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Semiannual Groundwater Monitoring Report - 2014 Site Management Plan Monitoring

**Far Rockaway Former Manufactured Gas Plant
Far Rockaway, Queens, New York
NYSDEC Site No.: 2-41-032
Order on Consent Index #: A2-0552-0606**

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1.0 Introduction

This report outlines the results of the monitoring well reconnaissance and baseline groundwater sampling performed by AECOM on behalf of National Grid at the Far Rockaway Former Manufactured Gas Plant (MGP) Site (Site) located in Queens, New York. Work was completed in general accordance with the April 10, 2014 *Work Plan for Monitoring Well Reconnaissance and Post-Excavation Baseline Groundwater Monitoring*. The Site location is shown on Figure 1. Groundwater sampling activities were performed to establish a baseline and assess the performance of natural attenuation processes and evaluate the status of dissolved phase impacts at the Site following the completion of soil excavation activities in 2014.

2.0 Background

AECOM submitted the Remedial Investigation Report (RI) [AECOM, September 2011] to the NYSDEC and received final approval on September 14, 2011. AECOM submitted the Feasibility Study Report (FS) [AECOM, February, 2011] to the NYSDEC and received final approval on February 14, 2012. The FS identified four remedial alternatives and provided a recommended remedy for the site. Based on the FS findings, the NYSDEC prepared the Proposed Remedial Action Plan (PRAP) and issued the Record of Decision (ROD) [NYSDEC, March 2012] in March 2012. The Remedial Design Work Plan (RDWP) was approved by the NYSDEC in December 2012. Remediation at the Site including soil removal of primary source material to a depth of approximately 15 feet was completed in 2013 and 2014, with site restoration activities completed in August of 2014. This report outlines the results of the first baseline sampling event performed following completion of the remedial action. Future groundwater monitoring will be performed on a semi-annual basis for a period of 3-years per agreement with the NYSDEC.

3.0 Site Activities

The following tasks were performed at the Site, in accordance with the approved Work Plan (AECOM, 2014) from September 2014 through December 2014:

3.1 Well Reconnaissance

A well reconnaissance was conducted for all site wells including the wells on the Long Island Railroad (LIRR) property. The following activities were completed during the well reconnaissance.

- A survey of the Site monitoring wells using a metal detector and GPS unit as needed to locate wells.
- Inspection of wells located during the survey to determine the condition of the wells for long-term monitoring.
- Gauging to determine well depths compared to constructed depths.

A detailed summary of well conditions and findings are summarized on Table 1. A site plan showing the groundwater monitoring network is provided on Figure 2.

3.2 Monitoring Well Replacement and Abandonment

Following the well reconnaissance it was determined that monitoring wells MW-113S, MW-113D, MW-118S, MW-118D, and MW-120 would need to be replaced. The wells (MW-113S, MW-113D, MW-118S, and MW-118D) located on the LIRR property required an updated access agreement between National Grid and LIRR. Access negotiations between National Grid and LIRR are ongoing. Once access is granted AECOM will complete well installation/development for wells MW-113S/D and MW-118 S/D per the work plan. On September 17, 2014, Zebra, with oversight by AECOM, re-installed monitoring well MW-120 using direct-push methods in accordance with monitoring well installation and development procedures provided in Appendix C of the RIWP. Following the installation, monitoring well MW-120 was developed to evacuate silts and other fine-grained sediments which may have accumulated within the well during its installation. During subsequent gauging in December 2014, it was determined that well MW-120 had been destroyed and covered by a rebar-enforced concrete pad that will eventually cover the majority of the 1263 Redfern Avenue property. As a result, no gauging data or sampling results are available from MW-120. Based on the groundwater sampling results presented in this report, National Grid is requesting that MW-120 be removed from the long-term groundwater monitoring network since there are data from an upgradient location (MW-110S) that contained non-detectable concentrations of constituents of interest (COI).

The following monitoring wells, MW-100, MW-109, MW-111S and MW-111D, were proposed for abandonment following well reconnaissance activities. Monitoring wells MW-100 and MW-111 S/D were not located during the well reconnaissance and are presumed to be destroyed as a result of asphalt paving in this area of the LIRR property. Given the nature of the ground surface (impervious asphalt), National Grid is requesting that no further efforts will be made to locate or abandon these monitoring wells in the future. Monitoring well MW-109, located on Brunswick Avenue, was abandoned on September 18, 2014, in accordance with the New York State Department of Environmental Conservation (NYSDEC) CP-43 protocols and the approved Work Plan. A well decommissioning record is included in Appendix A.

3.3 Community Air Monitoring

Community air monitoring was conducted during intrusive work activities at MW-120 to monitor concentrations of volatile organic compounds (VOCs) and particulate matter less than 10 microns in size (PM-10) in accordance with NYSDEC and New York State Department of Health (NYSDOH) guidance. Results of the monitoring indicated no exceedances of VOCs or particulates during intrusive activities.

3.4 Investigation Residuals Management

All soils, PPE/plastic, and purge water generated during investigation activities were drummed in properly labeled United States Department of Transportation (USDOT) approved storage containers (55-gallon drums). All investigation derived waste (IDW) was managed by National Grid and disposed of at an approved off-site facility on February 3, 2015.

3.5 Site Survey

A site survey of replacement monitoring wells sat LIRR will be conducted following replacement by a New York State-licensed surveyor under the direct supervision of AECOM. Vertical elevations will be surveyed to an accuracy of 0.01 of a foot. The horizontal locations of each point will be established from directly measuring from site features with an accuracy of 0.1 foot. Elevations will be referenced to the North American Vertical Datum of 1988 (NAVD88) and horizontal locations will be based upon the North American Datum of 1983 Long Island Grid of the New York State Coordinate System (NAD83 N.Y.L.I. – 3104).

3.6 Baseline Groundwater Sampling

AECOM completed the first semiannual groundwater sampling event (baseline) on December 2, 2014 and December 3, 2014. A synoptic round of static depth to groundwater measurements were collected at nine (9) existing site monitoring wells shown on Figure 2. Groundwater elevations are summarized in Table 2. After gauging each well, wells were purged and sampled using the low-flow sampling methods specified in the RIWP and United States Environmental Protection Agency (USEPA) Region 1 Guidance document titled “Low-Stress (low flow) Purging and Sampling Procedures for the Collection of Groundwater Samples from Monitoring Wells”(USEPA, 2006). During purging, water quality criteria, including temperature, specific conductance, pH, dissolved oxygen (DO), oxidation/reduction potential (ORP), and turbidity were recorded approximately every five minutes. With the exception of turbidity, these parameters were measured with a multi-parameter water quality meter attached to a continuous flow-through cell connected to the peristaltic pump discharge tubing. Turbidity was measured with a portable turbidity meter. Groundwater samples were collected once field parameters stabilized.

Final stabilized field parameter readings for key parameters from well purging and the primary monitored natural attenuation (MNA) parameters are summarized on Table 3. Monitoring well purging and groundwater sampling forms are included in Appendix B. All samples were packed in coolers with ice following collection and submitted under proper chain of custody to Pace Analytical in Melville, New York. The samples were analyzed for the following parameters:

- Volatile organic compounds (VOCs) by EPA Method 8260B
- Semi-volatile organic compounds (SVOCs) by EPA Method 8270C

Samples were also collected for geochemical and field parameters used to monitor natural attenuation conditions including:

- Field Parameters
 - Dissolved Oxygen (DO)
 - pH

- Oxidation Reduction Potential (ORP)
- Specific Conductivity
- Temperature
- Turbidity
- Geochemical Parameters
 - Carbon Dioxide
 - Methane
 - Nitrogen
 - Oxygen
 - Chemical Oxygen Demand
 - Ferrous Iron
 - Dissolved Iron
 - Total Sulfide
 - Sulfate
 - Total Manganese
 - Dissolved Manganese
 - Nitrate
 - Alkalinity

Laboratory results for COI are summarized on Table 4 and included along with data usability summary reports (DUSRs) and laboratory Form 1s in Appendix C. Due to a laboratory error, dissolved gases data for oxygen and nitrogen are not available and will be included in the subsequent sampling round.

4.0 Groundwater Flow

Synoptic water level measurements were collected on December 2, 2014. Groundwater level measurements were collected using an electronic oil/water interface probe accurate to 0.01 ft. Depth to water was measured from the surveyed elevation mark on the well riser. The probe was decontaminated between measurement locations in accordance with field procedures in the RI Work Plan. Depth to water measurements and calculated groundwater elevations are provided on Table 2.

Groundwater contour maps for the baseline monitoring event for shallow zone and deep zone wells are included in Figures 3 and 4. Results indicate groundwater flow in both the shallow and deep aquifer zones to be from east/southeast to west/northwest across the investigation area, consistent with historical findings presented in the RI report.

5.0 Results

The COI results of the groundwater samples collected during the baseline event are summarized on Table 4. The evaluation of the groundwater results is based on a comparison to the Ambient Water Quality Standards and Guidance Values (AWQSGVs) provided in the NYSDEC - Division of Water – Technical Operation Guidance Series (TOGS) (1.1.1) [NYSDEC, 1998, with addendums]. A total of nine (9) groundwater samples and one (1) duplicate sample were collected during the current sampling event.

5.1 VOCs

No VOCs were detected at or above the AWQSGVs at any of the wells sampled.

5.2 SVOCs

Naphthalene was detected and exceeded the AWQSGV standard at 57 µg/L at one deep well location, MW-119D. Acenaphthalene was also detected at MW-119D at a concentration of 24 µg/L. No other SVOC compounds exceeded the standards or guidance values.

5.3 Metals

Dissolved manganese and total manganese were detected above the GWQS in four (4) out of the nine (9) samples collected at concentrations ranging from 320 µg/L (MW-119D) to 560 µg/L (MW-123D). The concentrations of manganese are considered indicative of regional/background conditions in the site area.

5.4 Monitored Natural Attenuation Evaluation

Monitored natural attenuation (MNA) refers to natural processes that reduce mass, concentration, and mobility of dissolved phase impacts in groundwater over time. These processes include a combination of physical, chemical, or biological mechanisms such as dilution, dispersion, sorption, volatilization, and biodegradation. Reducing concentrations and extent of dissolved COI over time represent the primary line of evidence that natural attenuation is occurring. Secondary lines of evidence to support MNA include an evaluation of geochemical conditions in the aquifer to determine whether biodegradation is occurring, as biodegradation processes often result in the largest reduction in contaminant mass relative to other natural attenuation mechanisms.

5.4.1 Concentrations of COI Versus Time

Concentrations of COI versus time are presented in Appendix D. As shown, at locations where prior data are available from the RI, the majority of the wells contain lower concentrations of dissolved phase COI in the December 2014 sample event compared to earlier times. Additional monitoring will be required to confirm these initial findings.

5.4.2 Geochemical Parameters

To evaluate whether biodegradation of dissolved constituents is occurring at the site, groundwater samples were collected and analyzed for geochemical parameters and principal terminal electron acceptors (TEAs) used by microbes to biodegrade dissolved phase COIs in groundwater.

A summary of the primary geochemical parameters and TEAs sampled is provided in Table 3. In summary, the pattern of geochemical parameters/TEAs at the site in the plume relative to the former gas holder source area at 1224 Brunswick Avenue is predictable and consistent with literature findings. For example, oxygen in groundwater is the preferred TEA for microbes under aerobic conditions because it provides the most energy to the microbes. When oxygen is depleted anaerobic microbes will use nitrate, ferric iron, sulfate, and at times carbon dioxide as TEAs. When these conditions are occurring, there is typically a noted reduction in the concentrations of TEAs or an increase in their reduced byproducts (such as ferrous iron and/or methane) at wells within the COI plume or just downgradient of the plume in the plume “shadow” relative to background upgradient wells. As outlined on Table 3, the shallow zone well data provide strong evidence that biodegradation is occurring based on the following results:

- Dissolved oxygen is lower in downgradient wells (MW-110S and MW-119S) compared to background (MW-107 and MW-116S), indicating that DO is being consumed through aerobic biodegradation processes within the plume.
- ORP is lower in downgradient wells compared to background. ORP is a measure of the energy yield in the groundwater available to the microbes during the respiration process. Highly positive ORP values indicate areas where reactions are taking place under aerobic conditions (high energy yield to microbes), while lower to negative values indicate areas where anaerobic reactions (lower energy yield to microbes) predominate. The average ORP results show low ORP values in areas of reduced DO downgradient and crossgradient of the former source area with higher ORP values at background (upgradient) wells.
- Nitrate concentrations are reduced in downgradient wells compared to background.
- Ferrous iron concentrations are elevated in downgradient wells compared to background.
- Sulfate concentrations are reduced in downgradient wells compared to background.
- Alkalinity is elevated in downgradient wells compared to background. Alkalinity in groundwater is driven by the presence of carbon dioxide, which is generated by microbial activity within the plume area relative to background/upgradient areas.

Combined these results provide strong evidence that natural biodegradation is occurring in shallow zone wells. The geochemical results for deeper zone wells are less pronounced and predictable. A comparison of average data in downgradient wells (MW-110D, MW-119D, MW-122, and MW-123) compared to upgradient well MW-116D indicates:

- Slightly reduced sulfate concentrations in downgradient/cross-gradient wells compared to background.
- Elevated alkalinity concentrations in downgradient/cross-gradient wells compared to background.

Additional monitoring over time will be required to confirm these initial findings for deep zone wells.

6.0 Continuing Activities

The second semi-annual sampling event (SA-2) is scheduled for completion in June of 2015. Results will be provided in a semi-annual report. When access is obtained at the LIRR wells outlined for sampling and/or replacement in the approved work plan including MW-105S/D (sampling only), MW-113 S/D, and MW-118 S/D will be replaced, developed, and sampled.

Results of any LIRR sampling that takes place before the second semi-annual sampling event will be provided as an addendum to this baseline sampling report.

Tables

Table 1
Well Reconnaissance and Well Status Summary
Far Rockaway Former MGP Site
Far Rockaway, NY

Well ID	Well Design Depth (ft bgs)	Measured Well Depth (ft below toc)	Comments
MW-100	13	NM	Well not located and presumed destroyed by LIRR construction activities (paving). No further action requested.
MW-105S	15	14.91	Well in good condition. The monitoring well is located on the LIRR property, once access is granted AECOM will conduct groundwater sampling activities.
MW-105D	41	40.85	Well in good condition. The monitoring well is located on the LIRR property, once access is granted AECOM will conduct groundwater sampling activities.
MW-107	14	13.25	Well in good condition
MW-109	17.5	15.38	Well abandoned per Work Plan
MW-110	17	12.61	Well in good condition
MW-110D	39	39.34	Well in good condition
MW-111S	13.5	NM	Well not located and presumed destroyed by LIRR construction activities (paving). No further action requested.
MW-111D	37.8	NM	Well not located and presumed destroyed by LIRR construction activities (paving). No further action requested.
MW-113S	13.5	NM	Well not located and presumed destroyed by LIRR construction activities (paving). The monitoring well is located on the LIRR property, once access is granted the well will be replaced and sampled.
MW-113D	37.8	NM	Well not located and presumed destroyed by LIRR construction activities (paving). The monitoring well is located on the LIRR property, once access is granted the well will be replaced and sampled.
MW-116S	14	12.42	Well is in good condition.
MW-116D	40.4	38.70	Well is in good condition.
MW-118S	15	NM	Could not locate well. The monitoring well is located on the LIRR property, once access is granted AECOM will replace the monitoring well.
MW-118D	41	NM	Could not locate well. The monitoring well is located on the LIRR property, once access is granted AECOM will replace the monitoring well.
MW-119S	14.5	9.13	Well in good condition
MW-119D	38.5	38.19	Well in good condition
MW-120	NA	NM	Original well and replacement well destroyed by property owner concrete paving work. No additional replacement well planned pending NYSDEC approval.
MW-122D	36.7	35.91	Well in good condition
MW-123D	36.7	33.82	Well in good condition
MW-124S	13.2	NM	Well not located and presumed destroyed.
MW-125S	13.2	NM	Well not located and presumed destroyed.

NA = Not available

NM = Not measured (the monitoring well could not be located)

bgs=below ground surface

toc=top of casing

Table 2
Monitoring Well Construction, Survey Elevations, and Water Level Gauging Results
Far Rockaway Former MGP Site
Far Rockaway, NY

MW ID	Ground Surface Elevation (FT NAVD 88)	Top of Casing Elevation (FT NAVD 88)	Well Diameter	Screen Slot	Screened Interval (ft bgs)	Sump Interval (ft bgs)	02-Dec-14		Groundwater Elevations (ft)
							DTW (ft btoc)	DTB (ft btoc)	2-Dec-14
MW-107	--	9.38	2-inch	0.010	3.5-13.5	13.5-14	4.39	13.25	4.99
MW-110	--	7.35	2-inch	0.010	3.5-15	15-17	3.42	12.61	3.93
MW-110D	7.65	7.35	2-inch	0.010	27-37	37-39	3.26	39.34	4.09
MW-116S	--	11.47	2-inch	0.010	3.5-13.5	13.5-14	5.98	12.42	5.49
MW-116D	--	11.25	2-inch	0.010	29.9-39.9	39.9-40.4	5.80	38.70	5.45
MW-119S	7.69	7.44	2-inch	0.020	2.5-12.5	12.5-14.5	3.41	9.13	4.03
MW-119D	7.70	7.01	2-inch	0.020	26.5-36.5	36.5-38.5	2.74	38.19	4.27
*MW-120	7.34	6.84	2-inch	0.010	3-13	13-15	NM	NM	NA
MW-122D	8.49	8.19	1-inch	0.010	26.5-36.5	36.5-36.7	4.25	35.91	3.94
MW-123D	8.57	8.19	1-inch	0.010	26.5-36.5	36.5-36.7	4.48	33.82	3.71

Notes:

DTW = Depth to water from the top of casing/pvc

DTB = Depth to bottom of the well from the top of casing/pvc

bgs = Below Ground Surface

btoc = Below Top of Casing

-- = Not available

* = MW-120 destroyed in 2014 as a result of paving in the area .

FT NAVD 88 - Feet North American Vertical Datum of 1988

S = Shallow zone wells

D = Deep zone wells

ft = feet

Table 3
Summary of Geochemical Results Indicative of Biodegradation
Far Rockaway Former MGP Site
Far Rockaway, NY

Well	DO (mg/L)	ORP (mV)	Nitrate	Ferrous Iron*	Sulfate	Alkalinity	Notes
MW-107	10.89	264	2,960	25.0	24,300	19,600	Background/upgradient
MW-1116S	6.04	213	3,200	25.0	15,300	36,200	Background/upgradient
MW-119S	1.14	224	980	25.0	25,700	94,900	Downgradient plume in shadow zone
MW-110S	5.53	-62.0	50.0	3,100	42,700	105,000	Downgradient plume centerline in shadow zone
	DO (mg/L)	ORP (mV)	Nitrate	Ferrous Iron*	Sulfate	Alkalinity	
<i>Average Background</i>	8.47	239	3,080	25.0	19,800	27,900	Based on MW-107 and MW-116S
<i>Average Plume Downgradient/Shadow Zone</i>	3.34	81.0	515	1,563	34,200	99,950	Based on MW-110S and 119S

Well	DO (mg/L)	ORP (mV)	Nitrate	Ferrous Iron*	Sulfate	Alkalinity	Notes
MW-116D	0.77	235	1,730	150 J	61,100	17,200	Background/upgradient
MW-122D	9.01	287	3,310	25.0	48,800	11,600	Downgradient/cross-gradient
MW-119D	1.02	226	2,130	25.0	45,700	46,500	Downgradient plume centerline
MW-110D	10.41	39.0	500	52.0	41,300	78,800	Downgradient plume centerline
MW-123D	0.68	293	2,930	25.0	48,200	12,500	Downgradient
	DO (mg/L)	ORP (mV)	Nitrate	Ferrous Iron*	Sulfate	Alkalinity	
<i>Background</i>	0.77	235	1,730	150 J	61,100	17,200	Based on MW-116D data
<i>Downgradient in Plume</i>	1.02	226	2,130	25.0	45,700	46,500	Based on MW-119D data
<i>Average Plume Downgradient/Cross-gradient</i>	6.70	206	2,247	34.0	46,100	34,300	Based on MW-122, 110, and 123 data

Notes:

All concentrations in u/L unless otherwise noted.

* = At locations with non-detect results, half the detection limit used.

J = Estimated concentration.

DO=Dissolved oxygen

Table 4
Groundwater Analytical Data Summary - December 2014
Far Rockaway Former MGP Site
Far Rockaway, NY

Sample Location Sample Date Sample ID Laboratory Identification	CAS Number	NYSDEC Groundwater Guidance or Standard Value ¹	MW-107 12/2/2014 MW-107-120214 1412295	MW-110 12/3/2014 MW-110-120314 1412295	MW-110D 12/3/2014 MW-110D-120314 1412295	MW-116D 12/2/2014 MW-116D-120214 1412295	MW-116S 12/2/2014 MW-116S-120214 1412295
BTEX (ug/L)							
Benzene	71-43-2	1	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Ethylbenzene	100-41-4	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Toluene	108-88-3	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Xylenes (total)	1330-20-7	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Total BTEX			< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Volatile Organic Compounds (VOCs) (ug/L)							
1,1,1-Trichloroethane	71-55-6	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
1,1,2,2-Tetrachloroethane	79-34-5	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	5	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ
1,1,2-Trichloroethane	79-00-5	1	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
1,1-Dichloroethane	75-34-3	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
1,1-Dichloroethene	75-35-4	5	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ
1,2,4-Trichlorobenzene	120-82-1	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
1,2-Dibromo-3-chloropropane	96-12-8	0.04	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
1,2-Dibromoethane	106-93-4	0.0006	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
1,2-Dichlorobenzene	95-50-1	3	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
1,2-Dichloroethane	107-06-2	0.6	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
1,2-Dichloropropane	78-87-5	1	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
1,3-Dichlorobenzene	541-73-1	3	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
1,4-Dichlorobenzene	106-46-7	3	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2-Butanone	78-93-3	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2-Hexanone	591-78-6	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
4-Methyl-2-pentanone	108-10-1	NL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Acetone	67-64-1	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Bromodichloromethane	75-27-4	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Bromoform	75-25-2	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Bromomethane	74-83-9	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Carbon disulfide	75-15-0	60	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ
Carbon tetrachloride	56-23-5	5	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ
Chlorobenzene	108-90-7	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Chloroethane	75-00-3	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Chloroform	67-66-3	7	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Chloromethane	74-87-3	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
cis-1,2-Dichloroethene	156-59-2	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
cis-1,3-Dichloropropene	10061-01-5	0.4	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Cyclohexane	110-82-7	NL	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ
Dibromochloromethane	124-48-1	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Dichlorodifluoromethane	75-71-8	5	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ
Isopropylbenzene	98-82-8	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Methane	74-82-8	NL	< 1.0 U	42	5.6	< 1.0 U	63
Methyl acetate	79-20-9	NL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Methyl tert-butyl ether	1634-04-4	10	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Methylcyclohexane	108-87-2	NL	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ
Methylene chloride	75-09-2	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Styrene	100-42-5	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Tetrachloroethene	127-18-4	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
trans-1,2-Dichloroethene	156-60-5	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
trans-1,3-Dichloropropene	10061-02-6	0.4	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Trichloroethene	79-01-6	5	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ
Trichlorofluoromethane	75-69-4	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Vinyl chloride	75-01-4	2	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Total VOCs			< 10 U	42	5.6		63
Polynuclear Aromatic Hydrocarbons (PAHs) (ug/L)							
2-Methylnaphthalene	91-57-6	NL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Acenaphthene	83-32-9	20	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Acenaphthylene	208-96-8	NL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Anthracene	120-12-7	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Benzo(a)anthracene	56-55-3	0.002	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Benzo(a)pyrene	50-32-8	0	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Benzo(b)fluoranthene	205-99-2	0.002	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Benzo(ghi)perylene	191-24-2	NL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Benzo(k)fluoranthene	207-08-9	0.002	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Chrysene	218-01-9	0.002	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Dibenz(a,h)anthracene	53-70-3	NL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Fluoranthene	206-44-0	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Fluorene	86-73-7	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Indeno(1,2,3-cd)pyrene	193-39-5	0.002	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Naphthalene	91-20-3	10	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Phenanthrene	85-01-8	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Pyrene	129-00-0	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Total PAHs			< 10 U	< 10 U	< 10 U	< 10 U	< 10 U

