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**Groundwater Monitoring Report
December 2023 (Q4-2023) Annual Sampling Event
Rockaway Park Former MGP Site**

Rockaway Park
Queens County, New York
Order on Consent Index No. D1-0002-98-11
Site No. 2-41-029

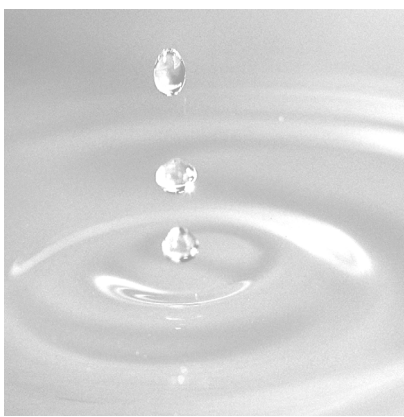
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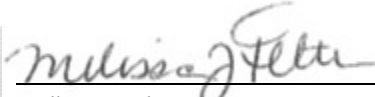
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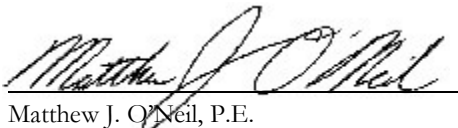

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1. Introduction and Site Background

This report presents the December 2023 groundwater monitoring results for the Rockaway Park Former Manufactured Gas Plant (MGP) Site located in Rockaway Park, Queens County, New York (the Site) (Fig. 1). This report has been prepared in accordance with the requirements of Section 6 of DER-10 (Division of Environmental Remediation) Technical Guidance for Site Investigation and Remediation; the Order on Consent, Index No. D1-0002-98-11 signed by National Grid Corporation (National Grid) and the New York State Department of Environmental Conservation (NYSDEC), and the Site Management Plan (SMP), Rockaway Park Former Manufactured Gas Plant, Rockaway Park, New York prepared by GEI Consultants, Inc. P.C. (GEI), dated April 2022.

1.1 Site Description

The former MGP and former electric substation are identified as Block 16166 and Lot 155 and the majority of Lot 110 on the Queens Tax Map (herein referred to as the “On-Site Property”). The On-Site Property is an approximately 8.9-acre area and is bounded by Beach Channel Drive to the north, Rockaway Freeway to the south, Beach 108th Street to the east, and Rockaway Freeway to the west (Fig. 2).

The bulkhead area, which was historically used for off-loading of coal for the former Gas Works, is located North of the On-Site Property. This property, located north of Beach Channel Drive between Rockaway Freeway and Beach 108th Street, is identified as Block 16166 Lot 177 on the Queens Tax Map (herein referred to as the “Off-Site Property”). The Off-Site Property is an approximately 1.0-acre area and is bounded by Jamaica Bay to the north, and Beach Channel Drive to the south (Fig. 2). National Grid does not own the Off-Site Property.

1.2 Site History

The Rockaway MGP began operations in the late 1870s. The plant was operated by Rockaway Electric Light Co., Town of Hempstead Gas & Electric Company, and later the Queensboro Gas and Electric Company from the late 1870s to 1926. In 1926, Queensboro Gas and Electric Company became a subsidiary of the Long Island Lighting Company (LILCO). LILCO operated the plant from 1926 to approximately 1958, when most of the facilities were demolished. In 1998, KeySpan Corporation acquired the former MGP property through a merger of LILCO and Brooklyn Union Gas Company.

In 1894, the plant consisted of two gas holders, a generator, purifiers, and scrubbers. The records indicate that the MGP operated carbureted water gas and coal carbonization

processes during early gas production. After 1905, the carbureted water gas process was the only process used during gas production. In 1912, the MGP expanded to the north and east and a portion of the southern property boundary was located beneath the present Rockaway Freeway. The plant now included a half-million cubic foot gas holder, several oxide tanks, generator and boiler buildings, engine room, several oil tanks, and a condenser.

The plant expanded in the mid-1920s to a strip of land to the north of the existing plant. This land was created when Jamaica Bay was filled in during Beach Channel Drive Construction. In 1933, the plant configuration included several additional structures that could allow increased gasification, tar and oil separation and storage, and coke and gas storage. These structures included a 2-million cubic foot gas holder, drip oil tanks, skimming basin, condensers, oxide enclosure, generator ash storage bin, tar separator, tar settling and drying tanks, and tar de-emulsifier. The MGP ceased operations in 1957 and was demolished in 1958.

Five industrial supply wells were formerly located on the MGP property. A mixture of clay, liquid mud, and cement were used to abandon these wells. Three of the wells were abandoned in the 1930s and the abandonment dates of the other two wells are not known.

In October 2002, the NYSDEC approved National Grid's request to reclassify the northwestern portion of the Rockaway Park former MGP site on the Registry of Inactive Hazardous Waste Disposal Sites. This portion of the Site is the current active substation. It was delisted based on investigation results and a risk assessment which concluded that the construction worker subsurface-soil exposure in the proposed substation area did not pose an unacceptable carcinogenic health threat or non-cancer health hazard.

1.3 Site Remedy

The NYSDEC-approved remedy for the Site involved four components. The following is a summary of the Remedial Actions performed at the Site:

- A shallow excavation was completed to the approximate depth of the water table at 8-feet below grade at the Site. Outside of the shallow excavation limits, the upper 2 feet of material was removed to accommodate the installation of the On-Site Soil Cover System. Approximately 165,292 tons of material was excavated and disposed of off-site.
- A composite dense non-aqueous phase liquid (DNAPL) migration barrier was constructed at the Site to contain impacted materials at the Site. The location of composite On-Site DNAPL migration barrier is depicted in Fig. 2 and consists of the following components:

- A 695-foot-long Waterloo Barrier® sheet pile barrier was installed. The Waterloo Barrier® sheet piling was installed to depths of 50 feet on the flanks and 60 feet in the center of the wall.
- Soil-cement jet grout columns were installed to a depth of approximately 120 feet below ground surface (ft bgs) with a continuous 5-foot wall overlap with the 250-foot-long center section of the Waterloo Barrier® sheet piles.
- The Off-Site DNAPL migration barrier consists of a 137-foot-long Waterloo Barrier® sheet pile barrier. The Waterloo Barrier® sheet piling was installed to depths of 60 to 70 feet bgs.
- A Cover System was installed on both the On-Site and Off-Site Properties.
- The On-Site Soil Cover System consists of an 18-inch layer of well graded sandy soil material overlain with 6 inches of 2.5-inch crushed stone and underlain with a fabric demarcation barrier between the On-Site Soil Cover System and the subgrade materials.
- The Off-Site Composite Cover System consists of either a 24-inch layer of clean fill meeting the Restricted Residential Use Soil Cleanup Objectives (SCOs) underlain with a fabric demarcation barrier between the Composite Cover System and the subgrade materials or an asphalt/concrete surface, underlain with 6-inches of clean fill and a fabric demarcation barrier.
- Forty-one passive DNAPL recovery wells were installed. One of the recovery wells (RW-08A) was destroyed in 2015 and was not replaced with approval from the NYSDEC. Three recovery wells (RW-13B, RW-15B, and RW-17B) were abandoned in 2021 with approval from the NYSDEC. The locations of the remaining 37 recovery wells are depicted in Fig. 2.

In accordance with the Decision Document and the SMP, National Grid began annual post-remedy monitoring of the groundwater at the Site in the Fourth Quarter of 2016 (Q4 2016). This data provides a baseline of groundwater analytical results following completion of the remedy to evaluate the overall effectiveness of the remedial action.

1.4 Geology

Three major stratigraphic units were identified during the Remedial Investigation (RI) and Final RI drilling program:

- Recent/post glacial fill.
- Barrier island deposits.
- Glacial outwash deposits.

A general description of the three stratigraphic units is provided below.

Fill Material

Fill material is distributed throughout the site investigation areas and was placed in a series of land area expansions from approximately the 1800s to the 1930s. The Sanborn Fire Insurance maps indicate that approximately the northern two-thirds of the site investigation areas were part of Jamaica Bay in 1894. Retaining wall remnants are still present at the Site and mark former bulkheads that supported these filling activities.

Fill material observed at the site consisted primarily of sand with minor amounts of finer and coarser material. The fill material also includes variable amounts of coal, tar coke, clinkers, slag wood, concrete, brick, ash, glass, and crushed shell fragments. Fill materials were encountered to approximately 10 to 15 ft bgs in most of the site areas. Fill was observed to approximately 30 ft bgs in the bulkhead area.

Barrier Island Deposits

Underlying the fill unit throughout much of the Site are sandy, shell-bearing deposits interpreted as recent near-shore, beach, and dune deposits. These are identified as the barrier island deposits. The barrier island deposits contain minor amounts of silt and clay lenses. In addition, shell-bearing layers ranging from approximately 2 to 29 feet thick were observed. These layers sometimes contained coarser sand and gravels. The barrier island deposits were observed through the depths of most borings in the Site investigation areas. The deposits are approximately 55 to 70 feet thick throughout the Site.

Underlying the barrier island deposits at approximately 55 to 70 ft bgs, a distinct color change was observed from gray to brown in borings located throughout the Site. This was interpreted as a transition between the barrier island deposits and the glacial outwash deposits. The transitional zone is approximately 35 to 40 feet thick. Also, a silty sand layer was observed between 65 and 95 ft bgs in this transitional layer.

Glacial Deposits

Underneath the transitional zone, glacial deposits consisting of primarily well-sorted brown outwash sands were encountered. The glacial deposits were encountered at approximately 95 to 105 ft bgs. Some silty sand lenses were observed in the borings at approximately 100 ft bgs in some of the borings.

1.5 Hydrogeology

There is one shallow, unconfined aquifer beneath the Site. Wells were installed at consistent, yet arbitrary, depth intervals in order to evaluate different groundwater zones of the aquifer

during the RI. The zones selected are identified as follows: shallow “S” (wells screened at the water table ranging from 2 to 17 feet ft bgs), intermediate “I” (wells screened from 17 to 45 ft bgs), deep “D” (wells screened from 45 to 90 ft bgs), and deep (2) “D2” (wells screened from 90 to 105 ft bgs). Groundwater depths were collected from all accessible monitoring wells at low and high tides based on the survey tidal mark and tide charts obtained from the National Oceanic and Atmospheric Administration. The water table was observed at approximately 8 ft bgs during monitoring events at the Site.

Three tidal studies have been conducted to confirm the groundwater flow at and adjacent to the Site. In general, groundwater at low tide on the eastern portion of the Site flows northeast towards Jamaica Bay, and shallow groundwater on the western portion of the Site flows northwest towards Jamaica Bay. At high tide, the shallow groundwater contour map depicts the presence of a groundwater divide (or trough) on the Site from the former location of PZ-06 on the southwest corner to the former location of MW-02 on the eastern edge of the Site. This trough is the result of high tidal levels within Jamaica Bay causing shallow groundwater to flow southerly toward the Site during high tide. However, this effect does not “over-ride” the dominant shallow discharge pattern toward Jamaica Bay across the entire Site, thus creating a localized trough. South of the trough, the shallow groundwater still flows north toward Jamaica Bay, even during high tide.

1.6 Historical Groundwater Monitoring Event Summary

Groundwater monitoring events were conducted at the Site in February 2009 and October 2014. The post-remedy baseline sampling was completed in Q4 2016, and annual sampling began in the Fourth Quarter of 2017 (Q4 2017).

