- Manual WL$_1$ = First depth to water measurement (collected during study) using a Water Level Indicator

Groundwater elevations were calculated for the remainder of the study using the following formula:

$$\text{Water Elevation}_t = \text{Well Elevation} - \text{Manual WL}_1 + (\text{depth}_t - \text{depth}_1)$$

Where:

- Water Elevation$_t$ = Water elevation (ft NAVD88) at any time of interest, t
- Well Elevation = Well elevation data from survey (ft NAVD88)
- Manual WL$_1$ = First water level measurement during study
- Depth$_t$ = Depth (ft) value from Troll 700 data at any time of interest, t
- Depth$_1$ = Depth (ft) value from Troll 700 data at the time of first water level measurement during study

Hydrographs of the groundwater elevation data calculated at each well were plotted to identify any irregularities in the calculated data. Irregularities were limited to sudden drastic shifts in groundwater elevations that either did not appear consistent with the remaining data, or the manual measurements collected during the study. No irregularities related to precipitation events were observed during the course of the study. Irregularities, or sudden drastic shifts in groundwater elevation, occurred in only two monitoring wells, RPMW-08S and RPMW-10S. The date and time of each irregularity was compared to the monitoring

well/Troll log sheet to determine if human error may have contributed. Human error refers to accidental movement of the Trolls during manual groundwater level measurements. Both shifts occurred at the time of a water level measurement. The next recorded Troll depth measurement increased sharply and did not return to normal. For each irregularity identified, the data was normalized by applying a correction factor to all data after the sudden increase based on the manual groundwater elevation measurements. Hydrographs for each of the monitoring wells used in the study is presented in Appendix C.

3.3 Tidal Study Results

The groundwater contour pattern for the shallow groundwater at low tide is depicted in Figure 3 and the shallow groundwater at high tide is depicted on Figure 4. Groundwater elevation differences in each well at low and high tide ranged from 0.34 foot in RPMW-16S to 2.29 feet in RPMW-01S.

In general, shallow groundwater at low tide on the eastern portion of the Site flows northeast towards Jamaica Bay, and shallow groundwater on the western portion of the Site flows northwest towards Jamaica Bay. At high tide, the shallow groundwater contour map (Figure 4) depicts the presence of a groundwater divide (or trough) on the Site from PZ-06 on the southwest corner to MW-02 on the eastern edge of the Site. This trough is the result of high tidal levels within Jamaica Bay causing shallow groundwater to flow southerly toward the Site. However, this effect does not “over-ride” the dominant shallow discharge pattern toward Jamaica Bay across the entire site, thus creating a localized trough. South of the trough, the shallow groundwater still flows north toward Jamaica Bay, even during high tide. The horizontal gradients are generally consistent across the Site and are approximately 0.00001 to 0.02 foot/foot, with an average of 0.002 foot/foot. The results of this tidal study are consistent with the results of the tidal study conducted during the RI.

4. Conclusions

The data collected during this investigation confirms the data presented in the 2004 Final RI report. Impacted groundwater in the shallow groundwater zone at the Site does not flow south from the Site to the residential properties. During both high and low tide, groundwater at the Site's southern boundary flows north toward Jamaica Bay. Groundwater sampling at the four new monitoring well locations confirm that that groundwater south of the site is not impacted by the site. The groundwater data collected from the new wells was consistent with the data collected from the temporary groundwater probe locations collected during the RI. There were no detections of site contaminants in the groundwater samples collected from the four new monitoring wells installed south of the Site. Based on the results of this investigation, National Grid does not believe that further sampling south of the Site is necessary.

5. References

Dvirka and Bartilucci Consulting Engineers, 1999, *Remedial Investigation/Feasibility Study Work Plan, Rockaway Park Former MGP Site, Volume I: Site-Specific Work Plan*, November 1999.

Dvirka and Bartilucci Consulting Engineers, 2002. *Rockaway Park Former Manufactured Gas Plant Site, Remedial Investigation Report*, October 2002.

GEI Consultants, Inc. 2002. *Rockaway Park Former Manufactured Gas Plant (MGP) Site, Supplemental Remedial Investigation*, July 10, 2002.

GEI Consultants, Inc., 2004. *Rockaway Park Former Manufactured Gas Plant Site, Final Remedial Investigation Report*, January 2004.

GEI Consultants, Inc., 2009. *Groundwater Sampling Work Plan, Rockaway Park Former MGP Site*, February 23, 2009.

Tables

Table 1
Shallow Groundwater Analytical Results
Rockaway Park Former MGP Site
Rockaway Park, New York

Sample Name: / Sample Date:	NYS AWQS	MW-02 02/24/09	PZ-06 02/24/09	RPMW-01S 03/03/09	RPMW-02S 03/03/09	RPMW-03S 03/03/09	RPMW-04S 03/03/09	RPMW-08S 02/24/09	RPMW-10S 02/24/09	RPMW-11S 03/03/09	RPMW-14S 02/24/09
BTEX (ug/L)											
Benzene	1	**3300**	10 U	10 U	**120**	**140**	10 U	**1 J**	**190**	10 U	**460**
Toluene	5	**1500**	**9 J**	10 U	10 U	10 U	10 U	10 U	**300**	10 U	**120**
Ethylbenzene	5	**790**	**26**	10 U	**50**	**4 J**	10 U	**1 J**	**210**	10 U	**1100**
Xylene, total	5	**840**	**190**	10 U	**17**	10 U	10 U	**2 J**	**380**	10 U	**780**
Total BTEX	NE	**6430**	**225**	0	**187**	**144**	0	**4**	**1080**	0	**2460**
Other VOCs (ug/L)											
Methyl tert-butyl ether	10*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Non-carcinogenic PAHs (ug/L)											
Acenaphthene	20*	10 UJ	**4 J**	10 U	**280**	**110**	10 U	10 U	10 U	10 U	**8**
Acenaphthylene	NE	10 UJ	**21**	10 U	**2 J**	**1 J**	10 U	10 U	10 U	10 U	10 U
Anthracene	NE	10 UJ	10 U	10 U	**4 J**	**3 J**	10 U	10 U	10 U	10 U	**1 J**
Benzo[g,h,i]perylene	NE	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	50*	10 UJ	10 U	10 U	**5 J**	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	50*	10 UJ	**8**	10 U	**56**	10 U	10 U	10 U	10 U	10 U	**4 J**
Methylnaphthalene,2-	NE	10 UJ	**220**	10 U	**5 J**	10 U	10 U	10 U	10 U	10 U	**12**
Naphthalene	10*	10 UJ	**1000**	10 U	**320**	10 U	10 U	10 U	10 U	10 U	**360**
Phenanthrene	50*	10 UJ	**3 J**	10 U	**50**	**13**	10 U	10 U	10 U	10 U	**4 J**
Pyrene	50*	10 UJ	10 U	10 U	**7**	10 U	10 U	10 U	10 U	10 U	**1 J**
Total Non-carcinogenic PAHs	NE	0	**1256**	0	**729**	**127**	0	0	0	0	**390**
Carcinogenic PAHs (ug/L)											
Benz[a]anthracene	0.002*	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo[a]pyrene	ND	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo[b]fluoranthene	0.002*	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo[k]fluoranthene	0.002*	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.002*	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenz[a,h]anthracene	NE	10 UJ	10 U	10 U+A1	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno[1,2,3-cd]pyrene	0.002*	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Total Carcinogenic PAHs	NE	0	0	0	0	0	0	0	0	0	0
Total PAHs	NE	0	**1256**	0	**729**	**127**	0	0	0	0	**390**

Table 1
Shallow Groundwater Analytical Results
Rockaway Park Former MGP Site
Rockaway Park, New York

Sample Name: / Sample Date:	NYS AWQS	RPMW-17S 03/03/09	RPMW-19S 02/27/09	RPMW-20S 02/27/09	RPMW-21S 02/27/09	RPMW-23S 06/24/09	RPMW-24S 06/24/09	RPMW-25S 06/24/09	Duplicate of RPMW-25S 06/24/09	RPMW-26S 06/24/09
BTEX (ug/L)										
Benzene	1	**500**	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	5	**560**	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	5	**4100**	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Xylene, total	5	**1400**	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Total BTEX	NE	**6560**	0	0	0	0	0	0	0	0
Other VOCs (ug/L)										
Methyl tert-butyl ether	10*	**1 J**	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Non-carcinogenic PAHs (ug/L)										
Acenaphthene	20*	**2 J**	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	NE	**2 J**	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo[g,h,i]perylene	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	50*	**1 J**	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylnaphthalene,2-	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10*	**350**	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Phenanthrene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Total Non-carcinogenic PAHs	NE	**355**	0	0	0	0	0	0	0	0
Carcinogenic PAHs (ug/L)										
Benz[a]anthracene	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo[a]pyrene	ND	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo[b]fluoranthene	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo[k]fluoranthene	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenz[a,h]anthracene	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno[1,2,3-cd]pyrene	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Total Carcinogenic PAHs	NE	0	0	0	0	0	0	0	0	0
Total PAHs	NE	**355**	0	0	0	0	0	0	0	0

Table 1
Shallow Groundwater Analytical Results
Rockaway Park Former MGP Site
Rockaway Park, New York

Notes:

ug/L - micrograms per liter or parts per billion (ppb)
BTEX - benzene, toluene, ethylbenzene, and xylenes
VOCs - volatile organic compounds
PAHs - polycyclic aromatic hydrocarbons

NYS AWQS - New York State Ambient Water Quality Standards and Guidance Values for GA groundwater
* indicates the value is a guidance value and not a standard

NE- not established
ND - not detected

Bolding indicates a detected concentration
Shading and bolding indicates that the detected concentration is above the NYS AWQS objective it was compared to

Validation Qualifiers:

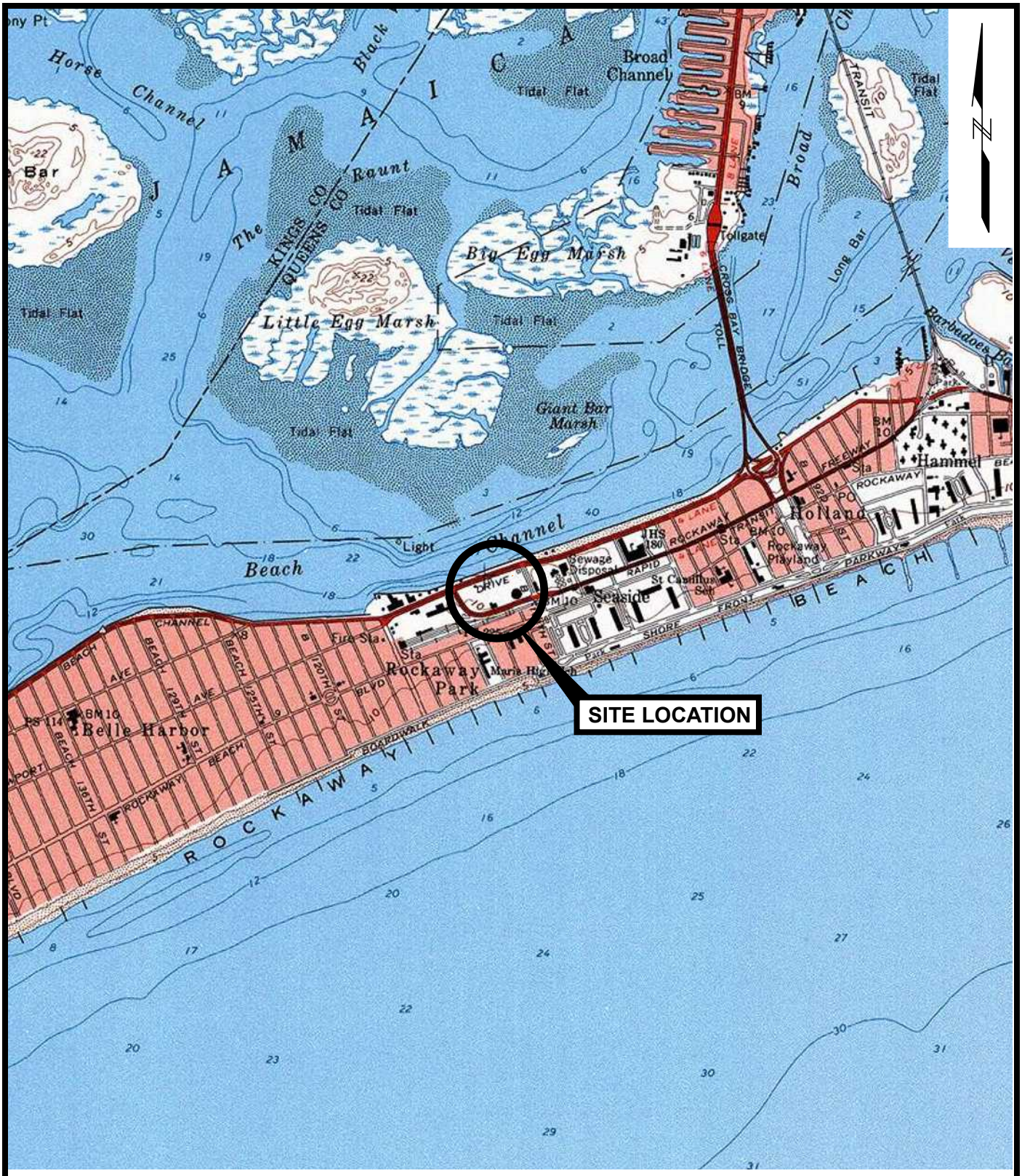
J - estimated value
U - indicates not detected to the reporting limit for organic analysis and the method detection limit for inorganic analysis
UJ - not detected at or above the reporting limit shown and the reporting limit is estimated

Table 2
Monitoring Well Construction Details
Rockaway Park Former MGP Site
Rockaway Park, New York

Monitoring Well ID	Lithology of Screened Interval	Well Diameter/Type	Screened Interval (feet below ground surface)	Top of Casing Elevation (feet NAVD88)	Elevation of Center of Well Screen (feet NAVD88)
RPMW-01S	Fill	2-inch PVC	5-15	8.24	-1.76
RPMW-02S	Fill, Sand with Shells	2-inch PVC	5-15	11.17	1.71
RPMW-03S	Fill, Sand with Shells	2-inch PVC	5-15	7.13	-2.87
RPMW-04S	Fill	2-inch PVC	5-15	11.48	1.48
RPMW-08S	Sand with Shells	2-inch PVC	5-15	11.84	1.84
RPMW-10S	Fill, Sand with Shells	2-inch PVC	5-15	11.14	1.14
RPMW-11S	Fill	2-inch PVC	5-15	9.63	-0.37
RPMW-14S	Fill, Sand with Shells	2-inch PVC	5-15	11.38	1.38
RPMW-16S	Fill, Sand with Shells	2-inch PVC	4-14	7.59	-1.41
RPMW-17S	Fill, Sand with Shells	2-inch PVC	5-15	7.45	-2.55
RPMW-19S	Fill, Sand	1-inch PVC	2.3-12.3	8.25	0.95
RPMW-20S	Fill, Sand	1-inch PVC	2.3-12.3	8.65	1.35
RPMW-21S	Fill, Sand with Shells	1-inch PVC	2-12	9.07	2.07
RPMW-23S	Fill, Sand with Clay lense	1-inch PVC	3-13	7.63	-0.37
RPMW-24S	Fill, Sand	1-inch PVC	2-12	5.21	-1.79
RPMW-25S	Fill, Sand	1-inch PVC	3-13	6.77	-1.23
RPMW-26S	Sand	1-inch PVC	3-13	7.73	-0.27
MW-02	Fill, Sand with Shells	2-inch PVC	5-15	7.43	-2.57
PZ-06	Fill	2-inch PVC	2-12	9.37	2.37

Notes:
MW-16S and MW-16I were replaced in October 2002 to replace the RPMW-16 well cluster destroyed during construction.
NAVD88- North American Vertical Datum
PVC - Polyvinyl Chloride

Figures



SOURCE: Map created with TOPO! ® ©2003 National Geographic (www.nationalgeographic.com/topo)

0 2000 4000

SCALE, FEET

ROCKAWAY PARK FORMER MGP SITE
ROCKAWAY PARK, NEW YORK

nationalgrid

GEI Consultants

SITE LOCATION MAP

Project 093150-1-1103

September 2009

Figure 1

NATIONAL GRID\ROCKAWAY PARK\093150\ROCKAWAY-SITE LOCATION.CDR

BEACH CHANNEL

BULKHEAD

BULKHEAD TBM

APPROXIMATE PROPERTY BOUNDARY

BEACH CHANNEL DRIVE

ROCKAWAY FREEWAY

SERVICE BUILDING

SKIMMING BASIN

OIL TANK

OIL TANK

OIL TANK

Sample ID	RPMW-01S
Sample Date	3/3/2009
Screen Interval (ft)	5-15
Total BTEX	0
Total Non-Ca PAH	0
Total Ca PAH	0