Table 4
Groundwater Analytical Data Summary - December 2014
Far Rockaway Former MGP Site
Far Rockaway, NY

Sample Location Sample Date Sample ID Laboratory Identification	CAS Number	NYSDEC Groundwater Guidance or Standard Value ¹	MW-107 12/2/2014 MW-107-120214 1412295	MW-110 12/3/2014 MW-110-120314 1412295	MW-110D 12/3/2014 MW-110D-120314 1412295	MW-116D 12/2/2014 MW-116D-120214 1412295	MW-116S 12/2/2014 MW-116S-120214 1412295
Other Semivolatile Organic Compounds (SVOCs) (ug/L)							
1,1'-Biphenyl	92-52-4	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2,2'-oxybis(1-Chloropropane)	108-60-1	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2,4,5-Trichlorophenol	95-95-4	NL	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U
2,4,6-Trichlorophenol	88-06-2	NL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2,4-Dichlorophenol	120-83-2	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2,4-Dimethylphenol	105-67-9	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2,4-Dinitrophenol	51-28-5	10	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U
2,4-Dinitrotoluene	121-14-2	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2,6-Dinitrotoluene	606-20-2	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2-Chloronaphthalene	91-58-7	10	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2-Chlorophenol	95-57-8	NL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2-Methylphenol	95-48-7	NL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2-Nitroaniline	88-74-4	5	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U
2-Nitrophenol	88-75-5	NL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
3,3'-Dichlorobenzidine	91-94-1	5	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ
3-Nitroaniline	99-09-2	5	< 25 UJ	< 25 UJ	< 25 UJ	< 25 UJ	< 25 UJ
4,6-Dinitro-2-methylphenol	534-52-1	NL	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U
4-Bromophenyl phenyl ether	101-55-3	NL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
4-Chloro-3-methylphenol	59-50-7	NL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
4-Chloroaniline	106-47-8	5	< 10 U	< 10 U	< 10 UJ	< 10 U	< 10 U
4-Chlorophenyl phenyl ether	7005-72-3	NL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
4-Methylphenol	106-44-5	NL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
4-Nitroaniline	100-01-6	5	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U
4-Nitrophenol	100-02-7	NL	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U
Acetophenone	98-86-2	NL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Atrazine	1912-24-9	7.5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Benzaldehyde	100-52-7	NL	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ
bis(2-Chloroethoxy)methane	111-91-1	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
bis(2-Chloroethyl) ether	111-44-4	1	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
bis(2-Ethylhexyl) phthalate	117-81-7	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Butyl benzyl phthalate	85-68-7	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Caprolactam	105-60-2	NL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Carbazole	86-74-8	NL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Dibenzofuran	132-64-9	NL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Diethyl phthalate	84-66-2	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Dimethyl phthalate	131-11-3	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Di-n-butyl phthalate	84-74-2	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Di-n-octyl phthalate	117-84-0	NL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Hexachlorobenzene	118-74-1	0.4	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Hexachlorobutadiene	87-68-3	0.5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Hexachlorocyclopentadiene	77-47-4	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Hexachloroethane	67-72-1	5	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ
Isophorone	78-59-1	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Nitrobenzene	98-95-3	0.4	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
N-Nitrosodi-n-propylamine	621-64-7	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
N-Nitrosodiphenylamine	86-30-6	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Pentachlorophenol	87-86-5	1	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U
Phenol	108-95-2	1	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Total Other SVOCs			< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
MNA (ug/L)							
Alkalinity, Total (As CaCO ₃)	ALK	NL	19600	105000	78800	17200	36200
Carbon Dioxide	124-38-9	NL	21100	14500	24400	37700	18600
Chemical Oxygen Demand (COD)	COD	NL	< 10000 U	< 10000 U	< 10000 U	< 10000 U	< 10000 U
Ferrous Iron	C-FE+2	NL	< 50 UJ	3100 J	52 J	150 J	< 50 UJ
Dissolved Iron	7439-89-6	300	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U
Dissolved Manganese	7439-96-5	300	18	70	150	450	< 15 U
Total Manganese	7439-96-5	300	37	120	210	450	< 15 U
Nitrate as N	14797-55-8	NL	2960	< 100 U	500	1730	3200
Nitrite as N	14797-65-0	NL	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U
Sulfate	14808-79-8	NL	24300	42700	41300	61100	15300
Total Sulfide	18496-25-8	NL	< 2000 U	< 2000 U	< 2000 U	< 2000 U	< 2000 U

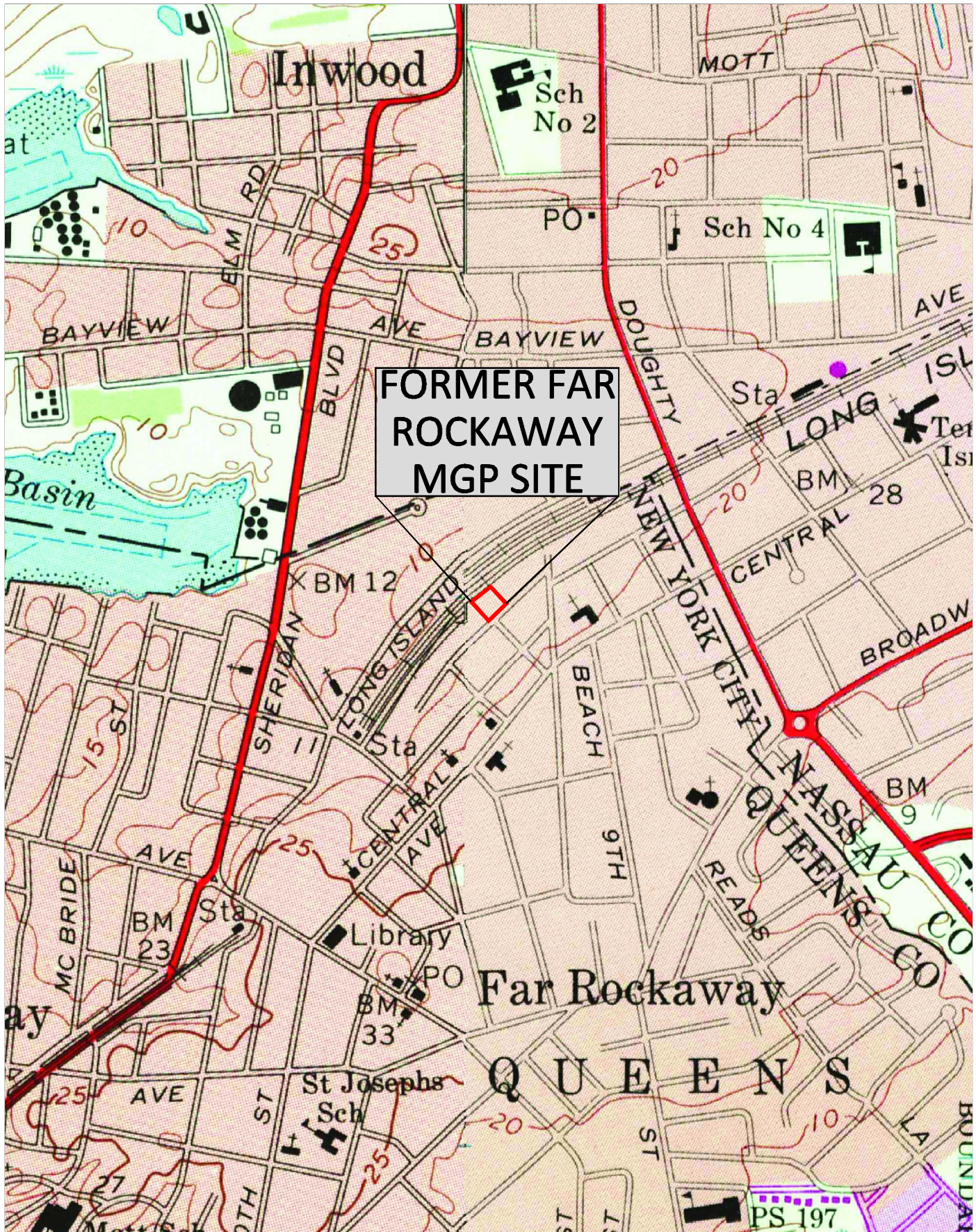
Table 4
Groundwater Analytical Data Summary - December 2014
Far Rockaway Former MGP Site
Far Rockaway, NY

Sample Location Sample Date Sample ID Laboratory Identification	CAS Number	NYSDEC Groundwater Guidance or Standard Value ¹	MW-119D 12/3/2014 MW-119D-120314 1412295	MW-119S 12/3/2014 DUP-01-120314 1412295	MW-119S 12/3/2014 MW-119S-120314 1412295	MW-122D 12/2/2014 MW-122D-120214 1412295	MW-123D 12/3/2014 MW-123D-120314 1412295
BTEX (ug/L)							
Benzene	71-43-2	1	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Ethylbenzene	100-41-4	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Toluene	108-88-3	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Xylenes (total)	1330-20-7	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Total BTEX			< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Volatile Organic Compounds (VOCs) (ug/L)							
1,1,1-Trichloroethane	71-55-6	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
1,1,2,2-Tetrachloroethane	79-34-5	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	5	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ
1,1,2-Trichloroethane	79-00-5	1	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
1,1-Dichloroethane	75-34-3	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
1,1-Dichloroethene	75-35-4	5	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ
1,2,4-Trichlorobenzene	120-82-1	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
1,2-Dibromo-3-chloropropane	96-12-8	0.04	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
1,2-Dibromoethane	106-93-4	0.0006	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
1,2-Dichlorobenzene	95-50-1	3	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
1,2-Dichloroethane	107-06-2	0.6	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
1,2-Dichloropropane	78-87-5	1	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
1,3-Dichlorobenzene	541-73-1	3	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
1,4-Dichlorobenzene	106-46-7	3	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2-Butanone	78-93-3	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2-Hexanone	591-78-6	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
4-Methyl-2-pentanone	108-10-1	NL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Acetone	67-64-1	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Bromodichloromethane	75-27-4	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Bromoform	75-25-2	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Bromomethane	74-83-9	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Carbon disulfide	75-15-0	60	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ
Carbon tetrachloride	56-23-5	5	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ
Chlorobenzene	108-90-7	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Chloroethane	75-00-3	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Chloroform	67-66-3	7	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Chloromethane	74-87-3	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
cis-1,2-Dichloroethene	156-59-2	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
cis-1,3-Dichloropropene	10061-01-5	0.4	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Cyclohexane	110-82-7	NL	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ
Dibromochloromethane	124-48-1	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Dichlorodifluoromethane	75-71-8	5	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ
Isopropylbenzene	98-82-8	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Methane	74-82-8	NL	2.6	5.8	4.7	< 1.0 U	< 1.0 U
Methyl acetate	79-20-9	NL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Methyl tert-butyl ether	1634-04-4	10	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Methylcyclohexane	108-87-2	NL	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ
Methylene chloride	75-09-2	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Styrene	100-42-5	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Tetrachloroethene	127-18-4	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
trans-1,2-Dichloroethene	156-60-5	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
trans-1,3-Dichloropropene	10061-02-6	0.4	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Trichloroethene	79-01-6	5	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ
Trichlorofluoromethane	75-69-4	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Vinyl chloride	75-01-4	2	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Total VOCs			2.6	5.8	4.7	< 10 U	< 10 U
Polynuclear Aromatic Hydrocarbons (PAHs) (ug/L)							
2-Methylnaphthalene	91-57-6	NL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Acenaphthene	83-32-9	20	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Acenaphthylene	208-96-8	NL	24	< 10 U	< 10 U	< 10 U	< 10 U
Anthracene	120-12-7	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Benzo(a)anthracene	56-55-3	0.002	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Benzo(a)pyrene	50-32-8	0	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Benzo(b)fluoranthene	205-99-2	0.002	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Benzo(ghi)perylene	191-24-2	NL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Benzo(k)fluoranthene	207-08-9	0.002	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Chrysene	218-01-9	0.002	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Dibenz(a,h)anthracene	53-70-3	NL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Fluoranthene	206-44-0	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Fluorene	86-73-7	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Indeno(1,2,3-cd)pyrene	193-39-5	0.002	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Naphthalene	91-20-3	10	57	< 10 U	< 10 U	< 10 U	< 10 U
Phenanthrene	85-01-8	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Pyrene	129-00-0	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Total PAHs			81	< 10 U	< 10 U	< 10 U	< 10 U

Table 4
Groundwater Analytical Data Summary - December 2014
Far Rockaway Former MGP Site
Far Rockaway, NY

Sample Location Sample Date Sample ID Laboratory Identification	CAS Number	NYSDEC Groundwater Guidance or Standard Value ¹	MW-119D 12/3/2014 MW-119D-120314 1412295	MW-119S 12/3/2014 DUP-01-120314 1412295	MW-119S 12/3/2014 MW-119S-120314 1412295	MW-122D 12/2/2014 MW-122D-120214 1412295	MW-123D 12/3/2014 MW-123D-120314 1412295
Other Semivolatile Organic Compounds (SVOCs) (ug/L)							
1,1'-Biphenyl	92-52-4	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2,2'-oxybis(1-Chloropropane)	108-60-1	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2,4,5-Trichlorophenol	95-95-4	NL	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U
2,4,6-Trichlorophenol	88-06-2	NL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2,4-Dichlorophenol	120-83-2	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2,4-Dimethylphenol	105-67-9	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2,4-Dinitrophenol	51-28-5	10	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U
2,4-Dinitrotoluene	121-14-2	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2,6-Dinitrotoluene	606-20-2	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2-Chloronaphthalene	91-58-7	10	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2-Chlorophenol	95-57-8	NL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2-Methylphenol	95-48-7	NL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2-Nitroaniline	88-74-4	5	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U
2-Nitrophenol	88-75-5	NL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
3,3'-Dichlorobenzidine	91-94-1	5	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ
3-Nitroaniline	99-09-2	5	< 25 UJ	< 25 UJ	< 25 UJ	< 25 UJ	< 25 UJ
4,6-Dinitro-2-methylphenol	534-52-1	NL	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U
4-Bromophenyl phenyl ether	101-55-3	NL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
4-Chloro-3-methylphenol	59-50-7	NL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
4-Chloroaniline	106-47-8	5	< 10 UJ	< 10 UJ	< 10 UJ	< 10 U	< 10 UJ
4-Chlorophenyl phenyl ether	7005-72-3	NL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
4-Methylphenol	106-44-5	NL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
4-Nitroaniline	100-01-6	5	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U
4-Nitrophenol	100-02-7	NL	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U
Acetophenone	98-86-2	NL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Atrazine	1912-24-9	7.5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Benzaldehyde	100-52-7	NL	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ
bis(2-Chloroethoxy)methane	111-91-1	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
bis(2-Chloroethyl) ether	111-44-4	1	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
bis(2-Ethylhexyl) phthalate	117-81-7	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Butyl benzyl phthalate	85-68-7	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Caprolactam	105-60-2	NL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Carbazole	86-74-8	NL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Dibenzofuran	132-64-9	NL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Diethyl phthalate	84-66-2	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Dimethyl phthalate	131-11-3	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Di-n-butyl phthalate	84-74-2	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Di-n-octyl phthalate	117-84-0	NL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Hexachlorobenzene	118-74-1	0.4	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Hexachlorobutadiene	87-68-3	0.5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Hexachlorocyclopentadiene	77-47-4	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Hexachloroethane	67-72-1	5	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ
Isophorone	78-59-1	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Nitrobenzene	98-95-3	0.4	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
N-Nitrosodi-n-propylamine	621-64-7	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
N-Nitrosodiphenylamine	86-30-6	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Pentachlorophenol	87-86-5	1	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U
Phenol	108-95-2	1	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Total Other SVOCs			81	< 10 U	< 10 U	< 10 U	< 10 U
MNA (ug/L)							
Alkalinity, Total (As CaCO ₃)	ALK	NL	46500	94900	97400	11600	12500
Carbon Dioxide	124-38-9	NL	36900	18500	18600	35100	39300
Chemical Oxygen Demand (COD)	COD	NL	< 10000 U	< 10000 U	< 10000 U	< 10000 U	< 10000 U
Ferrous Iron	C-FE+2	NL	< 50 UJ	< 50 UJ	< 50 UJ	< 50 UJ	< 50 UJ
Dissolved Iron	7439-89-6	300	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U
Dissolved Manganese	7439-96-5	300	320	< 15 U	< 15 U	540	560
Total Manganese	7439-96-5	300	320	< 15 U	< 15 U	540	580
Nitrate as N	14797-55-8	NL	2130	980	980	3310	2930
Nitrite as N	14797-65-0	NL	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U
Sulfate	14808-79-8	NL	45700	25700	25800	48800	48200
Total Sulfide	18496-25-8	NL	< 2000 U	< 2000 U	< 2000 U	< 2000 U	< 2000 U

Figures



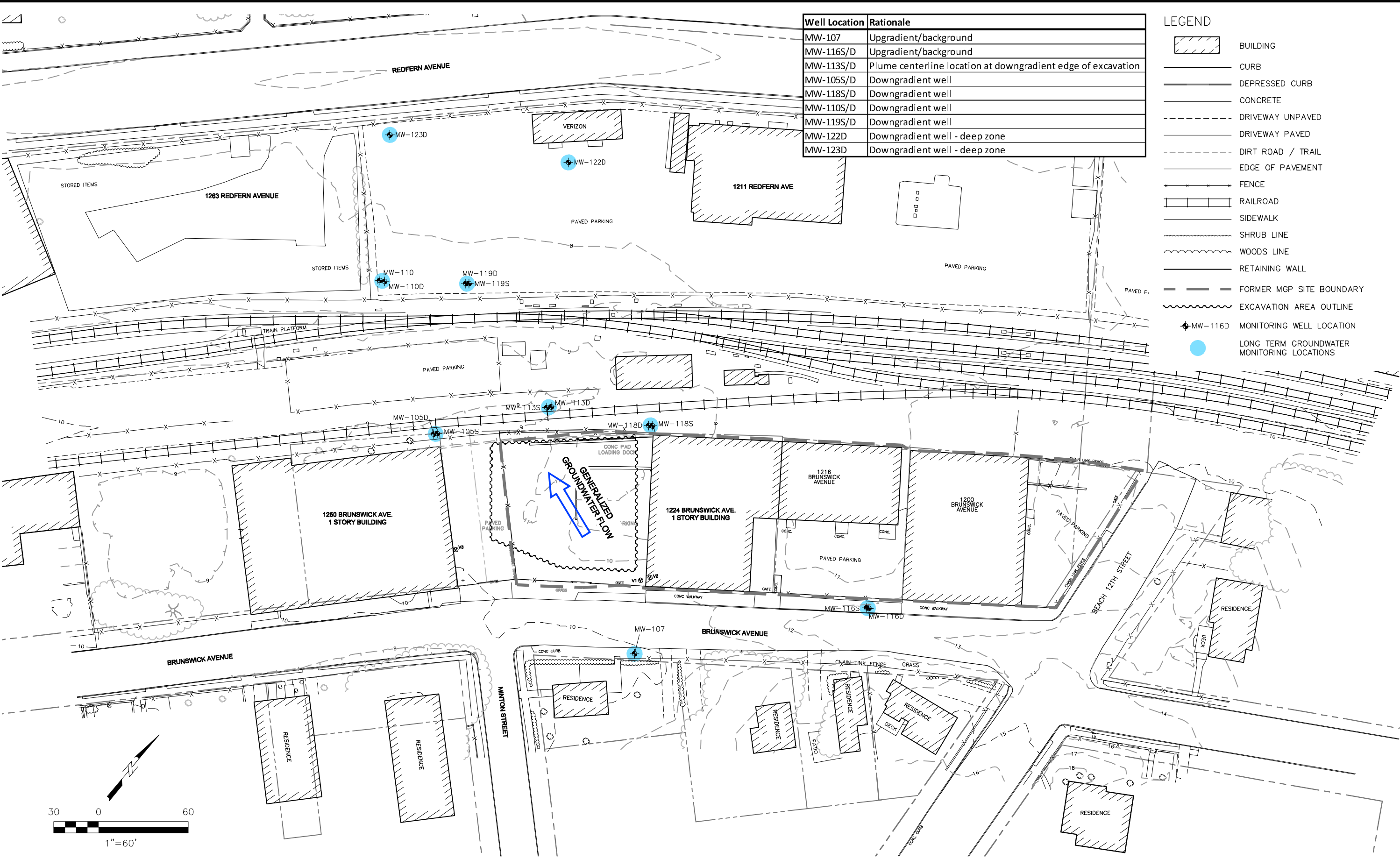
NATIONAL GRID
FORMER FAR ROCKAWAY MGP SITE

SITE LOCATION MAP

DATE: 01/24/15 DRWN: RCW

FIGURE 1

File: J:\Rem_Eng\Project Files\National Grid\01765-067 Far Rockaway Former MGP\7.2 CADD & GIS\ER\Groundwater Monitoring Network-FER.dwg Layout: GW Monitoring Network User: warren Plotted: Jan 23, 2015

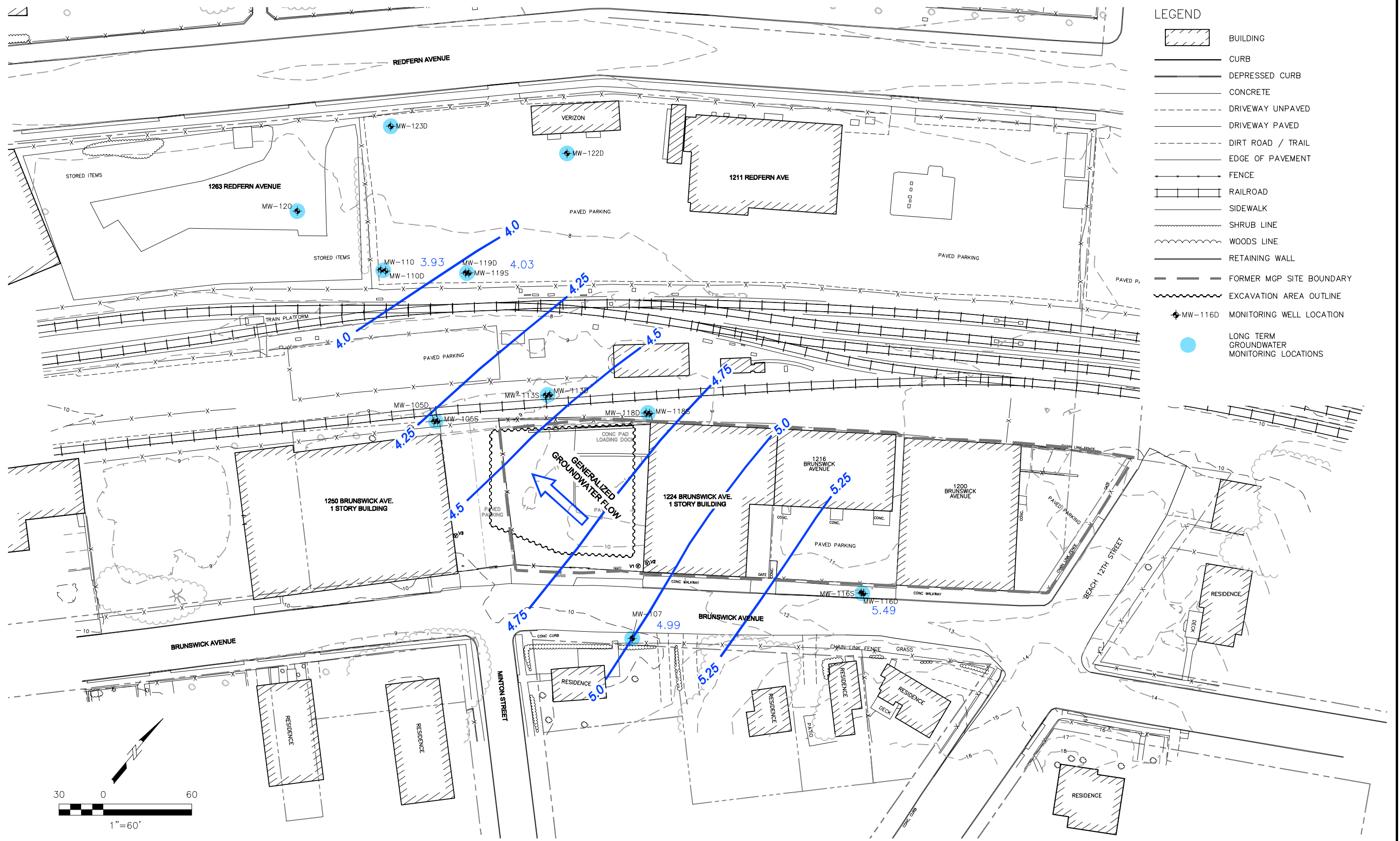


Well Location	Rationale
MW-107	Upgradient/background
MW-116S/D	Upgradient/background
MW-113S/D	Plume centerline location at downgradient edge of excavation
MW-105S/D	Downgradient well
MW-118S/D	Downgradient well
MW-110S/D	Downgradient well
MW-119S/D	Downgradient well
MW-122D	Downgradient well - deep zone
MW-123D	Downgradient well - deep zone

- LEGEND
- BUILDING
 - CURB
 - DEPRESSED CURB
 - CONCRETE
 - DRIVEWAY UNPAVED
 - DRIVEWAY PAVED
 - DIRT ROAD / TRAIL
 - EDGE OF PAVEMENT
 - FENCE
 - RAILROAD
 - SIDEWALK
 - SHRUB LINE
 - WOODS LINE
 - RETAINING WALL
 - FORMER MGP SITE BOUNDARY
 - EXCAVATION AREA OUTLINE
 - MW-116D MONITORING WELL LOCATION
 - LONG TERM GROUNDWATER MONITORING LOCATIONS



File: J:\IndL_Service\Project Files\Far_Rockaway\FarRockaway-Restoration-01.dwg Layout: GW Shallow Contours User: mayerh Plotted: Jan 30, 2015 - 2:07pm Xref's:



NATIONAL GRID
FORMER MGP SITE, FAR ROCKAWAY, NY
60304858

SHALLOW GROUNDWATER
CONTOURS
DECEMBER 2, 2014

DATE: 01/29/2015

DRWN: RCW

FIGURE 3

AECOM

Appendix A

Monitoring Well Decommissioning Record

DECOMMISSIONING RECORD

Site Name: Far Rockaway Former Manufactured Gas Plant	Well I.D.: MW-109
Site Location: Far Rockaway, Queens, New York	Client: Zebra
Contractor: Zebra Environmental	Engineer: AECOM
Date: 09-18-2014	

DECOMMISSIONING DATA (Fill in all that apply)		WELL SCHEMATIC*	
OVERDRILLING			
Interval Drilled	NA		
Drilling Method(s)	NA		
Borehole Dia. (in.)	NA		
Temporary Casing Installed? (y/n)	NA		
Depth temporary casing installed	NA		
Casing type/dia. (in.)	NA		
Method of installing	NA		
CASING PULLING			
Method employed	NA		
Casing retrieved (feet)	NA		
Casing type/dia. (in.)	NA		
CASING PERFORATING			
Equipment used	NA		
Number of perforations/foot	NA		
Size of perforations	NA		
Interval perforated	NA		
GROUTING			
Interval grouted (FBLs)	3'-17.5'		
# of batches prepared	1		
For each batch record:			
Quantity of water used (gal.)	8		
Quantity of cement used (lbs.)	94		
Cement type	Portland I		
Quantity of bentonite used (lbs.)	4		
Quantity of calcium chloride used (lbs.)	NA		
Volume of grout prepared (gal.)	12-13		
Volume of grout used (gal.)	10		

COMMENTS: "NM = Not measured. Interface probe was not working properly. The monitoring well was located in the grass and therefore was topped with sand, dirt, and seed.