2. Rockaway Park Site and Adjacent Off-Site Areas

2.1 Annual Groundwater Monitoring Event Summary

Event Dates: December 14 to December 20, 2023

Site Phase: Post Remedial Annual Groundwater Monitoring

Location: Rockaway Park Former MGP Site

2.2 Monitoring Program

2.2.1 Number of Wells

A total of 56 monitoring wells and recovery wells were located at or adjacent to the Site and included in the post-remedy annual gauging and sampling plan at the Site described in Section 4.3 of the SMP.

Forty-three of the 56 wells are included in the post-remedy annual sampling program. The monitoring well and recovery well locations are depicted in Fig. 2.

Monitoring wells RPMW-26S, RW-18A, and RW-02B were inaccessible during the comprehensive groundwater gauging event. NAPL was observed at monitoring wells RW-03 and RW-05B, so they were not sampled during this event. Monitoring well RW-19D is not included in the post-remedy annual sampling program and was inadvertently sampled during this event.

2.2.2 Hydrological Data

Groundwater levels were measured at 49 monitoring wells and recovery wells on December 14, 2023, during low tide and 53 monitoring wells during high tide. Three wells, RW-26S, RW-18A, and RW-02B were not accessible for both the low and high tide measurements. Four wells, RPMW-02S, RPMW-02I, RPMW-04S, and RPMW-04I were not accessible for the low tide measurements. Depth to groundwater and calculated groundwater elevations are provided in Table 1. Shallow, intermediate, deep, and deep (2) groundwater contours and elevations for the December 2023 sampling event are depicted in Figs. 3 and 4. The groundwater flow direction in the shallow zone was generally to the northeast during low tide and north during high tide. The groundwater flow direction in the intermediate zone is generally to the north during low tide and high tide. The groundwater flow direction in the deep zone is to the northwest during low tide and during high tide. The 2023 groundwater flow direction in the deep (2) zone depicted on the figures is based on limited number of

wells compared to the historic flow direction which incorporated a larger number of wells in this zone prior to the remediation. Since there has been a decommissioning of all but one deep (2) interval monitoring wells, a groundwater flow map cannot be generated. The depth to water and water table elevation data for the shallow, intermediate, deep, and deep (2) portions of the aquifer are presented below in Tables 2a to 2d.

Table 2a. Shallow Groundwater Measurements

Well ID	Low Tide Depth to Water (feet)	Low Tide Water Elevation (feet NAVD)	High Tide Depth to Water (feet)	High Tide Water Elevation (feet NAVD)
RPMW-01S	6.29	0.58	4.58	2.29
RPMW-02S	not accessible	-	8.89	1.15
RPMW-03S	5.25	0.97	4.92	1.3
RPMW-04S	not accessible	-	8.8	2.68
RPMW-11S	7.36	0.82	6.6	1.58
RPMW-14S-R	12.05	0.32	11.7	0.67
RPMW-17S	4.86	1.17	4.2	1.83
RPMW-19S	5.66	2.59	5.71	2.54
RPMW-26S	not accessible	-	not accessible	-
RW-05A	8.41	0.83	6.8	2.44
RW-06A	8.32	1.07	7.21	2.18
RW-13A	7.27	1.48	6.88	1.87

Table 2b. Intermediate Groundwater Measurements

Well ID	Low Tide Depth to Water (feet)	Low Tide Water Elevation (feet NAVD)	High Tide Depth to Water (feet)	High Tide Water Elevation (feet NAVD)
RPMW-01I	7.13	-0.44	3.79	2.9
RPMW-02I	not accessible	-	7.33	2.7
RPMW-03I	6.69	-0.28	3.73	2.68
RPMW-04I	not accessible	-	7.28	3.42
RPMW-11I	8.9	-0.7	5.17	3.03
RPMW-14I-R	11.35	0.35	10.8	0.9
RPMW-17I	4.17	3.42	3.44	4.15
RW-03	10.6	-0.4	7.48	2.72
RW-04A	10.33	-0.35	7.27	2.71
RW-05B	8.57	0.86	6.91	2.52
RW-07A	8.7	1.35	8.07	1.98
RW-09	9.03	1.51	8.71	1.83
RW-10	9.4	1.33	8.6	2.13
RW-11	10.17	0.71	8.37	2.51
RW-12A	9.89	0.78	8.36	2.31
RW-12B	10.62	0.48	8.57	2.53
RW-14B	7.57	1.05	6.32	2.3

Well ID	Low Tide Depth to Water (feet)	Low Tide Water Elevation (feet NAVD)	High Tide Depth to Water (feet)	High Tide Water Elevation (feet NAVD)
RW-16A	7.28	1.06	6.22	2.12
RW-17A	6.94	0.96	5.73	2.17
RW-18A	not accessible	-	not accessible	-
RW-02A	9.32	-0.67	8.85	-0.2
RW-02B	not accessible	-	not accessible	-
RW-01A	9.64	-1.09	8.15	0.4
RW-19A	8.65	-0.16	8.78	-0.29
RW-20A	8.59	-0.2	8.45	-0.06

Table 2c. Deep Groundwater Measurements

Well ID	Low Tide Depth to Water (feet)	Low Tide Water Elevation (feet above MSL)	High Tide Depth to Water (feet)	High Tide Water Elevation (feet above MSL)
RPMW-03D	7.56	-0.44	4.4	2.72
RPMW-11D	8.53	-0.41	4.83	3.29
RPMW-17D	4.67	2.9	4.2	3.37
RW-04B	10.12	-0.43	6.97	2.72
RW-05C	9.05	0.6	7.14	2.51
RW-06B	8.95	0.82	7.23	2.54
RW-07B	9.51	0.81	7.83	2.49
RW-08B	8.99	0.66	7.23	2.42
RW-15A	7.95	0.92	6.52	2.35
RW-18B	11.06	-2.53	6.9	1.63
RW-18C	10.51	-2.01	6.88	1.62
RW-02C	11.12	-2.33	7.95	0.84
RW-01B	10.4	-1.76	6.91	1.73
RW-01C	10.64	-2.02	7.19	1.43
RW-19B	10.52	-1.99	6.85	1.68
RW-19C	10.72	-2.19	7.1	1.43
RW-20B	10.49	-2.14	6.65	1.7
RW-20C	10.4	-2.19	6.32	1.89

Table 2d. Deep (2) Groundwater Measurements

Well ID	Low Tide Depth to Water (feet)	Low Tide Water Elevation (feet above MSL)	High Tide Depth to Water (feet)	High Tide Water Elevation (feet above MSL)
RW-16B	7.33	1.91	6.71	2.53

2.2.3 NAPL Gauging

All of the existing wells in the groundwater monitoring network are gauged for the presence of NAPL during each groundwater monitoring event. The thickness measurements recorded during the previous and current sampling events are shown in Table 3.

Table 3. DNAPL Gauging Measurements

Well ID	November 2021 DNAPL Thickness (feet)	December 2022 DNAPL Thickness (feet)	December 2023 DNAPL Thickness (feet)	Estimated Recovery Rate (feet/day)
RW-03	0.38	0.38	1.05	0.00
RW-05B	5.91	5.47	4.90	0.00
RW-06A	5.53	4.37	4.34	0.00
RW-06B	1.31	0.90	1.22	0.00
RW-07A	1.35	1.15	1.41	0.00
RW-07B	5.28	4.95	4.95	0.00
RW-15A	0.0	0.00	0.00	0.00
RW-16A	0.0	0.00	0.95	0.00
RW-16B	6.17	6.72	6.30	0.00
RW-17A	0.87	0.97	1.21	0.00

Historically, the recovery rates for DNAPL at recovery wells RW-06A and RW-16B and the recovery rates from former monitoring wells collected in 2003 and 2005 during previous recovery rate evaluations have been approximately 0.04 feet/day. Over the year period between November 2021 and December 2022, recovery rates measured in wells that accumulated DNAPL decreased to <0.01 feet/day. Over the next year period between December 2022 and December 2023, recovery rates measured in wells that accumulated DNAPL remained at <0.01 feet/day. Recovery analyses conducted pre- and post-remedy showed very slow NAPL recovery rates. NAPL recovery will be conducted at any well with NAPL within 1-foot of the top of the sump during the next annual groundwater sampling event.

2.2.4 Groundwater Analytical Sampling

The 2023 groundwater sampling event was performed from December 14 to December 20, 2023 and included all accessible wells on the annual sampling list. If monitoring wells with measurable NAPL thicknesses were identified during the sampling event, they were not to be sampled in accordance with the provisions of the SMP. A total of 39 monitoring wells and recovery wells were sampled during the annual event for the following analytes:

- Volatile organic compounds (VOCs) via Environmental Protection Agency (EPA) Method 8260.

- Semi-volatile organic compounds (SVOCs) via EPA Method 8270.
- Total Cyanide via EPA Method 9012B.
- Free Cyanide via EPA Method 9016.

2.2.5 Analytical Results

The discussion below focuses on the analytical results from the current sampling event compared to the baseline sampling event performed in October 2016. The laboratory analytical results for the December 2023 sampling event are included in Table 4 and depicted in Fig. 5.

VOCs

VOC detections above the New York State Technical and Operational Guidance Series (TOGS), 1.1.1 – Ambient Water Quality Standards and Guidance Values (AWQS) for Class GA groundwater were generally limited to benzene, toluene, ethylbenzene and xylene (BTEX). Exceptions include concentrations of isopropylbenzene in samples collected from 21 wells exceeded the AWQS, ranging from not detected at 13 of the 39 wells samples to 95 ug/L at RW-12B. Total BTEX concentrations ranged from less than method detection limits (ND) in six of the 39 wells sampled, to 6,421 µg/L in RW-12B. Individual BTEX compound concentrations above the AWQS were identified in 28 of the 33 wells with detections. The detections in wells with VOC exceedances of the AWQS are summarized in Table 4.

BTEX detections in the December 2023 monitoring event generally remained relatively stable with the majority being similar to the baseline event. A decrease in total BTEX concentration was observed in wells RPMW-01I, RPMW-11S, RPMW-11I, RPMW-17I, RPMW-17D, RW-01A, RW-13A, RW-19A, RW-19B, and RW-20C. An increase in total BTEX concentration was observed in wells RPMW-02I, RPMW-04S, RPMW-11D, RPMW-14I-R, RW-01B, RW-02C, RW-04B, RW-18B, RW-18C, and RW-20A.

SVOCs

SVOC detections above the AWQS included both polycyclic aromatic hydrocarbons (PAHs) and other SVOCs. Total PAH concentrations ranged from ND in 16 of the 39 wells sampled to 5,322.3 µg/L in RW-12B. Additionally, concentrations of biphenyl (1,1-biphenyl), pentachlorophenol, and phenol, exceeded the AWQS in six, one, and four of the 39 wells, respectively. Wells with detections of SVOCs concentrations above the AWQS are summarized in Table 4.

PAH detections in the December 2023 monitoring event generally remained relatively stable with the majority being similar to or lower than the baseline event. An increase in total PAH

concentration was observed in wells RPMW-01, RPMW-04I, RW-01B, RW-01C, RW-04B, and RW-20A.