RPMW-01I RPMW-01S

Sample ID	RPMW-11S
Sample Date	3/3/2009
Screen Interval (ft)	5-15
Total BTEX	0
Total Non-Ca PAH	0
Total Ca PAH	0

RPMW-11D RPMW-11S
RPMW-11I

RPMW-02I
RPMW-02D RPMW-02D2
RPMW-02S

Sample ID	RPMW-02S
Sample Date	3/3/2009
Screen Interval (ft)	5-15
Total BTEX	187
Total Non-Ca PAH	729
Total Ca PAH	0

RPMW-03D RPMW-03S
RPMW-03I

Sample ID	RPMW-03S
Sample Date	3/3/2009
Screen Interval (ft)	5-15
Total BTEX	144
Total Non-Ca PAH	127
Total Ca PAH	0

RPMW-19S

Sample ID	RPMW-19S
Sample Date	2/27/2009
Screen Interval (ft)	2.3-12.3
Total BTEX	0
Total Non-Ca PAH	0
Total Ca PAH	0

RPMW-20I
RPMW-20S
RPMW-21I RPMW-21S
RPMW-22S

Sample ID	RPMW-21S
Sample Date	2/27/2009
Screen Interval (ft)	2-12
Total BTEX	0
Total Non-Ca PAH	0
Total Ca PAH	0

Sample ID	RPMW-20S
Sample Date	2/27/2009
Screen Interval (ft)	2.3-12.3
Total BTEX	0
Total Non-Ca PAH	0
Total Ca PAH	0

RPMW-04I RPMW-04S

Sample ID	RPMW-04S
Sample Date	3/3/2009
Screen Interval (ft)	5-15
Total BTEX	0
Total Non-Ca PAH	0
Total Ca PAH	0

PZ-7

Sample ID	RPMW-10S
Sample Date	2/24/2009
Screen Interval (ft)	5-15
Total BTEX	1080
Total Non-Ca PAH	0
Total Ca PAH	0

RPMW-10I
RPMW-10S

MW-2

RPMW08D2
RPMW08D
RPMW-08S
RPMW-08I

Sample ID	RPMW-08S
Sample Date	2/24/2009
Screen Interval (ft)	5-15
Total BTEX	4
Total Non-Ca PAH	0
Total Ca PAH	0

Sample ID	MW-02
Sample Date	2/24/2009
Screen Interval (ft)	5-15
Total BTEX	6430
Total Non-Ca PAH	0
Total Ca PAH	0

PZ-6

Sample ID	PZ-06
Sample Date	2/24/2009
Screen Interval (ft)	2-12
Total BTEX	225
Total Non-Ca PAH	1256
Total Ca PAH	0

RPMW-17I
RPMW-17D
RPMW-17S

RPMW14D RPMW14D2
RPMW-14I RPMW-14S

Sample ID	RPMW-14S
Sample Date	2/24/2009
Screen Interval (ft)	5-15
Total BTEX	2460
Total Non-Ca PAH	390
Total Ca PAH	0

Sample ID	RPMW-17S
Sample Date	3/3/2009
Screen Interval (ft)	5-15
Total BTEX	6560
Total Non-Ca PAH	355
Total Ca PAH	0

RPMW-25S

RPMW-24S

RPMW-23S

Sample ID	RPMW-25S
Sample Date	6/24/2009
Screen Interval (ft)	3-13
Total BTEX	0
Total Non-Ca PAH	0
Total Ca PAH	0

RPMW-26S

Sample ID	RPMW-26S
Sample Date	6/24/2009
Screen Interval (ft)	3-13
Total BTEX	0
Total Non-Ca PAH	0
Total Ca PAH	0

Sample ID	RPMW-23S
Sample Date	6/24/2009
Screen Interval (ft)	3-13
Total BTEX	0
Total Non-Ca PAH	0
Total Ca PAH	0

Sample ID	RPMW-24S
Sample Date	6/24/2009
Screen Interval (ft)	2-12
Total BTEX	0
Total Non-Ca PAH	0
Total Ca PAH	0

RPMW16I
RPMW16S

LEGEND:

RPMW-26S	EXISTING MICROWELL LOCATION
RPMW-14S	EXISTING MONITORING WELL LOCATION
PZ-3	EXISTING PIEZOMETER LOCATION
ug\L	MICROGRAMS PER LITER
BTEX	BENZENE, TOLUENE, ETHYLBENZENE AND XYLENE
PAH	POLYCYCLIC AROMATIC HYDROCARBON
Ca	CARCINOGENIC
Non-Ca	NON-CARCINOGENIC

NOTE:
ALL CONCENTRATIONS SHOWN IN MICROGRAMS PER LITER (ug/L)

0 100 200
SCALE, FEET

ROCKAWAY PARK FORMER MGP SITE
ROCKAWAY PARK, NEW YORK

nationalgrid

GEI Consultants

SITE MAP AND ANALYTICAL SUMMARY (ug/L)

Project 093150-1-1103 | September 2009 | Figure 2

I:\GEI\National Grid\Rockaway Park\093150\ Rockaway-Tidal Contours+Analytical.dwg \Sep 01, 2009

BEACH CHANNEL

BULKHEAD

BULKHEAD TBM

-2.962

BEACH CHANNEL DRIVE

APPROXIMATE PROPERTY BOUNDARY

ROCKAWAY FREEWAY

RPMW-01I RPMW-01S 0.434

RPMW-11D RPMW-11S RPMW-11I 0.909

RPMW-02I RPMW-02D RPMW-02D2 RPMW-02S 1.222

RPMW-03D RPMW-03I RPMW-03S 0.424

RPMW-19S

RPMW-20I RPMW-20S

RPMW-21I RPMW-21S

RPMW-22S

RPMW-04I RPMW-04S 0.772

PZ-7

RPMW08D2 RPMW08D

RPMW-08S RPMW-08I 1.464

RPMW-10I RPMW-10S 0.224

MW-2 1.137

PZ-6 1.471

RPMW14D RPMW14D2 RPMW-14S RPMW-14I 1.566

RPMW-17I RPMW-17D RPMW-17S 0.932

RPMW-25S

RPMW-26S

RPMW-24S

RPMW-23S

RPMW16I RPMW16S 1.923

0.0 0.5 0.75 1.0 1.25 1.5 1.5 1.75

SERVICE BUILDING

SKIMMING BASIN

OIL TANK

OIL TANK

LEGEND:

- RPMW-26S — EXISTING MICROWELL LOCATION
- RPMW-14S — EXISTING MONITORING WELL LOCATION
- PZ-3 — EXISTING PIEZOMETER LOCATION
- 1.0 — GROUNDWATER CONTOUR (FT)
- ESTIMATED GROUNDWATER FLOW DIRECTION
- 1.923 — GROUNDWATER ELEVATION (MEASURED 3/23/09)

0 100 200

SCALE, FEET

ROCKAWAY PARK FORMER MGP SITE
ROCKAWAY PARK, NEW YORK

nationalgrid

GEI Consultants

Project 093150-1-1103

SHALLOW GROUNDWATER CONTOURS (LOW TIDE 2/26/09 2:30 AM)

September 2009 Figure 3

I:\GEI\National Grid\Rockaway Park\093150\ Rockaway-Tidal Contours+Analytical.dwg \Sep 01, 2009

BEACH CHANNEL

BULKHEAD

BULKHEAD TBM

3.359

APPROXIMATE PROPERTY BOUNDARY

BEACH CHANNEL DRIVE

3.25
3.0
2.75
2.5
2.25
2.0
1.75
1.5
1.25
1.0
0.75

RPMW-01I
RPMW-01S
2.166

RPMW-11D
RPMW-11S
RPMW-11I
1.326

RPMW-02I
RPMW-02D
RPMW-02D2
RPMW-02S
1.103

RPMW-03D
RPMW-03I
0.606

RPMW-19S
RPMW-20I
RPMW-20S
RPMW-21I
RPMW-21S
RPMW-22S

RPMW-04I
RPMW-04S
1.514

PZ-7

SERVICE BUILDING
SKIMMING BASIN
OIL TANK
OIL TANK
OIL TANK

ROCKAWAY FREEWAY

RPMW-10I
RPMW-10S
1.994

MW-2
1.396

RPMW08D2
RPMW08D
RPMW-08S
RPMW-08I
1.711

PZ-6
1.471

RPMW-17I
RPMW-17D
RPMW-17S
1.239

RPMW14D
RPMW14D2
RPMW-14S
RPMW-14I
1.811

RPMW-25S

RPMW-26S

RPMW-24S

RPMW-23S

RPMW16I
RPMW16S
1.976

LEGEND:

RPMW-26S	EXISTING MICROWELL LOCATION
RPMW-14S	EXISTING MONITORING WELL LOCATION
PZ-3	EXISTING PIEZOMETER LOCATION
2.0	GROUNDWATER CONTOUR (FT)
	INFERRED WHERE DASHED
	ESTIMATED GROUNDWATER FLOW DIRECTION
1.976	GROUNDWATER ELEVATION (MEASURED 3/23/09)

0 100 200

SCALE, FEET

ROCKAWAY PARK FORMER MGP SITE
ROCKAWAY PARK, NEW YORK

nationalgrid

GEI Consultants

Project 093150-1-1103

SHALLOW GROUNDWATER CONTOURS (HIGH TIDE 2/26/09 8:10 AM)

September 2009 Figure 4

I:\GEI\National Grid\Rockaway Park\093150\ Rockaway-Tidal Contours+Analytical.dwg \Sep 01, 2009

Appendix A

Monitoring Well Logs

GEI Consultants, Inc.
455 Winding Brook Road
Glastonbury, CT 06033
(860) 368-5300

CLIENT: National Grid
PROJECT: Rockaway Park
CITY/STATE: Rockaway Park, New York
GEI PROJECT NUMBER: 093150-1-1103

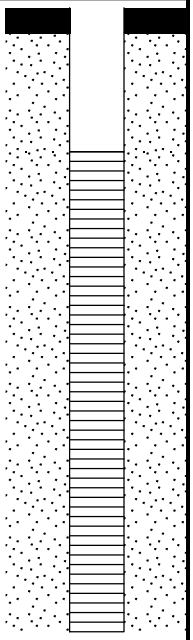
BORING LOG
PAGE 1 of 1
RPMW-23S

GROUND SURFACE ELEVATION (FT): 7.92 **LOCATION:**
NORTHING: 151072.9989 **EASTING:** 1030628.495 **TOTAL DEPTH (FT):** 16.00
DRILLED BY: Zebra Environmental **DATUM VERT. / HORZ.:** NAVD 88 / NAD83
LOGGED BY: Chris Morris **DATE START / END:** 5/10/2009 - 5/10/2009
DRILLING DETAILS:
WATER LEVEL DEPTHS (FT): ▽ 5.00

DEPTH FT.	SAMPLE INFO TYPE and NO.	PEN FT.	REC FT.	PID (ppm)	STRATA	SOIL / BEDROCK DESCRIPTION
0		6.0		0.0		(0'- 0.3') ASPHALT; HAND CLEARED.
				0.0		(0.3'- 0.6') SILTY SAND WITH GRAVEL (SM); fine to coarse; dry, dark brown, ~10% fill (asphalt, slab); HAND CLEARED.
						(0.6'- 2.5') WIDELY GRADED SAND (SW); ~100% sand, fine to medium; dry, light brown with orange, HAND CLEARED.
				0.0		(2.5'- 5') SILTY SAND (SM); ~60% sand, fine to medium, ~40% fines; wet, light brown with orange, HAND CLEARED.
▽ 5				0.0		(5'- 5.3') LEAN CLAY WITH SAND (CL); ~80% fines, ~20% sand, fine to medium; wet, reddish brown, HAND CLEARED.
				0.0		
	S-1	4.0	38	0.0		(5.3'- 6') WIDELY GRADED SAND (SW); ~100% sand, fine to medium; wet, light gray, HAND CLEARED.
				0.0		(6'- 9.4') WIDELY GRADED SAND (SW); ~100% sand, fine to medium; wet, light gray, trace organic matter (roots).
				0.0		
10	S-2	3.5	28	0.0		(9.4'- 10') WIDELY GRADED SAND (SW); ~100% sand, fine to medium; wet, light brown.
						(10'- 13.5') WIDELY GRADED SAND (SW); ~100% sand, fine to medium; wet, light brown.
15						

Bottom of borehole at 16.0 feet.

WELL CONSTRUCTION DETAILS



NOTES:

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)
ppm = PARTS PER MILLION
IN. = INCHES
FT. = FEET
NLO = NAPHTHALENE LIKE ODOR
PLO = PETROLEUM LIKE ODOR
TLO = TAR LIKE ODOR
CLO = CHEMICAL LIKE ODOR
ALO = ASPHALT LIKE ODOR
CrLO= CREOSOTE LIKE ODOR
OLO = ORGANIC LIKE ODOR
SLO = SULFUR LIKE ODOR
MLO = MUSTY LIKE ODOR

ENVIRONMENTAL BORING LOG 09_GW_INVESTIGATION.GPJ GEI CONSULTANTS.GDT 8/20/09

GEI Consultants, Inc.
455 Winding Brook Road
Glastonbury, CT 06033
(860) 368-5300

CLIENT: National Grid
PROJECT: Rockaway Park
CITY/STATE: Rockaway Park, New York
GEI PROJECT NUMBER: 093150-1-1103

BORING LOG
PAGE 1 of 1
RPMW-24S

GROUND SURFACE ELEVATION (FT): 5.59 **LOCATION:**
NORTHING: 151148.8788 **EASTING:** 1030717.4509 **TOTAL DEPTH (FT):** 13.00
DRILLED BY: Zebra Environmental **DATUM VERT. / HORZ.:** NAVD 88 / NAD83
LOGGED BY: Chris Morris **DATE START / END:** 5/10/2009 - 5/10/2009
DRILLING DETAILS:
WATER LEVEL DEPTHS (FT): ▽ 3.10

DEPTH FT.	SAMPLE INFO TYPE and NO.	PEN FT.	REC FT.	PID (ppm)	STRATA	SOIL / BEDROCK DESCRIPTION	WELL CONSTRUCTION DETAILS
0		6.0		0.0 0.0 0.0 0.0		(0'- 0.4') TOPSOIL, HAND CLEARED. (0.4'- 0.8') SILTY SAND (SM); ~30% gravel, fine to coarse; dark brown, fill (brick, asphalt, glass); HAND CLEARED. (0.8'- 2') WIDELY GRADED GRAVEL WITH SILT AND SAND (GW-GM); ~60% gravel, fine to coarse; dry, dark brown, HAND CLEARED. (2'- 6') WIDELY GRADED SAND (SW); ~100% sand, fine to medium; wet, light brown, HAND CLEARED.	
5	S-1	4.0	50	0.0		(6'- 10') WIDELY GRADED SAND (SW); ~100% sand, fine to medium; wet, light brown.	
10	S-2	3.0	33	0.0		(10'- 13') WIDELY GRADED SAND (SW); ~100% sand, fine to medium; wet, light brown.	
						Bottom of borehole at 13.0 feet.	

NOTES:

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)
ppm = PARTS PER MILLION
IN. = INCHES
FT. = FEET
NLO = NAPHTHALENE LIKE ODOR
PLO = PETROLEUM LIKE ODOR
TLO = TAR LIKE ODOR
CLO = CHEMICAL LIKE ODOR
ALO = ASPHALT LIKE ODOR
CrLO= CREOSOTE LIKE ODOR
OLO = ORGANIC LIKE ODOR
SLO = SULFUR LIKE ODOR
MLO = MUSTY LIKE ODOR

ENVIRONMENTAL BORING LOG 09_GW_INVESTIGATION.GPJ GEI CONSULTANTS.GDT 8/20/09

GEI Consultants, Inc.
455 Winding Brook Road
Glastonbury, CT 06033
(860) 368-5300

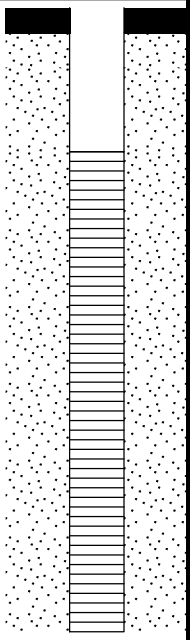
CLIENT: National Grid
PROJECT: Rockaway Park
CITY/STATE: Rockaway Park, New York
GEI PROJECT NUMBER: 093150-1-1103

BORING LOG
PAGE 1 of 1
RPMW-25S

GROUND SURFACE ELEVATION (FT): 7 **LOCATION:**
NORTHING: 151389.5909 **EASTING:** 1031177.0338 **TOTAL DEPTH (FT):** 16.00
DRILLED BY: Zebra Environmental **DATUM VERT. / HORZ.:** NAVD 88 / NAD83
LOGGED BY: Chris Morris **DATE START / END:** 4/27/2009 - 4/27/2009
DRILLING DETAILS:
WATER LEVEL DEPTHS (FT): ▽ 4.70

DEPTH FT.	SAMPLE INFO TYPE and NO.	PEN FT.	REC FT.	PID (ppm)	STRATA	ODOR	SOIL / BEDROCK DESCRIPTION
0		6.0		0.0			(0'- 0.6') SILTY SAND (SM); brown, HAND CLEARED. (0.6'- 1.5') SILTY SAND (SM); brown, ~20% fill, asphalt, concrete, brick; HAND CLEARED. (1.5'- 2.3') SILT (ML); ~80% fines, ~10% sand, fine; dry, brown, ~10% fill; HAND CLEARED. (2.3'- 5') WIDELY GRADED SAND (SW); ~100% sand, fine to medium; dry, light brown, HAND CLEARED.
▽ 5						SLO	(5'- 6') WIDELY GRADED SAND (SW); ~100% sand, fine to medium; slight sulfur-like odor, wet, light gray, HAND CLEARED.
	S-1	5.0	49	0.4		SLO	(6'- 7.4') WIDELY GRADED SAND (SW); ~100% sand, fine to medium; slight sulfur-like odor, wet, gray.
				0.3			
				0.0			(7.4'- 11') WIDELY GRADED SAND (SW); ~100% sand, fine to medium; wet, light brown.
10				0.0			
	S-2	5.0	39	0.0			(11'- 13') WIDELY GRADED SAND (SW); ~100% sand, fine to medium; wet, light brown.
				0.0			
				0.0			(13'- 14.3') WIDELY GRADED SAND (SW); ~100% sand, fine to coarse; wet, light brown.
				0.0			(14.3'- 14.5') WIDELY GRADED SAND (SW); ~100% sand, fine to medium; wet, light gray.
15				0.0			(14.5'- 15.6') WIDELY GRADED SAND (SW); ~100% sand, fine to medium; wet, dark gray. (15.6'- 16') WIDELY GRADED SAND (SW); ~100% sand, fine to medium; wet, light gray. Bottom of borehole at 16.0 feet.