* Sketch in all relevant decommissioning data, including interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Appendix B

Low Flow Groundwater Sampling Forms



Well ID:	MW-107
Sample ID:	MW-107
Permit Number:	NA
Well Condition:	Good

Protective Casing Diameter (inch):	8" Manhole
Inner Casing Diameter (inch):	2"
Inner Casing Material:	PVC
Purge/Sample Method:	Low Flow
Pump Intake Setting* (feet):	11.25
PID/FID Reading of Well Headspace (ppm)	0.0

Depth to Product* (feet)	NA
Initial Depth to Water* (feet):	4.39
Product Thickness (feet):	NA
Depth to Top of Screen* (feet):	3.5
Total Depth* (feet):	13.25
Water Column (feet):	8.86
Casing Volume (gal):	1.45
DTW After Pump Installed:	4.41

[illegible]

Pre-Sample Depth to Water* (feet):	NA	
Start Sample Date/Time:	12/2/2014	11:33
End Sample Date/Time:	12/2/2014	11:43
Sampler Names:	Jennifer Christoffel	



Well ID:	MW-110
Sample ID:	MW-110
Permit Number:	NA
Well Condition:	Good

Protective Casing Diameter (inch):	8" Manhole
Inner Casing Diameter (inch):	2"
Inner Casing Material:	PVC
Purge/Sample Method:	Low Flow
Pump Intake Setting* (feet):	7.13
PID/FID Reading of Well Headspace (ppm)	0.0

[illegible]

Pre-Sample Depth to Water* (feet):	NA
Start Sample Date/Time:	12/3/2014 9:50
End Sample Date/Time:	12/3/2014 10:00
Sampler Names:	Jennifer Christoffel



Well ID:	MW-110D
Sample ID:	MW-110D
Permit Number:	NA
Well Condition:	Good

Protective Casing Diameter (inch):	8" Manhole
Inner Casing Diameter (inch):	2"
Inner Casing Material:	PVC
Purge/Sample Method:	Low Flow
Pump Intake Setting* (feet):	38
PID/FID Reading of Well Headspace (ppm)	0.0

PURGING/SAMPLING INFORMATION

Start Purge Date/Time:	12/3/2014	10:56	Pre-Sample Depth to Water* (feet):	NA
End Purge Date/Time:	12/3/2014	11:45	Start Sample Date/Time:	12/3/2014 11:35
Total Volume Purged (Gallons):	5.0		End Sample Date/Time:	12/3/2014 11:45
Depth to Water After Purge* (feet):	3.59		Sampler Names:	Jennifer Christoffel

Required volume not removed. All parameters were stabilized and turbidity was reached.

Required Volume Not Retrieved All parameters were submitted and nothing was received.



Well ID:	MW-116S
Sample ID:	MW-116S
Permit Number:	NA
Well Condition:	Good

Protective Casing Diameter (inch):	8" Manhole
Inner Casing Diameter (inch):	2"
Inner Casing Material:	PVC
Purge/Sample Method:	Low Flow
Pump Intake Setting* (feet):	10.42
PID/FID Reading of Well Headspace (ppm)	0.0

PURGING/SAMPLING INFORMATION

Start Purge Date/Time:	12/2/2014	11:25	Pre-Sample Depth to Water* (feet):	NA
End Purge Date/Time:	12/2/2014	11:55	Start Sample Date/Time:	12/2/2014 11:55
Total Volume Purged (Gallons):	4.0		End Sample Date/Time:	12/2/2014 12:05
Depth to Water After Purge* (feet):	6.01		Sampler Names:	Servpreet Narula



Well ID:	MW-116D
Sample ID:	MW-116D
Permit Number:	NA
Well Condition:	Good

Protective Casing Diameter (inch):	8" Manhole
Inner Casing Diameter (inch):	2"
Inner Casing Material:	PVC
Purge/Sample Method:	Low Flow
Pump Intake Setting* (feet):	36.7
PID/FID Reading of Well Headspace (ppm)	0.0

[illegible]

Pre-Sample Depth to Water* (feet):	NA	
Start Sample Date/Time:	12/2/2014	13:08
End Sample Date/Time:	12/2/2014	13:18
Sampler Names:	Servpreet Narula	



Well ID:	MW-119S
Sample ID:	MW-119S
Permit Number:	NA
Well Condition:	Good

Protective Casing Diameter (inch):	8" Manhole
Inner Casing Diameter (inch):	2"
Inner Casing Material:	PVC
Purge/Sample Method:	Low Flow
Pump Intake Setting* (feet):	7.14
PID/FID Reading of Well Headspace (ppm)	0.0

Depth to Product* (feet)	NA
Initial Depth to Water* (feet):	3.12
Product Thickness (feet):	NA
Depth to Top of Screen* (feet):	2.5
Total Depth* (feet):	9.14
Water Column (feet):	6.02
Casing Volume (gal):	0.50
DTW After Pump Installed:	3.31

[illegible]

Pre-Sample Depth to Water* (feet):	NA	
Start Sample Date/Time:	12/3/2014	11:40
End Sample Date/Time:	12/3/2014	12:00
Sampler Names:	Servpreet Narula	

Sampling (e.g. slow recharge, turbidity, odor, sheen, PID/FID readings):
Collected DUP-01 and MS/MSD at this location.

Collected DOP-02 and W2/W3B at this location.



Well ID:	MW-119D
Sample ID:	MW-119D
Permit Number:	NA
Well Condition:	Good

Protective Casing Diameter (inch):	8" Manhole
Inner Casing Diameter (inch):	2"
Inner Casing Material:	PVC
Purge/Sample Method:	Low Flow
Pump Intake Setting* (feet):	36
PID/FID Reading of Well Headspace (ppm)	0.0

PURGING/SAMPLING INFORMATION

Start Purge Date/Time:	12/3/2014	9:15	Pre-Sample Depth to Water* (feet):	NA
End Purge Date/Time:	12/3/2014	10:00	Start Sample Date/Time:	12/3/2014 9:50
Total Volume Purged (liters):	16.0		End Sample Date/Time:	12/3/2014 10:00
Depth to Water After Purge* (feet):	3.40		Sampler Names:	Servpreet Narula

Sampling (e.g. slow recharge, turbidity, odor, sheen, PID/FID readings):



Well ID:	MW-122D
Sample ID:	MW-122D
Permit Number:	NA
Well Condition:	Good

Protective Casing Diameter (inch):	8" Manhole
Inner Casing Diameter (inch):	0.5"
Inner Casing Material:	PVC
Purge/Sample Method:	Low Flow
Pump Intake Setting* (feet):	34
PID/FID Reading of Well Headspace (ppm)	0.0

PURGING/SAMPLING INFORMATION

Start Purge Date/Time:	12/2/2014	14:30	Pre-Sample Depth to Water* (feet):	NA
End Purge Date/Time:	12/2/2014	15:15	Start Sample Date/Time:	12/2/2014 15:05
Total Volume Purged (Gallons):	4.0		End Sample Date/Time:	12/2/2014 15:15
Depth to Water After Purge* (feet):	NA *		Sampler Names:	Servpreet Narula & Jennifer Christoffel

* = Could not measure drawdown as well diameter was not large enough to fit both the probe and tubing.

NA = Not available



Well ID:	MW-123D
Sample ID:	MW-123D
Permit Number:	NA
Well Condition:	Good

Protective Casing Diameter (inch):	8" Manhole
Inner Casing Diameter (inch):	2"
Inner Casing Material:	PVC
Purge/Sample Method:	Low Flow
Pump Intake Setting* (feet):	32
PID/FID Reading of Well Headspace (ppm)	0.0

[illegible]

Pre-Sample Depth to Water* (feet):	NA	
Start Sample Date/Time:	12/3/2014	13:50
End Sample Date/Time:	12/3/2014	14:00
Sampler Names:	Jennifer Christoffel	

NA = Not available

Appendix C

Data Usability Summary Report (DUSR) and Analytical Report



AECOM
Gulf Tower
707 Grant Street, 5th Floor
Pittsburgh, PA 15219

[Phone] 412.316.3524
[Fax] 412.395.8888

Memorandum

To	Mary Cobleigh/Chelmsford	Page	1
CC	Pete Cox/Chelmsford		
Subject	Far Rockaway December 2014 Groundwater Sample Data Assessment		

From	Gregory A. Malzone/Pittsburgh	AECOM Project: 60304858-600
Date	December 31, 2014	

A limited data assessment was performed on one data package from H2M Labs Inc. (dba Pace Laboratory Services), 575 Broad Hollow Road, Melville, NY 11747. The groundwater samples were collected on December 2-3, 2014 at the National Grid site in Far Rockaway, NY. H2M processed the samples and reported the results under sample delivery group (SDG): 1412295.

The following analytical methods were requested on the chain-of-custody (CoC) records:

- Method SW-846 8260C – Volatile Organic Compounds (VOCs) by Gas Chromatography/Mass Spectrometry (GC/MS)
- Method SW-846 8270D – Semivolatile Organic Compounds (SVOCs) by GC/MS
- Method SW-846 6010C – Total Manganese and Dissolved Iron and Manganese by Inductively Coupled Plasma – Atomic Emission Spectrometry (ICP-AES)
- Method SM3500-FE, D – Ferrous Iron
- Method RSK-175 – Methane
- Method EPA 353.2 - Nitrate and Nitrite Nitrogen
- Method EPA 300.0 – Sulfate by Ion Chromatography (IC)
- Method SM2320B – Total Alkalinity
- Method SM4500CO2D – Free Carbon Dioxide
- Method EPA 410.4 – Chemical Oxygen Demand (COD)
- Method SW-846 9034 - Sulfide

The ferrous iron analyses were performed by Pace Analytical Services-Green Bay.

The data were evaluated for conformance to method specifications and qualifiers were applied using the USEPA Region II SOPs and the validation criteria set forth in the *USEPA Contract Laboratory Program (CLP) National Functional Guidelines for Superfund Organic Methods Data Review*, USEPA-540-R-07-003, July 2008, with additional reference to *USEPA Contract Laboratory Program (CLP) National Functional Guidelines for Organic Data Review*, EPA 540/R-99-008, May 1999 and *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review*, USEPA-540-R-10-011, January 2010, with additional reference to *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, EPA-540-R-04-004, October 2004, as they applied to the analytical methods employed. Field duplicate RPD review and applicable control limits were taken from the *USEPA Region I, New England Data Validation Functional Guidelines for Evaluating Environmental Analyses*, December 1996.

Review Elements

The following elements of the data packages were reviewed:

- Holding times/sample preservation
- Laboratory flags
- Method preparation blank results
- Laboratory control sample (LCS) results
- Matrix spike/matrix spike duplicate (MS/MSD) results
- Surrogate recoveries
- Field duplicate relative standard differences (RPDs)
- Electronic data deliverables (EDDs)

Samples

The samples included in this assessment are listed in the Table 1 below.

Table 1
Sample Submittals – Far Rockaway

Field ID	Pace ID	Matrix	Date Sampled
MW-107	1412295001	Groundwater	12/2/2014
MW-116S	1412295002	Groundwater	12/2/2014
MW-116D	1412295003	Groundwater	12/2/2014
MW-122D	1412295004	Groundwater	12/2/2014
MW-110	1412295005	Groundwater	12/3/2014
MW-110D	1412295006	Groundwater	12/3/2014
MW-119S	1412295007	Groundwater	12/3/2014
MW-119D	1412295008	Groundwater	12/3/2014
MW-123D	1412295009	Groundwater	12/3/2014
DUP-01 [MW-119S]	1412295010	Groundwater (QC)	12/3/2014

DISCUSSION

Holding Times and Preservation

The sample shipments were received on ice, intact, and in good condition. The cooler temperatures were within the optimal temperature range of 0-6 degrees Celsius (°C) upon receipt at H2M.

All samples were prepared, and analyzed within the method-specified holding times with the following exception.

The samples for ferrous iron were received outside the USEPA “immediately” (i.e., 15 minutes) holding time. Ferrous iron must be measured as a field test. All samples were affected. The positive and non-detect ferrous iron results were qualified “J/UJ,” as estimates, because the holding time was exceeded.

Calibrations

The calibrations were within the method specification limits with the following exceptions.

Method 8260C Volatiles: The 12/09/14 volatiles continuing calibration verification (CCV) percent differences/drifts for 1,1,2-trichloro-1,2,2-trifluoroethane, 1,1-dichloroethene, carbon disulfide, carbon tetrachloride, cyclohexane, dichlorodifluoromethane, methylcyclohexane, trichloroethene and vinyl chloride were less than the lower method limit of -20%. All samples were affected. The 1,1,2-trichloro-1,2,2-trifluoroethane, 1,1-dichloroethene, carbon disulfide, carbon tetrachloride, cyclohexane, dichlorodifluoromethane, methylcyclohexane, trichloroethene and vinyl chloride results for the field samples were non-detect and were qualified “UJ,” as estimates, because of low instrument bias.

The 12/09/14 volatiles CCV percent difference/drift for acetone was greater than the upper method limit of 20%. All samples were affected. The acetone results for the field samples were non-detect. No data qualifications were required in response to the high instrument bias.

Method 8270D Semivolatiles: The initial calibration relative standard deviation for benzaldehyde was greater than the method specification limit of 20% and no acceptable functions were found. All samples were affected. The benzaldehyde results were non-detect and were qualified “UJ,” as estimates, because of the nonconforming initial calibration.

The initial calibration relative standard deviation for 3-nitroaniline was greater than the method specification limit of 20% and no acceptable functions were found for the 12/09/14 analysis. The 3-nitroaniline results for associated samples MW-107, MW-110, MW-116D, MW-116S, and MW-122D were non-detect and were qualified “UJ,” as estimates, because of the nonconforming initial calibration.

The 12/09/14 semivolatiles CCV percent difference/drift for 3,3'-dichlorobenzidine was less than the lower method limit of -20%. The 3,3'-dichlorobenzidine results for associated samples MW-107, MW-110, MW-116D, MW-116S, and MW-122D were non-detect and were qualified “UJ,” as estimates, because of low instrument bias.

The 12/09/14 semivolatiles CCV percent difference/drift for 4-chloroaniline was greater than the upper method limit of 20%. 4-Chloroaniline was not detected in associated samples MW-107, MW-110, MW-116D, MW-116S, and MW-122D. No data qualifications were required in response to the high instrument bias.

The 12/10/14 semivolatiles CCV percent differences/drifts for 3,3'-dichlorobenzidine, 3-nitroaniline and 4-chloroaniline were less than the lower method limit of -20%. The 3,3'-dichlorobenzidine, 3-nitroaniline and 4-

chloroaniline results for associated samples MW-110D, MW-119D, MW-119S, MW-123D and DUP-01 were non-detect and were qualified "UJ," as estimates, because of low instrument bias.

Laboratory Blanks

No target compounds or analytes were detected at concentrations exceeding the sample reporting limits in the laboratory method blanks.

Laboratory Control Sample Recoveries

The LCS recoveries were within the quality control limits with the following exceptions.

The 12/09/14 and 12/10/14 LCS recoveries for hexachloroethane were less than the lower quality control limit but greater than 10%. All samples were affected. The hexachloroethane results for the field samples were non-detect and were qualified "UJ," as estimates, because of low method bias.

The 12/09/14 and 12/10/14 LCS recoveries for 3-nitroaniline were greater than the upper quality control limit. All samples were affected. 3-Nitroaniline was not detected in any of the field samples. No data qualifications were required in response to the high method bias.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries and RPDs

Matrix spike and matrix spike duplicates and laboratory duplicates that were performed on non-project samples were not evaluated because matrix similarity to project samples could not be assumed.

Sample MW-119S was designated in the field to be processed as the quality control sample, that is, as the MS/MSD sample. The MW-119S MS/MSD recoveries and RPDs were within the advisory limits with the following exceptions.

The MW-119S MS and/or MSD recoveries for bromomethane, 1,1,1-trichloroethane, trans-1,3-dichloropropene and 1,2-dibromo-3-chloropropane were greater than the upper advisory limits. Bromomethane, 1,1,1-trichloroethane, trans-1,3-dichloropropene and 1,2-dibromo-3-chloropropane were not detected in sample MW-119S. No data qualifications were required in response to the high bias attributable to matrix effects.

The RPDs between the MW-119S MS and MSD recoveries for methylcyclohexane and 1,2,4-trichlorobenzene were greater than the maximum advisory limits. The matrix spikes for methylcyclohexane and 1,2,4-trichlorobenzene were within the advisory limits and methylcyclohexane and 1,2,4-trichlorobenzene were not detected in sample MW-119S. No data qualifications were required in response to the imprecision attributable to matrix effects.

Insufficient sample volume was submitted to perform an MS/MSD semivolatile (8270D) analysis on sample MW-119S. The effects of matrix on the semivolatiles analysis could not be evaluated.

The MW-119S MS/MSD recoveries for ferrous iron were greater than the upper advisory limit of 120%, at 138/136%. The positive ferrous iron results for samples MW-116D, MW-110 and MW-110D were qualified "J," as estimated concentrations, because of high bias attributable to matrix effects.

Surrogate Recoveries

All surrogate recoveries were within the quality control limits.

Field Duplicate Precision

A field duplicate was collected at MW-119S. The field duplicate results were evaluated using the following criteria.

Organics: The RPD must be $\leq 30\%$ for groundwaters or the difference between the parent and field duplicate results must be less than the reporting limit for results less than five times the reporting limit.

Inorganics: The RPD must be $\leq 20\%$ for groundwaters, or the difference between the parent and field duplicate results must be less than twice the reporting limit for results less than five times the reporting limit.

The results for the parent and field duplicate sample were non-detects, with exception to those listed in Table 2 below. All RPDs were less than the maximum advisory limits or the difference criteria were met for all compounds/analytes. Field sampling/laboratory precision and sample homogeneity were acceptable. No data qualifications were required.

The following notations are used in the field precision table.

RPD: Relative percent difference

$\mu\text{g/L}$: micrograms per liter (ppb); mg/L : milligrams per liter (ppm)

Table 2
Field Duplicate Precision – Far Rockaway

Parameter	MW-119S		DUP-01		RPD (%)
Total Alkalinity	97.4	mg/L	94.9	mg/L	2.6
Sulfate	25.8	mg/L	25.7	mg/L	0.39
Free Carbon Dioxide	18.6	mg/L	18.5	mg/L	0.54
Nitrate Nitrogen	0.98	mg/L	0.98	mg/L	0
Methane	4.7	$\mu\text{g/L}$	5.8	$\mu\text{g/L}$	21

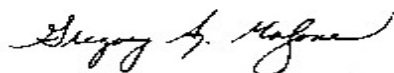
Summary

No trip blank was submitted for volatiles analysis to assess any contamination that may have come from transit and sample storage. No volatile target compounds were detected in the field samples or the associated method blanks. No contamination issues were noted.

All groundwater sample data received from H2M are suitable for their intended use with the qualifications outlined above. The data qualifiers are listed on the data summary pages attached. Completeness of this groundwater data set is 100% and is within the 90 to 100% goal.

Please contact me should you have any questions, comments, or concerns.

Sincerely Yours,



Gregory A. Malzone
greg.malzone@aecom.com



Pace Analytical™

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AECOM

125 Broad Street, 16th Floor
New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/2/2014 11:43:00 AM

Received : 12/3/2014 4:25:00 PM National Grid-Far Rockaway Well Monitoring

Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Groundwater

Origin:

Lab No. : 1412295-001

Client Sample ID: MW-107

Analytical Method: SW6010C :		Prep Method: SW3005A		Prep Date: 12/10/2014 1:52:00 PM		Analyst: CGZ
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Iron	< 0.10		1	mg/L	12/10/2014 11:18 PM	Container-01 of 01
Manganese	0.018		1	mg/L	12/10/2014 11:18 PM	Container-01 of 01

Analytical Method: SW6010C :		Prep Method: SW3005A		Prep Date: 12/9/2014 9:53:00 AM		Analyst: CGZ
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Manganese	0.037		1	mg/L	12/09/2014 8:51 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

c = Calibration acceptability criteria exceeded for this analyte

r = Reporting limit > MDL and < LOQ, Value estimated.

J = Estimated value - below calibration range

S = Recovery exceeded control limits for this analyte

N = Indicates presumptive evidence of compound



Client Services Manager

Test results meet the requirements of NELAC
unless otherwise noted.

This report shall not be reproduced except in full,
without the written approval of the laboratory.