Cyanides

Total and free cyanide were analyzed in all 39 wells sampled during the groundwater monitoring event. Free cyanide was detected in 5 of the 39 samples. Total cyanide was also detected in 32 of the 39 wells with 10 samples exceeding the AWQS. The maximum concentration of total cyanide at RW-18B was 31,500 ug/L, which is significantly higher than the maximum concentrations observed during the baseline event (950 ug/L at RW-19A). Free cyanide was not detected at RW-18B in the same sample during this event. The detections of free and total cyanide in wells with concentrations above the AWQS are summarized in Table 4.

2.3 Future Plans

Continue annual post-remedy sampling in Q4 2024 in accordance with the SMP.

Submit future groundwater data in the Periodic Review Report following approval of the SMP.

Tables

Table 1. Water Level Measurements and Calculated Groundwater Elevations
Groundwater Monitoring Report Q4-2023
Rockaway Park Former MGP Site
Rockaway Park, New York

Monitoring Well ID	Well Diameter/Type	Screened Interval (feet below ground surface)	Total Depth (feet below ground surface)	Top of Casing Elevation (feet NAVD88)	Location	Low Tide				High Tide			
						Depth To Water	Groundwater Elevation (feet NAVD88)	Time of Water Measurement	DNAPL Thickness (feet)	Depth To Water	Groundwater Elevation (feet NAVD88)	Time of Water Measurement	DNAPL Thickness (feet)
RPMW-01S	2-inch PVC	5-15	17	6.87	Beach Channel Drive	6.29	0.58	1605	0	4.58	2.29	715	0
RPMW-01I	2-inch PVC	35-45	47	6.69	Beach Channel Drive	7.13	-0.44	1605	0	3.79	2.9	719	0
RPMW-02S	2-inch PVC	5-15	17	10.04	Beach Channel Drive	not accessible	-	-	-	8.89	1.15	725	0
RPMW-02I	2-inch PVC	35-45	47	10.03	Beach Channel Drive	not accessible	-	-	-	7.33	2.7	725	0
RPMW-02D	2-inch PVC	64-74	76	10.01	Beach Channel Drive	Destroyed/CNL	-	-	-	Destroyed/CNL	-	-	-
RPMW-02D2	2-inch PVC	95-105	107	10.07	Beach Channel Drive	Destroyed/CNL	-	-	-	Destroyed/CNL	-	-	-
RPMW-03S	2-inch PVC	5-15	17	6.22	Beach Channel Drive	5.25	0.97	1327	0	4.92	1.3	747	0
RPMW-03I	2-inch PVC	35-45	47	6.41	Beach Channel Drive	6.69	-0.28	1327	0	3.73	2.68	747	0
RPMW-03D	2-inch PVC	65-75	77	7.12	Beach Channel Drive	7.56	-0.44	1327	0	4.4	2.72	747	0
RPMW-04S	2-inch PVC	5-15	17	11.48	Substation	not accessible	-	-	-	8.8	2.68	751	0
RPMW-04I	2-inch PVC	35-45	47	10.7	Substation	not accessible	-	-	-	7.28	3.42	751	0
RPMW-11S	2-inch PVC	5-15	17	8.18	Beach Channel Drive	7.36	0.82	1401	0	6.6	1.58	720	0
RPMW-11I	2-inch PVC	35-45	47	8.2	Beach Channel Drive	8.9	-0.7	1401	0	5.17	3.03	720	0
RPMW-11D	2-inch PVC	65-75	77	8.12	Beach Channel Drive	8.53	-0.41	1401	0	4.83	3.29	720	0
RPMW-14S-R	2-inch PVC	5-15	17	12.37	On-Site	12.05	0.32	1437	0	11.7	0.67	909	0
RPMW-14I-R	2-inch PVC	35-45	47	11.7	On-Site	11.35	0.35	1437	0	10.8	0.9	909	0
RPMW-14D	2-inch PVC	66-76	78	13.02	On-Site	Abandoned	-	-	-	Abandoned	-	-	-
RPMW-14D2	2-inch PVC	95-105	107	11.61	On-Site	Abandoned	-	-	-	Abandoned	-	-	-
RPMW-14S	2-inch PVC	5-15	15.5	NA	On-Site	Abandoned	-	-	-	Abandoned	-	-	-
RPMW-14I	2-inch PVC	35-45	44.5	NA	On-Site	Abandoned	-	-	-	Abandoned	-	-	-
RPMW-17S	2-inch PVC	5-15	17	6.03	Beach 108th Street	4.86	1.17	1320	0	4.2	1.83	828	0
RPMW-17I	2-inch PVC	35-45	47	7.59	Beach 108th Street	4.17	3.42	1320	0	3.44	4.15	828	0
RPMW-17D	2-inch PVC	65-75	77	7.57	Beach 108th Street	4.67	2.9	1320	0	4.2	3.37	828	0
RPMW-19S	1-inch PVC	2.3-12.3	12.3	8.25	Beach Channel Drive	5.66	2.59	1327	0	5.71	2.54	747	0
RPMW-26S	1-inch PVC	3-13	13	7.73	Beach 108th Street	not accessible	-	-	-	not accessible	-	-	-
RW-03	4-inch PVC	15-25	30	10.2	On-Site	10.6	-0.4	1419	1.05	7.48	2.72	757	1.05
RW-04A	4-inch PVC	30-40	45	9.98	On-Site	10.33	-0.35	1418	0	7.27	2.71	758	0
RW-04B	4-inch PVC	40-60	65	9.69	On-Site	10.12	-0.43	1418	0	6.97	2.72	758	0
RW-05A	4-inch PVC	10-20	25	9.24	On-Site	8.41	0.83	1418	0	6.8	2.44	754	0
RW-05B	4-inch PVC	25-40	45	9.43	On-Site	8.57	0.86	1417	4.9	6.91	2.52	754	4.9
RW-05C	4-inch PVC	40-50	55	9.65	On-Site	9.05	0.6	1416	0	7.14	2.51	755	0
RW-06A	4-inch PVC	10-20	25	9.39	On-Site	8.32	1.07	1421	4.34	7.21	2.18	756	4.34
RW-06B	4-inch PVC	50-60	65	9.77	On-Site	8.95	0.82	1419	1.22	7.23	2.54	756	1.22
RW-07A	4-inch PVC	10-30	35	10.05	On-Site	8.7	1.35	1425	1.41	8.07	1.98	759	1.41
RW-07B	4-inch PVC	40-60	65	10.32	On-Site	9.51	0.81	1425	4.95	7.83	2.49	759	4.95
RW-08B	4-inch PVC	40-60	65	9.65	On-Site	8.99	0.66	1424	0	7.23	2.42	800	0
RW-09	4-inch PVC	5-30	35	10.54	On-Site	9.03	1.51	1418	0	8.71	1.83	801	0
RW-10	4-inch PVC	5-30	35	10.73	On-Site	9.4	1.33	1417	0	8.6	2.13	801	0
RW-11	4-inch PVC	20-40	45	10.88	On-Site	10.17	0.71	1415	0	8.37	2.51	801	0
RW-12A	4-inch PVC	20-35	40	10.67	On-Site	9.89	0.78	1414	0	8.36	2.31	759	0
RW-12B	4-inch PVC	35-50	55	11.1	On-Site	10.62	0.48	1414	0	8.57	2.53	758	0
RW-13A	4-inch PVC	5-20	25	8.75	On-Site	7.27	1.48	1429	0	6.88	1.87	803	0
RW-13B	4-inch PVC	55-60	65	9.04	On-Site	Abandoned	-	-	-	Abandoned	-	-	-
RW-14B	4-inch PVC	10-30	35	8.62	On-Site	7.57	1.05	1429	0	6.32	2.3	803	0
RW-15A	4-inch PVC	40-60	65	8.87	On-Site	7.95	0.92	1430	0	6.52	2.35	811	0
RW-15B	4-inch PVC	80-100	105	8.69	On-Site	Abandoned	-	-	-	Abandoned	-	-	-
RW-16A	4-inch PVC	10-30	35	8.34	On-Site	7.28	1.06	1432	0.95	6.22	2.12	813	0.95
RW-16B	4-inch PVC	90-110	115	9.24	On-Site	7.33	1.91	1433	6.3	6.71	2.53	813	6.3
RW-17A	4-inch PVC	10-30	35	7.9	On-Site	6.94	0.96	1432	1.21	5.73	2.17	18.18	1.21
RW-17B	4-inch PVC	70-90	95	8.76	On-Site	Abandoned	-	-	-	Abandoned	-	-	-
RW-18A	4-inch PVC	22-32	37	8.51	Beach Channel Drive	not accessible	-	-	-	not accessible	-	-	-
RW-18B	4-inch PVC	42-52	57	8.53	Beach Channel Drive	11.06	-2.53	1335	0	6.9	1.63	740	0
RW-18C	4-inch PVC	62-72	77	8.5	Beach Channel Drive	10.51	-2.01	1335	0	6.88	1.62	740	0
RW-02A	4-inch PVC	15-25	30	8.65	Beach Channel Drive	9.32	-0.67	1339	0	8.85	-0.2	740	0
RW-02B	4-inch PVC	35-45	50	8.96	Beach Channel Drive	not accessible	-	-	-	not accessible	-	-	-
RW-02C	4-inch PVC	60-70	75	8.79	Beach Channel Drive	11.12	-2.33	1414	0	7.95	0.84	740	0
RW-01A	4-inch PVC	22-32	37	8.55	Beach Channel Drive	9.64	-1.09	1348	0	8.15	0.4	725	0
RW-01B	4-inch PVC	41-51	56	8.64	Beach Channel Drive	10.4	-1.76	1348	0	6.91	1.73	725	0
RW-01C	4-inch PVC	61-71	76	8.62	Beach Channel Drive	10.64	-2.02	1348	0	7.19	1.43	725	0
RW-19A	4-inch PVC	19-29	34	8.49	Beach Channel Drive	8.65	-0.16	1350	0	8.78	-0.29	730	0
RW-19B	4-inch PVC	41-51	56	8.53	Beach Channel Drive	10.52	-1.99	1350	0	6.85	1.68	730	0
RW-19C	4-inch PVC	61-71	76	8.53	Beach Channel Drive	10.72	-2.19	1351	0	7.1	1.43	730	0
RW-20A	4-inch PVC	22-32	37	8.39	Beach Channel Drive	8.59	-0.2	1357	0	8.45	-0.06	734	0
RW-20B	4-inch PVC	41-51	56	8.35	Beach Channel Drive	10.49	-2.14	1357	0	6.65	1.7	734	0
RW-20C	4-inch PVC	61-71	76	8.21	Beach Channel Drive	10.4	-2.19	1358	0	6.32	1.89	734	0

August 2024

Table 4. Detected Groundwater Analysis Results
Groundwater Monitoring Report Q4-2023
Rockaway Park Former MGP Site
Rockaway Park, New York