WELL CONSTRUCTION DETAILS



NOTES:

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)
ppm = PARTS PER MILLION
IN. = INCHES
FT. = FEET
NLO = NAPHTHALENE LIKE ODOR
PLO = PETROLEUM LIKE ODOR
TLO = TAR LIKE ODOR
CLO = CHEMICAL LIKE ODOR
ALO = ASPHALT LIKE ODOR
CrLO= CREOSOTE LIKE ODOR
OLO = ORGANIC LIKE ODOR
SLO = SULFUR LIKE ODOR
MLO = MUSTY LIKE ODOR

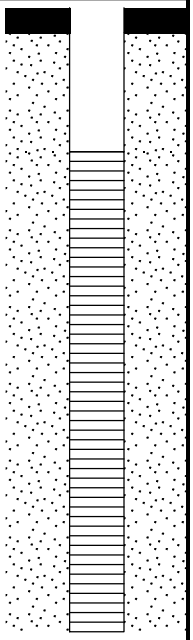
GEI Consultants, Inc.
455 Winding Brook Road
Glastonbury, CT 06033
(860) 368-5300

CLIENT: National Grid
PROJECT: Rockaway Park
CITY/STATE: Rockaway Park, New York
GEI PROJECT NUMBER: 093150-1-1103

BORING LOG
PAGE 1 of 1
RPMW-26S

GROUND SURFACE ELEVATION (FT): 8.08 **LOCATION:**
NORTHING: 151454.6757 **EASTING:** 1031459.0332 **TOTAL DEPTH (FT):** 16.00
DRILLED BY: Zebra Environmental **DATUM VERT. / HORZ.:** NAVD 88 / NAD83
LOGGED BY: Chris Morris **DATE START / END:** 4/25/2009 - 4/27/2009
DRILLING DETAILS:
WATER LEVEL DEPTHS (FT): ▽ 5.80

DEPTH FT.	SAMPLE INFO TYPE and NO.	PEN FT.	REC FT.	PID (ppm)	STRATA	SOIL / BEDROCK DESCRIPTION	WELL CONSTRUCTION DETAILS
0		6.0		0.0		(0'- 0.3') TOPSOIL; HAND CLEARED.	
				0.0		(0.3'- 1') SILTY SAND (SM); brown, HAND CLEARED.	
				0.0		(1'- 5.5') WIDELY GRADED SAND (SW); ~100% sand, fine to medium; dry, light brown, HAND CLEARED.	
5							
▽				0.0		(5.5'- 6') WIDELY GRADED SAND (SW); ~100% sand, fine to medium; moist, light brown, HAND CLEARED.	
	S-1	5.0	45	0.0		(6'- 11') WIDELY GRADED SAND (SW); ~100% sand, fine to medium; wet, light brown.	
10							
	S-2	4.0	41	0.0		(11'- 16') WIDELY GRADED SAND (SW); ~100% sand, fine to medium; wet, light brown, several small bands of dark brown/black sand.	
15						Bottom of borehole at 16.0 feet.	



NOTES:

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)

ppm = PARTS PER MILLION
IN. = INCHES
FT. = FEET

NLO = NAPHTHALENE LIKE ODOR
PLO = PETROLEUM LIKE ODOR
TLO = TAR LIKE ODOR
CLO = CHEMICAL LIKE ODOR
ALO = ASPHALT LIKE ODOR

CrLO= CREOSOTE LIKE ODOR
OLO = ORGANIC LIKE ODOR
SLO = SULFUR LIKE ODOR
MLO = MUSTY LIKE ODOR

ENVIRONMENTAL BORING LOG 09_GW_INVESTIGATION.GPJ GEI CONSULTANTS.GDT 8/20/09

Appendix B

Data Usability Summary Reports (electronic only)

Recd 4/13/09

Rockaway Park, Project 061140-17-2603

Site: Rockaway Park
Laboratory: H2M Laboratories, Melville, NY
Report No.: GEI231 – 0902865, 0902917, 0903081
Reviewer: Lorie MacKinnon/GEI Consultants
Date: April 8, 2009

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
MW-02	0902865-01	BTEX, PAH
PZ-06	0902865-02	BTEX, PAH
RPMW-08S	0902865-03	BTEX, PAH
RPMW-10S	0902865-04	BTEX, PAH
RPMW-14S	0902865-05	BTEX, PAH
TB 022609	0902865-06	BTEX
FB 022709	0902917-01	BTEX, PAH
RPMW-19S	0902917-02	BTEX, PAH
RPMW-20S	0902917-03	BTEX, PAH
RPMW-21S	0902917-04	BTEX, PAH
Trip Blank	0902917-05	BTEX
RPMW-01S	0903081-01	BTEX, PAH
RPMW-02S	0903081-02	BTEX, PAH
RPMW-03S	0903081-03	BTEX, PAH
RPMW-04S	0903081-04	BTEX, PAH
RPMW-11S	0903081-05	BTEX, PAH
RPMW-17S	0903081-06	BTEX, PAH
TB 030309	0903081-07	BTEX
Associated QC Samples(s):	Field/Trip Blanks:	FB 022709, TB 022609, Trip Blank, TB 030309
	Field Duplicate pair:	None associated

The above-listed aqueous samples, field blank, and trip blank samples were collected on February 24 and 27 and March 3, 2009 and were analyzed for BTEX volatile organic compounds (VOCs) by SW-846 method 8260B and polynuclear aromatic hydrocarbon (PAH) semivolatile organic compounds (SVOCs) by SW-846 method 8270C. The data validation was performed in accordance with the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, EPA 540/R-99/008* (October 1999) and the *USEPA Region II Functional Guidelines for Evaluating Organic Analyses* (March 2001), modified as necessary to accommodate the non-CLP methodologies used.

The organic data were evaluated based on the following parameters:

*	•	Data Completeness
	•	Holding Times and Sample Preservation
*	•	Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
*	•	Initial and Continuing Calibrations
*	•	Blanks
*	•	Surrogate Recoveries
*	•	Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
*	•	Laboratory Control Sample (LCS) Results
*	•	Internal Standards
NA	•	Field Duplicate Results
	•	Quantitation Limits and Data Assessment
*	•	Sample Quantitation and Compound Identification

* - All criteria were met.

All results are usable for project objectives.

NA - A field duplicate pair was not associated with this sample set.

Qualifications were not applied to the data as a result of sampling error. Qualifications applied to the data as a result of analytical error are discussed below.

- Potential uncertainty exists for select BTEX and PAH results which were below the lowest calibration standard. These results were qualified as estimated (J). These results can be used for project objectives as estimated values which may have a minor impact on the data usability.

- The nondetect results in PAH sample MW-02 were qualified as estimated (UJ) due to an exceedance in holding time. The results may be biased low. The results can be used for project objectives as nondetects with estimated quantitation limits which may have a minor impact on the data usability.

The validation findings were based on the following information.

Data Completeness

The data package was complete as defined under the requirements for the NYSDEC ASP category B deliverables for the VOC and SVOC analyses.

Holding Times and Sample Preservation

VOC

All holding time criteria were met in the VOC analyses.

SVOC

Due to a discrepancy between the unspiked sample MW-02, MS, and MSD, the laboratory re-extracted sample MW-02 three days outside of the required holding time. As the results of the re-extraction were in agreement with the original MS and MSD, these results were reported for the sample. The nondetect results for PAH sample MW-02 were estimated (UJ).

GC/MS Tunes

All criteria were met in the VOC and SVOC analyses.

Initial and Continuing Calibrations

All initial and continuing calibration criteria were met in the VOC and SVOC analyses.

Blanks

Target compounds were not detected in the VOC and SVOC method blanks, field blank sample, trip blank samples, and storage blank.

Surrogate Recoveries

All criteria were met in the VOC and SVOC analyses.

MS/MSD Results

MS/MSD analyses were performed on designated sample MW-02 for BTEX and PAH. All recovery and RPD criteria were met.

Internal Standards

All criteria were met in the VOC and SVOC analyses.

LCS Results

All criteria were met in the VOC and SVOC analyses.

Field Duplicate Results

A field duplicate pair was not associated with this sample set.

Quantitation Limits and Data Assessment

Results were reported which were below the reporting limit (RL) and above the method detection limit (MDL) in the BTEX and PAH analyses. These results were qualified as estimated (J) by the laboratory. The results for fluorene in sample PZ-06, pyrene in sample RPMW-02S, and acenaphthene in sample RPMW-14S were less than the reporting limit and estimated (J) by the laboratory. However, these compound results were above the lowest associated calibration standard; therefore, the 'J' qualifier was removed by the validator.

The following table lists the sample dilutions and analyses which were performed and reported.

Sample	BTEX Analysis Reported	PAH Analysis Reported
MW-02	Report results for benzene, toluene, ethylbenzene, and xylene from the 20-fold dilution. Report remaining compounds from the undiluted analysis.	NR
PZ-06	NR	Report results for naphthalene and 2-methylnaphthalene from the 20-fold dilution. Report remaining compounds from the undiluted analysis.
RPMW-10S	Report results for benzene, toluene, and ethylbenzene from the 2-fold dilution. Report remaining compounds from the undiluted analysis.	NR
RPMW-14S	Report results for benzene, ethylbenzene, and xylene from the 10-fold dilution. Report remaining compounds from the undiluted analysis.	Report result for naphthalene from the 10-fold dilution. Report remaining compounds from the undiluted analysis.
RPMW-02S	NR	Report results for naphthalene and acenaphthene from the 10-fold dilution. Report remaining compounds from the undiluted analysis.
RPMW-03S	NR	Report result for acenaphthene from the 4-fold dilution. Report remaining compounds from the undiluted analysis.
RPMW-17S	Report results for benzene, toluene, ethylbenzene, and xylene from the 50-fold dilution. Report remaining compounds from the undiluted analysis.	Report result for naphthalene from the 20-fold dilution. Report remaining compounds from the undiluted analysis.

NR- Dilution was not required

Sample Quantitation and Compound Identification

Calculations were spot-checked; no discrepancies were noted in the VOC and SVOC analyses.

Rec'd 4/8/09

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-02

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0902865-001A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A63546.D

Level: (low/med) LOW Date Received: 02/26/09

% Moisture: not dec. Date Analyzed: 03/06/09

GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

(µg/L or µg/Kg) UG/L

CAS NO.	COMPOUND	Q
1634-04-4	Methyl tert-butyl ether	10 U
71-43-2	Benzene	~~1300~~ 3300 U
108-88-3	Toluene	~~750~~ 1500 U
100-41-4	Ethylbenzene	~~550~~ 790 U
1330-20-7	Xylene (total)	~~590~~ 840

GEI231 S31

JC 4/8/09

jm 4/8/09

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-02DL

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0902865-001ADL

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A63563.D

Level: (low/med) LOW Date Received: 02/26/09

% Moisture: not dec. Date Analyzed: 03/06/09

GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 20.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
1634-04-4	Methyl tert-butyl ether	200	U
71-43-2	Benzene	3300	D
108-88-3	Toluene	1500	D
100-41-4	Ethylbenzene	790	D
1330-20-7	Xylene (total)	840	D

GEI231 S32

JC 4/8/09 4/9/09

Recd 4/8/09

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-02

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0902865-001B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9\N29606.D

Level: (low/med) LOW Date Received: 02/26/09

% Moisture: Decanted: (Y/N) N Date Extracted: 03/06/09

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 03/08/09

Injection Volume: 2 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) SEPF

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U J
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U J

(1) Cannot be separated from Diphenylamine

GEI231 S33

JC 4/8/09

dam 4/7/09

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PZ-06

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0902865-002A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A63566.D

Level: (low/med) LOW Date Received: 02/26/09

% Moisture: not dec. Date Analyzed: 03/06/09

GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
1634-04-4	Methyl tert-butyl ether	10	U
71-43-2	Benzene	10	U
108-88-3	Toluene	9	J
100-41-4	Ethylbenzene	26	
1330-20-7	Xylene (total)	190	

GEI231 S34

JC 4/8/09

4/16/09

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PZ-06

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0902865-002B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9\N29570.D

Level: (low/med) LOW Date Received: 02/26/09

% Moisture: Decanted: (Y/N) N Date Extracted: 03/03/09

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 03/05/09

Injection Volume: 2 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) SEPF

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
91-20-3	Naphthalene	~~680~~ 1000	~~E~~
91-57-6	2-Methylnaphthalene	~~210~~ 220	~~E~~
208-96-8	Acenaphthylene	21	
83-32-9	Acenaphthene	4	J
86-73-7	Fluorene	8	J
85-01-8	Phenanthrene	3	J
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

GEI231 S35

JC 4/8/09

4/6/09

1C

EPA SAMPLE NO.

PZ-06DL

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0902865-002BDL

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9\N29607.D

Level: (low/med) LOW Date Received: 02/26/09

% Moisture: Decanted: (Y/N) N Date Extracted: 03/03/09

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 03/08/09

Injection Volume: 2 (µL) Dilution Factor: 20.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) SEPF

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
91-20-3	Naphthalene	1000	D
91-57-6	2-Methylnaphthalene	220	D
208-96-8	Acenaphthylene	21	DJ
83-32-9	Acenaphthene	200	U
86-73-7	Fluorene	200	U
85-01-8	Phenanthrene	200	U
120-12-7	Anthracene	200	U
206-44-0	Fluoranthene	200	U
129-00-0	Pyrene	200	U
56-55-3	Benzo(a)anthracene	200	U
218-01-9	Chrysene	200	U
205-99-2	Benzo(b)fluoranthene	200	U
207-08-9	Benzo(k)fluoranthene	200	U
50-32-8	Benzo(a)pyrene	200	U
193-39-5	Indeno(1,2,3-cd)pyrene	200	U
53-70-3	Dibenzo(a,h)anthracene	200	U
191-24-2	Benzo(g,h,i)perylene	200	U

(1) Cannot be separated from Diphenylamine

GEI231 S36

JC 4/8/09

4/16/09

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPMW-01S

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0903081-001A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A63644.D

Level: (low/med) LOW Date Received: 03/04/09

% Moisture: not dec. Date Analyzed: 03/11/09

GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CONCENTRATION UNITS:

(µg/L or µg/Kg) UG/L

CAS NO.	COMPOUND		Q
1634-04-4	Methyl tert-butyl ether	10	U
71-43-2	Benzene	10	U
108-88-3	Toluene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U

GEI231 S57

JC 4/8/09

4/6/09

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPMW-01S

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0903081-001B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9\N29583.D

Level: (low/med) LOW Date Received: 03/04/09

% Moisture: Decanted: (Y/N) N Date Extracted: 03/04/09

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 03/06/09

Injection Volume: 2 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) SEPF

CONCENTRATION UNITS:

(µg/L or µg/Kg) UG/L

CAS NO.	COMPOUND		Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

GEI231 S58

JC 4/8/09

jam 4/16/09

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPMW-02S

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0903081-002A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A63645.D

Level: (low/med) LOW Date Received: 03/04/09

% Moisture: not dec. Date Analyzed: 03/11/09

GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CONCENTRATION UNITS:

(µg/L or µg/Kg) UG/L

CAS NO.	COMPOUND		Q
1634-04-4	Methyl tert-butyl ether	10	U
71-43-2	Benzene	120	
108-88-3	Toluene	10	U
100-41-4	Ethylbenzene	50	
1330-20-7	Xylene (total)	17	