Date Reported : 12/17/2014

Page 1 of 114



Pace Analytical

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AECOM

125 Broad Street, 16th Floor
New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/2/2014 11:43:00 AM

Received : 12/3/2014 4:25:00 PM

Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Groundwater

Lab No. : 1412295-001

Client Sample ID: MW-107

Origin:

National Grid-Far Rockaway Well Monitoring

Analytical Method: SW8260C :		Prep Method: 5030C			Analyst: DL	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
1,1,1-Trichloroethane	< 10		1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
1,1,2,2-Tetrachloroethane	< 10		1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
1,1,2-Trichloro-1,2,2-trifluoroethane	< 10	UJ	1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
1,1,2-Trichloroethane	< 10		1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
1,1-Dichloroethane	< 10		1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
1,1-Dichloroethene	< 10	UJ	1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
1,2,4-Trichlorobenzene	< 10		1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
1,2-Dibromo-3-chloropropane	< 10		1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
1,2-Dibromoethane	< 10		1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
1,2-Dichlorobenzene	< 10		1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
1,2-Dichloroethane	< 10		1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
1,2-Dichloropropane	< 10		1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
1,3-Dichlorobenzene	< 10		1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
1,4-Dichlorobenzene	< 10		1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
2-Butanone	< 10		1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
2-Hexanone	< 10		1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
4-Methyl-2-pentanone	< 10		1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
Acetone	< 10		1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
Benzene	< 10		1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
Bromodichloromethane	< 10		1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
Bromoform	< 10		1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
Bromomethane	< 10		1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
Carbon disulfide	< 10	UJ	1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
Carbon tetrachloride	< 10	UJ	1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
Chlorobenzene	< 10		1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
Chloroethane	< 10		1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
Chloroform	< 10		1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
Chloromethane	< 10		1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
cis-1,2-Dichloroethene	< 10		1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
cis-1,3-Dichloropropene	< 10		1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
Cyclohexane	< 10	UJ	1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
Dibromochloromethane	< 10		1	µg/L	12/09/2014 4:21 PM	Container-01 of 02

Qualifiers: E = Value above quantitation range, Value estimated.

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Client Services Manager

Date Reported : 12/17/2014

Page 2 of 114



Pace Analytical

575 Broad Hollow Road, Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

AECOM

125 Broad Street, 16th Floor
New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/2/2014 11:43:00 AM

Received : 12/3/2014 4:25:00 PM

Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Groundwater

Lab No. : 1412295-001

Client Sample ID: MW-107

Origin:

National Grid-Far Rockaway Well Monitoring

Analytical Method: SW8260C :		Prep Method: 5030C			Analyst: DL	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Dichlorodifluoromethane	< 10	UJ	1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
Ethylbenzene	< 10		1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
Isopropylbenzene	< 10		1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
Methyl Acetate	< 10		1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
Methyl tert-butyl ether	< 10		1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
Methylcyclohexane	< 10	UJ	1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
Methylene chloride	< 10		1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
Styrene	< 10		1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
Tetrachloroethene	< 10		1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
Toluene	< 10		1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
trans-1,2-Dichloroethene	< 10		1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
trans-1,3-Dichloropropene	< 10		1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
Trichloroethene	< 10	UJ	1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
Trichlorofluoromethane	< 10		1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
Vinyl chloride	< 10	UJ	1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
Xylene (total)	< 10		1	µg/L	12/09/2014 4:21 PM	Container-01 of 02
Surr: 1,2-Dichloroethane-d4	97.4		1	%REC	Limit 53-183	12/09/2014 4:21 PM
Surr: 4-Bromofluorobenzene	102		1	%REC	Limit 63-140	12/09/2014 4:21 PM
Surr: Toluene-d8	99.3		1	%REC	Limit 60-135	12/09/2014 4:21 PM

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575 Broad Hollow Road, Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYS DOH ID#10478 www.pacelabs.com

AECOM

125 Broad Street, 16th Floor
New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/2/2014 11:43:00 AM

Received : 12/3/2014 4:25:00 PM National Grid-Far Rockaway Well Monitoring

Collected By CLIENT

LABORATORY RESULTS

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Sample Information:

Type : Groundwater

Lab No. : 1412295-001

Client Sample ID: MW-107

Origin:

Analytical Method: SW8270D :		Prep Method: SW3520C		Prep Date: 12/5/2014 10:24:10 AM		Analyst: EAG
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
1,1'-Biphenyl	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01
2,2'-oxybis(1-chloropropane)	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01
2,4,5-Trichlorophenol	< 25		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01
2,4,6-Trichlorophenol	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01
2,4-Dichlorophenol	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01
2,4-Dimethylphenol	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01
2,4-Dinitrophenol	< 25		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01
2,4-Dinitrotoluene	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01
2,6-Dinitrotoluene	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01
2-Chloronaphthalene	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01
2-Chlorophenol	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01
2-Methylnaphthalene	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01
2-Methylphenol	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01
2-Nitroaniline	< 25		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01
2-Nitrophenol	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01
3,3'-Dichlorobenzidine	< 10	UJ	1	µg/L	12/09/2014 7:45 PM	Container-01 of 01
3-Nitroaniline	< 25	UJ	1	µg/L	12/09/2014 7:45 PM	Container-01 of 01
4,6-Dinitro-2-methylphenol	< 25		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01
4-Bromophenyl-phenylether	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01
4-Chloro-3-methylphenol	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01
4-Chloroaniline	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01
4-Chlorophenyl-phenylether	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01
4-Methylphenol	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01
4-Nitroaniline	< 25		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01
4-Nitrophenol	< 25		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01
Acenaphthene	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01
Acenaphthylene	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01
Acetophenone	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01
Anthracene	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01
Atrazine	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01
Benzaldehyde	< 10	UJ	1	µg/L	12/09/2014 7:45 PM	Container-01 of 01
Benzo(a)anthracene	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.

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Client Services Manager

Date Reported : 12/17/2014

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LABORATORY RESULTS

Results for the samples and analytes requested

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AECOM

125 Broad Street, 16th Floor
New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/2/2014 11:43:00 AM

Received : 12/3/2014 4:25:00 PM

Collected By CLIENT

Lab No. : 1412295-001

Client Sample ID: MW-107

Sample Information:

Type : Groundwater

Origin:

National Grid-Far Rockaway Well Monitoring

Analytical Method: SW8270D :		Prep Method: SW3520C		Prep Date: 12/5/2014 10:24:10 AM		Analyst: EAG	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Benzo(a)pyrene	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01	
Benzo(b)fluoranthene	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01	
Benzo(g,h,i)perylene	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01	
Benzo(k)fluoranthene	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01	
Bis(2-chloroethoxy)methane	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01	
Bis(2-chloroethyl)ether	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01	
Bis(2-ethylhexyl)phthalate	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01	
Butyl benzyl phthalate	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01	
Caprolactam	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01	
Carbazole	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01	
Chrysene	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01	
Dibenzo(a,h)anthracene	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01	
Dibenzofuran	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01	
Diethylphthalate	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01	
Dimethylphthalate	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01	
Di-n-butyl phthalate	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01	
Di-n-octyl phthalate	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01	
Fluoranthene	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01	
Fluorene	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01	
Hexachlorobenzene	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01	
Hexachlorobutadiene	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01	
Hexachlorocyclopentadiene	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01	
Hexachloroethane	< 10	S U J	1	µg/L	12/09/2014 7:45 PM	Container-01 of 01	
Indeno(1,2,3-cd)pyrene	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01	
Isophorone	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01	
Naphthalene	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01	
Nitrobenzene	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01	
N-Nitroso-di-n-propylamine	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01	
N-Nitrosodiphenylamine	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01	
Pentachlorophenol	< 25		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01	
Phenanthrene	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01	
Phenol	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01	

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

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Client Services Manager

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Pace Analytical

575 Broad Hollow Road, Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

AECOM

125 Broad Street, 16th Floor
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Attn To : Jennifer Pfeiffer

Collected : 12/2/2014 11:43:00 AM

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LABORATORY RESULTS

Results for the samples and analytes requested

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Sample Information:

Type : Groundwater

Origin:

Lab No. : 1412295-001

Client Sample ID: MW-107

Analytical Method: SW8270D :		Prep Method: SW3520C		Prep Date: 12/5/2014 10:24:10 AM		Analyst: EAG	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Pyrene	< 10		1	µg/L	12/09/2014 7:45 PM	Container-01 of 01	
Surr: 1,2-Dichlorobenzene-d4	44.7		1	%REC Limit 16-110	12/09/2014 7:45 PM	Container-01 of 01	
Surr: 2,4,6-Tribromophenol	69.6		1	%REC Limit 10-123	12/09/2014 7:45 PM	Container-01 of 01	
Surr: 2-Chlorophenol-d4	60.5		1	%REC Limit 33-110	12/09/2014 7:45 PM	Container-01 of 01	
Surr: 2-Fluorobiphenyl	54.6		1	%REC Limit 43-116	12/09/2014 7:45 PM	Container-01 of 01	
Surr: 2-Fluorophenol	55.2		1	%REC Limit 21-110	12/09/2014 7:45 PM	Container-01 of 01	
Surr: 4-Terphenyl-d14	62.6		1	%REC Limit 33-141	12/09/2014 7:45 PM	Container-01 of 01	
Surr: Nitrobenzene-d5	58.1		1	%REC Limit 35-114	12/09/2014 7:45 PM	Container-01 of 01	
Surr: Phenol-d5	64.0		1	%REC Limit 10-110	12/09/2014 7:45 PM	Container-01 of 01	
Analytical Method: SM2320B :						Analyst: SH2	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Alkalinity, Total (As CaCO3)	19.6		1	mg/L	12/05/2014 5:20 PM	Container-01 of 01	
Analytical Method: E300.0 :						Analyst: bka	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Sulfate	24.3		1	mg/L	12/11/2014 12:33 AM	Container-01 of 01	
Analytical Method: SM4500CO2D :						Analyst: Calc	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Free Carbon Dioxide	21.1		1	mg/L	12/05/2014		
Analytical Method: E410.4 :						Analyst: VaS	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Chemical Oxygen Demand	< 10		1	mg/L	12/09/2014 11:12 AM	Container-01 of 01	
Analytical Method: D3500-Fe :						Analyst: Sub	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Ferrous Iron (See Attached)	< 0.050	UJ	1	mg/L	12/04/2014	Container-01 of 01	
Analytical Method: E353.2 :						Analyst: TF	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Nitrite as N	< 0.10		1	mg/L	12/04/2014 8:15 AM	Container-01 of 01	
Analytical Method: E353.2 :						Analyst: TF	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Nitrate as N	2.96		10	mg/L	12/04/2014 10:07 AM	Container-01 of 01	

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Page 6 of 114



Pace Analytical

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LABORATORY RESULTS

Results for the samples and analytes requested

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Sample Information:

Type : Groundwater

Origin:

Lab No. : 1412295-001

Client Sample ID: MW-107

Analytical Method: RSK-175 :

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Analyst: DL Container:
Methane	< 1.0		1	µg/L	12/12/2014 2:22 PM	Container-01 of 02
Surr: Propene	91.0		1	%REC Limit 21-187	12/12/2014 2:22 PM	Container-01 of 02

Analytical Method: SW9034 :

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Analyst: JDLR Container:
Sulfide	< 2.00		1	mg/L	12/04/2014 5:05 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

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Attn To : Jennifer Pfeiffer

Collected : 12/2/2014 12:05:00 PM

Received : 12/3/2014 4:25:00 PM National Grid-Far Rockaway Well Monitoring

Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Groundwater

Origin:

Lab No. : 1412295-002

Client Sample ID: MW-116S

Analytical Method: SW6010C :		Prep Method: SW3005A		Prep Date: 12/10/2014 1:52:00 PM		Analyst: CGZ
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Iron	< 0.10		1	mg/L	12/10/2014 11:24 PM	Container-01 of 01
Manganese	< 0.015		1	mg/L	12/10/2014 11:24 PM	Container-01 of 01

Analytical Method: SW6010C :		Prep Method: SW3005A		Prep Date: 12/9/2014 9:53:00 AM		Analyst: CGZ
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Manganese	< 0.015		1	mg/L	12/09/2014 8:57 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

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r = Reporting limit > MDL and < LOQ, Value estimated.

J = Estimated value - below calibration range

S = Recovery exceeded control limits for this analyte

N = Indicates presumptive evidence of compound



Client Services Manager

Test results meet the requirements of NELAC unless otherwise noted.

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Date Reported : 12/17/2014

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Pace Analytical

575 Broad Hollow Road, Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

AECOM

125 Broad Street, 16th Floor
New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/2/2014 12:05:00 PM

Received : 12/3/2014 4:25:00 PM National Grid-Far Rockaway Well Monitoring

Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Groundwater

Origin:

Analytical Method: SW8260C:		Prep Method: 5030C			Analyst: DL	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
1,1,1-Trichloroethane	< 10		1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
1,1,2,2-Tetrachloroethane	< 10		1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
1,1,2-Trichloro-1,2,2-trifluoroethane	< 10	UJ	1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
1,1,2-Trichloroethane	< 10		1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
1,1-Dichloroethane	< 10		1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
1,1-Dichloroethene	< 10	UJ	1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
1,2,4-Trichlorobenzene	< 10		1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
1,2-Dibromo-3-chloropropane	< 10		1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
1,2-Dibromoethane	< 10		1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
1,2-Dichlorobenzene	< 10		1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
1,2-Dichloroethane	< 10		1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
1,2-Dichloropropane	< 10		1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
1,3-Dichlorobenzene	< 10		1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
1,4-Dichlorobenzene	< 10		1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
2-Butanone	< 10		1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
2-Hexanone	< 10		1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
4-Methyl-2-pentanone	< 10		1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
Acetone	< 10		1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
Benzene	< 10		1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
Bromodichloromethane	< 10		1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
Bromoform	< 10		1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
Bromomethane	< 10		1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
Carbon disulfide	< 10	UJ	1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
Carbon tetrachloride	< 10	UJ	1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
Chlorobenzene	< 10		1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
Chloroethane	< 10		1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
Chloroform	< 10		1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
Chloromethane	< 10		1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
cis-1,2-Dichloroethene	< 10		1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
cis-1,3-Dichloropropene	< 10		1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
Cyclohexane	< 10	UJ	1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
Dibromochloromethane	< 10		1	µg/L	12/09/2014 4:41 PM	Container-01 of 02

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Client Services Manager

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NYSDOH ID#10478 www.pacelabs.com

AECOM

125 Broad Street, 16th Floor
New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/2/2014 12:05:00 PM

Received : 12/3/2014 4:25:00 PM National Grid-Far Rockaway Well Monitoring

Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Groundwater

Origin:

Lab No. : 1412295-002

Client Sample ID: MW-116S

Analytical Method: SW8260C :		Prep Method: 5030C			Analyst: DL	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Dichlorodifluoromethane	< 10	✓ UJ	1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
Ethylbenzene	< 10		1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
Isopropylbenzene	< 10		1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
Methyl Acetate	< 10		1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
Methyl tert-butyl ether	< 10		1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
Methylcyclohexane	< 10	✓ UJ	1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
Methylene chloride	< 10		1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
Styrene	< 10		1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
Tetrachloroethene	< 10		1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
Toluene	< 10		1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
trans-1,2-Dichloroethene	< 10		1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
trans-1,3-Dichloropropene	< 10		1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
Trichloroethene	< 10	✓ UJ	1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
Trichlorofluoromethane	< 10		1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
Vinyl chloride	< 10	✓ UJ	1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
Xylene (total)	< 10		1	µg/L	12/09/2014 4:41 PM	Container-01 of 02
Surr: 1,2-Dichloroethane-d4	98.8		1	%REC Limit 53-183	12/09/2014 4:41 PM	Container-01 of 02
Surr: 4-Bromofluorobenzene	103		1	%REC Limit 63-140	12/09/2014 4:41 PM	Container-01 of 02
Surr: Toluene-d8	98.9		1	%REC Limit 60-135	12/09/2014 4:41 PM	Container-01 of 02

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Sample Information:

Type : Groundwater

Lab No. : 1412295-002

Client Sample ID: MW-116S

Origin:

Analytical Method: SW8270D :		Prep Method: SW3520C		Prep Date: 12/5/2014 10:24:10 AM		Analyst: EAG
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
1,1'-Biphenyl	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
2,2'-oxybis(1-chloropropane)	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
2,4,5-Trichlorophenol	< 25		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
2,4,6-Trichlorophenol	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
2,4-Dichlorophenol	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
2,4-Dimethylphenol	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
2,4-Dinitrophenol	< 25		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
2,4-Dinitrotoluene	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
2,6-Dinitrotoluene	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
2-Chloronaphthalene	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
2-Chlorophenol	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
2-Methylnaphthalene	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
2-Methylphenol	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
2-Nitroaniline	< 25		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
2-Nitrophenol	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
3,3'-Dichlorobenzidine	< 10	UJ	1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
3-Nitroaniline	< 25	UJ	1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
4,6-Dinitro-2-methylphenol	< 25		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
4-Bromophenyl-phenylether	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
4-Chloro-3-methylphenol	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
4-Chloroaniline	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
4-Chlorophenyl-phenylether	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
4-Methylphenol	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
4-Nitroaniline	< 25		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
4-Nitrophenol	< 25		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
Acenaphthene	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
Acenaphthylene	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
Acetophenone	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
Anthracene	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
Atrazine	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
Benzaldehyde	< 10	UJ	1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
Benzo(a)anthracene	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01

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Client Services Manager

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NYSDOH ID#10478 www.pacelabs.com

AECOM

125 Broad Street, 16th Floor
New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/2/2014 12:05:00 PM

Received : 12/3/2014 4:25:00 PM National Grid-Far Rockaway Well Monitoring

Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Groundwater

Origin:

Lab No. : 1412295-002

Client Sample ID: MW-116S

Analytical Method: SW8270D :		Prep Method: SW3520C		Prep Date: 12/5/2014 10:24:10 AM		Analyst: EAG
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Benzo(a)pyrene	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
Benzo(b)fluoranthene	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
Benzo(g,h,i)perylene	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
Benzo(k)fluoranthene	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
Bis(2-chloroethoxy)methane	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
Bis(2-chloroethyl)ether	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
Bis(2-ethylhexyl)phthalate	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
Butyl benzyl phthalate	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
Caprolactam	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
Carbazole	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
Chrysene	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
Dibenzo(a,h)anthracene	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
Dibenzofuran	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
Diethylphthalate	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
Dimethylphthalate	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
Di-n-butyl phthalate	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
Di-n-octyl phthalate	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
Fluoranthene	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
Fluorene	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
Hexachlorobenzene	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
Hexachlorobutadiene	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
Hexachlorocyclopentadiene	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
Hexachloroethane	< 10	8 US	1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
Indeno(1,2,3-cd)pyrene	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
Isophorone	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
Naphthalene	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
Nitrobenzene	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
N-Nitroso-di-n-propylamine	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
N-Nitrosodiphenylamine	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
Pentachlorophenol	< 25		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
Phenanthrene	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01
Phenol	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01

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Client Services Manager

Date Reported : 12/17/2014

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Pace Analytical

575 Broad Hollow Road, Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYS DOH ID#10478 www.pacelabs.com

LABORATORY RESULTS

Results for the samples and analytes requested

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AECOM

125 Broad Street, 16th Floor
New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/2/2014 12:05:00 PM

Received : 12/3/2014 4:25:00 PM

Collected By CLIENT

Lab No. : 1412295-002

Client Sample ID: MW-116S

Sample Information:

Type : Groundwater

Origin:

Analytical Method: SW8270D :		Prep Method: SW3520C		Prep Date: 12/5/2014 10:24:10 AM		Analyst: EAG	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Pyrene	< 10		1	µg/L	12/09/2014 8:17 PM	Container-01 of 01	
Surr: 1,2-Dichlorobenzene-d4	53.2		1	%REC Limit 16-110	12/09/2014 8:17 PM	Container-01 of 01	
Surr: 2,4,6-Tribromophenol	83.2		1	%REC Limit 10-123	12/09/2014 8:17 PM	Container-01 of 01	
Surr: 2-Chlorophenol-d4	65.1		1	%REC Limit 33-110	12/09/2014 8:17 PM	Container-01 of 01	
Surr: 2-Fluorobiphenyl	62.8		1	%REC Limit 43-116	12/09/2014 8:17 PM	Container-01 of 01	
Surr: 2-Fluorophenol	59.4		1	%REC Limit 21-110	12/09/2014 8:17 PM	Container-01 of 01	
Surr: 4-Terphenyl-d14	62.1		1	%REC Limit 33-141	12/09/2014 8:17 PM	Container-01 of 01	
Surr: Nitrobenzene-d5	64.0		1	%REC Limit 35-114	12/09/2014 8:17 PM	Container-01 of 01	
Surr: Phenol-d5	68.6		1	%REC Limit 10-110	12/09/2014 8:17 PM	Container-01 of 01	
Analytical Method: SM2320B :						Analyst: SH2	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Alkalinity, Total (As CaCO3)	36.2		1	mg/L	12/05/2014 5:26 PM	Container-01 of 01	
Analytical Method: E300.0 :						Analyst: bka	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Sulfate	15.3		1	mg/L	12/11/2014 12:47 AM	Container-01 of 01	
Analytical Method: SM4500CO2D :						Analyst: Calc	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Free Carbon Dioxide	18.6		1	mg/L	12/05/2014		
Analytical Method: E410.4 :						Analyst: VaS	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Chemical Oxygen Demand	< 10		1	mg/L	12/09/2014 11:14 AM	Container-01 of 01	
Analytical Method: D3500-Fe :						Analyst: Sub	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Ferrous Iron (See Attached)	< 0.050	UJ	1	mg/L	12/04/2014	Container-01 of 01	
Analytical Method: E353.2 :						Analyst: TF	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Nitrite as N	< 0.10		1	mg/L	12/04/2014 8:16 AM	Container-01 of 01	
Analytical Method: E353.2 :						Analyst: TF	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Nitrate as N	3.20		10	mg/L	12/04/2014 10:09 AM	Container-01 of 01	

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Received : 12/3/2014 4:25:00 PM National Grid-Far Rockaway Well Monitoring

Collected By CLIENT

Lab No. : 1412295-002

Client Sample ID: MW-116S

Sample Information:

Type : Groundwater

Origin:

Analytical Method: RSK-175 :

Analyst: DL

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Methane	63	✓	5	µg/L	12/16/2014 2:12 PM	Container-01 of 02
Surr: Propene	93.0		1	%REC Limit 21-187	12/12/2014 2:35 PM	Container-01 of 02

Analytical Method: SW9034 :

Analyst: JDLR

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Sulfide	< 2.00		1	mg/L	12/04/2014 5:05 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

c = Calibration acceptability criteria exceeded for this analyte

r = Reporting limit > MDL and < LOQ, Value estimated.

J = Estimated value - below calibration range

S = Recovery exceeded control limits for this analyte

N = Indicates presumptive evidence of compound



Client Services Manager

Test results meet the requirements of NELAC
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Date Reported : 12/17/2014

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NYSDOH ID#10478 www.pacelabs.com

AECOM

125 Broad Street, 16th Floor
New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/2/2014 1:18:00 PM

Received : 12/3/2014 4:25:00 PM

Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No. : 1412295-003

Client Sample ID: MW-116D

Sample Information:

Type : Groundwater

Origin:

National Grid-Far Rockaway Well Monitoring

Analytical Method: SW6010C :		Prep Method: SW3005A		Prep Date: 12/10/2014 1:52:00 PM		Analyst: CGZ
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Iron	< 0.10		1	mg/L	12/10/2014 11:31 PM	Container-01 of 01
Manganese	0.45		1	mg/L	12/10/2014 11:31 PM	Container-01 of 01

Analytical Method: SW6010C :		Prep Method: SW3005A		Prep Date: 12/9/2014 9:53:00 AM		Analyst: CGZ
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Manganese	0.45		1	mg/L	12/09/2014 9:03 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.