Location Name Sample Name Start Depth End Depth Depth Unit Sample Date Parent Sample				MW-01S RPMW-01S	MW-01I RPMW-01I	MW-01I DUP-01	MW-02S RPMW-02S	MW-02I RPMW-02I	MW-03S RPMW-03S	MW-03 RPMW-03I	MW-03D RPMW-03D	MW-04S RPMW-04S	MW-04S DUP-02	MW-04I RPMW-04I
				5 15 ft 12/18/2023	35 45 ft 12/18/2023	35 45 ft 12/18/2023 RPMW-01I	5 15 ft 12/15/2023	35 45 ft 12/15/2023	5 15 ft 12/18/2023	35 45 ft 12/18/2023	65 75 ft 12/18/2023	5 15 ft 12/20/2023	5 15 ft 12/20/2023 RPMW-04S	35 45 ft 12/20/2023
Analyte	Units	CAS No.	NYS AWQS											
BTEX	ug/L													
Benzene		71-43-2	1	1 U	79	70	1 U	830	2.5	69	1 U	1 U	1 U	1 U
Toluene		108-88-3	5	1 U	1.4	1.2	1 U	2.3	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene		100-41-4	5	1 U	320	290	1 U	59	1 U	2.2	1 U	0.96 J	0.74 J	20
o-Xylene		95-47-6	5	1 U	110	95	1 U	7.9	1 U	1 U	1 U	1 U	1 U	1.3
m/p-Xylene		179601-23-1	5	1 U	22	19	1 U	1.7 J	0.36 J	1 U	1 U	0.31 J	0.33 J	0.3 J
Total BTEX (ND=0)		TBTEX_ND0	NE	ND	532.4	475.2	ND	900.9	2.86	71.2	ND	1.27	1.07	21.6
Other VOCs	ug/L													
Acetone		67-64-1	50*	5 U	5 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromochloromethane		74-97-5	5	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane		75-27-4	50*	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform		75-25-2	50*	1 U	1 U	1 U	1 UJ	2 UJ	1 U	1 U	1 U	1 UJ	1 UJ	1 UJ
Bromomethane		74-83-9	5	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon disulfide		75-15-0	60*	1 UJ	1 UJ	1 UJ	1 UJ	2 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Carbon tetrachloride		56-23-5	5	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 UJ	1 UJ	1 UJ
Chlorobenzene		108-90-7	5	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane		75-00-3	5	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform (Trichloromethane)		67-66-3	7	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane		74-87-3	5	1 U	1 U	1 U	1	2 U	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane		110-82-7	NE	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane		96-12-8	0.04	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane		124-48-1	50*	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane (EDB)		106-93-4	0.0006	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene (o-DCB)		95-50-1	3	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene (m-DCB)		541-73-1	3	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene (p-DCB)		106-46-7	3	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane (Freon 12)		75-71-8	5	1 UJ	1 UJ	1 UJ	1 UJ	2 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
1,1-Dichloroethane		75-34-3	5	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane		107-06-2	0.6	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene		75-35-4	5	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene		156-59-2	5	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene		156-60-5	5	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane		78-87-5	1	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene		10061-01-5	0.4	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene		10061-02-6	0.4	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dioxane		123-91-1	NE	50 U	50 U	50 U	50 U	100 U	50 U	50 U	50 U	50 U	50 U	50 U
2-Hexanone		591-78-6	50*	5 U	5 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U
Isopropylbenzene		98-82-8	5	1 U	44	41	1 U	19	18	1.6	1 U	1 U	1 U	24
Methyl acetate		79-20-9	NE	5 U	5 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U
Methyl ethyl ketone (2-Butanone)		78-93-3	50*	5 U	5 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U
Methyl tert-butyl ether (MTBE)		1634-04-4	10*	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U

Table 4. Detected Groundwater Analysis Results
Groundwater Monitoring Report Q4-2023
Rockaway Park Former MGP Site
Rockaway Park, New York

Location Name Sample Name Start Depth End Depth Depth Unit Sample Date Parent Sample				MW-01S RPMW-01S 5 15 ft 12/18/2023	MW-01I RPMW-01I 35 45 ft 12/18/2023	MW-01I DUP-01 35 45 ft 12/18/2023 RPMW-01I	MW-02S RPMW-02S 5 15 ft 12/15/2023	MW-02I RPMW-02I 35 45 ft 12/15/2023	MW-03S RPMW-03S 5 15 ft 12/18/2023	MW-03 RPMW-03I 35 45 ft 12/18/2023	MW-03D RPMW-03D 65 75 ft 12/18/2023	MW-04S RPMW-04S 5 15 ft 12/20/2023	MW-04S DUP-02 5 15 ft 12/20/2023 RPMW-04S	MW-04I RPMW-04I 35 45 ft 12/20/2023
Analyte	Units	CAS No.	NYS AWQS											
4-Methyl-2-pentanone (MIBK)		108-10-1	NE	5 U	5 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylcyclohexane		108-87-2	NE	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene chloride		75-09-2	5	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene		100-42-5	5	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 UJ	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane		79-34-5	5	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 UJ	1 U
Tetrachloroethene (PCE)		127-18-4	5	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)		76-13-1	5	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene		87-61-6	5	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene		120-82-1	5	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane (TCA)		71-55-6	5	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 UJ	1 U	1 UJ
1,1,2-Trichloroethane		79-00-5	1	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene (TCE)		79-01-6	5	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane (Freon 11)		75-69-4	5	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 UJ	1 U
Vinyl chloride		75-01-4	2	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
Total VOCs (ND=0)		TVOC_ND0	NE	ND	576.4	516.2	1	919.9	20.86	72.8	ND	1.27	1.07	45.6
PAH17	ug/L													
Acenaphthene		83-32-9	20*	10 U	42 J	6.3 J	10 U	43	10 U	10 U	10 U	10 U	10 U	47
Acenaphthylene		208-96-8	NE	10 U	1.8 J	10 U	10 U	1.9 J	10 U	10 U	10 U	10 U	10 U	71
Anthracene		120-12-7	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)anthracene		56-55-3	0.002*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Benzo(b)fluoranthene		205-99-2	0.002*	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Benzo(k)fluoranthene		207-08-9	0.002*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Benzo(g,h,i)perylene		191-24-2	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene		50-32-8	ND	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chrysene		218-01-9	0.002*	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Dibenz(a,h)anthracene		53-70-3	NE	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Fluoranthene		206-44-0	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene		86-73-7	50*	10 U	10 U	10 U	10 U	2.2 J	10 U	10 U	10 U	10 U	10 U	2.2 J
Indeno(1,2,3-cd)pyrene		193-39-5	0.002*	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 UJ	2 UJ	2 UJ
2-Methylnaphthalene		91-57-6	NE	10 U	0.86 J	10 U	10 U	3 J	10 U	10 U	10 UJ	10 U	10 U	87
Naphthalene		91-20-3	10*	2 U	84	2 U	2 U	15	2 U	0.79 J	2 UJ	2 U	2 U	7
Phenanthrene		85-01-8	50*	10 U	10 U	10 U	10 U	10 U	10 U	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	10 U	10 U	10 U	10 U	10 U	10 U
Total PAH (17) (ND=0)		TPAH17_ND0	NE	ND	128.66	6.3	ND	65.1	ND	0.79	ND	ND	ND	214.2

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Location Name Sample Name Start Depth End Depth Depth Unit Sample Date Parent Sample				MW-01S RPMW-01S 5 15 ft 12/18/2023	MW-01I RPMW-01I 35 45 ft 12/18/2023	MW-01I DUP-01 35 45 ft 12/18/2023 RPMW-01I	MW-02S RPMW-02S 5 15 ft 12/15/2023	MW-02I RPMW-02I 35 45 ft 12/15/2023	MW-03S RPMW-03S 5 15 ft 12/18/2023	MW-03 RPMW-03I 35 45 ft 12/18/2023	MW-03D RPMW-03D 65 75 ft 12/18/2023	MW-04S RPMW-04S 5 15 ft 12/20/2023	MW-04S DUP-02 5 15 ft 12/20/2023 RPMW-04S	MW-04I RPMW-04I 35 45 ft 12/20/2023
Analyte	Units	CAS No.	NYS AWQS											
PAH17 Other SVOCs	ug/L													
Acetophenone		98-86-2	NE	10 U	2.3 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Atrazine		1912-24-9	7.5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Benzaldehyde		100-52-7	NE	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Biphenyl (1,1-Biphenyl)		92-52-4	5	10 U	1.6 J	10 U	10 U	10 U	10 U	10 U	10 UJ	10 U	10 U	1.8 J
Bis(2-chloroethoxy)methane		111-91-1	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bis(2-chloroethyl)ether		111-44-4	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2,2-oxybis(1-Chloropropane)		108-60-1	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 UJ	10 UJ	10 UJ
Bis(2-ethylhexyl)phthalate		117-81-7	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1.3 J	2 U	0.96 J	2 U
4-Bromophenyl phenyl ether		101-55-3	NE	10 U	10 U	10 U	10 U	10 U	10 U	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	10 U	10 U	10 U	10 U	10 U	10 U
Caprolactam		105-60-2	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 UJ	10 UJ	10 UJ
Carbazole		86-74-8	NE	10 U	10 U	10 U	10 U	3.1 J	10 U	10 U	10 U	10 U	10 U	0.83 J
4-Chloro-3-methylphenol		59-50-7	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline		106-47-8	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 UJ	10 U	10 U	10 U
2-Chloronaphthalene		91-58-7	10*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 UJ	10 U	10 U	10 U
2-Chlorophenol		95-57-8	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl phenyl ether		7005-72-3	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzofuran		132-64-9	NE	10 U	1.1 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3,3-Dichlorobenzidine		91-94-1	5	10 U	10 U	10 U	10 U	10 U	10 U	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	10 U	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	10 U	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	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol		105-67-9	50*	10 U	10 U	1.4 J	10 U	10 U	10 U	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	10 U	10 U	10 U	10 U	10 U	10 U
4,6-Dinitro-2-methylphenol		534-52-1	NE	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
2,4-Dinitrophenol		51-28-5	10*	40 U	40 U	40 U	40 UJ	40 UJ	40 U	40 U	40 U	40 U	40 U	40 U
2,4-Dinitrotoluene		121-14-2	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene		606-20-2	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Di-n-octyl phthalate		117-84-0	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene		118-74-1	0.04	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Hexachlorobutadiene (C-46)		87-68-3	0.5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U
Hexachlorocyclopentadiene		77-47-4	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane		67-72-1	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Isophorone		78-59-1	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene		91-57-6	NE	10 U	0.86 J	10 U	10 U	3 J	10 U	10 U	10 UJ	10 U	10 U	87
2-Methylphenol (o-Cresol)		95-48-7	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol (p-Cresol)		106-44-5	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline		88-74-4	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline		99-09-2	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

Table 4. Detected Groundwater Analysis Results
Groundwater Monitoring Report Q4-2023
Rockaway Park Former MGP Site
Rockaway Park, New York

Location Name Sample Name Start Depth End Depth Depth Unit Sample Date Parent Sample				MW-01S RPMW-01S 5 15 ft 12/18/2023	MW-01I RPMW-01I 35 45 ft 12/18/2023	MW-01I DUP-01 35 45 ft 12/18/2023 RPMW-01I	MW-02S RPMW-02S 5 15 ft 12/15/2023	MW-02I RPMW-02I 35 45 ft 12/15/2023	MW-03S RPMW-03S 5 15 ft 12/18/2023	MW-03 RPMW-03I 35 45 ft 12/18/2023	MW-03D RPMW-03D 65 75 ft 12/18/2023	MW-04S RPMW-04S 5 15 ft 12/20/2023	MW-04S DUP-02 5 15 ft 12/20/2023 RPMW-04S	MW-04I RPMW-04I 35 45 ft 12/20/2023
Analyte	Units	CAS No.	NYS AWQS											
4-Nitroaniline		100-01-6	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene		98-95-3	0.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Nitrophenol		88-75-5	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol		100-02-7	NE	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
N-Nitrosodiphenylamine (NDFA)		86-30-6	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitrosodi-n-propylamine (NDPA)		621-64-7	NE	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Pentachlorophenol		87-86-5	1	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Phenol		108-95-2	1	10 U	0.72 J	0.39 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4,5-Tetrachlorobenzene		95-94-3	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 UJ	10 U	10 U	10 U
2,3,4,6-Tetrachlorophenol		58-90-2	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol		95-95-4	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol		88-06-2	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Total SVOCs (ND=0)		TSVOC_ND0	NE	ND	134.38	8.09	ND	68.2	ND	0.79	1.3	ND	0.96	216.83
Cyanides	ug/L													
Free Cyanide		FREECN	NE	5 U	5 U	5 U	5 U	2.3 J	2.5 J	5 U	5 U	5 U	5 U	5 U
Total Cyanide		57-12-5	200	258	28.6	30.8	300	10 UJ	22.1	5 J	26.6	81	74.4	5.7 J