GEI231 S59

JC 4/8/09 4/6/09

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPMW-02S

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0903081-002B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9\N29584.D

Level: (low/med) LOW Date Received: 03/04/09

% Moisture: Decanted: (Y/N) N Date Extracted: 03/04/09

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 03/06/09

Injection Volume: 2 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) SEPF

CONCENTRATION UNITS:
(µg/L or µg/Kg) UG/L

CAS NO.	COMPOUND		Q
91-20-3	Naphthalene	~~320~~ 320	~~B~~
91-57-6	2-Methylnaphthalene	5	J
208-96-8	Acenaphthylene	2	J
83-32-9	Acenaphthene	~~310~~ 280	~~B~~
86-73-7	Fluorene	56	
85-01-8	Phenanthrene	50	
120-12-7	Anthracene	4	J
206-44-0	Fluoranthene	5	J
129-00-0	Pyrene	7	J
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

JC 4/8/09

GEI231 S60

Jam 4/6/09

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPMW-02SDL

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0903081-002BDL

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9\N29609.D

Level: (low/med) LOW Date Received: 03/04/09

% Moisture: Decanted: (Y/N) N Date Extracted: 03/04/09

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 03/08/09

Injection Volume: 2 (µL) Dilution Factor: 10.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) SEPF

CONCENTRATION UNITS:

(µg/L or µg/Kg) UG/L

CAS NO.	COMPOUND		Q
91-20-3	Naphthalene	320	D
91-57-6	2-Methylnaphthalene	100	U
208-96-8	Acenaphthylene	100	U
83-32-9	Acenaphthene	280	D
86-73-7	Fluorene	55	DJ
85-01-8	Phenanthrene	50	DJ
120-12-7	Anthracene	100	U
206-44-0	Fluoranthene	100	U
129-00-0	Pyrene	100	U
56-55-3	Benzo(a)anthracene	100	U
218-01-9	Chrysene	100	U
205-99-2	Benzo(b)fluoranthene	100	U
207-08-9	Benzo(k)fluoranthene	100	U
50-32-8	Benzo(a)pyrene	100	U
193-39-5	Indeno(1,2,3-cd)pyrene	100	U
53-70-3	Dibenzo(a,h)anthracene	100	U
191-24-2	Benzo(g,h,i)perylene	100	U

(1) Cannot be separated from Diphenylamine

GEI231 S61

JC 4/8/09

9/6/09

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPMW-03S

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0903081-003A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A63646.D

Level: (low/med) LOW Date Received: 03/04/09

% Moisture: not dec. Date Analyzed: 03/11/09

GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

(µg/L or µg/Kg) UG/L

CAS NO.	COMPOUND	Q
1634-04-4	Methyl tert-butyl ether	10 U
71-43-2	Benzene	140
108-88-3	Toluene	10 U
100-41-4	Ethylbenzene	4 J
1330-20-7	Xylene (total)	10 U

GEI231 S62

JC 4/8/09

4/16/09

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPMW-03S

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0903081-003B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9\N29585.D

Level: (low/med) LOW Date Received: 03/04/09

% Moisture: Decanted: (Y/N) N Date Extracted: 03/04/09

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 03/06/09

Injection Volume: 2 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) SEPF

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	1	J ✓
83-32-9	Acenaphthene	~~120~~ 110	~~B~~
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	13	
120-12-7	Anthracene	3	J ✓
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

GEI231 S63

JC 4/8/09

4/16/09

1C

EPA SAMPLE NO.

RPMW-03SDL

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0903081-003BDL

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9\N29610.D

Level: (low/med) LOW Date Received: 03/04/09

% Moisture: Decanted: (Y/N) N Date Extracted: 03/04/09

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 03/08/09

Injection Volume: 2 (µL) Dilution Factor: 4.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) SEPF

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
91-20-3	Naphthalene	40	U
91-57-6	2-Methylnaphthalene	40	U
208-96-8	Acenaphthylene	40	U
83-32-9	Acenaphthene	110	D
86-73-7	Fluorene	40	U
85-01-8	Phenanthrene	14	DJ
120-12-7	Anthracene	40	U
206-44-0	Fluoranthene	40	U
129-00-0	Pyrene	40	U
56-55-3	Benzo(a)anthracene	40	U
218-01-9	Chrysene	40	U
205-99-2	Benzo(b)fluoranthene	40	U
207-08-9	Benzo(k)fluoranthene	40	U
50-32-8	Benzo(a)pyrene	40	U
193-39-5	Indeno(1,2,3-cd)pyrene	40	U
53-70-3	Dibenzo(a,h)anthracene	40	U
191-24-2	Benzo(g,h,i)perylene	40	U

(1) Cannot be separated from Diphenylamine

GEI231 S64

JC 4/8/09

4/10/09

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPMW-04S

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0903081-004A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A63647.D

Level: (low/med) LOW Date Received: 03/04/09

% Moisture: not dec. Date Analyzed: 03/11/09

GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
1634-04-4	Methyl tert-butyl ether	10	U
71-43-2	Benzene	10	U
108-88-3	Toluene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U

GEI231 S65

JC 4/8/09

4/6/09

1C

EPA SAMPLE NO.

RPMW-04S

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0903081-004B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9\N29586.D

Level: (low/med) LOW Date Received: 03/04/09

% Moisture: Decanted: (Y/N) N Date Extracted: 03/04/09

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 03/06/09

Injection Volume: 2 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) SEPF

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

GEI231 S66

JC 4/8/09 4/6/09

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPMW-08S

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0902865-003A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A63561.D

Level: (low/med) LOW Date Received: 02/26/09

% Moisture: not dec. Date Analyzed: 03/06/09

GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
1634-04-4	Methyl tert-butyl ether	10	U
71-43-2	Benzene	1	U
108-88-3	Toluene	10	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	2	U

GEI231 S37

JC 4/8/09

4/16/09

1C

EPA SAMPLE NO.

RPMW-08S

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0902865-003B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9\N29571.D

Level: (low/med) LOW Date Received: 02/26/09

% Moisture: Decanted: (Y/N) N Date Extracted: 03/03/09

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 03/05/09

Injection Volume: 2 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) SEPF

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

GEI231 S38

JC 4/8/09

Jam 4/16/09

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPMW-10S

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0902865-004A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A63551.D

Level: (low/med) LOW Date Received: 02/26/09

% Moisture: not dec. Date Analyzed: 03/06/09

GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

(µg/L or µg/Kg) UG/L

CAS NO.	COMPOUND		Q
1634-04-4	Methyl tert-butyl ether	10	U
71-43-2	Benzene	~~220~~ 190	~~U~~
108-88-3	Toluene	~~340~~ 300	~~U~~
100-41-4	Ethylbenzene	~~260~~ 210	~~U~~
1330-20-7	Xylene (total)	380	

GEI231 S39

JC 4/1/09

4/6/09

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPMW-10SDL

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0902865-004ADL

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A63565.D

Level: (low/med) LOW Date Received: 02/26/09

% Moisture: not dec. Date Analyzed: 03/06/09

GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 2.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
1634-04-4	Methyl tert-butyl ether	20	U
71-43-2	Benzene	190	D
108-88-3	Toluene	300	D
100-41-4	Ethylbenzene	210	D
1330-20-7	Xylene (total)	270	D

GEI231 S40

JC 4/8/09

4/16/09

1C

EPA SAMPLE NO.

RPMW-10S

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0902865-004B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9\N29572.D

Level: (low/med) LOW Date Received: 02/26/09

% Moisture: Decanted: (Y/N) N Date Extracted: 03/03/09

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 03/05/09

Injection Volume: 2 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) SEPF

CONCENTRATION UNITS:

(µg/L or µg/Kg) UG/L

CAS NO.	COMPOUND		Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

GEI231 S41

JC 4/8/09

Jam 4/16/09

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPMW-11S

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0903081-005A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A63648.D

Level: (low/med) LOW Date Received: 03/04/09

% Moisture: not dec. Date Analyzed: 03/11/09

GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
1634-04-4	Methyl tert-butyl ether	10	U
71-43-2	Benzene	10	U
108-88-3	Toluene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U

GEI231 S67

JC 4/8/09

4/16/09

1C

EPA SAMPLE NO.

RPMW-11S

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0903081-005B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9\N29587.D

Level: (low/med) LOW Date Received: 03/04/09

% Moisture: Decanted: (Y/N) N Date Extracted: 03/04/09

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 03/06/09

Injection Volume: 2 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) SEPF

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

GEI231 S68

JC 4/8/09 4/16/09

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPMW-14S

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0902865-005A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A63552.D

Level: (low/med) LOW Date Received: 02/26/09

% Moisture: not dec. Date Analyzed: 03/06/09

GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) UG/L	Q
1634-04-4	Methyl tert-butyl ether	10	U
71-43-2	Benzene	~~420~~ 460	~~E~~
108-88-3	Toluene	120	
100-41-4	Ethylbenzene	~~870~~ 1100	~~E~~
1330-20-7	Xylene (total)	~~740~~ 780	~~E~~

GEI231 S42

JC 4/8/09

Jam 4/6/09

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPMW-14SDL

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0902865-005ADL

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A63564.D

Level: (low/med) LOW Date Received: 02/26/09

% Moisture: not dec. Date Analyzed: 03/06/09

GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 10.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CONCENTRATION UNITS:

(µg/L or µg/Kg) UG/L

CAS NO.	COMPOUND	Q
1634-04-4	Methyl tert-butyl ether	100 U
71-43-2	Benzene	460 D ✓
108-88-3	Toluene	120 D
100-41-4	Ethylbenzene	1100 D ✓
1330-20-7	Xylene (total)	780 D ✓

GEI231 S43

JC 4/8/09

4/6/09

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPMW-14S

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0902865-005B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9\N29573.D

Level: (low/med) LOW Date Received: 02/26/09

% Moisture: Decanted: (Y/N) N Date Extracted: 03/03/09

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 03/05/09

Injection Volume: 2 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) SEPF

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
91-20-3	Naphthalene	~~350~~ 360	~~E~~
91-57-6	2-Methylnaphthalene	12	
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	8	J ✓
86-73-7	Fluorene	4	J ✓
85-01-8	Phenanthrene	4	J ✓
120-12-7	Anthracene	1	J ✓
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	1	J ✓
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

GEI231 S44

JC 4/8/09

Jan 4/6/09

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPMW-14SDL

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0902865-005BDL

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9\N29608.D

Level: (low/med) LOW Date Received: 02/26/09

% Moisture: Decanted: (Y/N) N Date Extracted: 03/03/09

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 03/08/09

Injection Volume: 2 (µL) Dilution Factor: 10.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) SEPF

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
91-20-3	Naphthalene	360	D
91-57-6	2-Methylnaphthalene	100	U
208-96-8	Acenaphthylene	100	U
83-32-9	Acenaphthene	100	U
86-73-7	Fluorene	100	U
85-01-8	Phenanthrene	100	U
120-12-7	Anthracene	100	U
206-44-0	Fluoranthene	100	U
129-00-0	Pyrene	100	U
56-55-3	Benzo(a)anthracene	100	U
218-01-9	Chrysene	100	U
205-99-2	Benzo(b)fluoranthene	100	U
207-08-9	Benzo(k)fluoranthene	100	U
50-32-8	Benzo(a)pyrene	100	U
193-39-5	Indeno(1,2,3-cd)pyrene	100	U
53-70-3	Dibenzo(a,h)anthracene	100	U
191-24-2	Benzo(g,h,i)perylene	100	U

(1) Cannot be separated from Diphenylamine

GEI231 S45

JC 4/8/09

4/16/09

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPMW-17S

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0903081-006A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A63649.D

Level: (low/med) LOW Date Received: 03/04/09

% Moisture: not dec. Date Analyzed: 03/11/09

GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CONCENTRATION UNITS:

(µg/L or µg/Kg) UG/L

CAS NO.	COMPOUND	Q
1634-04-4	Methyl tert-butyl ether	1 J ✓
71-43-2	Benzene	~~360~~ 500 ~~E~~
108-88-3	Toluene	~~390~~ 560 ~~E~~
100-41-4	Ethylbenzene	~~1500~~ 4100 ~~E~~
1330-20-7	Xylene (total)	~~990~~ 1400 E

GEI231 S69

JC 4/8/09

4/6/09

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPMW-17SDL

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0903081-006ADL

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A63667.D

Level: (low/med) LOW Date Received: 03/04/09

% Moisture: not dec. Date Analyzed: 03/12/09

GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 50.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
1634-04-4	Methyl tert-butyl ether	500	U
71-43-2	Benzene	500	D
108-88-3	Toluene	560	D
100-41-4	Ethylbenzene	4100	D
1330-20-7	Xylene (total)	1400	D

GEI231 S70

JC 4/8/09

4/8/09

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPMW-17S

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0903081-006B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9\N29588.D

Level: (low/med) LOW Date Received: 03/04/09

% Moisture: Decanted: (Y/N) N Date Extracted: 03/04/09

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 03/06/09

Injection Volume: 2 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) SEPF

CONCENTRATION UNITS:

(µg/L or µg/Kg) UG/L

CAS NO.	COMPOUND		Q
91-20-3	Naphthalene	~~390~~ 350	~~B~~
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	2	J ✓
83-32-9	Acenaphthene	2	J ✓
86-73-7	Fluorene	1	J ✓
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

GEI231 S71

JC 4/8/09 Jam 4/6/09

1C

EPA SAMPLE NO.

RPMW-17SDL

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0903081-006BDL

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9\N29611.D

Level: (low/med) LOW Date Received: 03/04/09

% Moisture: Decanted: (Y/N) N Date Extracted: 03/04/09

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 03/08/09

Injection Volume: 2 (µL) Dilution Factor: 20.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) SEPF

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
91-20-3	Naphthalene	350	D
91-57-6	2-Methylnaphthalene	200	U
208-96-8	Acenaphthylene	200	U
83-32-9	Acenaphthene	200	U
86-73-7	Fluorene	200	U
85-01-8	Phenanthrene	200	U
120-12-7	Anthracene	200	U
206-44-0	Fluoranthene	200	U
129-00-0	Pyrene	200	U
56-55-3	Benzo(a)anthracene	200	U
218-01-9	Chrysene	200	U
205-99-2	Benzo(b)fluoranthene	200	U
207-08-9	Benzo(k)fluoranthene	200	U
50-32-8	Benzo(a)pyrene	200	U
193-39-5	Indeno(1,2,3-cd)pyrene	200	U
53-70-3	Dibenzo(a,h)anthracene	200	U
191-24-2	Benzo(g,h,i)perylene	200	U

(1) Cannot be separated from Diphenylamine

GEI231 S72

JC 4/8/09

4/16/09

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPMW-19S

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0902917-002A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A63567.D

Level: (low/med) LOW Date Received: 02/27/09

% Moisture: not dec. Date Analyzed: 03/06/09

GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
1634-04-4	Methyl tert-butyl ether	10	U
71-43-2	Benzene	10	U
108-88-3	Toluene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U

GEI231 S50

JC 4/8/09

Jam 4/6/09

1C

EPA SAMPLE NO.

RPMW-19S

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0902917-002B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9\N29575.D

Level: (low/med) LOW Date Received: 02/27/09

% Moisture: Decanted: (Y/N) N Date Extracted: 03/03/09

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 03/05/09

Injection Volume: 2 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

GEI231 S51

JC 4/8/09

4/16/09

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPMW-20S

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0902917-003A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A63554.D

Level: (low/med) LOW Date Received: 02/27/09

% Moisture: not dec. Date Analyzed: 03/06/09

GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
1634-04-4	Methyl tert-butyl ether	10	U
71-43-2	Benzene	10	U
108-88-3	Toluene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U

GEI231 S52

JC 4/8/09

Jm 4/6/09

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

RPMW-20S

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0902917-003B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9\N29576.D

Level: (low/med) LOW Date Received: 02/27/09

% Moisture: Decanted: (Y/N) N Date Extracted: 03/03/09

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 03/05/09

Injection Volume: 2 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) SEPF

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

GEI231 S53

JC 4/8/09

4/16/09

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPMW-21S

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0902917-004A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A63616.D

Level: (low/med) LOW Date Received: 02/27/09

% Moisture: not dec. Date Analyzed: 03/09/09

GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CONCENTRATION UNITS:

(µg/L or µg/Kg) UG/L

CAS NO.	COMPOUND		Q
1634-04-4	Methyl tert-butyl ether	10	U
71-43-2	Benzene	10	U
108-88-3	Toluene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U

GEI231 S54

JC 4/8/09

4/16/09

1C

EPA SAMPLE NO.