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LABORATORY RESULTS

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The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No. : 1412295-003

Client Sample ID: MW-116D

Sample Information:

Type : Groundwater

Origin:

National Grid-Far Rockaway Well Monitoring

Analytical Method: SW8260C :		Prep Method: 5030C			Analyst: DL	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
1,1,1-Trichloroethane	< 10		1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
1,1,2,2-Tetrachloroethane	< 10		1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
1,1,2-Trichloro-1,2,2-trifluoroethane	< 10	e UJ	1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
1,1,2-Trichloroethane	< 10		1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
1,1-Dichloroethane	< 10		1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
1,1-Dichloroethene	< 10	e UJ	1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
1,2,4-Trichlorobenzene	< 10		1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
1,2-Dibromo-3-chloropropane	< 10		1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
1,2-Dibromoethane	< 10		1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
1,2-Dichlorobenzene	< 10		1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
1,2-Dichloroethane	< 10		1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
1,2-Dichloropropane	< 10		1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
1,3-Dichlorobenzene	< 10		1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
1,4-Dichlorobenzene	< 10		1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
2-Butanone	< 10		1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
2-Hexanone	< 10		1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
4-Methyl-2-pentanone	< 10		1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
Acetone	< 10		1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
Benzene	< 10		1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
Bromodichloromethane	< 10		1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
Bromoform	< 10		1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
Bromomethane	< 10		1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
Carbon disulfide	< 10	e UJ	1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
Carbon tetrachloride	< 10	e UJ	1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
Chlorobenzene	< 10		1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
Chloroethane	< 10		1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
Chloroform	< 10		1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
Chloromethane	< 10		1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
cis-1,2-Dichloroethene	< 10		1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
cis-1,3-Dichloropropene	< 10		1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
Cyclohexane	< 10	e UJ	1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
Dibromochloromethane	< 10		1	µg/L	12/09/2014 5:01 PM	Container-01 of 02

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AECOM

125 Broad Street, 16th Floor
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Attn To : Jennifer Pfeiffer

Collected : 12/2/2014 1:18:00 PM

Received : 12/3/2014 4:25:00 PM

Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No. : 1412295-003

Client Sample ID: MW-116D

Sample Information:

Type : Groundwater

Origin:

Analytical Method: SW8260C :		Prep Method: 5030C			Analyst: DL	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Dichlorodifluoromethane	< 10	UJ	1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
Ethylbenzene	< 10		1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
Isopropylbenzene	< 10		1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
Methyl Acetate	< 10		1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
Methyl tert-butyl ether	< 10		1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
Methylcyclohexane	< 10	UJ	1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
Methylene chloride	< 10		1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
Styrene	< 10		1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
Tetrachloroethene	< 10		1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
Toluene	< 10		1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
trans-1,2-Dichloroethene	< 10		1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
trans-1,3-Dichloropropene	< 10		1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
Trichloroethene	< 10	UJ	1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
Trichlorofluoromethane	< 10		1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
Vinyl chloride	< 10	UJ	1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
Xylene (total)	< 10		1	µg/L	12/09/2014 5:01 PM	Container-01 of 02
Surr: 1,2-Dichloroethane-d4	98.9		1	%REC Limit 53-183	12/09/2014 5:01 PM	Container-01 of 02
Surr: 4-Bromofluorobenzene	101		1	%REC Limit 63-140	12/09/2014 5:01 PM	Container-01 of 02
Surr: Toluene-d8	98.3		1	%REC Limit 60-135	12/09/2014 5:01 PM	Container-01 of 02

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LABORATORY RESULTS

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The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Groundwater

Lab No. : 1412295-003

Client Sample ID: MW-116D

Origin:

National Grid-Far Rockaway Well Monitoring

Analytical Method: SW8270D :		Prep Method: SW3520C		Prep Date: 12/5/2014 10:24:10 AM		Analyst: EAG
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
1,1'-Biphenyl	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
2,2'-oxybis(1-chloropropane)	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
2,4,5-Trichlorophenol	< 25		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
2,4,6-Trichlorophenol	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
2,4-Dichlorophenol	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
2,4-Dimethylphenol	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
2,4-Dinitrophenol	< 25		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
2,4-Dinitrotoluene	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
2,6-Dinitrotoluene	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
2-Chloronaphthalene	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
2-Chlorophenol	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
2-Methylnaphthalene	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
2-Methylphenol	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
2-Nitroaniline	< 25		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
2-Nitrophenol	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
3,3'-Dichlorobenzidine	< 10	or U5	1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
3-Nitroaniline	< 25	or U5	1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
4,6-Dinitro-2-methylphenol	< 25		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
4-Bromophenyl-phenylether	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
4-Chloro-3-methylphenol	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
4-Chloroaniline	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
4-Chlorophenyl-phenylether	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
4-Methylphenol	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
4-Nitroaniline	< 25		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
4-Nitrophenol	< 25		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
Acenaphthene	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
Acenaphthylene	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
Acetophenone	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
Anthracene	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
Atrazine	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
Benzaldehyde	< 10	or U5	1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
Benzo(a)anthracene	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01

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Client Services Manager

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Collected : 12/2/2014 1:18:00 PM

Received : 12/3/2014 4:25:00 PM

Collected By CLIENT

National Grid-Far Rockaway Well Monitoring

Lab No. : 1412295-003

Client Sample ID: MW-116D

Sample Information:

Type : Groundwater

Origin:

Analytical Method: SW8270D :		Prep Method: SW3520C		Prep Date: 12/5/2014 10:24:10 AM		Analyst: EAG
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Benzo(a)pyrene	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
Benzo(b)fluoranthene	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
Benzo(g,h,i)perylene	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
Benzo(k)fluoranthene	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
Bis(2-chloroethoxy)methane	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
Bis(2-chloroethyl)ether	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
Bis(2-ethylhexyl)phthalate	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
Butyl benzyl phthalate	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
Caprolactam	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
Carbazole	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
Chrysene	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
Dibenzo(a,h)anthracene	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
Dibenzofuran	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
Diethylphthalate	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
Dimethylphthalate	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
Di-n-butyl phthalate	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
Di-n-octyl phthalate	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
Fluoranthene	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
Fluorene	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
Hexachlorobenzene	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
Hexachlorobutadiene	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
Hexachlorocyclopentadiene	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
Hexachloroethane	< 10	8 UJ	1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
Indeno(1,2,3-cd)pyrene	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
Isophorone	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
Naphthalene	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
Nitrobenzene	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
N-Nitroso-di-n-propylamine	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
N-Nitrosodiphenylamine	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
Pentachlorophenol	< 25		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
Phenanthrene	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01
Phenol	< 10		1	µg/L	12/09/2014 8:49 PM	Container-01 of 01

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NYS DOH ID#10478 www.pacelabs.com

AECOM

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Attn To : Jennifer Pfeiffer

Collected : 12/2/2014 1:18:00 PM

Received : 12/3/2014 4:25:00 PM

Collected By CLIENT

National Grid-Far Rockaway Well Monitoring

LABORATORY RESULTS

Results for the samples and analytes requested

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Sample Information:

Type : Groundwater

Origin:

Lab No. : 1412295-003

Client Sample ID: MW-116D

Analytical Method: SW8270D :		Prep Method: SW3520C		Prep Date: 12/5/2014 10:24:10 AM		Analyst: EAG	
Parameter(s)	Results	Qualifier	D.F.	Units		Analyzed:	Container:
Pyrene	< 10		1	µg/L		12/09/2014 8:49 PM	Container-01 of 01
Surr: 1,2-Dichlorobenzene-d4	47.9		1	%REC Limit 16-110		12/09/2014 8:49 PM	Container-01 of 01
Surr: 2,4,6-Tribromophenol	79.5		1	%REC Limit 10-123		12/09/2014 8:49 PM	Container-01 of 01
Surr: 2-Chlorophenol-d4	63.4		1	%REC Limit 33-110		12/09/2014 8:49 PM	Container-01 of 01
Surr: 2-Fluorobiphenyl	58.4		1	%REC Limit 43-116		12/09/2014 8:49 PM	Container-01 of 01
Surr: 2-Fluorophenol	59.1		1	%REC Limit 21-110		12/09/2014 8:49 PM	Container-01 of 01
Surr: 4-Terphenyl-d14	65.2		1	%REC Limit 33-141		12/09/2014 8:49 PM	Container-01 of 01
Surr: Nitrobenzene-d5	61.9		1	%REC Limit 35-114		12/09/2014 8:49 PM	Container-01 of 01
Surr: Phenol-d5	66.6		1	%REC Limit 10-110		12/09/2014 8:49 PM	Container-01 of 01
Analytical Method: SM2320B :						Analyst: SH2	
Parameter(s)	Results	Qualifier	D.F.	Units		Analyzed:	Container:
Alkalinity, Total (As CaCO3)	17.2		1	mg/L		12/05/2014 5:33 PM	Container-01 of 01
Analytical Method: E300.0 :						Analyst: bka	
Parameter(s)	Results	Qualifier	D.F.	Units		Analyzed:	Container:
Sulfate	61.1	J	5	mg/L		12/11/2014 11:41 AM	Container-01 of 01
Analytical Method: SM4500CO2D :						Analyst: Calc	
Parameter(s)	Results	Qualifier	D.F.	Units		Analyzed:	Container:
Free Carbon Dioxide	37.7	J	1	mg/L		12/05/2014	
Analytical Method: E410.4 :						Analyst: VaS	
Parameter(s)	Results	Qualifier	D.F.	Units		Analyzed:	Container:
Chemical Oxygen Demand	< 10		1	mg/L		12/09/2014 11:16 AM	Container-01 of 01
Analytical Method: D3500-Fe :						Analyst: Sub	
Parameter(s)	Results	Qualifier	D.F.	Units		Analyzed:	Container:
Ferrous Iron (See Attached)	0.15	J	1	mg/L		12/04/2014	Container-01 of 01
Analytical Method: E353.2 :						Analyst: TF	
Parameter(s)	Results	Qualifier	D.F.	Units		Analyzed:	Container:
Nitrite as N	< 0.10		1	mg/L		12/04/2014 8:17 AM	Container-01 of 01
Analytical Method: E353.2 :						Analyst: TF	
Parameter(s)	Results	Qualifier	D.F.	Units		Analyzed:	Container:
Nitrate as N	1.73	J	5	mg/L		12/04/2014 10:10 AM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

c = Calibration acceptability criteria exceeded for this analyte

r = Reporting limit > MDL and < LOQ, Value estimated.

J = Estimated value - below calibration range

S = Recovery exceeded control limits for this analyte

N = Indicates presumptive evidence of compound



Client Services Manager

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Date Reported : 12/17/2014

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575 Broad Hollow Road, Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

AECOM

125 Broad Street, 16th Floor
New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/2/2014 1:18:00 PM

Received : 12/3/2014 4:25:00 PM National Grid-Far Rockaway Well Monitoring

Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Groundwater

Origin:

Lab No. : 1412295-003

Client Sample ID: MW-116D

Analytical Method: RSK-175 :

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Analyst: DL Container:
Methane	< 1.0		1	µg/L	12/12/2014 3:10 PM	Container-01 of 02
Surr: Propene	98.0		1	%REC Limit 21-187	12/12/2014 3:10 PM	Container-01 of 02

Analytical Method: SW9034 :

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Analyst: JDLR Container:
Sulfide	< 2.00		1	mg/L	12/04/2014 5:05 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.

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New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/2/2014 3:15:00 PM

Received : 12/3/2014 4:25:00 PM

Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No. : 1412295-004

Client Sample ID: MW-122D

Sample Information:

Type : Groundwater

Origin:

National Grid-Far Rockaway Well Monitoring

Analytical Method: SW6010C :		Prep Method: SW3005A		Prep Date: 12/10/2014 1:52:00 PM		Analyst: CGZ	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Iron	< 0.10		1	mg/L	12/10/2014 11:37 PM	Container-01 of 01	
Manganese	0.54		1	mg/L	12/10/2014 11:37 PM	Container-01 of 01	

Analytical Method: SW6010C :		Prep Method: SW3005A		Prep Date: 12/9/2014 9:53:00 AM		Analyst: CGZ	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Manganese	0.54		1	mg/L	12/09/2014 9:10 PM	Container-01 of 01	

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Received : 12/3/2014 4:25:00 PM

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LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No. : 1412295-004

Client Sample ID: MW-122D

Sample Information:

Type : Groundwater

Origin:

National Grid-Far Rockaway Well Monitoring

Analytical Method: SW8260C :		Prep Method: 5030C			Analyst: DL	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
1,1,1-Trichloroethane	< 10		1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
1,1,2,2-Tetrachloroethane	< 10		1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
1,1,2-Trichloro-1,2,2-trifluoroethane	< 10	UJ	1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
1,1,2-Trichloroethane	< 10		1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
1,1-Dichloroethane	< 10		1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
1,1-Dichloroethene	< 10	UJ	1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
1,2,4-Trichlorobenzene	< 10		1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
1,2-Dibromo-3-chloropropane	< 10		1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
1,2-Dibromoethane	< 10		1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
1,2-Dichlorobenzene	< 10		1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
1,2-Dichloroethane	< 10		1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
1,2-Dichloropropane	< 10		1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
1,3-Dichlorobenzene	< 10		1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
1,4-Dichlorobenzene	< 10		1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
2-Butanone	< 10		1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
2-Hexanone	< 10		1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
4-Methyl-2-pentanone	< 10		1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
Acetone	< 10		1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
Benzene	< 10		1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
Bromodichloromethane	< 10		1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
Bromoform	< 10		1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
Bromomethane	< 10		1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
Carbon disulfide	< 10	UJ	1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
Carbon tetrachloride	< 10	UJ	1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
Chlorobenzene	< 10		1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
Chloroethane	< 10		1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
Chloroform	< 10		1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
Chloromethane	< 10		1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
cis-1,2-Dichloroethene	< 10		1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
cis-1,3-Dichloropropene	< 10		1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
Cyclohexane	< 10	UJ	1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
Dibromochloromethane	< 10		1	µg/L	12/09/2014 5:20 PM	Container-01 of 02

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AECOM

125 Broad Street, 16th Floor
New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/2/2014 3:15:00 PM

Received : 12/3/2014 4:25:00 PM

Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No. : 1412295-004

Client Sample ID: MW-122D

Sample Information:

Type : Groundwater

Origin:

National Grid-Far Rockaway Well Monitoring

Analytical Method: SW8260C :		Prep Method: 5030C			Analyst: DL	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Dichlorodifluoromethane	< 10	UJ	1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
Ethylbenzene	< 10		1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
Isopropylbenzene	< 10		1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
Methyl Acetate	< 10		1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
Methyl tert-butyl ether	< 10		1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
Methylcyclohexane	< 10	UJ	1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
Methylene chloride	< 10		1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
Styrene	< 10		1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
Tetrachloroethene	< 10		1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
Toluene	< 10		1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
trans-1,2-Dichloroethene	< 10		1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
trans-1,3-Dichloropropene	< 10		1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
Trichloroethene	< 10	UJ	1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
Trichlorofluoromethane	< 10		1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
Vinyl chloride	< 10	UJ	1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
Xylene (total)	< 10		1	µg/L	12/09/2014 5:20 PM	Container-01 of 02
Surr: 1,2-Dichloroethane-d4	103		1	%REC Limit 53-183	12/09/2014 5:20 PM	Container-01 of 02
Surr: 4-Bromofluorobenzene	101		1	%REC Limit 63-140	12/09/2014 5:20 PM	Container-01 of 02
Surr: Toluene-d8	99.7		1	%REC Limit 60-135	12/09/2014 5:20 PM	Container-01 of 02

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LABORATORY RESULTS

Results for the samples and analytes requested

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AECOM

125 Broad Street, 16th Floor
 New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/2/2014 3:15:00 PM

Received : 12/3/2014 4:25:00 PM

Collected By CLIENT

Lab No. : 1412295-004

Client Sample ID: MW-122D

National Grid-Far Rockaway Well Monitoring

Sample Information:

Type : Groundwater

Origin:

Analytical Method: SW8270D :		Prep Method: SW3520C		Prep Date: 12/5/2014 10:24:10 AM		Analyst: EAG
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
1,1'-Biphenyl	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01
2,2'-oxybis(1-chloropropane)	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01
2,4,5-Trichlorophenol	< 25		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01
2,4,6-Trichlorophenol	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01
2,4-Dichlorophenol	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01
2,4-Dimethylphenol	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01
2,4-Dinitrophenol	< 25		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01
2,4-Dinitrotoluene	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01
2,6-Dinitrotoluene	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01
2-Chloronaphthalene	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01
2-Chlorophenol	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01
2-Methylnaphthalene	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01
2-Methylphenol	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01
2-Nitroaniline	< 25		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01
2-Nitrophenol	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01
3,3'-Dichlorobenzidine	< 10	UJ	1	µg/L	12/09/2014 9:20 PM	Container-01 of 01
3-Nitroaniline	< 25	UJ	1	µg/L	12/09/2014 9:20 PM	Container-01 of 01
4,6-Dinitro-2-methylphenol	< 25		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01
4-Bromophenyl-phenylether	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01
4-Chloro-3-methylphenol	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01
4-Chloroaniline	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01
4-Chlorophenyl-phenylether	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01
4-Methylphenol	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01
4-Nitroaniline	< 25		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01
4-Nitrophenol	< 25		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01
Acenaphthene	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01
Acenaphthylene	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01
Acetophenone	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01
Anthracene	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01
Atrazine	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01
Benzaldehyde	< 10	UJ	1	µg/L	12/09/2014 9:20 PM	Container-01 of 01
Benzo(a)anthracene	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01

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Client Services Manager

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Attn To : Jennifer Pfeiffer

Collected : 12/2/2014 3:15:00 PM

Received : 12/3/2014 4:25:00 PM

Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No. : 1412295-004

Client Sample ID: MW-122D

Sample Information:

Type : Groundwater

Origin:

National Grid-Far Rockaway Well Monitoring

Analytical Method: SW8270D :		Prep Method: SW3520C		Prep Date: 12/5/2014 10:24:10 AM		Analyst: EAG	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Benzo(a)pyrene	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01	
Benzo(b)fluoranthene	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01	
Benzo(g,h,i)perylene	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01	
Benzo(k)fluoranthene	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01	
Bis(2-chloroethoxy)methane	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01	
Bis(2-chloroethyl)ether	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01	
Bis(2-ethylhexyl)phthalate	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01	
Butyl benzyl phthalate	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01	
Caprolactam	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01	
Carbazole	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01	
Chrysene	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01	
Dibenzo(a,h)anthracene	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01	
Dibenzofuran	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01	
Diethylphthalate	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01	
Dimethylphthalate	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01	
Di-n-butyl phthalate	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01	
Di-n-octyl phthalate	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01	
Fluoranthene	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01	
Fluorene	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01	
Hexachlorobenzene	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01	
Hexachlorobutadiene	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01	
Hexachlorocyclopentadiene	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01	
Hexachloroethane	< 10	S UJ	1	µg/L	12/09/2014 9:20 PM	Container-01 of 01	
Indeno(1,2,3-cd)pyrene	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01	
Isophorone	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01	
Naphthalene	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01	
Nitrobenzene	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01	
N-Nitroso-di-n-propylamine	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01	
N-Nitrosodiphenylamine	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01	
Pentachlorophenol	< 25		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01	
Phenanthrene	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01	
Phenol	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01	

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Collected : 12/2/2014 3:15:00 PM

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Collected By CLIENT

National Grid-Far Rockaway Well Monitoring

Lab No. : 1412295-004

Client Sample ID: MW-122D

Sample Information:

Type : Groundwater

Origin:

Analytical Method: SW8270D :		Prep Method: SW3520C		Prep Date: 12/5/2014 10:24:10 AM		Analyst: EAG	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Pyrene	< 10		1	µg/L	12/09/2014 9:20 PM	Container-01 of 01	
Surr: 1,2-Dichlorobenzene-d4	42.0		1	%REC Limit 16-110	12/09/2014 9:20 PM	Container-01 of 01	
Surr: 2,4,6-Tribromophenol	68.4		1	%REC Limit 10-123	12/09/2014 9:20 PM	Container-01 of 01	
Surr: 2-Chlorophenol-d4	56.7		1	%REC Limit 33-110	12/09/2014 9:20 PM	Container-01 of 01	
Surr: 2-Fluorobiphenyl	51.9		1	%REC Limit 43-116	12/09/2014 9:20 PM	Container-01 of 01	
Surr: 2-Fluorophenol	51.7		1	%REC Limit 21-110	12/09/2014 9:20 PM	Container-01 of 01	
Surr: 4-Terphenyl-d14	61.6		1	%REC Limit 33-141	12/09/2014 9:20 PM	Container-01 of 01	
Surr: Nitrobenzene-d5	55.1		1	%REC Limit 35-114	12/09/2014 9:20 PM	Container-01 of 01	
Surr: Phenol-d5	58.5		1	%REC Limit 10-110	12/09/2014 9:20 PM	Container-01 of 01	
Analytical Method: SM2320B :						Analyst: SH2	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Alkalinity, Total (As CaCO3)	11.6		1	mg/L	12/05/2014 5:39 PM	Container-01 of 01	
Analytical Method: E300.0 :						Analyst: bka	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Sulfate	48.8		1	mg/L	12/11/2014 1:14 AM	Container-01 of 01	
Analytical Method: SM4500CO2D :						Analyst: Calc	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Free Carbon Dioxide	35.1		1	mg/L	12/05/2014		
Analytical Method: E410.4 :						Analyst: VaS	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Chemical Oxygen Demand	< 10		1	mg/L	12/09/2014 11:18 AM	Container-01 of 01	
Analytical Method: D3500-Fe :						Analyst: Sub	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Ferrous Iron (See Attached)	< 0.050	UJ	1	mg/L	12/04/2014	Container-01 of 01	
Analytical Method: E353.2 :						Analyst: TF	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Nitrite as N	< 0.10		1	mg/L	12/04/2014 8:19 AM	Container-01 of 01	
Analytical Method: E353.2 :						Analyst: TF	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Nitrate as N	3.31		10	mg/L	12/04/2014 10:11 AM	Container-01 of 01	

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

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+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

c = Calibration acceptability criteria exceeded for this analyte

r = Reporting limit > MDL and < LOQ, Value estimated.

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S = Recovery exceeded control limits for this analyte

N = Indicates presumptive evidence of compound



Client Services Manager

Test results meet the requirements of NELAC unless otherwise noted.

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Date Reported : 12/17/2014

Page 27 of 114



Pace Analytical

575 Broad Hollow Road, Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

AECOM

125 Broad Street, 16th Floor
New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/2/2014 3:15:00 PM

Received : 12/3/2014 4:25:00 PM

Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No. : 1412295-004

Client Sample ID: MW-122D

Sample Information:

Type : Groundwater

Origin:

Analytical Method: RSK-175 :

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Analyst: DL Container:
Methane	< 1.0		1	µg/L	12/12/2014 3:23 PM	Container-01 of 02
Surr: Propene	95.0		1	%REC Limit 21-187	12/12/2014 3:23 PM	Container-01 of 02

Analytical Method: SW9034 :

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Analyst: JDLR Container:
Sulfide	< 2.00		1	mg/L	12/04/2014 5:05 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.

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Client Services Manager

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Date Reported : 12/17/2014

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Pace Analytical

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TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

AECOM

125 Broad Street, 16th Floor
New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/3/2014 10:00:00 AM

Received : 12/3/2014 4:25:00 PM National Grid-Far Rockaway Well Monitoring

Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Groundwater

Origin:

Lab No. : 1412295-005

Client Sample ID: MW-110

Analytical Method: SW6010C :		Prep Method: SW3005A		Prep Date: 12/10/2014 1:52:00 PM		Analyst: CGZ	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Iron	< 0.10		1	mg/L	12/10/2014 11:43 PM	Container-01 of 01	
Manganese	0.070		1	mg/L	12/10/2014 11:43 PM	Container-01 of 01	

Analytical Method: SW6010C :		Prep Method: SW3005A		Prep Date: 12/9/2014 9:53:00 AM		Analyst: CGZ	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Manganese	0.12		1	mg/L	12/09/2014 9:16 PM	Container-01 of 01	

Qualifiers: E = Value above quantitation range, Value estimated.

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D.F. = Dilution Factor D = Results for Dilution

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Client Services Manager

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NYSDOH ID#10478 www.pacelabs.com

AECOM

125 Broad Street, 16th Floor
New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/3/2014 10:00:00 AM

Received : 12/3/2014 4:25:00 PM National Grid-Far Rockaway Well Monitoring

Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Groundwater

Origin:

Analytical Method: SW8260C :

Prep Method: 5030C

Analyst: DL

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
1,1,1-Trichloroethane	< 10		1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
1,1,2,2-Tetrachloroethane	< 10		1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
1,1,2-Trichloro-1,2,2-trifluoroethane	< 10	UJ	1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
1,1,2-Trichloroethane	< 10		1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
1,1-Dichloroethane	< 10		1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
1,1-Dichloroethene	< 10	UJ	1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
1,2,4-Trichlorobenzene	< 10		1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
1,2-Dibromo-3-chloropropane	< 10		1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
1,2-Dibromoethane	< 10		1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
1,2-Dichlorobenzene	< 10		1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
1,2-Dichloroethane	< 10		1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
1,2-Dichloropropane	< 10		1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
1,3-Dichlorobenzene	< 10		1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
1,4-Dichlorobenzene	< 10		1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
2-Butanone	< 10		1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
2-Hexanone	< 10		1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
4-Methyl-2-pentanone	< 10		1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
Acetone	< 10		1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
Benzene	< 10		1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
Bromodichloromethane	< 10		1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
Bromoform	< 10		1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
Bromomethane	< 10		1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
Carbon disulfide	< 10	UJ	1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
Carbon tetrachloride	< 10	UJ	1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
Chlorobenzene	< 10		1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
Chloroethane	< 10		1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
Chloroform	< 10		1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
Chloromethane	< 10		1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
cis-1,2-Dichloroethene	< 10		1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
cis-1,3-Dichloropropene	< 10		1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
Cyclohexane	< 10	UJ	1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
Dibromochloromethane	< 10		1	µg/L	12/09/2014 5:40 PM	Container-01 of 02

Qualifiers: E = Value above quantitation range, Value estimated.