Table 4. Detected Groundwater Analysis Results
Groundwater Monitoring Report Q4-2023
Rockaway Park Former MGP Site
Rockaway Park, New York

Location Name				MW-11S	MW-11I	MW-11D	MW-14S-R	MW-14I-R	MW-17S	MW-17I	MW-17D	MW-19S	RW-01A	RW-01B
Sample Name				RPMW-11S	RPMW-11I	RPMW-11D	RPMW-14S	RPMW-14I-A	RPMW-17S	RPMW-17I	RPMW-17D	RPMW-19S	RW-01A	RW-01B
Start Depth				5	35	65	5	35	5	35	65	2.3	10.8	40.7
End Depth				15	45	75	15	45	15	45	75	12.3	20.8	50.7
Depth Unit				ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft
Sample Date				12/18/2023	12/18/2023	12/18/2023	12/20/2023	12/20/2023	12/18/2023	12/18/2023	12/18/2023	12/20/2023	12/15/2023	12/15/2023
Parent Sample														
Analyte	Units	CAS No.	NYS AWQS											
BTEX	ug/L													
Benzene		71-43-2	1	1 U	93	1 U	230	0.73 J	1.4	1 U	1 U	42	1.7	130
Toluene		108-88-3	5	1 U	2.2	1 U	32	3	0.46 J	1 U	1 U	0.44 J	1 U	2.3
Ethylbenzene		100-41-4	5	1 U	360	0.72 J	2400	160	18	1 U	1 U	4.8	1.2	310
o-Xylene		95-47-6	5	1 U	58	1 U	900	69	7.2	1 U	1 U	0.52 J	1 U	16
m/p-Xylene		179601-23-1	5	1 U	14	1 U	940	16	2.3	1 U	1 U	0.79 J	1 U	5.7
Total BTEX (ND=0)		TBTEX_ND0	NE	ND	527.2	0.72	4502	248.73	29.36	ND	ND	48.55	2.9	464
Other VOCs	ug/L													
Acetone		67-64-1	50*	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromochloromethane		74-97-5	5	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane		75-27-4	50*	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform		75-25-2	50*	1 U	1 U	1 U	10 UJ	1 UJ	1 U	1 U	1 U	1 UJ	1 UJ	1 U
Bromomethane		74-83-9	5	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
Carbon disulfide		75-15-0	60*	1 UJ	1 UJ	1 UJ	10 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U
Carbon tetrachloride		56-23-5	5	1 U	1 U	1 U	10 UJ	1 UJ	1 U	1 U	1 U	1 UJ	1 U	1 U
Chlorobenzene		108-90-7	5	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane		75-00-3	5	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform (Trichloromethane)		67-66-3	7	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane		74-87-3	5	1.1	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	0.75 J	1 UJ
Cyclohexane		110-82-7	NE	1 U	1 U	1 U	10 U	1 U	0.76 J	1 U	1 U	0.52 J	1 U	0.46 J
1,2-Dibromo-3-chloropropane		96-12-8	0.04	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane		124-48-1	50*	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane (EDB)		106-93-4	0.0006	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene (o-DCB)		95-50-1	3	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene (m-DCB)		541-73-1	3	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene (p-DCB)		106-46-7	3	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane (Freon 12)		75-71-8	5	1 UJ	1 UJ	1 UJ	10 UJ	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
1,1-Dichloroethane		75-34-3	5	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane		107-06-2	0.6	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene		75-35-4	5	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene		156-59-2	5	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene		156-60-5	5	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane		78-87-5	1	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene		10061-01-5	0.4	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene		10061-02-6	0.4	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dioxane		123-91-1	NE	50 U	50 U	50 U	500 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2-Hexanone		591-78-6	50*	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Isopropylbenzene		98-82-8	5	0.71 J	23	1 U	43	29	20	1 U	1 U	18	1 U	21
Methyl acetate		79-20-9	NE	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methyl ethyl ketone (2-Butanone)		78-93-3	50*	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methyl tert-butyl ether (MTBE)		1634-04-4	10*	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	0.36 J

Table 4. Detected Groundwater Analysis Results
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Rockaway Park Former MGP Site
Rockaway Park, New York

Location Name Sample Name Start Depth End Depth Depth Unit Sample Date Parent Sample				MW-11S RPMW-11S	MW-11I RPMW-11I	MW-11D RPMW-11D	MW-14S-R RPMW-14S	MW-14I-R RPMW-14I-A	MW-17S RPMW-17S	MW-17I RPMW-17I	MW-17D RPMW-17D	MW-19S RPMW-19S	RW-01A RW-01A	RW-01B RW-01B
				5	35	65	5	35	5	35	65	2.3	10.8	40.7
				15	45	75	15	45	15	45	75	12.3	20.8	50.7
				ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft
				12/18/2023	12/18/2023	12/18/2023	12/20/2023	12/20/2023	12/18/2023	12/18/2023	12/18/2023	12/20/2023	12/15/2023	12/15/2023
Analyte	Units	CAS No.	NYS AWQS											
4-Methyl-2-pentanone (MIBK)		108-10-1	NE	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylcyclohexane		108-87-2	NE	1 U	1 U	1 U	10 U	1 U	1.5	1 U	1 U	1 U	1 U	1 U
Methylene chloride		75-09-2	5	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene		100-42-5	5	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane		79-34-5	5	1 U	1 U	1 U	10 UJ	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U
Tetrachloroethene (PCE)		127-18-4	5	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)		76-13-1	5	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene		87-61-6	5	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene		120-82-1	5	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane (TCA)		71-55-6	5	1 U	1 U	1 U	10 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane		79-00-5	1	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene (TCE)		79-01-6	5	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane (Freon 11)		75-69-4	5	1 U	1 U	1 U	10 UJ	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U
Vinyl chloride		75-01-4	2	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Total VOCs (ND=0)		TVOC_ND0	NE	1.81	550.2	0.72	4545	277.73	51.62	ND	ND	67.07	3.65	485.82
PAH17	ug/L													
Acenaphthene		83-32-9	20*	10 U	22	10 U	4.5 J	10 U	10 U	10 U	10 U	9.9 J	10 U	59
Acenaphthylene		208-96-8	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	2.8 J
Anthracene		120-12-7	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)anthracene		56-55-3	0.002*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Benzo(b)fluoranthene		205-99-2	0.002*	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Benzo(k)fluoranthene		207-08-9	0.002*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Benzo(g,h,i)perylene		191-24-2	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene		50-32-8	ND	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chrysene		218-01-9	0.002*	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Dibenz(a,h)anthracene		53-70-3	NE	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Fluoranthene		206-44-0	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 J
Fluorene		86-73-7	50*	10 U	5.8 J	10 U	1.2 J	10 U	10 U	10 U	10 U	10 U	10 U	5 J
Indeno(1,2,3-cd)pyrene		193-39-5	0.002*	2 U	2 U	2 U	2 UJ	2 UJ	2 U	2 U	2 U	2 UJ	2 U	2 U
2-Methylnaphthalene		91-57-6	NE	10 U	10 U	10 U	34	10 U	10 U	10 U	10 U	10 U	10 U	6.5 J
Naphthalene		91-20-3	10*	2 U	2 U	2 U	840	2 U	2 U	2 U	2 U	2 U	2 U	330
Phenanthrene		85-01-8	50*	10 U	5.2 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	2.9 J
Pyrene		129-00-0	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	4.8 J
Total PAH (17) (ND=0)		TPAH17_ND0	NE	ND	33	ND	879.7	ND	ND	ND	ND	9.9	ND	412

Table 4. Detected Groundwater Analysis Results
Groundwater Monitoring Report Q4-2023
Rockaway Park Former MGP Site
Rockaway Park, New York

Location Name				MW-11S	MW-11I	MW-11D	MW-14S-R	MW-14I-R	MW-17S	MW-17I	MW-17D	MW-19S	RW-01A	RW-01B
Sample Name				RPMW-11S	RPMW-11I	RPMW-11D	RPMW-14S	RPMW-14I-A	RPMW-17S	RPMW-17I	RPMW-17D	RPMW-19S	RW-01A	RW-01B
Start Depth				5	35	65	5	35	5	35	65	2.3	10.8	40.7
End Depth				15	45	75	15	45	15	45	75	12.3	20.8	50.7
Depth Unit				ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft
Sample Date				12/18/2023	12/18/2023	12/18/2023	12/20/2023	12/20/2023	12/18/2023	12/18/2023	12/18/2023	12/20/2023	12/15/2023	12/15/2023
Parent Sample														
Analyte	Units	CAS No.	NYS AWQS											
PAH17 Other SVOCs	ug/L													
Acetophenone		98-86-2	NE	10 U	5 J	10 U	6.8 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Atrazine		1912-24-9	7.5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Benzaldehyde		100-52-7	NE	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Biphenyl (1,1-Biphenyl)		92-52-4	5	10 U	5.3 J	10 U	1.9 J	10 U	10 U	10 U	10 U	10 U	10 U	1.6 J
Bis(2-chloroethoxy)methane		111-91-1	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bis(2-chloroethyl)ether		111-44-4	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2,2-oxybis(1-Chloropropane)		108-60-1	5	10 U	10 U	10 U	10 UJ	10 UJ	10 U	10 U	10 U	10 UJ	10 U	10 U
Bis(2-ethylhexyl)phthalate		117-81-7	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.99 J	2 U	2 U
4-Bromophenyl phenyl ether		101-55-3	NE	10 U	10 U	10 U	10 U	10 U	10 U	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	10 U	10 U	10 U	10 U	10 U	10 U
Caprolactam		105-60-2	NE	10 U	10 U	10 U	10 UJ	10 UJ	10 U	10 U	10 U	10 UJ	10 U	10 U
Carbazole		86-74-8	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	3.6 J
4-Chloro-3-methylphenol		59-50-7	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline		106-47-8	5	10 U	10 U	10 U	10 U	10 U	10 U	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	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol		95-57-8	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl phenyl ether		7005-72-3	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzofuran		132-64-9	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1.9 J
3,3-Dichlorobenzidine		91-94-1	5	10 U	10 U	10 U	10 U	10 U	10 U	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	10 U	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	10 U	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	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol		105-67-9	50*	10 U	10 U	10 U	4.4 J	0.71 J	10 U	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	10 U	10 U	10 U	10 U	10 U	10 U
4,6-Dinitro-2-methylphenol		534-52-1	NE	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
2,4-Dinitrophenol		51-28-5	10*	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 UJ	40 UJ
2,4-Dinitrotoluene		121-14-2	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene		606-20-2	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Di-n-octyl phthalate		117-84-0	50*	10 U	10 U	10 U	10 U	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene		118-74-1	0.04	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Hexachlorobutadiene (C-46)		87-68-3	0.5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Hexachlorocyclopentadiene		77-47-4	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane		67-72-1	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Isophorone		78-59-1	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene		91-57-6	NE	10 U	10 U	10 U	34	10 U	10 U	10 U	10 U	10 U	10 U	6.5 J
2-Methylphenol (o-Cresol)		95-48-7	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol (p-Cresol)		106-44-5	1	10 U	10 U	10 U	0.82 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline		88-74-4	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline		99-09-2	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