RPMW-21S

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0902917-004B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9\N29577.D

Level: (low/med) LOW Date Received: 02/27/09

% Moisture: Decanted: (Y/N) N Date Extracted: 03/03/09

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 03/05/09

Injection Volume: 2 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) SEPF

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

GEI231 S55

4/8/09

4/6/09

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB-022709

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0902917-001A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A63614.D

Level: (low/med) LOW Date Received: 02/27/09

% Moisture: not dec. Date Analyzed: 03/09/09

GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
1634-04-4	Methyl tert-butyl ether	10	U
71-43-2	Benzene	10	U
108-88-3	Toluene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U

GEI231 S48

JC 4/8/09

4/16/09

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB-022709

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0902917-001B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9\N29574.D

Level: (low/med) LOW Date Received: 02/27/09

% Moisture: Decanted: (Y/N) N Date Extracted: 03/03/09

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 03/05/09

Injection Volume: 2 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) SEPF

CONCENTRATION UNITS:

(µg/L or µg/Kg) UG/L

CAS NO.	COMPOUND	Q
91-20-3	Naphthalene	10 U
91-57-6	2-Methylnaphthalene	10 U
208-96-8	Acenaphthylene	10 U
83-32-9	Acenaphthene	10 U
86-73-7	Fluorene	10 U
85-01-8	Phenanthrene	10 U
120-12-7	Anthracene	10 U
206-44-0	Fluoranthene	10 U
129-00-0	Pyrene	10 U
56-55-3	Benzo(a)anthracene	10 U
218-01-9	Chrysene	10 U
205-99-2	Benzo(b)fluoranthene	10 U
207-08-9	Benzo(k)fluoranthene	10 U
50-32-8	Benzo(a)pyrene	10 U
193-39-5	Indeno(1,2,3-cd)pyrene	10 U
53-70-3	Dibenzo(a,h)anthracene	10 U
191-24-2	Benzo(g,h,i)perylene	10 U

(1) Cannot be separated from Diphenylamine

JC 4/8/09

GEI231 S49

Jam 4/6/09

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TB-022609

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0902865-006A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A63541.D

Level: (low/med) LOW Date Received: 02/26/09

% Moisture: not dec. Date Analyzed: 03/06/09

GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
1634-04-4	Methyl tert-butyl ether	10	U
71-43-2	Benzene	10	U
108-88-3	Toluene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U

GEI231 S46

JC 4/8/09

4/6/09

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

TB 030309

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0903081-007A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A63643.D

Level: (low/med) LOW Date Received: 03/04/09

% Moisture: not dec. Date Analyzed: 03/11/09

GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
1634-04-4	Methyl tert-butyl ether	10	U
71-43-2	Benzene	10	U
108-88-3	Toluene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U

GEI231 S73

JC 4/8/09

4/16/09

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIP BLANK

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI231

Matrix: (soil/water) WATER Lab Sample ID: 0902917-005A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A63617.D

Level: (low/med) LOW Date Received: 02/27/09

% Moisture: not dec. Date Analyzed: 03/09/09

GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CONCENTRATION UNITS:

(µg/L or µg/Kg) UG/L

CAS NO.	COMPOUND		Q
1634-04-4	Methyl tert-butyl ether	10	U
71-43-2	Benzene	10	U
108-88-3	Toluene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U

GEI231 S56

JC 4/8/09

4/16/09

Site: Rockaway Park Groundwater Sampling
Laboratory: H2M Laboratories, Melville, NY
Report No.: GEI308 – 0907187
Reviewer: Lorie MacKinnon/GEI Consultants
Date: August 19, 2009

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
RPMW-23S	0907187-01	BTEX, PAH
RPMW-24S	0907187-02	BTEX, PAH
RPMW-25S	0907187-03	BTEX, PAH
RPMW-26S	0907187-04	BTEX, PAH
DUP-01 RP	0907187-05	BTEX, PAH
FB-062409-RP	0907187-06	BTEX, PAH

Associated QC Samples(s):	Field/Trip Blanks:	FB-062409-RP
	Field Duplicate pair:	RPMW-25S/DUP-01 RP

The above-listed aqueous samples and field blank sample were collected on June 24, 2009 and were analyzed for BTEX volatile organic compounds (VOCs) by SW-846 method 8260B and polynuclear aromatic hydrocarbon (PAH) semivolatile organic compounds (SVOCs) by SW-846 method 8270C. The data validation was performed in accordance with the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, EPA 540/R-99/008* (October 1999) and the *USEPA Region II Functional Guidelines for Evaluating Organic Analyses* (March 2001), modified as necessary to accommodate the non-CLP methodologies used.

The organic data were evaluated based on the following parameters:

* • Data Completeness
* • Holding Times and Sample Preservation
* • Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
* • Initial and Continuing Calibrations
* • Blanks
* • Surrogate Recoveries
* • Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
* • Laboratory Control Sample (LCS) Results
* • Internal Standards
* • Field Duplicate Results
* • Quantitation Limits and Data Assessment
* • Sample Quantitation and Compound Identification

* - All criteria were met.

All results are usable for project objectives.

Qualifications were not applied to the data as a result of sampling or analytical error. The validation findings were based on the following information.

Data Completeness

The data package was complete as defined under the requirements for the NYSDEC ASP category B deliverables for the VOC and SVOC analyses.

Holding Times and Sample Preservation

All holding time criteria were met in the VOC and SVOC analyses.

GC/MS Tunes

All criteria were met in the VOC and SVOC analyses.

Initial and Continuing Calibrations

All initial and continuing calibration criteria were met in the VOC and SVOC analyses.

Blanks

Target compounds were not detected in the VOC and SVOC method and field blank samples and VOC storage blank.

Surrogate Recoveries

All criteria were met in the VOC and SVOC analyses.

MS/MSD Results

MS/MSD analyses were performed on designated sample RPMW-26S for BTEX and PAH. All recovery and RPD criteria were met.

Internal Standards

All criteria were met in the VOC and SVOC analyses.

LCS Results

All criteria were met in the VOC and SVOC analyses.

Field Duplicate Results

Samples RPMW-25S and DUP-01 RP were submitted as the field duplicate pair with this sample group. All results were nondetect in these samples.

Quantitation Limits and Data Assessment

All criteria were met.

Sample Quantitation and Compound Identification

Calculations were spot-checked; no discrepancies were noted in the VOC and SVOC analyses.

Rec'd 7/31/09

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPMW-23S

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI308

Matrix: (soil/water) WATER Lab Sample ID: 0907187-001A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A65444.D

Level: (low/med) LOW Date Received: 06/24/09

% Moisture: not dec. Date Analyzed: 06/30/09

GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
1634-04-4	Methyl tert-butyl ether	10	U
71-43-2	Benzene	10	U
108-88-3	Toluene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U

GEI308 S20

JC 7/24/09 JM 7/28/09

Rec'd 7/21/09

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPMW-23S

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI308

Matrix: (soil/water) WATER Lab Sample ID: 0907187-001B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9\N32018.D

Level: (low/med) LOW Date Received: 06/24/09

% Moisture: Decanted: (Y/N) N Date Extracted: 06/29/09

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/29/09

Injection Volume: 2 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) SEPF

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

GEI308 S28

JC 7/24/09 JRM 7/25/09

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPMW-24S

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI308

Matrix: (soil/water) WATER Lab Sample ID: 0907187-002A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A65445.D

Level: (low/med) LOW Date Received: 06/24/09

% Moisture: not dec. Date Analyzed: 06/30/09

GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
1634-04-4	Methyl tert-butyl ether	10	U
71-43-2	Benzene	10	U
108-88-3	Toluene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U

GEI308 S21

JC 7/24/09 Jam 7/28/09

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPMW-24S

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI308

Matrix: (soil/water) WATER Lab Sample ID: 0907187-002B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9\N32019.D

Level: (low/med) LOW Date Received: 06/24/09

% Moisture: Decanted: (Y/N) N Date Extracted: 06/29/09

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/29/09

Injection Volume: 2 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) SEPF

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

GEI308 S29

JC 7/24/09 JAM 7/20/09

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPMW-25S

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI308

Matrix: (soil/water) WATER Lab Sample ID: 0907187-003A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A65446.D

Level: (low/med) LOW Date Received: 06/24/09

% Moisture: not dec. Date Analyzed: 06/30/09

GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
1634-04-4	Methyl tert-butyl ether	10	U
71-43-2	Benzene	10	U
108-88-3	Toluene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U

GEI308 S22

JC 7/24/09 7/24/09

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPMW-25S

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI308

Matrix: (soil/water) WATER Lab Sample ID: 0907187-003B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9\N32020.D

Level: (low/med) LOW Date Received: 06/24/09

% Moisture: Decanted: (Y/N) N Date Extracted: 06/29/09

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/29/09

Injection Volume: 2 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

GEI308 S30

JC 7/24/09 7/20/09

Duplicate of RPMW-25S

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DUP-01RP

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI308

Matrix: (soil/water) WATER Lab Sample ID: 0907187-005A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A65450.D

Level: (low/med) LOW Date Received: 06/24/09

% Moisture: not dec. Date Analyzed: 06/30/09

GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
1634-04-4	Methyl tert-butyl ether	10	U
71-43-2	Benzene	10	U
108-88-3	Toluene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U

GEI308 S24

JC 7/24/09 JSM 7/20/09

Duplicate of RPMW-25S

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DUP-01RP

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI308

Matrix: (soil/water) WATER Lab Sample ID: 0907187-005B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9\N32024.D

Level: (low/med) LOW Date Received: 06/24/09

% Moisture: Decanted: (Y/N) N Date Extracted: 06/29/09

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/29/09

Injection Volume: 2 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) SEPF

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

GEI308 S32

JC 7/24/09 JM 7/20/09

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPMW-26S

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI308

Matrix: (soil/water) WATER Lab Sample ID: 0907187-004A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A65447.D

Level: (low/med) LOW Date Received: 06/24/09

% Moisture: not dec. Date Analyzed: 06/30/09

GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
1634-04-4	Methyl tert-butyl ether	10	U
71-43-2	Benzene	10	U
108-88-3	Toluene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U

GEI308 S23

JC 7/24/09 7/20/09

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPMW-26S

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI308

Matrix: (soil/water) WATER Lab Sample ID: 0907187-004B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9\N32021.D

Level: (low/med) LOW Date Received: 06/24/09

% Moisture: Decanted: (Y/N) N Date Extracted: 06/29/09

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/29/09

Injection Volume: 2 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) SEPF

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

GEI308 S31

JC 7/24/09 JM 7/29/09

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB-062409-RP

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI308

Matrix: (soil/water) WATER Lab Sample ID: 0907187-006A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A65451.D

Level: (low/med) LOW Date Received: 06/24/09

% Moisture: not dec. Date Analyzed: 06/30/09

GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
1634-04-4	Methyl tert-butyl ether	10	U
71-43-2	Benzene	10	U
108-88-3	Toluene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U

GEI308 S25

JC 7/24/09 JSM 07/20/09

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB-062409-RP

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-GEI SAS No.: _____ SDG No.: GEI308

Matrix: (soil/water) WATER Lab Sample ID: 0907187-006B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9\N32025.D

Level: (low/med) LOW Date Received: 06/24/09

% Moisture: Decanted: (Y/N) N Date Extracted: 06/29/09

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/29/09

Injection Volume: 2 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) SEPF

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

GEI308 S33

JC 7/24/09 Jam 7/20/09

H2M LABS, INC.

27004

EXTERNAL CHAIN OF CUSTODY

575 Broad Hollow Rd, Melville, NY 11747-5076
Tel: (631) 694-3040 Fax: (631) 420-8436

CLIENT:

H2M SDG NO:

PROJECT NAME/NUMBER
N. Grid/ Rockaway Park GW Sampling Event
061140-17-2601

SAMPLERS: (signature)/Client
Evan Lucey/GEI

DELIVERABLES:
Cat. B

TURNAROUND TIME: 10 Days

NOTES:

Project Contact:
Matt O'Neil

Phone Number:
860-608-9725

PIS/Quote #

Sample Container Description: 40 mL vial w/HCl | 1 L amber glass

ANALYSIS REQUESTED

DATE	TIME	MATRIX	FIELD I.D.	Total No. of Containers	ORGANIC: VOA	BNA	Pest/PCB	BTEX	PAH			INORG.: Metal	CN	LAB I.D. NO.	REMARKS:
6/24/09	900	H2O	RPMW-265	12				6	6						MS/MSD
	1000		RPMW-255=DUP-01RP	4				2	2						
	145		RPMW-235	4				2	2						
	1230		RPMW-245	4				2	2						
	1250		FB-062409RP	4				2	2						
	—		DUP-01RP	4				2	2						
↓	—	↓	TB-062409RP	2				2							

	Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
		6/24/09	15:00		6-24-9	15:00
	Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

LABORATORY USE ONLY

Discrepancies Between Sample Labels and COC Record? Y or N
Explain:

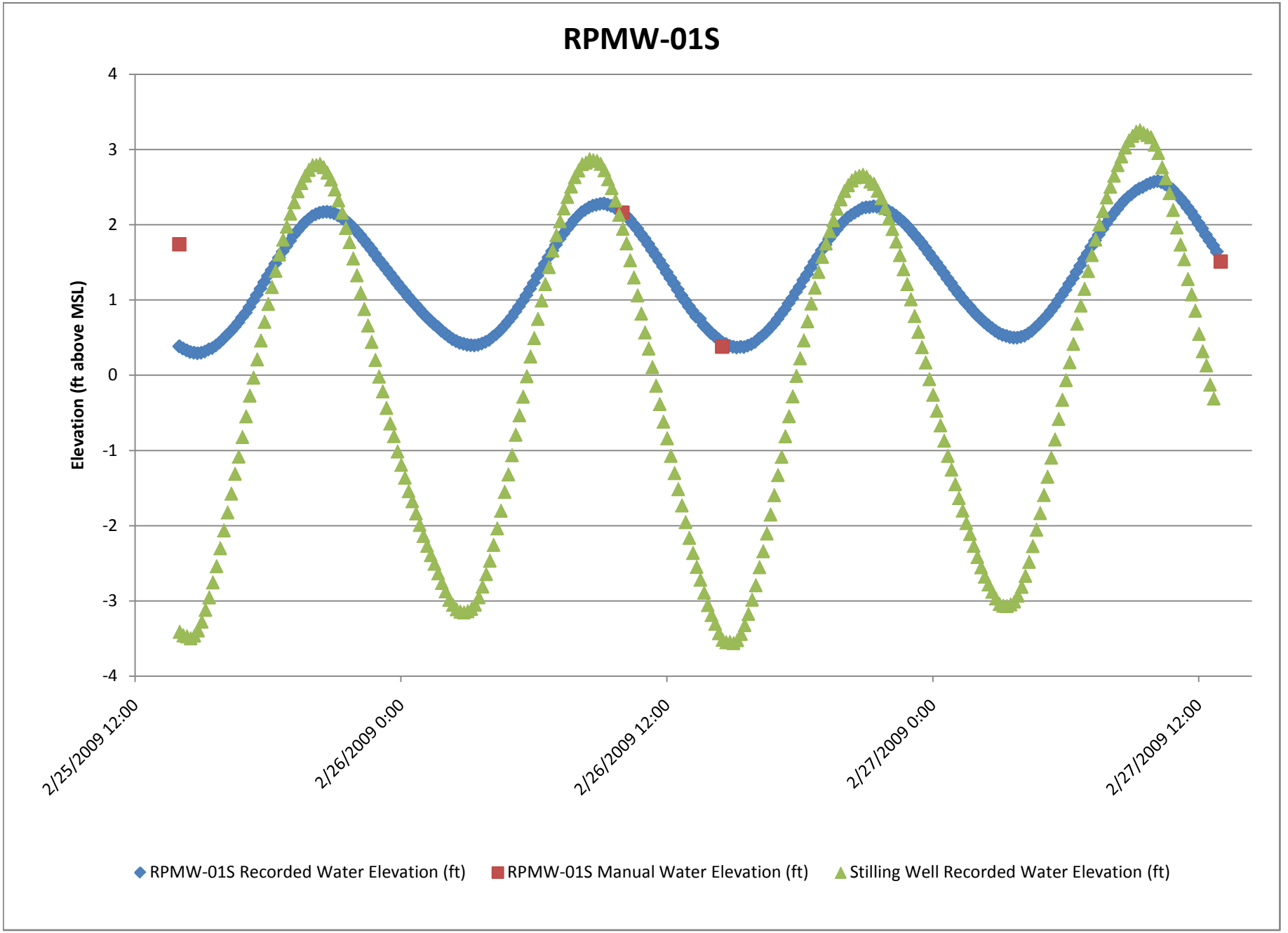
Samples were:
1. Shipped___ or Hand Delivered___ Airbill# _____
2. Ambient or chilled, Temp_____
3. Received in good condition: Y or N
4. Properly preserved: Y or N