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Client Services Manager

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Date Reported : 12/17/2014

Page 30 of 114

Pace Analytical

575 Broad Hollow Road, Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYS DOH ID#10478 www.pacelabs.com

AECOM

125 Broad Street, 16th Floor
New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/3/2014 10:00:00 AM

Received : 12/3/2014 4:25:00 PM

Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Groundwater

Origin:

Lab No. : 1412295-005

Client Sample ID: MW-110

National Grid-Far Rockaway Well Monitoring

Analytical Method: SW8260C :		Prep Method: 5030C			Analyst: DL	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Dichlorodifluoromethane	< 10	e UJ	1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
Ethylbenzene	< 10		1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
Isopropylbenzene	< 10		1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
Methyl Acetate	< 10		1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
Methyl tert-butyl ether	< 10		1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
Methylcyclohexane	< 10	e UJ	1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
Methylene chloride	< 10		1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
Styrene	< 10		1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
Tetrachloroethene	< 10		1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
Toluene	< 10		1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
trans-1,2-Dichloroethene	< 10		1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
trans-1,3-Dichloropropene	< 10		1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
Trichloroethene	< 10	e UJ	1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
Trichlorofluoromethane	< 10		1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
Vinyl chloride	< 10	e UJ	1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
Xylene (total)	< 10		1	µg/L	12/09/2014 5:40 PM	Container-01 of 02
Surr: 1,2-Dichloroethane-d4	98.0		1	%REC Limit 53-183	12/09/2014 5:40 PM	Container-01 of 02
Surr: 4-Bromofluorobenzene	100		1	%REC Limit 63-140	12/09/2014 5:40 PM	Container-01 of 02
Surr: Toluene-d8	100		1	%REC Limit 60-135	12/09/2014 5:40 PM	Container-01 of 02

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Client Services Manager

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Date Reported : 12/17/2014

Page 31 of 114



LABORATORY RESULTS

Results for the samples and analytes requested

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AECOM

125 Broad Street, 16th Floor
 New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/3/2014 10:00:00 AM

Received : 12/3/2014 4:25:00 PM National Grid-Far Rockaway Well Monitoring

Collected By CLIENT

Lab No. : 1412295-005

Client Sample ID: MW-110

Sample Information:

Type : Groundwater

Origin:

Analytical Method: SW8270D :		Prep Method: SW3520C		Prep Date: 12/5/2014 10:24:10 AM		Analyst: EAG
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
1,1'-Biphenyl	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
2,2'-oxybis(1-chloropropane)	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
2,4,5-Trichlorophenol	< 25		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
2,4,6-Trichlorophenol	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
2,4-Dichlorophenol	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
2,4-Dimethylphenol	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
2,4-Dinitrophenol	< 25		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
2,4-Dinitrotoluene	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
2,6-Dinitrotoluene	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
2-Chloronaphthalene	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
2-Chlorophenol	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
2-Methylnaphthalene	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
2-Methylphenol	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
2-Nitroaniline	< 25		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
2-Nitrophenol	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
3,3'-Dichlorobenzidine	< 10	UJ	1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
3-Nitroaniline	< 25	UJ	1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
4,6-Dinitro-2-methylphenol	< 25		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
4-Bromophenyl-phenylether	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
4-Chloro-3-methylphenol	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
4-Chloroaniline	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
4-Chlorophenyl-phenylether	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
4-Methylphenol	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
4-Nitroaniline	< 25		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
4-Nitrophenol	< 25		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
Acenaphthene	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
Acenaphthylene	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
Acetophenone	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
Anthracene	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
Atrazine	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
Benzaldehyde	< 10	UJ	1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
Benzo(a)anthracene	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.

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Client Services Manager

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Date Reported : 12/17/2014

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LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

AECOM

125 Broad Street, 16th Floor
New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/3/2014 10:00:00 AM

Received : 12/3/2014 4:25:00 PM

Collected By CLIENT

Lab No. : 1412295-005

Client Sample ID: MW-110

National Grid-Far Rockaway Well Monitoring

Sample Information:

Type : Groundwater

Origin:

Analytical Method: SW8270D :		Prep Method: SW3520C		Prep Date: 12/5/2014 10:24:10 AM		Analyst: EAG
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Benzo(a)pyrene	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
Benzo(b)fluoranthene	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
Benzo(g,h,i)perylene	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
Benzo(k)fluoranthene	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
Bis(2-chloroethoxy)methane	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
Bis(2-chloroethyl)ether	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
Bis(2-ethylhexyl)phthalate	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
Butyl benzyl phthalate	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
Caprolactam	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
Carbazole	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
Chrysene	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
Dibenzo(a,h)anthracene	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
Dibenzofuran	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
Diethylphthalate	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
Dimethylphthalate	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
Di-n-butyl phthalate	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
Di-n-octyl phthalate	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
Fluoranthene	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
Fluorene	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
Hexachlorobenzene	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
Hexachlorobutadiene	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
Hexachlorocyclopentadiene	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
Hexachloroethane	< 10	UJ	1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
Indeno(1,2,3-cd)pyrene	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
Isophorone	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
Naphthalene	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
Nitrobenzene	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
N-Nitroso-di-n-propylamine	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
N-Nitrosodiphenylamine	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
Pentachlorophenol	< 25		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
Phenanthrene	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01
Phenol	< 10		1	µg/L	12/09/2014 9:52 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.

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Client Services Manager

Date Reported : 12/17/2014

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Pace Analytical

575 Broad Hollow Road, Melville, NY 11747
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NYSDOH ID#10478 www.pacelabs.com

LABORATORY RESULTS

Results for the samples and analytes requested

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AECOM

125 Broad Street, 16th Floor
New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/3/2014 10:00:00 AM

Received : 12/3/2014 4:25:00 PM

Collected By CLIENT

Lab No. : 1412295-005

Client Sample ID: MW-110

Sample Information:

Type : Groundwater

Origin:

Analytical Method: SW8270D :		Prep Method: SW3520C		Prep Date: 12/5/2014 10:24:10 AM		Analyst: EAG	
Parameter(s)	Results	Qualifier	D.F.	Units	Limit	Analyzed:	Container:
Pyrene	< 10		1	µg/L		12/09/2014 9:52 PM	Container-01 of 01
Surr: 1,2-Dichlorobenzene-d4	53.1		1	%REC	Limit 16-110	12/09/2014 9:52 PM	Container-01 of 01
Surr: 2,4,6-Tribromophenol	88.2		1	%REC	Limit 10-123	12/09/2014 9:52 PM	Container-01 of 01
Surr: 2-Chlorophenol-d4	68.7		1	%REC	Limit 33-110	12/09/2014 9:52 PM	Container-01 of 01
Surr: 2-Fluorobiphenyl	65.0		1	%REC	Limit 43-116	12/09/2014 9:52 PM	Container-01 of 01
Surr: 2-Fluorophenol	63.7		1	%REC	Limit 21-110	12/09/2014 9:52 PM	Container-01 of 01
Surr: 4-Terphenyl-d14	40.9		1	%REC	Limit 33-141	12/09/2014 9:52 PM	Container-01 of 01
Surr: Nitrobenzene-d5	67.0		1	%REC	Limit 35-114	12/09/2014 9:52 PM	Container-01 of 01
Surr: Phenol-d5	71.8		1	%REC	Limit 10-110	12/09/2014 9:52 PM	Container-01 of 01
Analytical Method: SM2320B :						Analyst: SH2	
Parameter(s)	Results	Qualifier	D.F.	Units		Analyzed:	Container:
Alkalinity, Total (As CaCO3)	105		1	mg/L		12/05/2014 5:45 PM	Container-01 of 01
Analytical Method: E300.0 :						Analyst: bka	
Parameter(s)	Results	Qualifier	D.F.	Units		Analyzed:	Container:
Sulfate	42.7		1	mg/L		12/11/2014 1:54 AM	Container-01 of 01
Analytical Method: SM4500CO2D :						Analyst: Calc	
Parameter(s)	Results	Qualifier	D.F.	Units		Analyzed:	Container:
Free Carbon Dioxide	14.5		1	mg/L		12/05/2014	
Analytical Method: E410.4 :						Analyst: VaS	
Parameter(s)	Results	Qualifier	D.F.	Units		Analyzed:	Container:
Chemical Oxygen Demand	< 10		1	mg/L		12/09/2014 11:20 AM	Container-01 of 01
Analytical Method: D3500-Fe :						Analyst: Sub	
Parameter(s)	Results	Qualifier	D.F.	Units		Analyzed:	Container:
Ferrous Iron (See Attached)	3.1	J	1	mg/L		12/04/2014	Container-01 of 01
Analytical Method: E353.2 :						Analyst: TF	
Parameter(s)	Results	Qualifier	D.F.	Units		Analyzed:	Container:
Nitrite as N	< 0.10		1	mg/L		12/04/2014 8:20 AM	Container-01 of 01
Analytical Method: E353.2 :						Analyst: TF	
Parameter(s)	Results	Qualifier	D.F.	Units		Analyzed:	Container:
Nitrate as N	< 0.10		1	mg/L		12/04/2014 10:12 AM	Container-01 of 01

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B = Found in Blank

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+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

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Client Services Manager

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Date Reported : 12/17/2014

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LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

AECOM

125 Broad Street, 16th Floor
New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/3/2014 10:00:00 AM

Received : 12/3/2014 4:25:00 PM National Grid-Far Rockaway Well Monitoring

Collected By CLIENT

Lab No. : 1412295-005

Client Sample ID: MW-110

Sample Information:

Type : Groundwater

Origin:

Analytical Method: RSK-175 :					Analyst: DL	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Methane	42	Ø	5	µg/L	12/16/2014 3:26 PM	Container-01 of 02
Surr: Propene	68.0		1	%REC Limit 21-187	12/16/2014 2:30 PM	Container-01 of 02
Analytical Method: SW9034 :					Analyst: JDLR	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Sulfide	< 2.00		1	mg/L	12/04/2014 5:05 PM	Container-01 of 01

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Page 35 of 114



LABORATORY RESULTS

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AECOM

125 Broad Street, 16th Floor
 New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/3/2014 11:40:00 AM

Received : 12/3/2014 4:25:00 PM National Grid-Far Rockaway Well Monitoring

Collected By CLIENT

Lab No. : 1412295-006

Client Sample ID: MW-110D

Sample Information:

Type : Groundwater

Origin:

<u>Analytical Method:</u> SW6010C :		<u>Prep Method:</u> SW3005A		<u>Prep Date:</u> 12/10/2014 1:52:00 PM		<u>Analyst:</u> CGZ
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Analyzed:</u>	<u>Container:</u>
Iron	< 0.10		1	mg/L	12/10/2014 11:49 PM	Container-01 of 01
Manganese	0.15		1	mg/L	12/10/2014 11:49 PM	Container-01 of 01
<u>Analytical Method:</u> SW6010C :		<u>Prep Method:</u> SW3005A		<u>Prep Date:</u> 12/9/2014 9:53:00 AM		<u>Analyst:</u> CGZ
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Analyzed:</u>	<u>Container:</u>
Manganese	0.21		1	mg/L	12/09/2014 9:22 PM	Container-01 of 01

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Client Services Manager

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NYSDOH ID#10478 www.pacelabs.com

AECOM

125 Broad Street, 16th Floor
New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/3/2014 11:40:00 AM

Received : 12/3/2014 4:25:00 PM National Grid-Far Rockaway Well Monitoring

Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Groundwater

Origin:

Analytical Method: SW8260C :		Prep Method: 5030C			Analyst: DL
Parameter(s)	Results	Qualifier	D.F.	Units	Container:
1,1,1-Trichloroethane	< 10		1	µg/L	12/09/2014 5:59 PM Container-01 of 02
1,1,2,2-Tetrachloroethane	< 10		1	µg/L	12/09/2014 5:59 PM Container-01 of 02
1,1,2-Trichloro-1,2,2-trifluoroethane	< 10	UJ	1	µg/L	12/09/2014 5:59 PM Container-01 of 02
1,1,2-Trichloroethane	< 10		1	µg/L	12/09/2014 5:59 PM Container-01 of 02
1,1-Dichloroethane	< 10		1	µg/L	12/09/2014 5:59 PM Container-01 of 02
1,1-Dichloroethene	< 10	UJ	1	µg/L	12/09/2014 5:59 PM Container-01 of 02
1,2,4-Trichlorobenzene	< 10		1	µg/L	12/09/2014 5:59 PM Container-01 of 02
1,2-Dibromo-3-chloropropane	< 10		1	µg/L	12/09/2014 5:59 PM Container-01 of 02
1,2-Dibromoethane	< 10		1	µg/L	12/09/2014 5:59 PM Container-01 of 02
1,2-Dichlorobenzene	< 10		1	µg/L	12/09/2014 5:59 PM Container-01 of 02
1,2-Dichloroethane	< 10		1	µg/L	12/09/2014 5:59 PM Container-01 of 02
1,2-Dichloropropane	< 10		1	µg/L	12/09/2014 5:59 PM Container-01 of 02
1,3-Dichlorobenzene	< 10		1	µg/L	12/09/2014 5:59 PM Container-01 of 02
1,4-Dichlorobenzene	< 10		1	µg/L	12/09/2014 5:59 PM Container-01 of 02
2-Butanone	< 10		1	µg/L	12/09/2014 5:59 PM Container-01 of 02
2-Hexanone	< 10		1	µg/L	12/09/2014 5:59 PM Container-01 of 02
4-Methyl-2-pentanone	< 10		1	µg/L	12/09/2014 5:59 PM Container-01 of 02
Acetone	< 10		1	µg/L	12/09/2014 5:59 PM Container-01 of 02
Benzene	< 10		1	µg/L	12/09/2014 5:59 PM Container-01 of 02
Bromodichloromethane	< 10		1	µg/L	12/09/2014 5:59 PM Container-01 of 02
Bromoform	< 10		1	µg/L	12/09/2014 5:59 PM Container-01 of 02
Bromomethane	< 10		1	µg/L	12/09/2014 5:59 PM Container-01 of 02
Carbon disulfide	< 10	UJ	1	µg/L	12/09/2014 5:59 PM Container-01 of 02
Carbon tetrachloride	< 10	UJ	1	µg/L	12/09/2014 5:59 PM Container-01 of 02
Chlorobenzene	< 10		1	µg/L	12/09/2014 5:59 PM Container-01 of 02
Chloroethane	< 10		1	µg/L	12/09/2014 5:59 PM Container-01 of 02
Chloroform	< 10		1	µg/L	12/09/2014 5:59 PM Container-01 of 02
Chloromethane	< 10		1	µg/L	12/09/2014 5:59 PM Container-01 of 02
cis-1,2-Dichloroethene	< 10		1	µg/L	12/09/2014 5:59 PM Container-01 of 02
cis-1,3-Dichloropropene	< 10		1	µg/L	12/09/2014 5:59 PM Container-01 of 02
Cyclohexane	< 10	UJ	1	µg/L	12/09/2014 5:59 PM Container-01 of 02
Dibromochloromethane	< 10		1	µg/L	12/09/2014 5:59 PM Container-01 of 02

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NYSDOH ID#10478 www.pacelabs.com

AECOM

125 Broad Street, 16th Floor
New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/3/2014 11:40:00 AM

Received : 12/3/2014 4:25:00 PM National Grid-Far Rockaway Well Monitoring

Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Groundwater

Origin:

Lab No. : 1412295-006

Client Sample ID: MW-110D

Analytical Method: SW8260C :		Prep Method: 5030C			Analyst: DL	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Dichlorodifluoromethane	< 10	UJ	1	µg/L	12/09/2014 5:59 PM	Container-01 of 02
Ethylbenzene	< 10		1	µg/L	12/09/2014 5:59 PM	Container-01 of 02
Isopropylbenzene	< 10		1	µg/L	12/09/2014 5:59 PM	Container-01 of 02
Methyl Acetate	< 10		1	µg/L	12/09/2014 5:59 PM	Container-01 of 02
Methyl tert-butyl ether	< 10		1	µg/L	12/09/2014 5:59 PM	Container-01 of 02
Methylcyclohexane	< 10	UJ	1	µg/L	12/09/2014 5:59 PM	Container-01 of 02
Methylene chloride	< 10		1	µg/L	12/09/2014 5:59 PM	Container-01 of 02
Styrene	< 10		1	µg/L	12/09/2014 5:59 PM	Container-01 of 02
Tetrachloroethene	< 10		1	µg/L	12/09/2014 5:59 PM	Container-01 of 02
Toluene	< 10		1	µg/L	12/09/2014 5:59 PM	Container-01 of 02
trans-1,2-Dichloroethene	< 10		1	µg/L	12/09/2014 5:59 PM	Container-01 of 02
trans-1,3-Dichloropropene	< 10		1	µg/L	12/09/2014 5:59 PM	Container-01 of 02
Trichloroethene	< 10	UJ	1	µg/L	12/09/2014 5:59 PM	Container-01 of 02
Trichlorofluoromethane	< 10		1	µg/L	12/09/2014 5:59 PM	Container-01 of 02
Vinyl chloride	< 10	UJ	1	µg/L	12/09/2014 5:59 PM	Container-01 of 02
Xylene (total)	< 10		1	µg/L	12/09/2014 5:59 PM	Container-01 of 02
Surr: 1,2-Dichloroethane-d4	94.5		1	%REC Limit 53-183	12/09/2014 5:59 PM	Container-01 of 02
Surr: 4-Bromofluorobenzene	103		1	%REC Limit 63-140	12/09/2014 5:59 PM	Container-01 of 02
Surr: Toluene-d8	100		1	%REC Limit 60-135	12/09/2014 5:59 PM	Container-01 of 02

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Collected : 12/3/2014 11:40:00 AM

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Collected By CLIENT

LABORATORY RESULTS

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Sample Information:

Type : Groundwater

Origin:

Lab No. : 1412295-006

Client Sample ID: MW-110D

Analytical Method: SW8270D :		Prep Method: SW3520C		Prep Date: 12/8/2014 10:34:48 AM		Analyst: EAG
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
1,1'-Biphenyl	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
2,2'-oxybis(1-chloropropane)	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
2,4,5-Trichlorophenol	< 25		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
2,4,6-Trichlorophenol	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
2,4-Dichlorophenol	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
2,4-Dimethylphenol	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
2,4-Dinitrophenol	< 25		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
2,4-Dinitrotoluene	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
2,6-Dinitrotoluene	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
2-Chloronaphthalene	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
2-Chlorophenol	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
2-Methylnaphthalene	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
2-Methylphenol	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
2-Nitroaniline	< 25		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
2-Nitrophenol	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
3,3'-Dichlorobenzidine	< 10	UJ	1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
3-Nitroaniline	< 25	UJ	1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
4,6-Dinitro-2-methylphenol	< 25		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
4-Bromophenyl-phenylether	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
4-Chloro-3-methylphenol	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
4-Chloroaniline	< 10	UJ	1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
4-Chlorophenyl-phenylether	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
4-Methylphenol	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
4-Nitroaniline	< 25		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
4-Nitrophenol	< 25		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
Acenaphthene	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
Acenaphthylene	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
Acetophenone	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
Anthracene	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
Atrazine	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
Benzaldehyde	< 10	UJ	1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
Benzo(a)anthracene	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01

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LABORATORY RESULTS

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AECOM

125 Broad Street, 16th Floor
 New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/3/2014 11:40:00 AM

Received : 12/3/2014 4:25:00 PM National Grid-Far Rockaway Well Monitoring

Collected By CLIENT

Lab No. : 1412295-006

Client Sample ID: MW-110D

Sample Information:

Type : Groundwater

Origin:

Analytical Method: SW8270D :		Prep Method: SW3520C		Prep Date: 12/8/2014 10:34:48 AM		Analyst: EAG
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Benzo(a)pyrene	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
Benzo(b)fluoranthene	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
Benzo(g,h,i)perylene	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
Benzo(k)fluoranthene	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
Bis(2-chloroethoxy)methane	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
Bis(2-chloroethyl)ether	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
Bis(2-ethylhexyl)phthalate	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
Butyl benzyl phthalate	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
Caprolactam	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
Carbazole	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
Chrysene	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
Dibenzo(a,h)anthracene	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
Dibenzofuran	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
Diethylphthalate	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
Dimethylphthalate	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
Di-n-butyl phthalate	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
Di-n-octyl phthalate	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
Fluoranthene	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
Fluorene	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
Hexachlorobenzene	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
Hexachlorobutadiene	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
Hexachlorocyclopentadiene	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
Hexachloroethane	< 10	8 UJ	1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
Indeno(1,2,3-cd)pyrene	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
Isophorone	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
Naphthalene	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
Nitrobenzene	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
N-Nitroso-di-n-propylamine	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
N-Nitrosodiphenylamine	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
Pentachlorophenol	< 25		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
Phenanthrene	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01
Phenol	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

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Client Services Manager

Test results meet the requirements of NELAC unless otherwise noted.