Table 4. Detected Groundwater Analysis Results
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Rockaway Park Former MGP Site
Rockaway Park, New York

Location Name				MW-11S	MW-11I	MW-11D	MW-14S-R	MW-14I-R	MW-17S	MW-17I	MW-17D	MW-19S	RW-01A	RW-01B
Sample Name				RPMW-11S	RPMW-11I	RPMW-11D	RPMW-14S	RPMW-14I-A	RPMW-17S	RPMW-17I	RPMW-17D	RPMW-19S	RW-01A	RW-01B
Start Depth				5	35	65	5	35	5	35	65	2.3	10.8	40.7
End Depth				15	45	75	15	45	15	45	75	12.3	20.8	50.7
Depth Unit				ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft
Sample Date				12/18/2023	12/18/2023	12/18/2023	12/20/2023	12/20/2023	12/18/2023	12/18/2023	12/18/2023	12/20/2023	12/15/2023	12/15/2023
Parent Sample														
Analyte	Units	CAS No.	NYS AWQS											
4-Nitroaniline		100-01-6	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene		98-95-3	0.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Nitrophenol		88-75-5	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol		100-02-7	NE	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
N-Nitrosodiphenylamine (NDFA)		86-30-6	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitrosodi-n-propylamine (NDPA)		621-64-7	NE	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Pentachlorophenol		87-86-5	1	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Phenol		108-95-2	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4,5-Tetrachlorobenzene		95-94-3	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,3,4,6-Tetrachlorophenol		58-90-2	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol		95-95-4	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol		88-06-2	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Total SVOCs (ND=0)		TSVOC_ND0	NE	ND	43.3	ND	893.62	0.71	ND	ND	ND	10.89	ND	419.1
Cyanides	ug/L													
Free Cyanide		FREECN	NE	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Total Cyanide		57-12-5	200	133	5.1 J	10 U	58.1 J	10 U	15	6.3 J	10 U	201	10 U	10 U

Table 4. Detected Groundwater Analysis Results
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Rockaway Park Former MGP Site
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Location Name Sample Name Start Depth End Depth Depth Unit Sample Date Parent Sample				RW-01C RW-01C 58.6 68.6 ft 12/15/2023	RW-02A RW-02A 5.6 15.6 ft 12/19/2023	RW-02C RW-02C 49.3 59.3 ft 12/19/2023	RW-04A RW-04A 30 40 ft 12/14/2023	RW-04B RW-04B 40 60 ft 12/14/2023	RW-05A RW-05A 10 20 ft 12/14/2023	RW-05C RW-05C 40 50 ft 12/14/2023	RW-12A RW-12A 20 35 ft 12/14/2023
Analyte	Units	CAS No.	NYS AWQS								
BTEX	ug/L										
Benzene		71-43-2	1	1 U	1.7	1 U	1600	120	13	2600	67
Toluene		108-88-3	5	1 U	1 U	1 U	18	12	0.48 J	13	5 J
Ethylbenzene		100-41-4	5	0.43 J	1 U	0.41 J	1500	950	5.5	2600	3500
o-Xylene		95-47-6	5	1 U	1 U	1 U	370	340	1.5	280	920
m/p-Xylene		179601-23-1	5	1 U	1 U	1 U	100	68	0.75 J	69	510
Total BTEX (ND=0)		TBTEX_ND0	NE	0.43	1.7	0.41	3588	1490	21.23	5562	5002
Other VOCs	ug/L										
Acetone		67-64-1	50*	5 U	5 U	5 U	25 U	10 U	5 U	50 U	50 U
Bromochloromethane		74-97-5	5	1 U	1 U	1 U	5 U	2 U	1 U	10 U	10 U
Bromodichloromethane		75-27-4	50*	1 U	1 U	1 U	5 U	2 U	1 U	10 U	10 U
Bromoform		75-25-2	50*	1 UJ	1 U	1 U	5 U	2 UJ	1 UJ	10 UJ	10 UJ
Bromomethane		74-83-9	5	1 U	1 U	1 U	5 U	2 U	1 U	10 U	10 U
Carbon disulfide		75-15-0	60*	1 UJ	1 UJ	1 UJ	5 UJ	2 UJ	1 UJ	10 UJ	10 UJ
Carbon tetrachloride		56-23-5	5	1 U	1 U	1 U	5 U	2 U	1 U	10 U	10 U
Chlorobenzene		108-90-7	5	1 U	1 U	1 U	5 U	2 U	1 U	10 U	10 U
Chloroethane		75-00-3	5	1 U	1 U	1 U	5 U	2 U	1 U	10 U	10 U
Chloroform (Trichloromethane)		67-66-3	7	1 U	1 U	1 U	5 U	2 U	1 U	10 U	10 U
Chloromethane		74-87-3	5	1 U	1 U	1 U	5 U	2 U	1 U	10 U	10 U
Cyclohexane		110-82-7	NE	1 U	1 U	1 U	5 U	2 U	1 U	10 U	10 U
1,2-Dibromo-3-chloropropane		96-12-8	0.04	1 U	1 U	1 U	5 U	2 U	1 U	10 U	10 U
Dibromochloromethane		124-48-1	50*	1 U	1 U	1 U	5 U	2 U	1 U	10 U	10 U
1,2-Dibromoethane (EDB)		106-93-4	0.0006	1 U	1 U	1 U	5 U	2 U	1 U	10 U	10 U
1,2-Dichlorobenzene (o-DCB)		95-50-1	3	1 U	1 U	1 U	5 U	2 U	1 U	10 U	10 U
1,3-Dichlorobenzene (m-DCB)		541-73-1	3	1 U	1 U	1 U	5 U	2 U	1 U	10 U	10 U
1,4-Dichlorobenzene (p-DCB)		106-46-7	3	1 U	1 U	1 U	5 U	2 U	1 U	10 U	10 U
Dichlorodifluoromethane (Freon 12)		75-71-8	5	1 UJ	1 U	1 U	5 U	2 U	1 U	10 U	10 U
1,1-Dichloroethane		75-34-3	5	1 U	1 U	1 U	5 U	2 U	1 U	10 U	10 U
1,2-Dichloroethane		107-06-2	0.6	1 U	1 U	1 U	5 U	2 U	1 U	10 U	10 U
1,1-Dichloroethene		75-35-4	5	1 U	1 U	1 U	5 U	2 U	1 U	10 U	10 U
cis-1,2-Dichloroethene		156-59-2	5	1 U	1 U	1 U	5 U	2 U	1 U	10 U	10 U
trans-1,2-Dichloroethene		156-60-5	5	1 U	1 U	1 U	5 U	2 U	1 U	10 U	10 U
1,2-Dichloropropane		78-87-5	1	1 U	1 U	1 U	5 U	2 U	1 U	10 U	10 U
cis-1,3-Dichloropropene		10061-01-5	0.4	1 U	1 U	1 U	5 U	2 U	1 U	10 U	10 U
trans-1,3-Dichloropropene		10061-02-6	0.4	1 U	1 U	1 U	5 U	2 U	1 U	10 U	10 U
1,4-Dioxane		123-91-1	NE	50 U	50 U	50 U	250 U	100 U	50 U	500 U	500 U
2-Hexanone		591-78-6	50*	5 U	5 U	5 U	25 U	10 U	5 U	50 U	50 U
Isopropylbenzene		98-82-8	5	1 U	1 U	1 U	43	29	9.8	67	55
Methyl acetate		79-20-9	NE	5 U	5 U	5 U	25 U	10 U	5 U	50 U	50 U
Methyl ethyl ketone (2-Butanone)		78-93-3	50*	5 U	5 U	5 U	25 U	10 U	5 U	50 U	50 U
Methyl tert-butyl ether (MTBE)		1634-04-4	10*	1 U	1 U	1 U	5 U	2 U	1 U	10 U	10 U

Table 4. Detected Groundwater Analysis Results
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Rockaway Park Former MGP Site
Rockaway Park, New York

Location Name Sample Name Start Depth End Depth Depth Unit Sample Date Parent Sample				RW-01C RW-01C 58.6 68.6 ft 12/15/2023	RW-02A RW-02A 5.6 15.6 ft 12/19/2023	RW-02C RW-02C 49.3 59.3 ft 12/19/2023	RW-04A RW-04A 30 40 ft 12/14/2023	RW-04B RW-04B 40 60 ft 12/14/2023	RW-05A RW-05A 10 20 ft 12/14/2023	RW-05C RW-05C 40 50 ft 12/14/2023	RW-12A RW-12A 20 35 ft 12/14/2023
Analyte	Units	CAS No.	NYS AWQS								
4-Methyl-2-pentanone (MIBK)		108-10-1	NE	5 U	5 U	5 U	25 U	10 U	5 U	50 U	50 U
Methylcyclohexane		108-87-2	NE	1 U	1 U	1 U	5 U	2 U	1 U	10 U	10 U
Methylene chloride		75-09-2	5	1 U	1 U	1 U	5 U	2 U	1 U	10 U	10 U
Styrene		100-42-5	5	1 U	1 U	1 U	5 U	2 U	1 U	10 U	10 U
1,1,2,2-Tetrachloroethane		79-34-5	5	1 U	1 U	1 U	5 U	2 U	1 U	10 U	10 U
Tetrachloroethene (PCE)		127-18-4	5	1 U	1 U	1 U	5 U	2 U	1 U	10 U	10 U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)		76-13-1	5	1 U	1 U	1 U	5 U	2 U	1 U	10 U	10 U
1,2,3-Trichlorobenzene		87-61-6	5	1 U	1 U	1 U	5 U	2 U	1 U	10 U	10 U
1,2,4-Trichlorobenzene		120-82-1	5	1 U	1 U	1 U	5 U	2 U	1 U	10 U	10 U
1,1,1-Trichloroethane (TCA)		71-55-6	5	1 U	1 U	1 U	5 U	2 U	1 U	10 U	10 U
1,1,2-Trichloroethane		79-00-5	1	1 U	1 U	1 U	5 U	2 U	1 U	10 U	10 U
Trichloroethene (TCE)		79-01-6	5	1 U	1 U	1 U	5 U	2 U	1 U	10 U	10 U
Trichlorofluoromethane (Freon 11)		75-69-4	5	1 U	1 U	1 U	5 U	2 U	1 U	10 U	10 U
Vinyl chloride		75-01-4	2	1 U	1 U	1 U	5 U	2 U	1 U	10 U	10 U
Total VOCs (ND=0)		TVOC_ND0	NE	0.43	1.7	0.41	3631	1519	31.03	5629	5057
PAH17	ug/L										
Acenaphthene		83-32-9	20*	10 U	10 U	10 U	96	71	170	130	110
Acenaphthylene		208-96-8	NE	1.1 J	10 U	10 U	2.9 J	170	3.1 J	1.6 J	2 J
Anthracene		120-12-7	50*	10 U	10 U	10 U	4.3 J	4.3 J	10 U	4.1 J	2.7 J
Benzo(a)anthracene		56-55-3	0.002*	1 U	1 U	1 U	1.2	1 U	0.92 J	1 U	1 U
Benzo(b)fluoranthene		205-99-2	0.002*	2 U	2 U	2 U	0.87 J	2 U	2 U	2 U	2 U
Benzo(k)fluoranthene		207-08-9	0.002*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Benzo(g,h,i)perylene		191-24-2	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene		50-32-8	ND	1 U	1 U	1 U	1.3	1 U	0.47 J	1 U	1 U
Chrysene		218-01-9	0.002*	2 U	2 U	2 U	1.1 J	2 U	2 U	2 U	2 U
Dibenz(a,h)anthracene		53-70-3	NE	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Fluoranthene		206-44-0	50*	10 U	10 U	10 U	3.7 J	1.4 J	8.5 J	10 U	10 U
Fluorene		86-73-7	50*	10 U	10 U	10 U	37	4.4 J	6.6 J	51	27
Indeno(1,2,3-cd)pyrene		193-39-5	0.002*	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
2-Methylnaphthalene		91-57-6	NE	10 U	10 U	10 U	70	6.8 J	10 U	260	10 U
Naphthalene		91-20-3	10*	2 U	2 U	2 U	410	630	2 U	560	2 U
Phenanthrene		85-01-8	50*	10 U	10 U	10 U	36	34	10 U	32	18
Pyrene		129-00-0	50*	10 U	10 U	10 U	3.1 J	10 UJ	8 J	10 UJ	10 U
Total PAH (17) (ND=0)		TPAH17_ND0	NE	1.1	ND	ND	667.47	921.9	197.59	1038.7	159.7