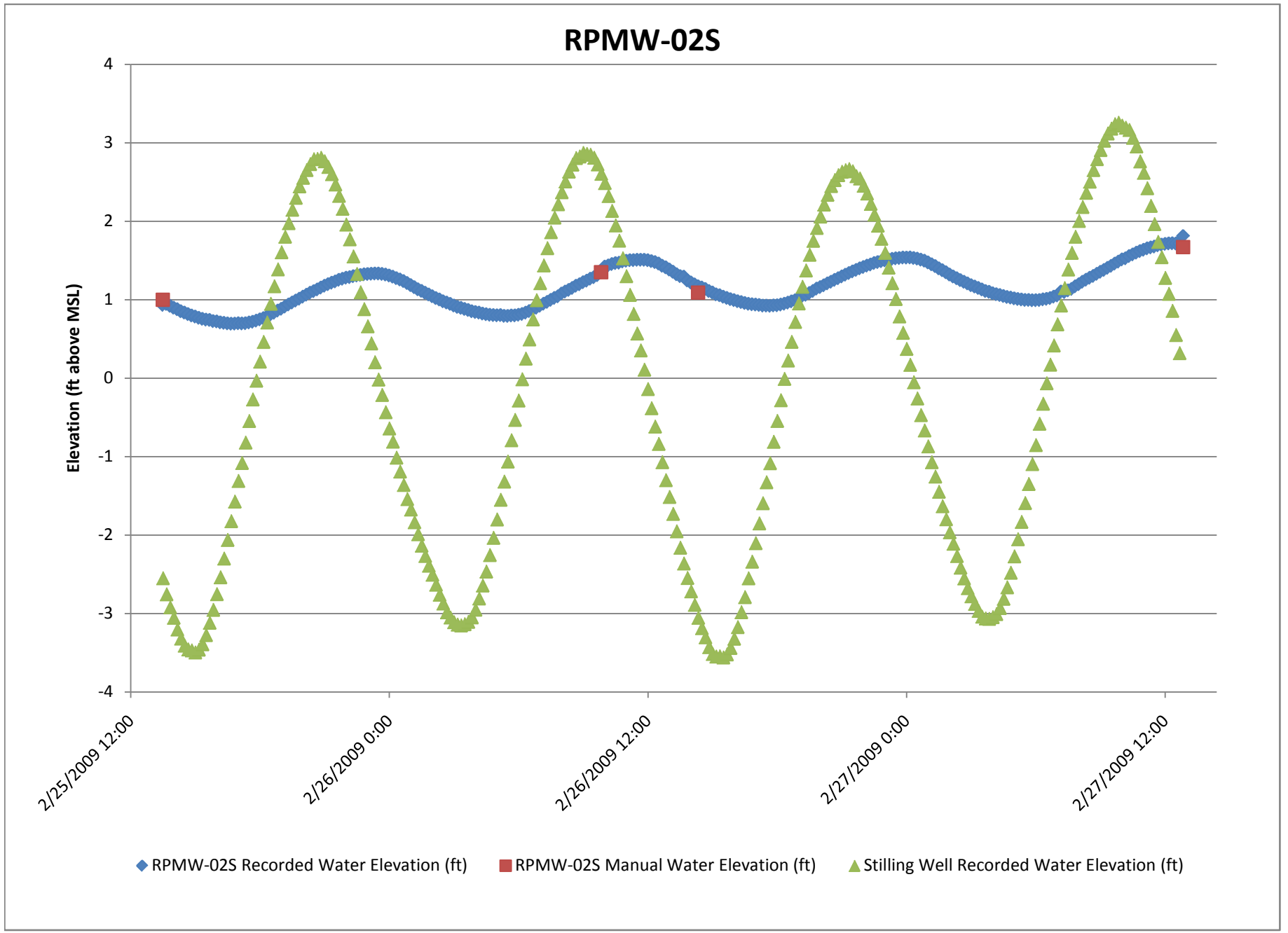
COC Tape was:
1. Present on outer package: Y or N
2. Unbroken on outer package: Y or N
3. COC record present & complete upon sample receipt: Y or N

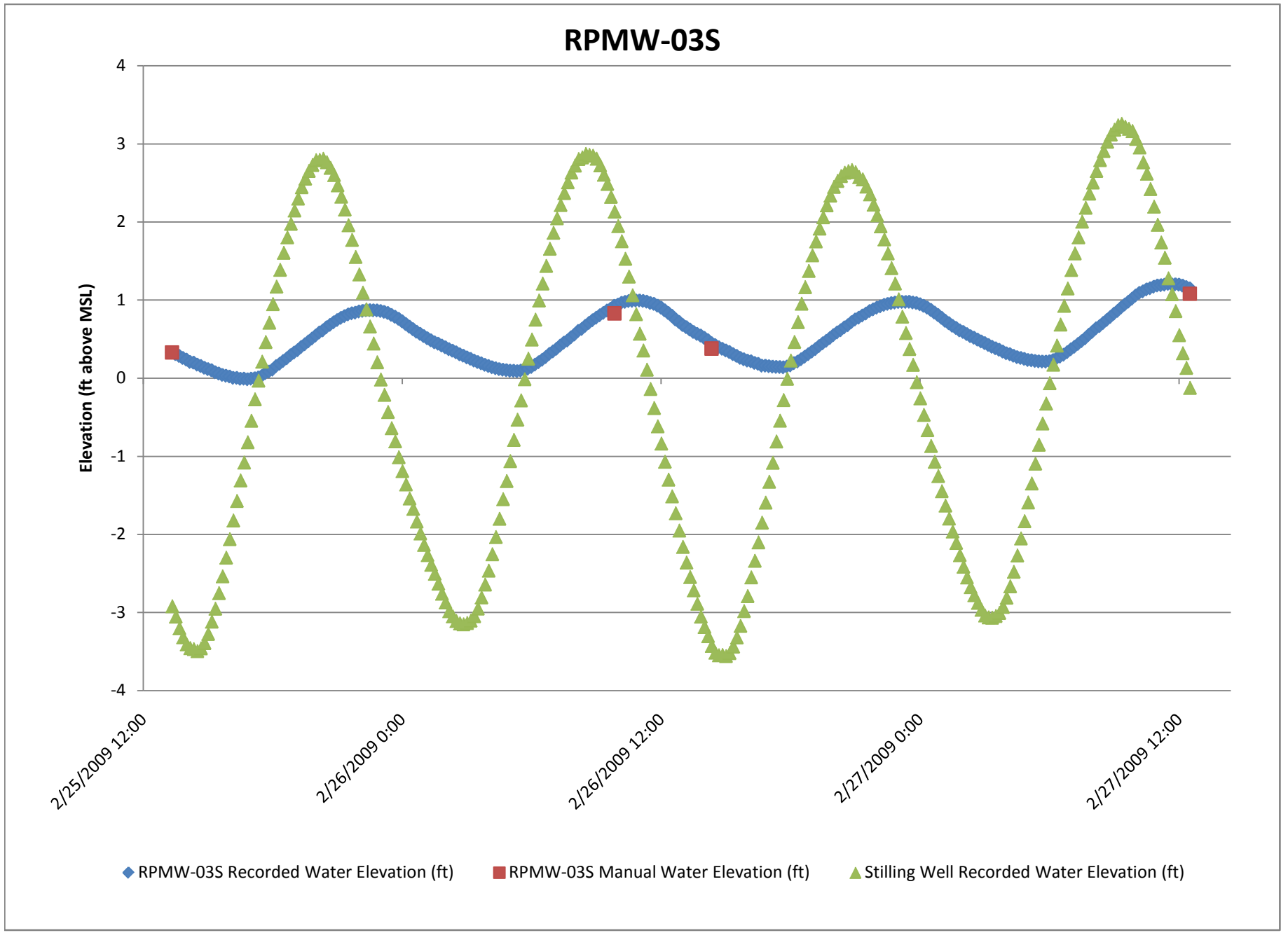
WHITE COPY - ORIGINAL YELLOW COPY - CLIENT PINK COPY - LABORATORY

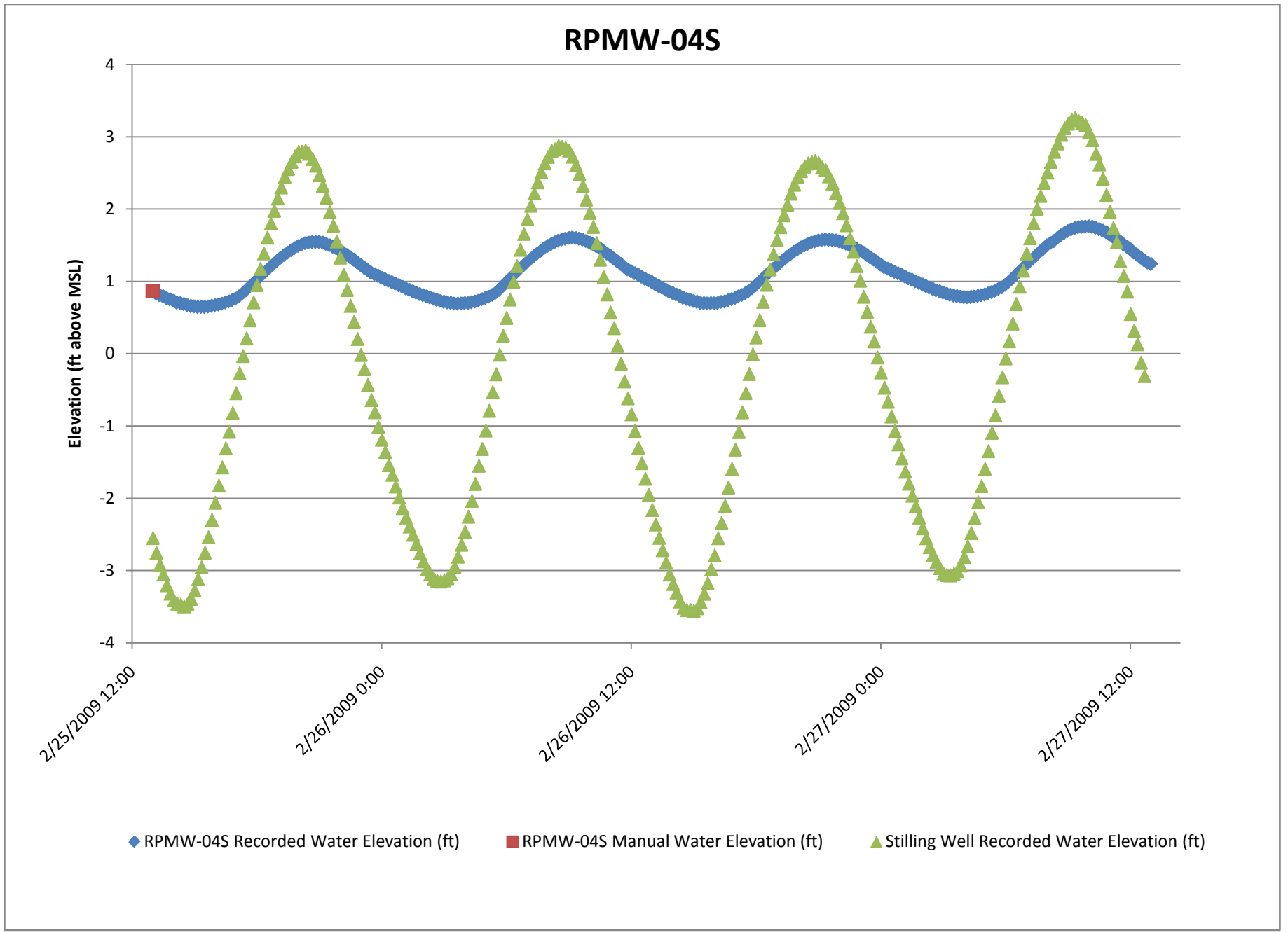
Appendix C

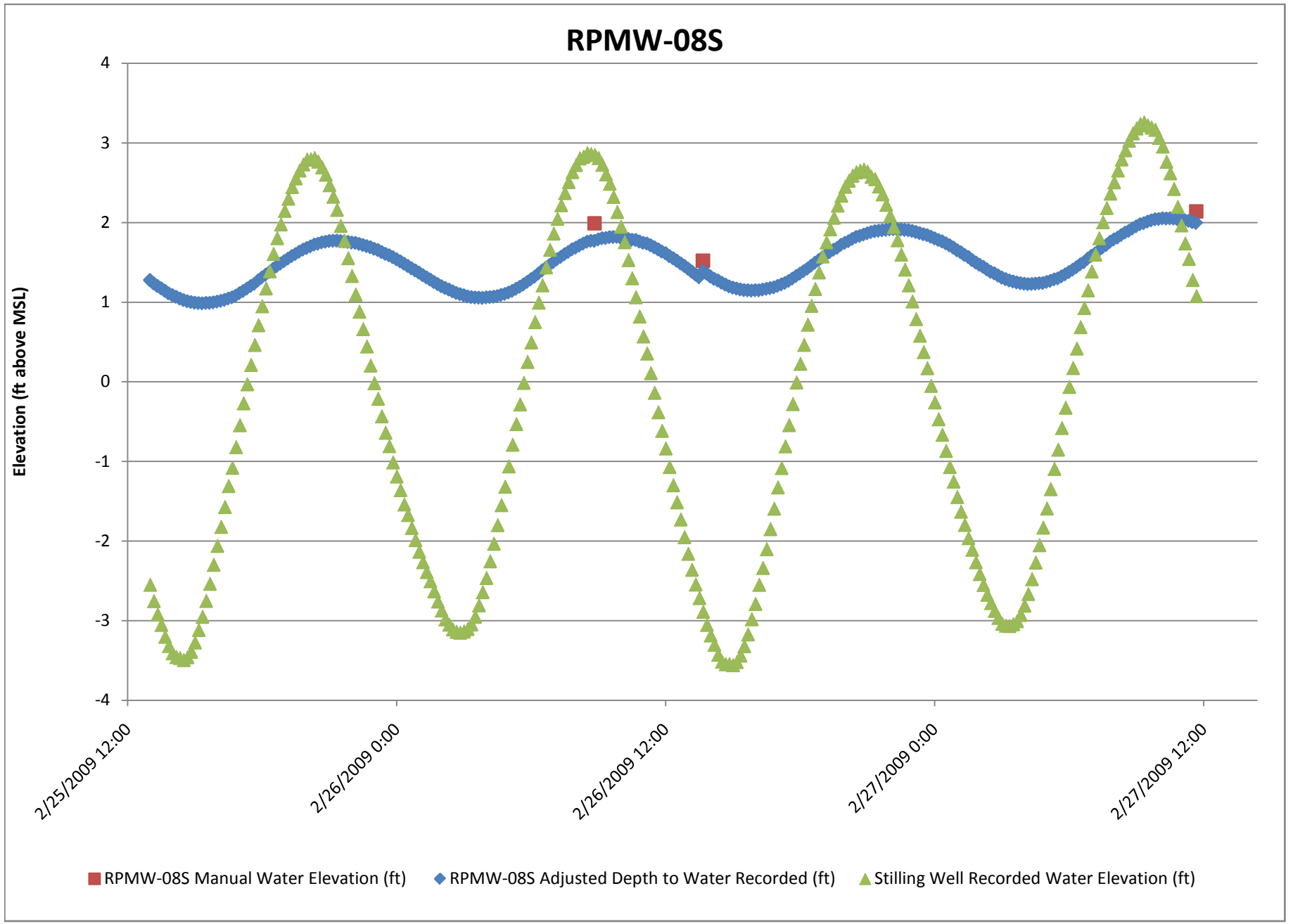
Tidal Study Monitoring Well Hydrographs

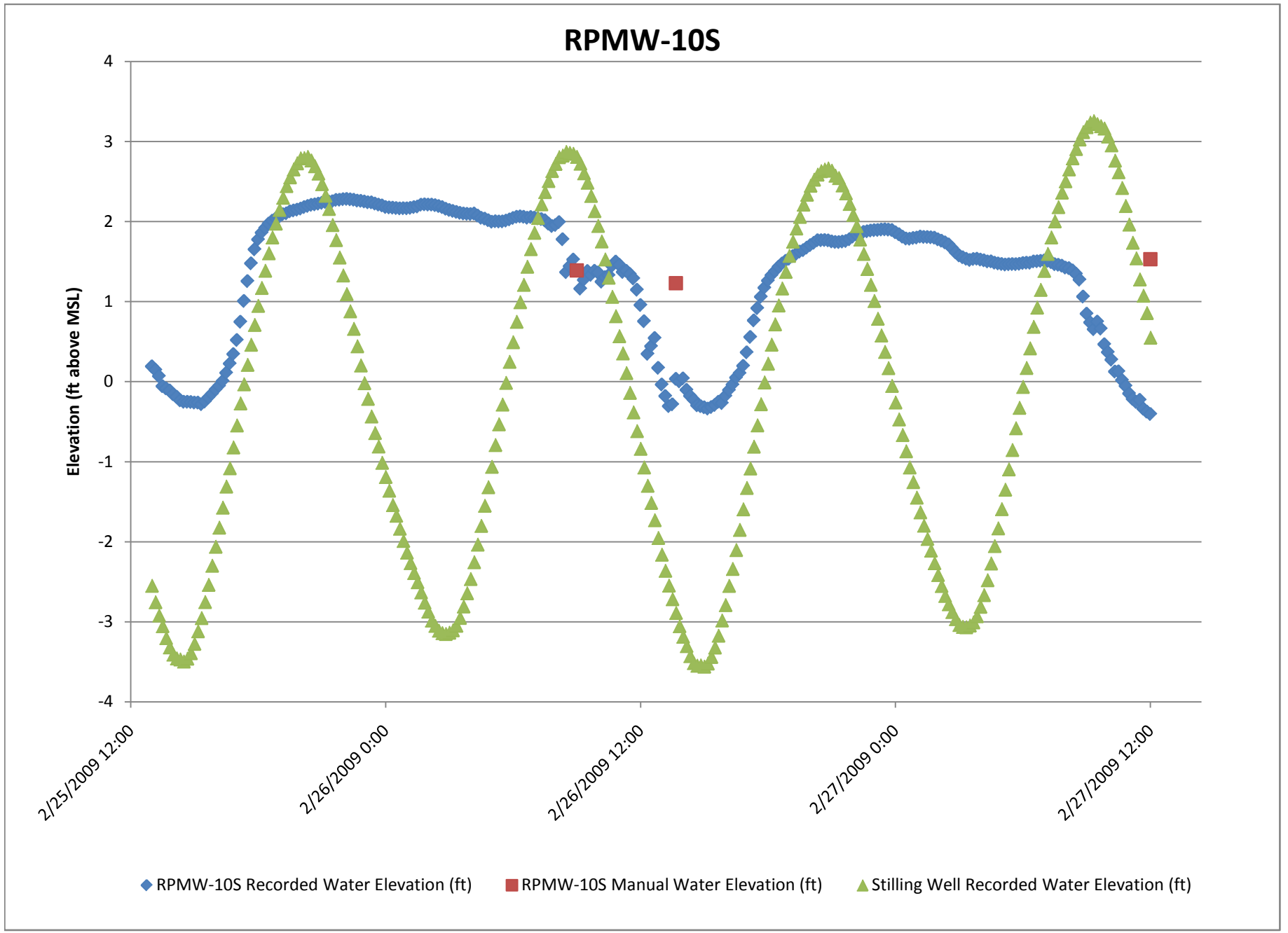

RPMW-01S
Elevation (ft above MSL)
4
3
2
1
0
-1
-2
-3
-4
2/25/2009 12:00
2/26/2009 0:00
2/26/2009 12:00
2/27/2009 0:00
2/27/2009 12:00
RPMW-01S Recorded Water Elevation (ft)
RPMW-01S Manual Water Elevation (ft)
Stilling Well Recorded Water Elevation (ft)