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Date Reported : 12/17/2014

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Pace Analytical

575 Broad Hollow Road, Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYS DOH ID#10478 www.pacelabs.com

AECOM

125 Broad Street, 16th Floor
New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/3/2014 11:40:00 AM

Received : 12/3/2014 4:25:00 PM

Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Groundwater

Origin:

Lab No. : 1412295-006

Client Sample ID: MW-110D

National Grid-Far Rockaway Well Monitoring

Analytical Method: SW8270D :		Prep Method: SW3520C		Prep Date: 12/8/2014 10:34:48 AM		Analyst: EAG	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Pyrene	< 10		1	µg/L	12/10/2014 3:12 PM	Container-01 of 01	
Surr: 1,2-Dichlorobenzene-d4	52.7		1	%REC Limit 16-110	12/10/2014 3:12 PM	Container-01 of 01	
Surr: 2,4,6-Tribromophenol	81.2		1	%REC Limit 10-123	12/10/2014 3:12 PM	Container-01 of 01	
Surr: 2-Chlorophenol-d4	66.1		1	%REC Limit 33-110	12/10/2014 3:12 PM	Container-01 of 01	
Surr: 2-Fluorobiphenyl	63.1		1	%REC Limit 43-116	12/10/2014 3:12 PM	Container-01 of 01	
Surr: 2-Fluorophenol	60.9		1	%REC Limit 21-110	12/10/2014 3:12 PM	Container-01 of 01	
Surr: 4-Terphenyl-d14	60.9		1	%REC Limit 33-141	12/10/2014 3:12 PM	Container-01 of 01	
Surr: Nitrobenzene-d5	64.6		1	%REC Limit 35-114	12/10/2014 3:12 PM	Container-01 of 01	
Surr: Phenol-d5	69.3		1	%REC Limit 10-110	12/10/2014 3:12 PM	Container-01 of 01	
Analytical Method: SM2320B :						Analyst: SH2	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Alkalinity, Total (As CaCO3)	78.8		1	mg/L	12/05/2014 5:53 PM	Container-01 of 01	
Analytical Method: E300.0 :						Analyst: bka	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Sulfate	41.3		1	mg/L	12/11/2014 2:08 AM	Container-01 of 01	
Analytical Method: SM4500CO2D :						Analyst: Calc	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Free Carbon Dioxide	24.4		1	mg/L	12/05/2014		
Analytical Method: E410.4 :						Analyst: VaS	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Chemical Oxygen Demand	< 10		1	mg/L	12/09/2014 11:22 AM	Container-01 of 01	
Analytical Method: D3500-Fe :						Analyst: Sub	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Ferrous Iron (See Attached)	0.0520	J	1	mg/L	12/04/2014	Container-01 of 01	
Analytical Method: E353.2 :						Analyst: TF	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Nitrite as N	< 0.10		1	mg/L	12/04/2014 8:21 AM	Container-01 of 01	
Analytical Method: E353.2 :						Analyst: TF	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Nitrate as N	0.50		1	mg/L	12/04/2014 10:16 AM	Container-01 of 01	

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Client Services Manager

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Date Reported : 12/17/2014

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Pace Analytical

575 Broad Hollow Road, Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

AECOM

125 Broad Street, 16th Floor
New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/3/2014 11:40:00 AM

Received : 12/3/2014 4:25:00 PM National Grid-Far Rockaway Well Monitoring

Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Groundwater

Origin:

Analytical Method: RSK-175 :

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Analyst: DL Container:
Methane	5.6		1	µg/L	12/12/2014 3:50 PM	Container-01 of 02
Surr: Propene	85.0		1	%REC Limit 21-187	12/12/2014 3:50 PM	Container-01 of 02

Analytical Method: SW9034 :

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Analyst: JDLR Container:
Sulfide	< 2.00		1	mg/L	12/04/2014 5:05 PM	Container-01 of 01

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125 Broad Street, 16th Floor
New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/3/2014 11:50:00 AM

Received : 12/3/2014 4:25:00 PM National Grid-Far Rockaway Well Monitoring

Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Groundwater

Origin:

Lab No. : 1412295-007

Client Sample ID: MW-119S

Analytical Method: SW6010C :		Prep Method: SW3005A		Prep Date: 12/10/2014 1:52:00 PM		Analyst: CGZ
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Iron	< 0.10		1	mg/L	12/11/2014 12:14 AM	Container-01 of 02
Manganese	< 0.015		1	mg/L	12/11/2014 12:14 AM	Container-01 of 02

Analytical Method: SW6010C :		Prep Method: SW3005A		Prep Date: 12/9/2014 9:53:00 AM		Analyst: CGZ
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Manganese	< 0.015		1	mg/L	12/09/2014 9:28 PM	Container-01 of 02

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Pace Analytical

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AECOM

125 Broad Street, 16th Floor
New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/3/2014 11:50:00 AM

Received : 12/3/2014 4:25:00 PM National Grid-Far Rockaway Well Monitoring

Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Groundwater

Lab No. : 1412295-007

Client Sample ID: MW-119S

Origin:

Analytical Method: SW8260C :

Prep Method: 5030C

Analyst: DL

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
1,1,1-Trichloroethane	< 10		1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
1,1,2,2-Tetrachloroethane	< 10		1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
1,1,2-Trichloro-1,2,2-trifluoroethane	< 10	UJ	1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
1,1,2-Trichloroethane	< 10		1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
1,1-Dichloroethane	< 10		1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
1,1-Dichloroethene	< 10	UJ	1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
1,2,4-Trichlorobenzene	< 10		1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
1,2-Dibromo-3-chloropropane	< 10		1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
1,2-Dibromoethane	< 10		1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
1,2-Dichlorobenzene	< 10		1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
1,2-Dichloroethane	< 10		1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
1,2-Dichloropropane	< 10		1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
1,3-Dichlorobenzene	< 10		1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
1,4-Dichlorobenzene	< 10		1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
2-Butanone	< 10		1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
2-Hexanone	< 10		1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
4-Methyl-2-pentanone	< 10		1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
Acetone	< 10		1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
Benzene	< 10		1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
Bromodichloromethane	< 10		1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
Bromoform	< 10		1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
Bromomethane	< 10		1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
Carbon disulfide	< 10	UJ	1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
Carbon tetrachloride	< 10	UJ	1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
Chlorobenzene	< 10		1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
Chloroethane	< 10		1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
Chloroform	< 10		1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
Chloromethane	< 10		1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
cis-1,2-Dichloroethene	< 10		1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
cis-1,3-Dichloropropene	< 10		1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
Cyclohexane	< 10	UJ	1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
Dibromochloromethane	< 10		1	µg/L	12/09/2014 6:19 PM	Container-01 of 04

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Page 44 of 114



Pace Analytical

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NYSDOH ID#10478 www.pacelabs.com

AECOM

125 Broad Street, 16th Floor
New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/3/2014 11:50:00 AM

Received : 12/3/2014 4:25:00 PM National Grid-Far Rockaway Well Monitoring

Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Groundwater

Origin:

Lab No. : 1412295-007

Client Sample ID: MW-119S

Analytical Method: SW8260C :		Prep Method: 5030C			Analyst: DL	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Dichlorodifluoromethane	< 10	UJ	1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
Ethylbenzene	< 10		1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
Isopropylbenzene	< 10		1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
Methyl Acetate	< 10		1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
Methyl tert-butyl ether	< 10		1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
Methylcyclohexane	< 10	UJ	1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
Methylene chloride	< 10		1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
Styrene	< 10		1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
Tetrachloroethene	< 10		1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
Toluene	< 10		1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
trans-1,2-Dichloroethene	< 10		1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
trans-1,3-Dichloropropene	< 10		1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
Trichloroethene	< 10	UJ	1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
Trichlorofluoromethane	< 10		1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
Vinyl chloride	< 10	UJ	1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
Xylene (total)	< 10		1	µg/L	12/09/2014 6:19 PM	Container-01 of 04
Surr: 1,2-Dichloroethane-d4	98.0		1	%REC Limit 53-183	12/09/2014 6:19 PM	Container-01 of 04
Surr: 4-Bromofluorobenzene	103		1	%REC Limit 63-140	12/09/2014 6:19 PM	Container-01 of 04
Surr: Toluene-d8	99.8		1	%REC Limit 60-135	12/09/2014 6:19 PM	Container-01 of 04

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LABORATORY RESULTS

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AECOM

125 Broad Street, 16th Floor
New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/3/2014 11:50:00 AM

Received : 12/3/2014 4:25:00 PM National Grid-Far Rockaway Well Monitoring

Collected By CLIENT

Lab No. : 1412295-007

Client Sample ID: MW-119S

Sample Information:

Type : Groundwater

Origin:

Analytical Method: SW8270D :	Prep Method: SW3520C	Prep Date: 12/8/2014 10:34:48 AM	Analyst: EAG			
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
1,1'-Biphenyl	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
2,2'-oxybis(1-chloropropane)	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
2,4,5-Trichlorophenol	< 25		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
2,4,6-Trichlorophenol	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
2,4-Dichlorophenol	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
2,4-Dimethylphenol	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
2,4-Dinitrophenol	< 25		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
2,4-Dinitrotoluene	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
2,6-Dinitrotoluene	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
2-Chloronaphthalene	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
2-Chlorophenol	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
2-Methylnaphthalene	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
2-Methylphenol	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
2-Nitroaniline	< 25		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
2-Nitrophenol	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
3,3'-Dichlorobenzidine	< 10	E UJ	1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
3-Nitroaniline	< 25	E UJ	1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
4,6-Dinitro-2-methylphenol	< 25		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
4-Bromophenyl-phenylether	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
4-Chloro-3-methylphenol	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
4-Chloroaniline	< 10	E UJ	1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
4-Chlorophenyl-phenylether	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
4-Methylphenol	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
4-Nitroaniline	< 25		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
4-Nitrophenol	< 25		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
Acenaphthene	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
Acenaphthylene	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
Acetophenone	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
Anthracene	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
Atrazine	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
Benzaldehyde	< 10	E UJ	1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
Benzo(a)anthracene	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02

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Page 46 of 114



LABORATORY RESULTS

Results for the samples and analytes requested

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AECOM

125 Broad Street, 16th Floor
 New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/3/2014 11:50:00 AM

Received : 12/3/2014 4:25:00 PM

Collected By CLIENT

Lab No. : 1412295-007

Client Sample ID: MW-119S

Sample Information:

Type : Groundwater

Origin:

Analytical Method: SW8270D :		Prep Method: SW3520C		Prep Date: 12/8/2014 10:34:48 AM		Analyst: EAG
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Benzo(a)pyrene	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
Benzo(b)fluoranthene	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
Benzo(g,h,i)perylene	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
Benzo(k)fluoranthene	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
Bis(2-chloroethoxy)methane	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
Bis(2-chloroethyl)ether	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
Bis(2-ethylhexyl)phthalate	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
Butyl benzyl phthalate	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
Caprolactam	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
Carbazole	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
Chrysene	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
Dibenzo(a,h)anthracene	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
Dibenzofuran	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
Diethylphthalate	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
Dimethylphthalate	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
Di-n-butyl phthalate	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
Di-n-octyl phthalate	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
Fluoranthene	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
Fluorene	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
Hexachlorobenzene	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
Hexachlorobutadiene	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
Hexachlorocyclopentadiene	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
Hexachloroethane	< 10	UJ	1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
Indeno(1,2,3-cd)pyrene	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
Isophorone	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
Naphthalene	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
Nitrobenzene	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
N-Nitroso-di-n-propylamine	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
N-Nitrosodiphenylamine	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
Pentachlorophenol	< 25		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
Phenanthrene	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02
Phenol	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

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J = Estimated value - below calibration range

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Client Services Manager

Date Reported : 12/17/2014

Page 47 of 114

Pace Analytical

575 Broad Hollow Road, Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYS DOH ID#10478 www.pacelabs.com

AECOM

125 Broad Street, 16th Floor
New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/3/2014 11:50:00 AM

Received : 12/3/2014 4:25:00 PM

Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No. : 1412295-007

Client Sample ID: MW-119S

Sample Information:

Type : Groundwater

Origin:

National Grid-Far Rockaway Well Monitoring

Analytical Method: SW8270D :		Prep Method: SW3520C		Prep Date: 12/8/2014 10:34:48 AM		Analyst: EAG	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Pyrene	< 10		1	µg/L	12/10/2014 3:44 PM	Container-01 of 02	
Surr: 1,2-Dichlorobenzene-d4	59.6		1	%REC Limit 16-110	12/10/2014 3:44 PM	Container-01 of 02	
Surr: 2,4,6-Tribromophenol	84.9		1	%REC Limit 10-123	12/10/2014 3:44 PM	Container-01 of 02	
Surr: 2-Chlorophenol-d4	75.7		1	%REC Limit 33-110	12/10/2014 3:44 PM	Container-01 of 02	
Surr: 2-Fluorobiphenyl	70.3		1	%REC Limit 43-116	12/10/2014 3:44 PM	Container-01 of 02	
Surr: 2-Fluorophenol	70.0		1	%REC Limit 21-110	12/10/2014 3:44 PM	Container-01 of 02	
Surr: 4-Terphenyl-d14	58.6		1	%REC Limit 33-141	12/10/2014 3:44 PM	Container-01 of 02	
Surr: Nitrobenzene-d5	73.9		1	%REC Limit 35-114	12/10/2014 3:44 PM	Container-01 of 02	
Surr: Phenol-d5	78.3		1	%REC Limit 10-110	12/10/2014 3:44 PM	Container-01 of 02	
Analytical Method: SM2320B :						Analyst: SH2	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Alkalinity, Total (As CaCO3)	97.4		1	mg/L	12/05/2014 6:01 PM	Container-01 of 02	
Analytical Method: E300.0 :						Analyst: bka	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Sulfate	25.8		1	mg/L	12/11/2014 2:21 AM	Container-01 of 02	
Analytical Method: SM4500CO2D :						Analyst: Calc	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Free Carbon Dioxide	18.6		1	mg/L	12/05/2014		
Analytical Method: E410.4 :						Analyst: VaS	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Chemical Oxygen Demand	< 10		1	mg/L	12/09/2014 11:24 AM	Container-01 of 02	
Analytical Method: D3500-Fe :						Analyst: Sub	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Ferrous Iron (See Attached)	< 0.050	UJ	1	mg/L	12/04/2014	Container-01 of 02	
Analytical Method: E353.2 :						Analyst: TF	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Nitrite as N	< 0.10		1	mg/L	12/04/2014 8:25 AM	Container-01 of 02	
Analytical Method: E353.2 :						Analyst: TF	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Nitrate as N	0.98		1	mg/L	12/04/2014 10:17 AM	Container-01 of 02	

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Client Services Manager

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NYSDOH ID#10478 www.pacelabs.com

AECOM

125 Broad Street, 16th Floor
New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/3/2014 11:50:00 AM

Received : 12/3/2014 4:25:00 PM

Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No. : 1412295-007

Client Sample ID: MW-119S

Sample Information:

Type : Groundwater

Origin:

National Grid-Far Rockaway Well Monitoring

Analytical Method: RSK-175 :

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Analyst: DL Container:
Methane	4.7		1	µg/L	12/12/2014 4:03 PM	Container-01 of 04
Surr: Propene	89.0		1	%REC Limit 21-187	12/12/2014 4:03 PM	Container-01 of 04

Analytical Method: SW9034 :

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Analyst: JDLR Container:
Sulfide	< 2.00		1	mg/L	12/04/2014 5:05 PM	Container-01 of 02

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Collected : 12/3/2014 10:00:00 AM

Received : 12/3/2014 4:25:00 PM National Grid-Far Rockaway Well Monitoring

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LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Groundwater

Origin:

Lab No. : 1412295-008

Client Sample ID: MW-119D

Analytical Method: SW6010C :		Prep Method: SW3005A		Prep Date: 12/10/2014 1:52:00 PM		Analyst: CGZ
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Iron	< 0.10		1	mg/L	12/11/2014 12:44 AM	Container-01 of 01
Manganese	0.32		1	mg/L	12/11/2014 12:44 AM	Container-01 of 01
Analytical Method: SW6010C :		Prep Method: SW3005A		Prep Date: 12/9/2014 9:53:00 AM		Analyst: CGZ
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Manganese	0.32		1	mg/L	12/09/2014 10:16 PM	Container-01 of 01

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Collected : 12/3/2014 10:00:00 AM

Received : 12/3/2014 4:25:00 PM National Grid-Far Rockaway Well Monitoring

Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Groundwater

Lab No. : 1412295-008

Client Sample ID: MW-119D

Origin:

Analytical Method: SW8260C :

Prep Method: 5030C

Analyst: DL

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
1,1,1-Trichloroethane	< 10		1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
1,1,2,2-Tetrachloroethane	< 10		1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
1,1,2-Trichloro-1,2,2-trifluoroethane	< 10	UJ	1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
1,1,2-Trichloroethane	< 10		1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
1,1-Dichloroethane	< 10		1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
1,1-Dichloroethene	< 10	UJ	1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
1,2,4-Trichlorobenzene	< 10		1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
1,2-Dibromo-3-chloropropane	< 10		1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
1,2-Dibromoethane	< 10		1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
1,2-Dichlorobenzene	< 10		1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
1,2-Dichloroethane	< 10		1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
1,2-Dichloropropane	< 10		1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
1,3-Dichlorobenzene	< 10		1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
1,4-Dichlorobenzene	< 10		1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
2-Butanone	< 10		1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
2-Hexanone	< 10		1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
4-Methyl-2-pentanone	< 10		1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
Acetone	< 10		1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
Benzene	< 10		1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
Bromodichloromethane	< 10		1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
Bromoform	< 10		1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
Bromomethane	< 10		1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
Carbon disulfide	< 10	UJ	1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
Carbon tetrachloride	< 10	UJ	1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
Chlorobenzene	< 10		1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
Chloroethane	< 10		1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
Chloroform	< 10		1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
Chloromethane	< 10		1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
cis-1,2-Dichloroethene	< 10		1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
cis-1,3-Dichloropropene	< 10		1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
Cyclohexane	< 10	UJ	1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
Dibromochloromethane	< 10		1	µg/L	12/09/2014 7:17 PM	Container-01 of 02

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Client Services Manager

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Date Reported : 12/17/2014

Page 51 of 114

Pace Analytical

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TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

AECOM

125 Broad Street, 16th Floor
New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/3/2014 10:00:00 AM

Received : 12/3/2014 4:25:00 PM National Grid-Far Rockaway Well Monitoring

Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Groundwater

Lab No. : 1412295-008

Client Sample ID: MW-119D

Origin:

Analytical Method: SW8260C :		Prep Method: 5030C			Analyst: DL	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Dichlorodifluoromethane	< 10	J US	1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
Ethylbenzene	< 10		1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
Isopropylbenzene	< 10		1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
Methyl Acetate	< 10		1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
Methyl tert-butyl ether	< 10		1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
Methylcyclohexane	< 10	J US	1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
Methylene chloride	< 10		1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
Styrene	< 10		1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
Tetrachloroethene	< 10		1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
Toluene	< 10		1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
trans-1,2-Dichloroethene	< 10		1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
trans-1,3-Dichloropropene	< 10		1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
Trichloroethene	< 10	J US	1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
Trichlorofluoromethane	< 10		1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
Vinyl chloride	< 10	J US	1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
Xylene (total)	< 10		1	µg/L	12/09/2014 7:17 PM	Container-01 of 02
Surr: 1,2-Dichloroethane-d4	96.7		1	%REC Limit 53-183	12/09/2014 7:17 PM	Container-01 of 02
Surr: 4-Bromofluorobenzene	102		1	%REC Limit 63-140	12/09/2014 7:17 PM	Container-01 of 02
Surr: Toluene-d8	98.9		1	%REC Limit 60-135	12/09/2014 7:17 PM	Container-01 of 02

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LABORATORY RESULTS

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Sample Information:

Type : Groundwater

Lab No. : 1412295-008

Client Sample ID: MW-119D

Origin:

Analytical Method: SW8270D :		Prep Method: SW3520C		Prep Date: 12/8/2014 10:34:48 AM		Analyst: EAG	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
1,1'-Biphenyl	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
2,2'-oxybis(1-chloropropane)	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
2,4,5-Trichlorophenol	< 25		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
2,4,6-Trichlorophenol	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
2,4-Dichlorophenol	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
2,4-Dimethylphenol	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
2,4-Dinitrophenol	< 25		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
2,4-Dinitrotoluene	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
2,6-Dinitrotoluene	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
2-Chloronaphthalene	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
2-Chlorophenol	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
2-Methylnaphthalene	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
2-Methylphenol	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
2-Nitroaniline	< 25		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
2-Nitrophenol	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
3,3'-Dichlorobenzidine	< 10	UJ	1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
3-Nitroaniline	< 25	UJ	1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
4,6-Dinitro-2-methylphenol	< 25		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
4-Bromophenyl-phenylether	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
4-Chloro-3-methylphenol	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
4-Chloroaniline	< 10	UJ	1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
4-Chlorophenyl-phenylether	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
4-Methylphenol	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
4-Nitroaniline	< 25		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
4-Nitrophenol	< 25		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
Acenaphthene	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
Acenaphthylene	24		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
Acetophenone	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
Anthracene	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
Atrazine	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
Benzaldehyde	< 10	UJ	1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
Benzo(a)anthracene	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	

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Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Groundwater

Lab No. : 1412295-008

Client Sample ID: MW-119D

Origin:

Analytical Method: SW8270D :		Prep Method: SW3520C		Prep Date: 12/8/2014 10:34:48 AM		Analyst: EAG	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Benzo(a)pyrene	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
Benzo(b)fluoranthene	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
Benzo(g,h,i)perylene	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
Benzo(k)fluoranthene	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
Bis(2-chloroethoxy)methane	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
Bis(2-chloroethyl)ether	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
Bis(2-ethylhexyl)phthalate	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
Butyl benzyl phthalate	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
Caprolactam	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
Carbazole	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
Chrysene	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
Dibenzo(a,h)anthracene	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
Dibenzofuran	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
Diethylphthalate	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
Dimethylphthalate	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
Di-n-butyl phthalate	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
Di-n-octyl phthalate	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
Fluoranthene	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
Fluorene	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
Hexachlorobenzene	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
Hexachlorobutadiene	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
Hexachlorocyclopentadiene	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
Hexachloroethane	< 10	8 UJ	1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
Indeno(1,2,3-cd)pyrene	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
Isophorone	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
Naphthalene	57		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
Nitrobenzene	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
N-Nitroso-di-n-propylamine	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
N-Nitrosodiphenylamine	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
Pentachlorophenol	< 25		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
Phenanthrene	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
Phenol	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	

Qualifiers: E = Value above quantitation range, Value estimated.

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Client Services Manager

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Date Reported : 12/17/2014

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Pace Analytical

575 Broad Hollow Road, Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

AECOM

125 Broad Street, 16th Floor
New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/3/2014 10:00:00 AM

Received : 12/3/2014 4:25:00 PM National Grid-Far Rockaway Well Monitoring

Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Groundwater

Origin:

Lab No. : 1412295-008

Client Sample ID: MW-119D

Analytical Method: SW8270D :		Prep Method: SW3520C		Prep Date: 12/8/2014 10:34:48 AM		Analyst: EAG	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Pyrene	< 10		1	µg/L	12/10/2014 4:15 PM	Container-01 of 01	
Surr: 1,2-Dichlorobenzene-d4	50.0		1	%REC Limit 16-110	12/10/2014 4:15 PM	Container-01 of 01	
Surr: 2,4,6-Tribromophenol	82.9		1	%REC Limit 10-123	12/10/2014 4:15 PM	Container-01 of 01	
Surr: 2-Chlorophenol-d4	63.2		1	%REC Limit 33-110	12/10/2014 4:15 PM	Container-01 of 01	
Surr: 2-Fluorobiphenyl	61.3		1	%REC Limit 43-116	12/10/2014 4:15 PM	Container-01 of 01	
Surr: 2-Fluorophenol	53.5		1	%REC Limit 21-110	12/10/2014 4:15 PM	Container-01 of 01	
Surr: 4-Terphenyl-d14	63.4		1	%REC Limit 33-141	12/10/2014 4:15 PM	Container-01 of 01	
Surr: Nitrobenzene-d5	62.3		1	%REC Limit 35-114	12/10/2014 4:15 PM	Container-01 of 01	
Surr: Phenol-d5	55.7		1	%REC Limit 10-110	12/10/2014 4:15 PM	Container-01 of 01	
Analytical Method: SM2320B :						Analyst: SH2	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Alkalinity, Total (As CaCO3)	46.5		1	mg/L	12/05/2014 6:27 PM	Container-01 of 01	
Analytical Method: E300.0 :						Analyst: bka	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Sulfate	45.7		1	mg/L	12/11/2014 3:02 AM	Container-01 of 01	
Analytical Method: SM4500CO2D :						Analyst: Calc	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Free Carbon Dioxide	36.9		1	mg/L	12/05/2014		
Analytical Method: E410.4 :						Analyst: VaS	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Chemical Oxygen Demand	< 10		1	mg/L	12/09/2014 11:30 AM	Container-01 of 01	
Analytical Method: D3500-Fe :						Analyst: Sub	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Ferrous Iron (See Attached)	< 0.050	UJ	1	mg/L	12/04/2014	Container-01 of 01	
Analytical Method: E353.2 :						Analyst: TF	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Nitrite as N	< 0.10		1	mg/L	12/04/2014 8:28 AM	Container-01 of 01	
Analytical Method: E353.2 :						Analyst: TF	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Nitrate as N	2.13		5	mg/L	12/04/2014 10:20 AM	Container-01 of 01	

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Client Services Manager

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Page 55 of 114



Pace Analytical

575 Broad Hollow Road, Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYS DOH ID#10478 www.pacelabs.com

AECOM

125 Broad Street, 16th Floor
New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/3/2014 10:00:00 AM

Received : 12/3/2014 4:25:00 PM National Grid-Far Rockaway Well Monitoring

Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Groundwater

Origin:

Lab No. : 1412295-008

Client Sample ID: MW-119D

Analytical Method: RSK-175 :

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Analyst: DL Container:
Methane	2.6		1	µg/L	12/12/2014 4:37 PM	Container-01 of 02
Surr: Propene	72.0		1	%REC Limit 21-187	12/12/2014 4:37 PM	Container-01 of 02

Analytical Method: SW9034 :

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Analyst: JDLR Container:
Sulfide	< 2.00		1	mg/L	12/04/2014 5:05 PM	Container-01 of 01

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AECOM

125 Broad Street, 16th Floor
New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/3/2014 1:50:00 PM

Received : 12/3/2014 4:25:00 PM

Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No. : 1412295-009

Client Sample ID: MW-123D

Sample Information:

Type : Groundwater

Origin:

National Grid-Far Rockaway Well Monitoring

Analytical Method: SW6010C :		Prep Method: SW3005A		Prep Date: 12/10/2014 1:52:00 PM		Analyst: CGZ
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Iron	< 0.10		1	mg/L	12/11/2014 12:50 AM	Container-01 of 01
Manganese	0.56		1	mg/L	12/11/2014 12:50 AM	Container-01 of 01
Analytical Method: SW6010C :		Prep Method: SW3005A		Prep Date: 12/9/2014 9:53:00 AM		Analyst: CGZ
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Manganese	0.58		1	mg/L	12/09/2014 10:22 PM	Container-01 of 01

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125 Broad Street, 16th Floor
New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/3/2014 1:50:00 PM

Received : 12/3/2014 4:25:00 PM

Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No. : 1412295-009

Client Sample ID: MW-123D

Sample Information:

Type : Groundwater

Origin:

Analytical Method: SW8260C :

Prep Method: 5030C

Analyst: DL

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
1,1,1-Trichloroethane	< 10		1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
1,1,2,2-Tetrachloroethane	< 10		1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
1,1,2-Trichloro-1,2,2-trifluoroethane	< 10	S UJ	1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
1,1,2-Trichloroethane	< 10		1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
1,1-Dichloroethane	< 10		1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
1,1-Dichloroethene	< 10	S UJ	1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
1,2,4-Trichlorobenzene	< 10		1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
1,2-Dibromo-3-chloropropane	< 10		1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
1,2-Dibromoethane	< 10		1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
1,2-Dichlorobenzene	< 10		1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
1,2-Dichloroethane	< 10		1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
1,2-Dichloropropane	< 10		1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
1,3-Dichlorobenzene	< 10		1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
1,4-Dichlorobenzene	< 10		1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
2-Butanone	< 10		1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
2-Hexanone	< 10		1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
4-Methyl-2-pentanone	< 10		1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
Acetone	< 10	S	1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
Benzene	< 10		1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
Bromodichloromethane	< 10		1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
Bromoform	< 10		1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
Bromomethane	< 10		1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
Carbon disulfide	< 10	S UJ	1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
Carbon tetrachloride	< 10	S UJ	1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
Chlorobenzene	< 10		1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
Chloroethane	< 10		1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
Chloroform	< 10		1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
Chloromethane	< 10		1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
cis-1,2-Dichloroethene	< 10		1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
cis-1,3-Dichloropropene	< 10		1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
Cyclohexane	< 10	S UJ	1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
Dibromochloromethane	< 10		1	µg/L	12/09/2014 7:37 PM	Container-01 of 02

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Pace Analytical™

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NYSDOH ID#10478 www.pacelabs.com

AECOM

125 Broad Street, 16th Floor
New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/3/2014 1:50:00 PM

Received : 12/3/2014 4:25:00 PM

Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No. : 1412295-009

Client Sample ID: MW-123D

Sample Information:

Type : Groundwater

Origin:

National Grid-Far Rockaway Well Monitoring

Analytical Method: SW8260C :		Prep Method: 5030C			Analyst: DL	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Dichlorodifluoromethane	< 10	UJ	1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
Ethylbenzene	< 10		1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
Isopropylbenzene	< 10		1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
Methyl Acetate	< 10		1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
Methyl tert-butyl ether	< 10		1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
Methylcyclohexane	< 10	UJ	1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
Methylene chloride	< 10		1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
Styrene	< 10		1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
Tetrachloroethene	< 10		1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
Toluene	< 10		1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
trans-1,2-Dichloroethene	< 10		1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
trans-1,3-Dichloropropene	< 10		1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
Trichloroethene	< 10	UJ	1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
Trichlorofluoromethane	< 10		1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
Vinyl chloride	< 10	UJ	1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
Xylene (total)	< 10		1	µg/L	12/09/2014 7:37 PM	Container-01 of 02
Surr: 1,2-Dichloroethane-d4	97.7		1	%REC Limit 53-183	12/09/2014 7:37 PM	Container-01 of 02
Surr: 4-Bromofluorobenzene	102		1	%REC Limit 63-140	12/09/2014 7:37 PM	Container-01 of 02
Surr: Toluene-d8	98.6		1	%REC Limit 60-135	12/09/2014 7:37 PM	Container-01 of 02

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Sample Information:

Type : Groundwater

Lab No. : 1412295-009

Client Sample ID: MW-123D

Origin:

National Grid-Far Rockaway Well Monitoring

Analytical Method: SW8270D :		Prep Method: SW3520C		Prep Date: 12/8/2014 10:34:48 AM		Analyst: EAG	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
1,1'-Biphenyl	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01	
2,2'-oxybis(1-chloropropane)	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01	
2,4,5-Trichlorophenol	< 25		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01	
2,4,6-Trichlorophenol	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01	
2,4-Dichlorophenol	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01	
2,4-Dimethylphenol	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01	
2,4-Dinitrophenol	< 25		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01	
2,4-Dinitrotoluene	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01	
2,6-Dinitrotoluene	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01	
2-Chloronaphthalene	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01	
2-Chlorophenol	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01	
2-Methylnaphthalene	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01	
2-Methylphenol	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01	
2-Nitroaniline	< 25		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01	
2-Nitrophenol	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01	
3,3'-Dichlorobenzidine	< 10	UJ	1	µg/L	12/10/2014 4:47 PM	Container-01 of 01	
3-Nitroaniline	< 25	UJ	1	µg/L	12/10/2014 4:47 PM	Container-01 of 01	
4,6-Dinitro-2-methylphenol	< 25		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01	
4-Bromophenyl-phenylether	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01	
4-Chloro-3-methylphenol	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01	
4-Chloroaniline	< 10	UJ	1	µg/L	12/10/2014 4:47 PM	Container-01 of 01	
4-Chlorophenyl-phenylether	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01	
4-Methylphenol	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01	
4-Nitroaniline	< 25		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01	
4-Nitrophenol	< 25		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01	
Acenaphthene	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01	
Acenaphthylene	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01	
Acetophenone	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01	
Anthracene	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01	
Atrazine	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01	
Benzaldehyde	< 10	UJ	1	µg/L	12/10/2014 4:47 PM	Container-01 of 01	
Benzo(a)anthracene	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01	

Qualifiers: E = Value above quantitation range, Value estimated.

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Client Services Manager

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Date Reported : 12/17/2014

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Pace Analytical

575 Broad Hollow Road, Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

AECOM

125 Broad Street, 16th Floor
New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/3/2014 1:50:00 PM

Received : 12/3/2014 4:25:00 PM

Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No. : 1412295-009

Client Sample ID: MW-123D

Sample Information:

Type : Groundwater

Origin:

National Grid-Far Rockaway Well Monitoring

Analytical Method: SW8270D :		Prep Method: SW3520C		Prep Date: 12/8/2014 10:34:48 AM		Analyst: EAG
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Benzo(a)pyrene	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01
Benzo(b)fluoranthene	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01
Benzo(g,h,i)perylene	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01
Benzo(k)fluoranthene	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01
Bis(2-chloroethoxy)methane	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01
Bis(2-chloroethyl)ether	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01
Bis(2-ethylhexyl)phthalate	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01
Butyl benzyl phthalate	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01
Caprolactam	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01
Carbazole	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01
Chrysene	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01
Dibenzo(a,h)anthracene	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01
Dibenzofuran	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01
Diethylphthalate	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01
Dimethylphthalate	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01
Di-n-butyl phthalate	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01
Di-n-octyl phthalate	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01
Fluoranthene	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01
Fluorene	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01
Hexachlorobenzene	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01
Hexachlorobutadiene	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01
Hexachlorocyclopentadiene	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01
Hexachloroethane	< 10	8/ US	1	µg/L	12/10/2014 4:47 PM	Container-01 of 01
Indeno(1,2,3-cd)pyrene	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01
Isophorone	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01
Naphthalene	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01
Nitrobenzene	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01
N-Nitroso-di-n-propylamine	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01
N-Nitrosodiphenylamine	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01
Pentachlorophenol	< 25		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01
Phenanthrene	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01
Phenol	< 10		1	µg/L	12/10/2014 4:47 PM	Container-01 of 01

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Client Services Manager

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TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

LABORATORY RESULTS

Results for the samples and analytes requested

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AECOM

125 Broad Street, 16th Floor
New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/3/2014 1:50:00 PM

Received : 12/3/2014 4:25:00 PM

Collected By CLIENT

National Grid-Far Rockaway Well Monitoring

Lab No. : 1412295-009

Client Sample ID: MW-123D

Sample Information:

Type : Groundwater

Origin:

Analytical Method: SW8270D :		Prep Method: SW3520C		Prep Date: 12/8/2014 10:34:48 AM		Analyst: EAG	
Parameter(s)	Results	Qualifier	D.F.	Units	Limit	Analyzed:	Container:
Pyrene	< 10		1	µg/L		12/10/2014 4:47 PM	Container-01 of 01
Surr: 1,2-Dichlorobenzene-d4	62.4		1	%REC	Limit 16-110	12/10/2014 4:47 PM	Container-01 of 01
Surr: 2,4,6-Tribromophenol	79.6		1	%REC	Limit 10-123	12/10/2014 4:47 PM	Container-01 of 01
Surr: 2-Chlorophenol-d4	74.2		1	%REC	Limit 33-110	12/10/2014 4:47 PM	Container-01 of 01
Surr: 2-Fluorobiphenyl	70.6		1	%REC	Limit 43-116	12/10/2014 4:47 PM	Container-01 of 01
Surr: 2-Fluorophenol	67.0		1	%REC	Limit 21-110	12/10/2014 4:47 PM	Container-01 of 01
Surr: 4-Terphenyl-d14	64.0		1	%REC	Limit 33-141	12/10/2014 4:47 PM	Container-01 of 01
Surr: Nitrobenzene-d5	70.9		1	%REC	Limit 35-114	12/10/2014 4:47 PM	Container-01 of 01
Surr: Phenol-d5	76.5		1	%REC	Limit 10-110	12/10/2014 4:47 PM	Container-01 of 01
Analytical Method: SM2320B :						Analyst: SH2	
Parameter(s)	Results	Qualifier	D.F.	Units	Limit	Analyzed:	Container:
Alkalinity, Total (As CaCO3)	12.5		1	mg/L		12/05/2014 6:52 PM	Container-01 of 01
Analytical Method: E300.0 :						Analyst: bka	
Parameter(s)	Results	Qualifier	D.F.	Units	Limit	Analyzed:	Container:
Sulfate	48.2		1	mg/L		12/11/2014 3:15 AM	Container-01 of 01
Analytical Method: SM4500CO2D :						Analyst: Calc	
Parameter(s)	Results	Qualifier	D.F.	Units	Limit	Analyzed:	Container:
Free Carbon Dioxide	39.3		1	mg/L		12/05/2014	
Analytical Method: E410.4 :						Analyst: VaS	
Parameter(s)	Results	Qualifier	D.F.	Units	Limit	Analyzed:	Container:
Chemical Oxygen Demand	< 10		1	mg/L		12/09/2014 11:32 AM	Container-01 of 01
Analytical Method: D3500-Fe :						Analyst: Sub	
Parameter(s)	Results	Qualifier	D.F.	Units	Limit	Analyzed:	Container:
Ferrous Iron (See Attached)	< 0.050	UJ	1	mg/L		12/04/2014	Container-01 of 01
Analytical Method: E353.2 :						Analyst: TF	
Parameter(s)	Results	Qualifier	D.F.	Units	Limit	Analyzed:	Container:
Nitrite as N	< 0.10		1	mg/L		12/04/2014 8:29 AM	Container-01 of 01
Analytical Method: E353.2 :						Analyst: TF	
Parameter(s)	Results	Qualifier	D.F.	Units	Limit	Analyzed:	Container:
Nitrate as N	2.93		10	mg/L		12/04/2014 10:22 AM	Container-01 of 01

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Client Services Manager

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TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

AECOM

125 Broad Street, 16th Floor
New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/3/2014 1:50:00 PM

Received : 12/3/2014 4:25:00 PM

Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No. : 1412295-009

Client Sample ID: MW-123D

Sample Information:

Type : Groundwater

Origin:

National Grid-Far Rockaway Well Monitoring

Analytical Method: RSK-175 :

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Analyst: DL	Container:
Methane	< 1.0		1	µg/L	12/12/2014 4:54 PM		Container-01 of 02
Surr: Propene	87.0		1	%REC Limit 21-187	12/12/2014 4:54 PM		Container-01 of 02

Analytical Method: SW9034 :

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Analyst: JDLR	Container:
Sulfide	< 2.00		1	mg/L	12/04/2014 5:05 PM		Container-01 of 01

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J = Estimated value - below calibration range

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Collected : 12/3/2014

Received : 12/3/2014 4:25:00 PM National Grid-Far Rockaway Well Monitoring

Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

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Sample Information:

Type : Groundwater

Origin:

Lab No. : 1412295-010

Client Sample ID: DUP-01

Analytical Method: SW6010C :		Prep Method: SW3005A		Prep Date: 12/10/2014 1:52:00 PM		Analyst: CGZ	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Iron	< 0.10		1	mg/L	12/11/2014 12:56 AM	Container-01 of 01	
Manganese	< 0.015		1	mg/L	12/11/2014 12:56 AM	Container-01 of 01	
Analytical Method: SW6010C :		Prep Method: SW3005A		Prep Date: 12/9/2014 9:53:00 AM		Analyst: CGZ	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
Manganese	< 0.015		1	mg/L	12/09/2014 10:28 PM	Container-01 of 01	

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Page 64 of 114



LABORATORY RESULTS

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AECOM

125 Broad Street, 16th Floor
 New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/3/2014

Received : 12/3/2014 4:25:00 PM National Grid-Far Rockaway Well Monitoring

Collected By CLIENT

Lab No. : 1412295-010

Client Sample ID: DUP-01

Sample Information:

Type : Groundwater

Origin:

Analytical Method: SW8260C :		Prep Method: 5030C			Analyst: DL	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
1,1,1-Trichloroethane	< 10		1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
1,1,2,2-Tetrachloroethane	< 10		1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
1,1,2-Trichloro-1,2,2-trifluoroethane	< 10	UJ	1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
1,1,2-Trichloroethane	< 10		1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
1,1-Dichloroethane	< 10		1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
1,1-Dichloroethene	< 10	UJ	1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
1,2,4-Trichlorobenzene	< 10		1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
1,2-Dibromo-3-chloropropane	< 10		1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
1,2-Dibromoethane	< 10		1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
1,2-Dichlorobenzene	< 10		1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
1,2-Dichloroethane	< 10		1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
1,2-Dichloropropane	< 10		1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
1,3-Dichlorobenzene	< 10		1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
1,4-Dichlorobenzene	< 10		1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
2-Butanone	< 10		1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
2-Hexanone	< 10		1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
4-Methyl-2-pentanone	< 10		1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
Acetone	< 10		1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
Benzene	< 10		1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
Bromodichloromethane	< 10		1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
Bromoform	< 10		1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
Bromomethane	< 10		1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
Carbon disulfide	< 10	UJ	1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
Carbon tetrachloride	< 10	UJ	1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
Chlorobenzene	< 10		1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
Chloroethane	< 10		1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
Chloroform	< 10		1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
Chloromethane	< 10		1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
cis-1,2-Dichloroethene	< 10		1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
cis-1,3-Dichloropropene	< 10		1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
Cyclohexane	< 10	UJ	1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
Dibromochloromethane	< 10		1	µg/L	12/09/2014 7:56 PM	Container-01 of 02

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Client Services Manager

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Page 65 of 114

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AECOM

125 Broad Street, 16th Floor
New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/3/2014

Received : 12/3/2014 4:25:00 PM National Grid-Far Rockaway Well Monitoring

Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

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Sample Information:

Type : Groundwater

Origin:

Lab No. : 1412295-010

Client Sample ID: DUP-01

Analytical Method: SW8260C :

Prep Method: 5030C

Analyst: DL

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Dichlorodifluoromethane	< 10	UJ	1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
Ethylbenzene	< 10		1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
Isopropylbenzene	< 10		1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
Methyl Acetate	< 10		1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
Methyl tert-butyl ether	< 10		1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
Methylcyclohexane	< 10	UJ	1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
Methylene chloride	< 10		1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
Styrene	< 10		1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
Tetrachloroethene	< 10		1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
Toluene	< 10		1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
trans-1,2-Dichloroethene	< 10		1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
trans-1,3-Dichloropropene	< 10		1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
Trichloroethene	< 10	UJ	1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
Trichlorofluoromethane	< 10		1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
Vinyl chloride	< 10	UJ	1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
Xylene (total)	< 10		1	µg/L	12/09/2014 7:56 PM	Container-01 of 02
Surr: 1,2-Dichloroethane-d4	97.5		1	%REC Limit 53-183	12/09/2014 7:56 PM	Container-01 of 02
Surr: 4-Bromofluorobenzene	100		1	%REC Limit 63-140	12/09/2014 7:56 PM	Container-01 of 02
Surr: Toluene-d8	97.4		1	%REC Limit 60-135	12/09/2014 7:56 PM	Container-01 of 02

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Sample Information:

Type : Groundwater

Origin:

Lab No. : 1412295-010

Client Sample ID: DUP-01

Analytical Method: SW8270D :		Prep Method: SW3520C		Prep Date: 12/8/2014 10:34:48 AM		Analyst: EAG
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
1,1'-Biphenyl	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
2,2'-oxybis(1-chloropropane)	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
2,4,5-Trichlorophenol	< 25		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
2,4,6-Trichlorophenol	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
2,4-Dichlorophenol	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
2,4-Dimethylphenol	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
2,4-Dinitrophenol	< 25		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
2,4-Dinitrotoluene	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
2,6-Dinitrotoluene	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
2-Chloronaphthalene	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
2-Chlorophenol	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
2-Methylnaphthalene	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
2-Methylphenol	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
2-Nitroaniline	< 25		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
2-Nitrophenol	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
3,3'-Dichlorobenzidine	< 10	UJ	1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
3-Nitroaniline	< 25	UJ	1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
4,6-Dinitro-2-methylphenol	< 25		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
4-Bromophenyl-phenylether	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
4-Chloro-3-methylphenol	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
4-Chloroaniline	< 10	UJ	1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
4-Chlorophenyl-phenylether	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
4-Methylphenol	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
4-Nitroaniline	< 25		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
4-Nitrophenol	< 25		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
Acenaphthene	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
Acenaphthylene	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
Acetophenone	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
Anthracene	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
Atrazine	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
Benzaldehyde	< 10	UJ	1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
Benzo(a)anthracene	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01

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Client Services Manager

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Pace Analytical

575 Broad Hollow Road, Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYS DOH ID#10478 www.pacelabs.com

AECOM

125 Broad Street, 16th Floor
New York, NY 10004

Attn To : Jennifer Pfeiffer

Collected : 12/3/2014

Received : 12/3/2014 4:25:00 PM National Grid-Far Rockaway Well Monitoring

Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Groundwater

Origin:

Lab No. : 1412295-010

Client Sample ID: DUP-01

Analytical Method: SW8270D :		Prep Method: SW3520C		Prep Date: 12/8/2014 10:34:48 AM		Analyst: EAG
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Benzo(a)pyrene	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
Benzo(b)fluoranthene	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
Benzo(g,h,i)perylene	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
Benzo(k)fluoranthene	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
Bis(2-chloroethoxy)methane	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
Bis(2-chloroethyl)ether	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
Bis(2-ethylhexyl)phthalate	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
Butyl benzyl phthalate	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
Caprolactam	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
Carbazole	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
Chrysene	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
Dibenzo(a,h)anthracene	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
Dibenzofuran	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
Diethylphthalate	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
Dimethylphthalate	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
Di-n-butyl phthalate	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
Di-n-octyl phthalate	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
Fluoranthene	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
Fluorene	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
Hexachlorobenzene	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
Hexachlorobutadiene	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
Hexachlorocyclopentadiene	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
Hexachloroethane	< 10	8 UJ	1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
Indeno(1,2,3-cd)pyrene	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
Isophorone	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
Naphthalene	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
Nitrobenzene	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
N-Nitroso-di-n-propylamine	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
N-Nitrosodiphenylamine	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
Pentachlorophenol	< 25		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
Phenanthrene	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01
Phenol	< 10		1	µg/L	12/10/2014 5:19 PM	Container-01 of 01

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AECOM

125 Broad Street, 16th Floor
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Attn To : Jennifer Pfeiffer

Collected : 12/3/2014

Received : 12/3/2014 4:25:00 PM National Grid-Far Rockaway Well Monitoring

Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

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Sample Information:

Type : Groundwater

Origin:

Lab No. : 1412295-010

Client Sample ID: DUP-01

Analytical Method: SW8270D :		Prep Method: SW3520C		Prep Date: 12/8/2014 10:34:48 AM		Analyst: EAG	
Parameter(s)	Results	Qualifier	D.F.	Units	Limit	Analyzed:	Container:
Pyrene	< 10		1	µg/L		12/10/2014 5:19 PM	Container-01 of 01
Surr: 1,2-Dichlorobenzene-d4	59.8		1	%REC	Limit 16-110	12/10/2014 5:19 PM	Container-01 of 01
Surr: 2,4,6-Tribromophenol	82.9		1	%REC	Limit 10-123	12/10/2014 5:19 PM	Container-01 of 01
Surr: 2-Chlorophenol-d4	67.8		1	%REC	Limit 33-110	12/10/2014 5:19 PM	Container-01 of 01
Surr: 2-Fluorobiphenyl	67.9		1	%REC	Limit 43-116	12/10/2014 5:19 PM	Container-01 of 01
Surr: 2-Fluorophenol	62.6		1	%REC	Limit 21-110	12/10/2014 5:19 PM	Container-01 of 01
Surr: 4-Terphenyl-d14	57.0		1	%REC	Limit 33-141	12/10/2014 5:19 PM	Container-01 of 01
Surr: Nitrobenzene-d5	66.6		1	%REC	Limit 35-114	12/10/2014 5:19 PM	Container-01 of 01
Surr: Phenol-d5	69.9		1	%REC	Limit 10-110	12/10/2014 5:19 PM	Container-01 of 01
Analytical Method: SM2320B :						Analyst: SH2	
Parameter(s)	Results	Qualifier	D.F.	Units		Analyzed:	Container:
Alkalinity, Total (As CaCO3)	94.9		1	mg/L		12/05/2014 6:58 PM	Container-01 of 01
Analytical Method: E300.0 :						Analyst: bka	
Parameter(s)	Results	Qualifier	D.F.	Units		Analyzed:	Container:
Sulfate	25.7		1	mg/L		12/11/2014 3:29 AM	Container-01 of 01
Analytical Method: SM4500CO2D :						Analyst: Calc	
Parameter(s)	Results	Qualifier	D.F.	Units		Analyzed:	Container:
Free Carbon Dioxide	18.5		1	mg/L		12/05/2014	
Analytical Method: E410.4 :						Analyst: VaS	
Parameter(s)	Results	Qualifier	D.F.	Units		Analyzed:	Container:
Chemical Oxygen Demand	< 10		1	mg/L		12/09/2014 11:34 AM	Container-01 of 01
Analytical Method: D3500-Fe :						Analyst: Sub	
Parameter(s)	Results	Qualifier	D.F.	Units		Analyzed:	Container:
Ferrous Iron (See Attached)	< 0.050	UJ	1	mg/L		12/04/2014	Container-01 of 01
Analytical Method: E353.2 :						Analyst: TF	
Parameter(s)	Results	Qualifier	D.F.	Units		Analyzed:	Container:
Nitrite as N	< 0.10		1	mg/L		12/04/2014 8:30 AM	Container-01 of 01
Analytical Method: E353.2 :						Analyst: TF	
Parameter(s)	Results	Qualifier	D.F.	Units		Analyzed:	Container:
Nitrate as N	0.98		1	mg/L		12/04/2014 10:23 AM	Container-01 of 01

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Sample Information:

Type : Groundwater

Origin:

Lab No. : 1412295-010

Client Sample ID: DUP-01

Analytical Method: RSK-175 :

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Analyst: DL Container:
Methane	5.8		1	µg/L	12/12/2014 5:11 PM	Container-01 of 02
Surr: Propene	92.0		1	%REC Limit 21-187	12/12/2014 5:11 PM	Container-01 of 02

Analytical Method: SW9034 :

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Analyst: JDLR Container:
Sulfide	< 2.00		1	mg/L	12/04/2014 5:05 PM	Container-01 of 01

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Appendix D

Total BTEX + Naphthalene Concentration Data Versus Time

Appendix D
Concentration vs Time of BTEX + Naphthalene
Far Rockaway, NY