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Location Name Sample Name Start Depth End Depth Depth Unit Sample Date Parent Sample				RW-01C RW-01C 58.6 68.6 ft 12/15/2023	RW-02A RW-02A 5.6 15.6 ft 12/19/2023	RW-02C RW-02C 49.3 59.3 ft 12/19/2023	RW-04A RW-04A 30 40 ft 12/14/2023	RW-04B RW-04B 40 60 ft 12/14/2023	RW-05A RW-05A 10 20 ft 12/14/2023	RW-05C RW-05C 40 50 ft 12/14/2023	RW-12A RW-12A 20 35 ft 12/14/2023
Analyte	Units	CAS No.	NYS AWQS								
PAH17 Other SVOCs	ug/L										
Acetophenone		98-86-2	NE	10 U	10 U	10 U	7.4 J	10 U	10 U	2.7 J	11
Atrazine		1912-24-9	7.5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Benzaldehyde		100-52-7	NE	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Biphenyl (1,1-Biphenyl)		92-52-4	5	10 U	10 U	10 U	28	10	10 U	11	25
Bis(2-chloroethoxy)methane		111-91-1	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bis(2-chloroethyl)ether		111-44-4	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2,2-oxybis(1-Chloropropane)		108-60-1	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bis(2-ethylhexyl)phthalate		117-81-7	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1.1 J
4-Bromophenyl phenyl ether		101-55-3	NE	10 U	10 U	10 U	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	10 U	10 U	10 U
Caprolactam		105-60-2	NE	10 U	10 U	10 U	10 UJ	10 UJ	10 UJ	10 UJ	10 U
Carbazole		86-74-8	NE	10 U	10 U	10 U	18	38	10 U	22	21
4-Chloro-3-methylphenol		59-50-7	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline		106-47-8	5	10 U	10 U	10 U	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	10 U	10 U	10 U
2-Chlorophenol		95-57-8	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl phenyl ether		7005-72-3	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzofuran		132-64-9	NE	10 U	10 U	10 U	4 J	5.3 J	1.5 J	6.6 J	2.4 J
3,3-Dichlorobenzidine		91-94-1	5	10 U	10 U	10 U	10 UJ	10 UJ	10 UJ	10 UJ	10 U
2,4-Dichlorophenol		120-83-2	5	10 U	10 U	10 U	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	10 U	10 U	10 U
Dimethyl phthalate		131-11-3	50*	10 U	10 U	10 U	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	10 U	7.3 J	37
Di-n-butyl phthalate		84-74-2	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4,6-Dinitro-2-methylphenol		534-52-1	NE	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
2,4-Dinitrophenol		51-28-5	10*	40 UJ	40 U	40 U	40 UJ	40 UJ	40 UJ	40 UJ	40 U
2,4-Dinitrotoluene		121-14-2	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene		606-20-2	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Di-n-octyl phthalate		117-84-0	50*	10 U	10 UJ	10 UJ	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene		118-74-1	0.04	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Hexachlorobutadiene (C-46)		87-68-3	0.5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Hexachlorocyclopentadiene		77-47-4	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane		67-72-1	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Isophorone		78-59-1	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene		91-57-6	NE	10 U	10 U	10 U	70	6.8 J	10 U	260	10 U
2-Methylphenol (o-Cresol)		95-48-7	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol (p-Cresol)		106-44-5	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline		88-74-4	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline		99-09-2	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

Table 4. Detected Groundwater Analysis Results
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Rockaway Park Former MGP Site
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				Location Name	RW-01C	RW-02A	RW-02C	RW-04A	RW-04B	RW-05A	RW-05C	RW-12A
				Sample Name	RW-01C	RW-02A	RW-02C	RW-04A	RW-04B	RW-05A	RW-05C	RW-12A
				Start Depth	58.6	5.6	49.3	30	40	10	40	20
				End Depth	68.6	15.6	59.3	40	60	20	50	35
				Depth Unit	ft	ft	ft	ft	ft	ft	ft	ft
				Sample Date	12/15/2023	12/19/2023	12/19/2023	12/14/2023	12/14/2023	12/14/2023	12/14/2023	12/14/2023
				Parent Sample								
Analyte	Units	CAS No.	NYS AWQS									
4-Nitroaniline		100-01-6	5		10 U	10 U	10 U	10 UJ	10 UJ	10 UJ	10 UJ	10 U
Nitrobenzene		98-95-3	0.4		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Nitrophenol		88-75-5	NE		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol		100-02-7	NE		20 U	20 U	20 U	20 UJ	20 UJ	20 UJ	20 UJ	20 U
N-Nitrosodiphenylamine (NDFA)		86-30-6	50*		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitrosodi-n-propylamine (NDPA)		621-64-7	NE		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Pentachlorophenol		87-86-5	1		20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Phenol		108-95-2	1		10 U	10 U	10 U	4.3 J	10 U	10 U	3 J	0.6 J
1,2,4,5-Tetrachlorobenzene		95-94-3	5		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,3,4,6-Tetrachlorophenol		58-90-2	NE		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol		95-95-4	NE		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol		88-06-2	NE		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Total SVOCs (ND=0)		TSVOC_ND0	NE		1.1	ND	ND	729.17	975.2	199.09	1091.3	257.8
Cyanides	ug/L											
Free Cyanide		FREECN	NE		5 U	5 U	5 U	5 U	5 U	5 U	2.8 J	2.3 J
Total Cyanide		57-12-5	200		10 U	314	105	86	147	17.2	95.5	36

Table 4. Detected Groundwater Analysis Results
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Rockaway Park Former MGP Site
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Location Name Sample Name Start Depth End Depth Depth Unit Sample Date Parent Sample				RW-12B RW-12B 35 50 ft 12/14/2023	RW-13A RW-13A 5 20 ft 12/19/2023	RW-18B RW-18B 40.8 50.8 ft 12/19/2023	RW-18C RW-18C 60.7 70.7 ft 12/19/2023	RW-19A RW-19A 8 18 ft 12/15/2023	RW-19B RW-19B 29.8 39.8 ft 12/15/2023	RW-19C RW-19C 49.8 59.8 ft 12/15/2023	RW-19D RW-19D 58.7 68.7 ft 12/15/2023	RW-20A RW-20A 12.4 22.4 ft 12/15/2023	RW-20B RW-20B 29.7 39.7 ft 12/15/2023	RW-20C RW-20C 47.6 57.6 ft 12/15/2023
Analyte	Units	CAS No.	NYS AWQS											
BTEX														
Benzene	ug/L	71-43-2	1	110	510	25	1 U	2.9	760	1 U	2.2	89	280	3
Toluene		108-88-3	5	11	2.1	1 U	1 U	0.4 J	3.7	0.44 J	1 U	2.9	2.4	1 U
Ethylbenzene		100-41-4	5	4100	69	2.9	0.49 J	0.67 J	30	22	1 U	19	140	2.5
o-Xylene		95-47-6	5	1200	16	0.41 J	1 U	1 U	9.4	0.76 J	1 U	6.9	7.1	0.48 J
m/p-Xylene		179601-23-1	5	1000	5	0.57 J	1 U	0.34 J	4.8	0.96 J	0.35 J	4	3.5	0.56 J
Total BTEX (ND=0)		TBTEX_ND0	NE	6421	602.1	28.88	0.49	4.31	807.9	24.16	2.55	121.8	433	6.54
Other VOCs														
Acetone	ug/L	67-64-1	50*	50 U	10 U	5 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U
Bromochloromethane		74-97-5	5	10 U	2 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane		75-27-4	50*	10 U	2 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U
Bromoform		75-25-2	50*	10 UJ	2 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 UJ	1 UJ
Bromomethane		74-83-9	5	10 U	2 U	1 U	1 U	1 UJ	2 UJ	1 UJ	1 UJ	1 UJ	1 U	1 U
Carbon disulfide		75-15-0	60*	10 UJ	2 UJ	1 UJ	1 UJ	1.7	2 U	1 U	1 U	0.84 J	1 UJ	1 UJ
Carbon tetrachloride		56-23-5	5	10 U	2 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene		108-90-7	5	10 U	2 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U
Chloroethane		75-00-3	5	10 U	2 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U
Chloroform (Trichloromethane)		67-66-3	7	10 U	2 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U
Chloromethane		74-87-3	5	10 U	2 U	1 U	1 U	1 UJ	2 UJ	1 UJ	1 UJ	1 UJ	1 U	0.91 J
Cyclohexane		110-82-7	NE	10 U	2 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	0.73 J	1 U
1,2-Dibromo-3-chloropropane		96-12-8	0.04	10 U	2 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane		124-48-1	50*	10 U	2 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane (EDB)		106-93-4	0.0006	10 U	2 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene (o-DCB)		95-50-1	3	10 U	2 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene (m-DCB)		541-73-1	3	10 U	2 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene (p-DCB)		106-46-7	3	10 U	2 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane (Freon 12)		75-71-8	5	10 U	2 U	1 U	1 U	1 UJ	2 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
1,1-Dichloroethane		75-34-3	5	10 U	2 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane		107-06-2	0.6	10 U	2 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene		75-35-4	5	10 U	2 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene		156-59-2	5	10 U	2 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene		156-60-5	5	10 U	2 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane		78-87-5	1	10 U	2 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene		10061-01-5	0.4	10 U	2 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene		10061-02-6	0.4	10 U	2 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U
1,4-Dioxane		123-91-1	NE	500 U	100 U	50 U	50 U	50 U	100 U	50 U	50 U	50 U	50 U	50 U
2-Hexanone		591-78-6	50*	50 U	10 U	5 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U
Isopropylbenzene		98-82-8	5	95	13	4.8	0.36 J	1 U	42	8.8	0.41 J	23	52	1 U
Methyl acetate		79-20-9	NE	50 U	10 U	5 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U
Methyl ethyl ketone (2-Butanone)		78-93-3	50*	50 U	10 U	5 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U
Methyl tert-butyl ether (MTBE)		1634-04-4	10*	10 U	2 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U