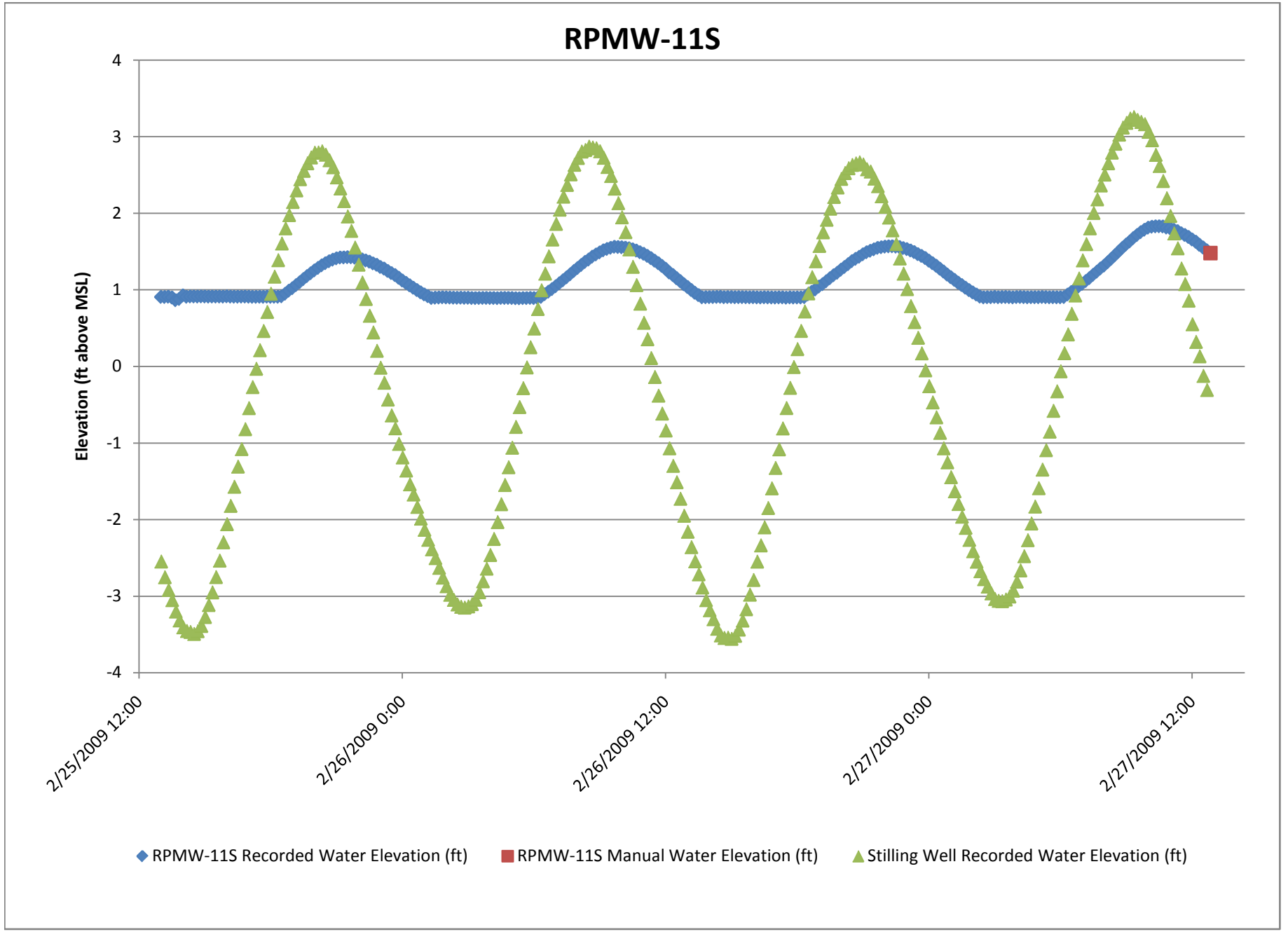

RPMW-02S
Elevation (ft above MSL)
4
3
2
1
0
-1
-2
-3
-4
2/25/2009 12:00
2/26/2009 0:00
2/26/2009 12:00
2/27/2009 0:00
2/27/2009 12:00
RPMW-02S Recorded Water Elevation (ft)
RPMW-02S Manual Water Elevation (ft)
Stilling Well Recorded Water Elevation (ft)

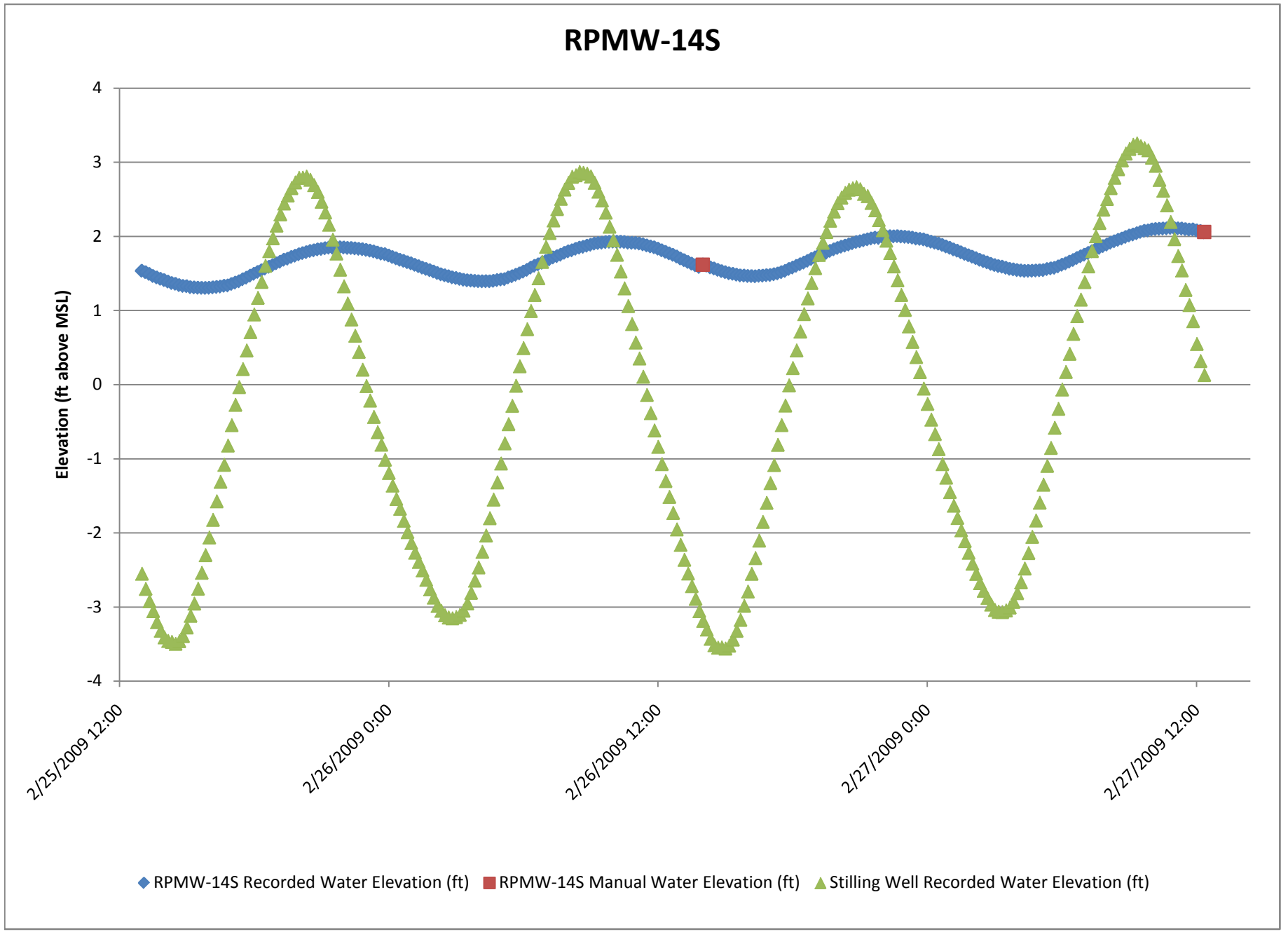

RPMW-03S
Elevation (ft above MSL)
4
3
2
1
0
-1
-2
-3
-4
2/25/2009 12:00
2/26/2009 0:00
2/26/2009 12:00
2/27/2009 0:00
2/27/2009 12:00
RPMW-03S Recorded Water Elevation (ft)
RPMW-03S Manual Water Elevation (ft)
Stilling Well Recorded Water Elevation (ft)

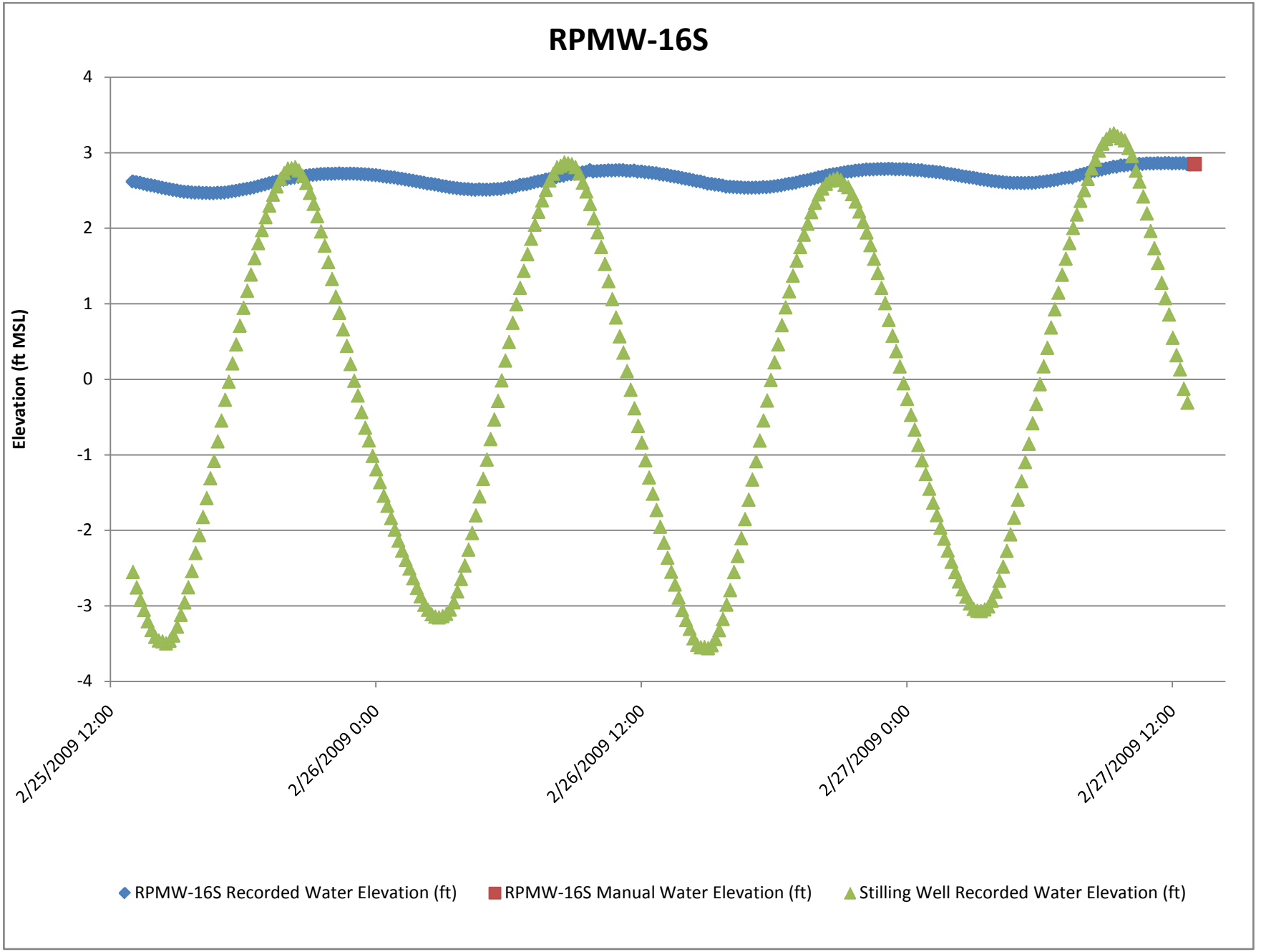

RPMW-04S
Elevation (ft above MSL)
4
3
2
1
0
-1
-2
-3
-4
2/25/2009 12:00
2/26/2009 0:00
2/26/2009 12:00
2/27/2009 0:00
2/27/2009 12:00
RPMW-04S Recorded Water Elevation (ft)
RPMW-04S Manual Water Elevation (ft)
Stilling Well Recorded Water Elevation (ft)

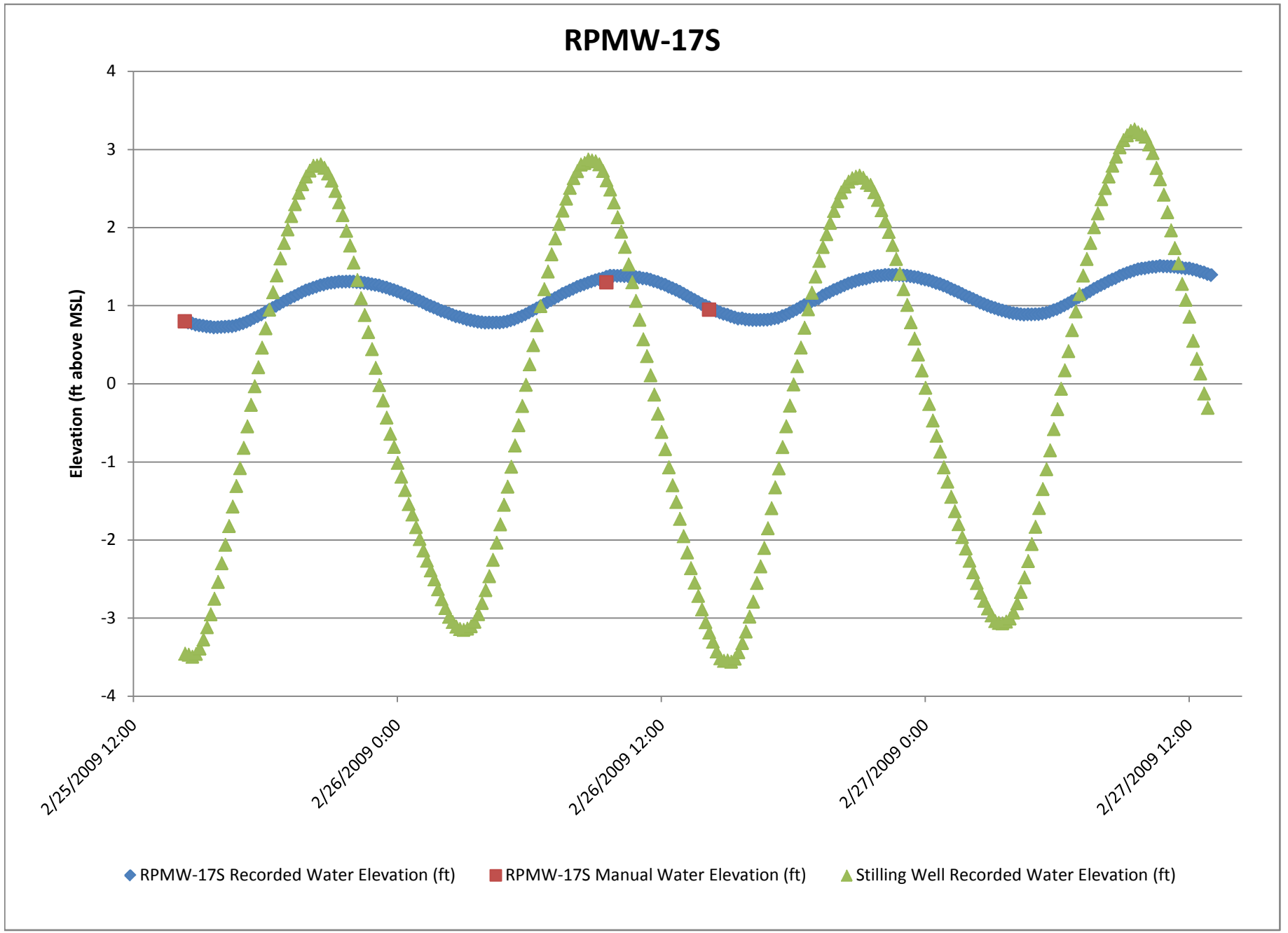

RPMW-08S
Elevation (ft above MSL)
4
3
2
1
0
-1
-2
-3
-4
2/25/2009 12:00
2/26/2009 0:00
2/26/2009 12:00
2/27/2009 0:00
2/27/2009 12:00
RPMW-08S Manual Water Elevation (ft)
RPMW-08S Adjusted Depth to Water Recorded (ft)
Stilling Well Recorded Water Elevation (ft)

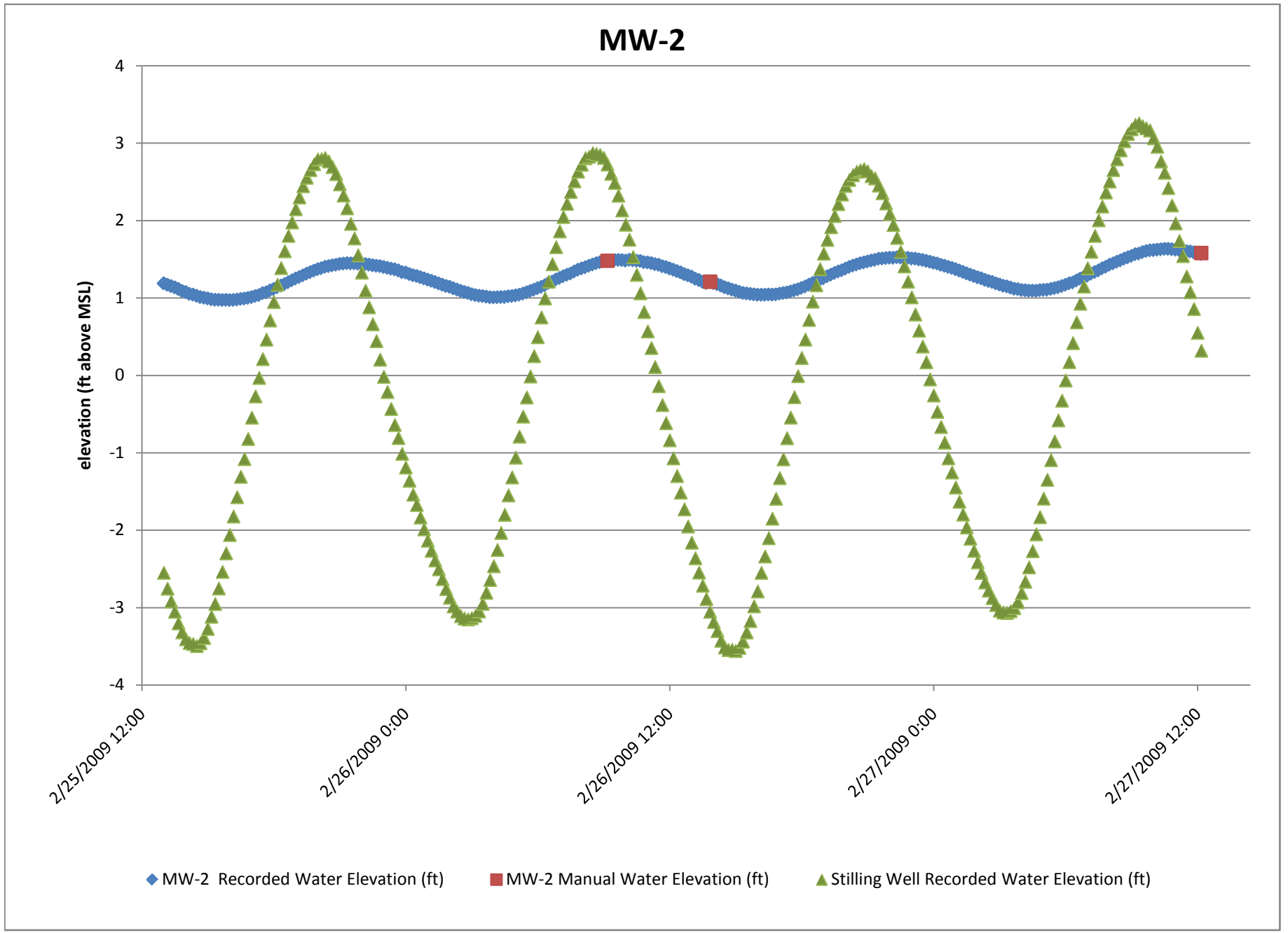

RPMW-10S
Elevation (ft above MSL)
4
3
2
1
0
-1
-2
-3
-4
2/25/2009 12:00
2/26/2009 0:00
2/26/2009 12:00
2/27/2009 0:00
2/27/2009 12:00
RPMW-10S Recorded Water Elevation (ft)
RPMW-10S Manual Water Elevation (ft)
Stilling Well Recorded Water Elevation (ft)

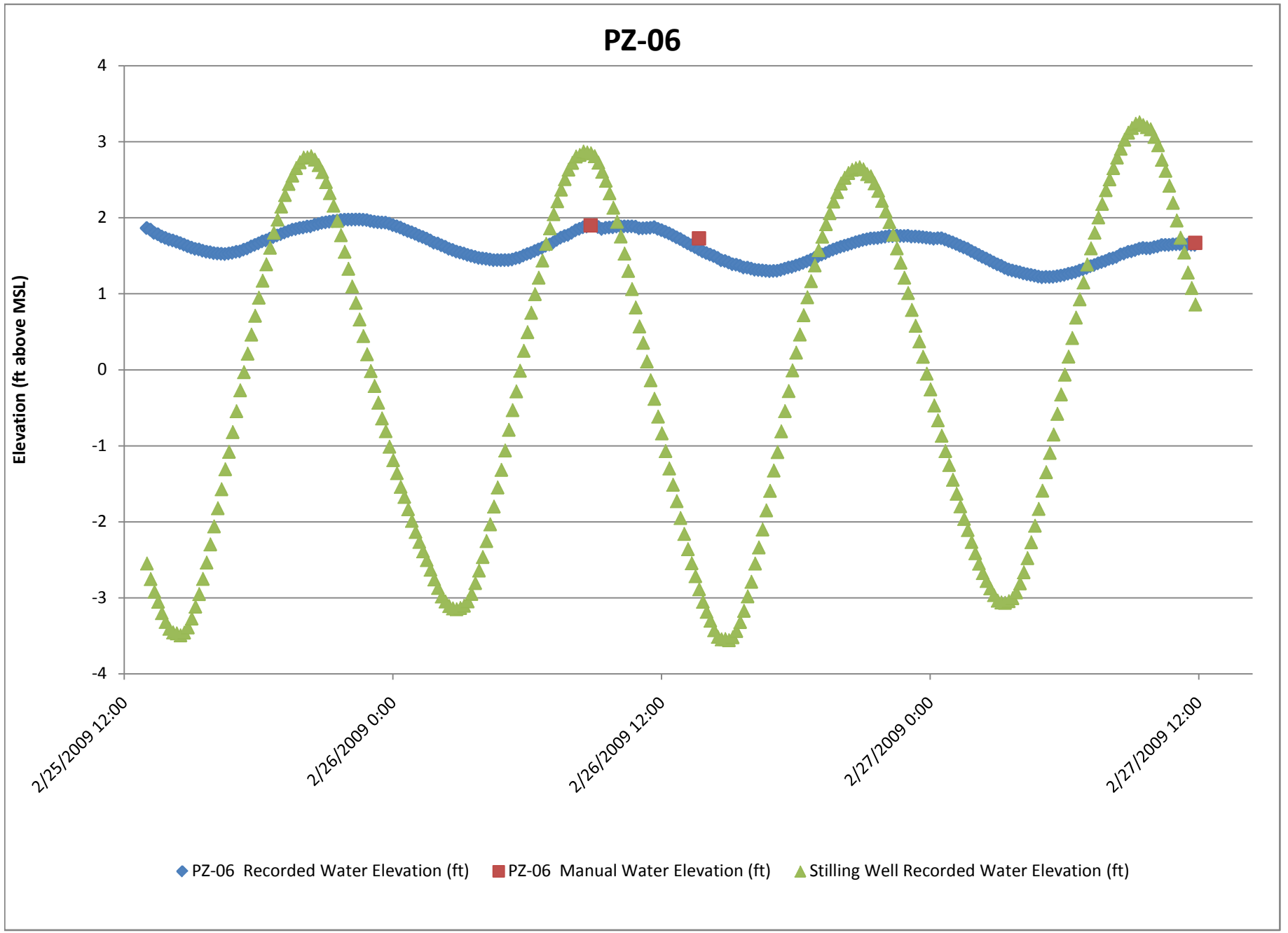

RPMW-11S
Elevation (ft above MSL)
4
3
2
1
0
-1
-2
-3
-4
2/25/2009 12:00
2/26/2009 0:00
2/26/2009 12:00
2/27/2009 0:00
2/27/2009 12:00
RPMW-11S Recorded Water Elevation (ft)
RPMW-11S Manual Water Elevation (ft)
Stilling Well Recorded Water Elevation (ft)

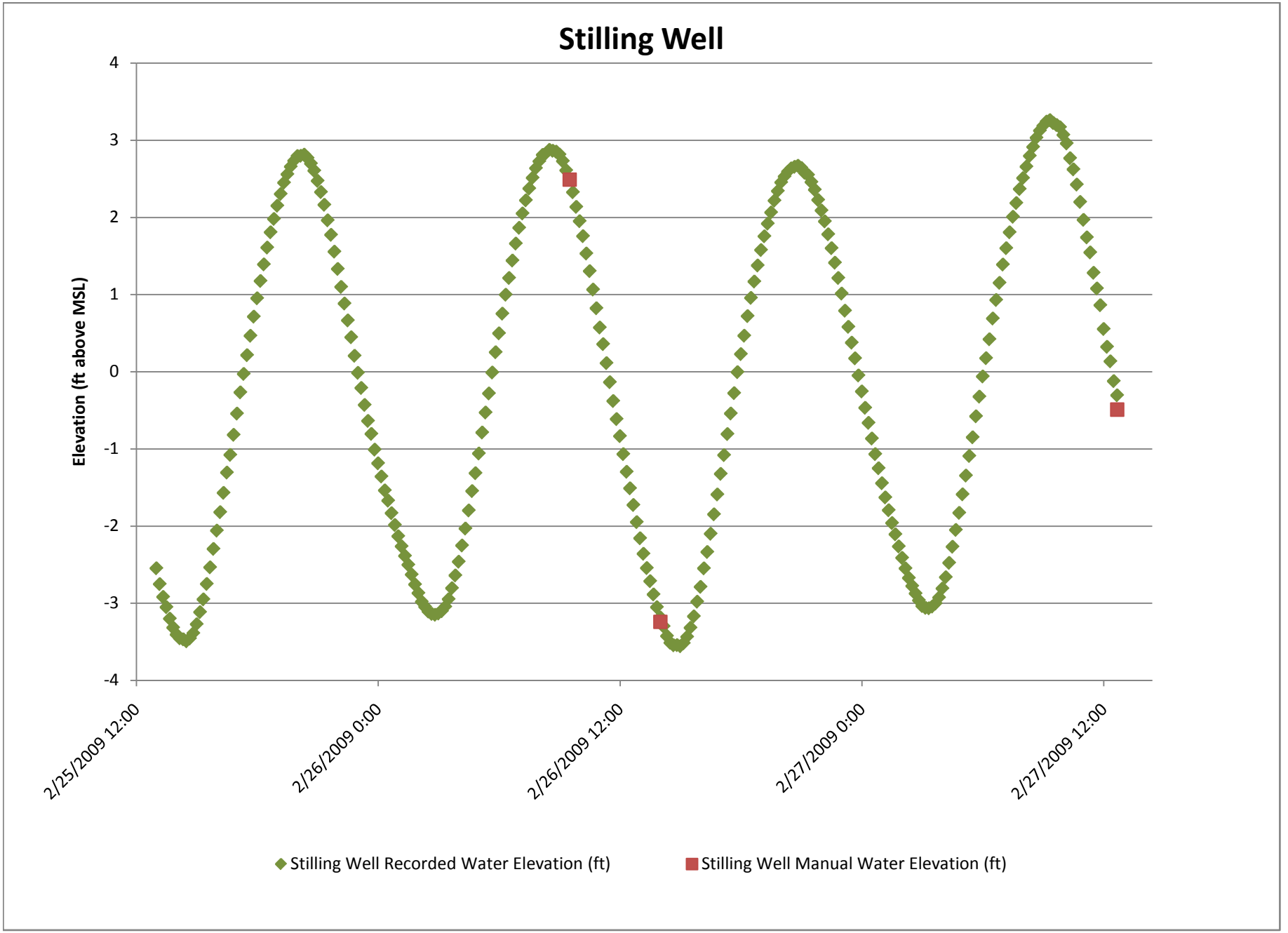

RPMW-14S
Elevation (ft above MSL)
4
3
2
1
0
-1
-2
-3
-4
2/25/2009 12:00
2/26/2009 0:00
2/26/2009 12:00
2/27/2009 0:00
2/27/2009 12:00
RPMW-14S Recorded Water Elevation (ft)
RPMW-14S Manual Water Elevation (ft)
Stilling Well Recorded Water Elevation (ft)


RPMW-16S
Elevation (ft MSL)
4
3
2
1
0
-1
-2
-3
-4
2/25/2009 12:00
2/26/2009 0:00
2/26/2009 12:00
2/27/2009 0:00
2/27/2009 12:00
RPMW-16S Recorded Water Elevation (ft)
RPMW-16S Manual Water Elevation (ft)
Stilling Well Recorded Water Elevation (ft)


RPMW-17S
Elevation (ft above MSL)
4
3
2
1
0
-1
-2
-3
-4
2/25/2009 12:00
2/26/2009 0:00
2/26/2009 12:00
2/27/2009 0:00
2/27/2009 12:00
RPMW-17S Recorded Water Elevation (ft)
RPMW-17S Manual Water Elevation (ft)
Stilling Well Recorded Water Elevation (ft)


MW-2
elevation (ft above MSL)
4
3
2
1
0
-1
-2
-3
-4
2/25/2009 12:00
2/26/2009 0:00
2/26/2009 12:00
2/27/2009 0:00
2/27/2009 12:00
MW-2 Recorded Water Elevation (ft)
MW-2 Manual Water Elevation (ft)
Stilling Well Recorded Water Elevation (ft)


PZ-06
Elevation (ft above MSL)
4
3
2
1
0
-1
-2
-3
-4
2/25/2009 12:00
2/26/2009 0:00
2/26/2009 12:00
2/27/2009 0:00
2/27/2009 12:00
PZ-06 Recorded Water Elevation (ft)
PZ-06 Manual Water Elevation (ft)
Stilling Well Recorded Water Elevation (ft)


Stilling Well
Elevation (ft above MSL)
4
3
2
1
0
-1
-2
-3
-4
2/25/2009 12:00
2/26/2009 0:00
2/26/2009 12:00
2/27/2009 0:00
2/27/2009 12:00
Stilling Well Recorded Water Elevation (ft)
Stilling Well Manual Water Elevation (ft)