Table 4. Detected Groundwater Analysis Results
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Rockaway Park Former MGP Site
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Location Name Sample Name Start Depth End Depth Depth Unit Sample Date Parent Sample				RW-12B RW-12B 35 50 ft 12/14/2023	RW-13A RW-13A 5 20 ft 12/19/2023	RW-18B RW-18B 40.8 50.8 ft 12/19/2023	RW-18C RW-18C 60.7 70.7 ft 12/19/2023	RW-19A RW-19A 8 18 ft 12/15/2023	RW-19B RW-19B 29.8 39.8 ft 12/15/2023	RW-19C RW-19C 49.8 59.8 ft 12/15/2023	RW-19D RW-19D 58.7 68.7 ft 12/15/2023	RW-20A RW-20A 12.4 22.4 ft 12/15/2023	RW-20B RW-20B 29.7 39.7 ft 12/15/2023	RW-20C RW-20C 47.6 57.6 ft 12/15/2023
Analyte	Units	CAS No.	NYS AWQS											
4-Methyl-2-pentanone (MIBK)		108-10-1	NE	50 U	10 U	5 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U
Methylcyclohexane		108-87-2	NE	10 U	2 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U
Methylene chloride		75-09-2	5	10 U	2 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U
Styrene		100-42-5	5	10 U	2 U	1 U	1 U	0.57 J	2 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane		79-34-5	5	10 U	2 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene (PCE)		127-18-4	5	10 U	2 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)		76-13-1	5	10 U	2 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene		87-61-6	5	10 U	2 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene		120-82-1	5	10 U	2 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane (TCA)		71-55-6	5	10 U	2 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane		79-00-5	1	10 U	2 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene (TCE)		79-01-6	5	10 U	2 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane (Freon 11)		75-69-4	5	10 U	2 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U
Vinyl chloride		75-01-4	2	10 U	2 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U
Total VOCs (ND=0)		TVOC_ND0	NE	6516	615.1	33.68	0.85	6.58	849.9	32.96	2.96	145.64	485.73	7.45
PAH17	ug/L													
Acenaphthene		83-32-9	20*	220	31	30	10 U	10 U	52	1.9 J	2.5 J	44	120	3.2 J
Acenaphthylene		208-96-8	NE	2.4 J	1 J	10 U	10 U	10 U	1.2 J	10 U	20	10 U	6.4 J	10 U
Anthracene		120-12-7	50*	4.8 J	4.1 J	10 U	10 U	10 U	10 U	10 U	10 U	2.7 J	1.8 J	10 U
Benzo(a)anthracene		56-55-3	0.002*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Benzo(b)fluoranthene		205-99-2	0.002*	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Benzo(k)fluoranthene		207-08-9	0.002*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Benzo(g,h,i)perylene		191-24-2	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene		50-32-8	ND	1 U	0.46 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chrysene		218-01-9	0.002*	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Dibenz(a,h)anthracene		53-70-3	NE	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Fluoranthene		206-44-0	50*	1.3 J	2 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene		86-73-7	50*	53	14	1 J	10 U	10 U	12	10 U	10 U	6.1 J	1.2 J	1.2 J
Indeno(1,2,3-cd)pyrene		193-39-5	0.002*	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
2-Methylnaphthalene		91-57-6	NE	900	10 U	1.1 J	10 U	10 U	10 U	10 U	10 U	3.5 J	1.2 J	1.3 J
Naphthalene		91-20-3	10*	4100	2 U	16	2 U	2 U	0.7 J	2 U	2	370	15	0.97 J
Phenanthrene		85-01-8	50*	39	16	10 U	10 U	10 U	6.9 J	10 U	10 U	15	12	1.7 J
Pyrene		129-00-0	50*	1.8 J	2.2 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1.8 J	10 U
Total PAH (17) (ND=0)		TPAH17_ND0	NE	5322.3	70.76	48.1	ND	ND	72.8	1.9	24.5	441.3	159.4	8.37

Table 4. Detected Groundwater Analysis Results
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Rockaway Park Former MGP Site
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Location Name Sample Name Start Depth End Depth Depth Unit Sample Date Parent Sample				RW-12B RW-12B 35 50 ft 12/14/2023	RW-13A RW-13A 5 20 ft 12/19/2023	RW-18B RW-18B 40.8 50.8 ft 12/19/2023	RW-18C RW-18C 60.7 70.7 ft 12/19/2023	RW-19A RW-19A 8 18 ft 12/15/2023	RW-19B RW-19B 29.8 39.8 ft 12/15/2023	RW-19C RW-19C 49.8 59.8 ft 12/15/2023	RW-19D RW-19D 58.7 68.7 ft 12/15/2023	RW-20A RW-20A 12.4 22.4 ft 12/15/2023	RW-20B RW-20B 29.7 39.7 ft 12/15/2023	RW-20C RW-20C 47.6 57.6 ft 12/15/2023
Analyte	Units	CAS No.	NYS AWQS											
PAH17 Other SVOCs	ug/L													
Acetophenone		98-86-2	NE	4.4 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Atrazine		1912-24-9	7.5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Benzaldehyde		100-52-7	NE	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Biphenyl (1,1-Biphenyl)		92-52-4	5	46	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bis(2-chloroethoxy)methane		111-91-1	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bis(2-chloroethyl)ether		111-44-4	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2,2-oxybis(1-Chloropropane)		108-60-1	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bis(2-ethylhexyl)phthalate		117-81-7	5	1.1 J	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
4-Bromophenyl phenyl ether		101-55-3	NE	10 U	10 U	10 U	10 U	10 U	10 U	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	10 U	10 U	10 U	10 U	10 U	10 U
Caprolactam		105-60-2	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole		86-74-8	NE	20	2.4 J	1.1 J	10 U	10 U	11	10 U	10 U	3 J	12	10 U
4-Chloro-3-methylphenol		59-50-7	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline		106-47-8	5	10 U	10 U	10 U	10 U	10 U	10 U	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	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol		95-57-8	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl phenyl ether		7005-72-3	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzofuran		132-64-9	NE	5.9 J	1.6 J	10 U	10 U	10 U	2.1 J	10 U	10 U	2.7 J	4.2 J	10 U
3,3-Dichlorobenzidine		91-94-1	5	10 U	10 U	10 U	10 U	10 U	10 U	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	10 U	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	10 U	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	10 U	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	10 U	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	10 U	10 U	10 U	10 U	10 U	10 U
4,6-Dinitro-2-methylphenol		534-52-1	NE	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
2,4-Dinitrophenol		51-28-5	10*	40 U	40 U	40 U	40 U	40 UJ	40 UJ	40 UJ	40 UJ	40 UJ	40 UJ	40 UJ
2,4-Dinitrotoluene		121-14-2	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene		606-20-2	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Di-n-octyl phthalate		117-84-0	50*	10 U	10 UJ	10 UJ	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene		118-74-1	0.04	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Hexachlorobutadiene (C-46)		87-68-3	0.5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Hexachlorocyclopentadiene		77-47-4	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane		67-72-1	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Isophorone		78-59-1	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene		91-57-6	NE	900	10 U	1.1 J	10 U	10 U	10 U	10 U	10 U	3.5 J	1.2 J	1.3 J
2-Methylphenol (o-Cresol)		95-48-7	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol (p-Cresol)		106-44-5	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline		88-74-4	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline		99-09-2	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

Table 4. Detected Groundwater Analysis Results
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				Location Name	RW-12B	RW-13A	RW-18B	RW-18C	RW-19A	RW-19B	RW-19C	RW-19D	RW-20A	RW-20B	RW-20C
				Sample Name	RW-12B	RW-13A	RW-18B	RW-18C	RW-19A	RW-19B	RW-19C	RW-19D	RW-20A	RW-20B	RW-20C
				Start Depth	35	5	40.8	60.7	8	29.8	49.8	58.7	12.4	29.7	47.6
				End Depth	50	20	50.8	70.7	18	39.8	59.8	68.7	22.4	39.7	57.6
				Depth Unit	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft
				Sample Date	12/14/2023	12/19/2023	12/19/2023	12/19/2023	12/15/2023	12/15/2023	12/15/2023	12/15/2023	12/15/2023	12/15/2023	12/15/2023
				Parent Sample											
Analyte	Units	CAS No.	NYS AWQS												
4-Nitroaniline		100-01-6	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene		98-95-3	0.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Nitrophenol		88-75-5	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol		100-02-7	NE	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
N-Nitrosodiphenylamine (NDFA)		86-30-6	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitrosodi-n-propylamine (NDPA)		621-64-7	NE	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Pentachlorophenol		87-86-5	1	20 U	20 U	20 U	20 U	2.8 J	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Phenol		108-95-2	1	10 U	6.1 J	10 U	10 U	10 U	11	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4,5-Tetrachlorobenzene		95-94-3	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,3,4,6-Tetrachlorophenol		58-90-2	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol		95-95-4	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol		88-06-2	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Total SVOCs (ND=0)		TSVOC_ND0	NE	5399.7	80.86	49.2	ND	2.8	96.9	1.9	24.5	447	175.6	8.37	
Cyanides	ug/L														
Free Cyanide		FREECN	NE	5 U	5 U	5 U	2.7 J	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Total Cyanide		57-12-5	200	20	95.8	31500	7.5 J	1340	273	12.2 J	282	440	10.3 J	387	

Table 4. Detected Groundwater Analysis Results
Groundwater Monitoring Report Q4-2023
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Notes:
Analytes in blue are not detected in any sample
ug/L = micrograms per liter or parts per billion (ppb)

BTEX = Benzene, Toluene, Ethylbenzene, and Xylenes
PAH = Polycyclic Aromatic Hydrocarbon
SVOC = Semi-Volatile Organic Compound
VOC = Volatile Organic Compound

Total BTEX, Total VOCs, Total PAHs, and Total SVOCs are calculated using detects only.
Total PAH17 is calculated using the list of analytes: Acenaphthene, Acenaphthylene, Anthracene, Benz[a]anthracene, Benzo[a]pyrene, Benzo[b]fluoranthene, Benzo[g,h,i]perylene, Benzo[k]fluoranthene, Chrysene, Dibenzo[a,h]anthracene, Fluoranthene, Fluorene, Indeno[1,2,3-cd]pyrene, Naphthalene, 2-Methylnaphthalene, Phenanthrene, and Pyrene

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

CAS No. = Chemical Abstracts Service Number
MGP = Manufactured Gas Plant
ND = Not Detected
NE = Not Established
NYSDEC = New York State Department of Environmental Conservation

Bolding indicates a detected result concentration
Shading and bolding indicates that the detected concentration is above the guidance it was compared to

It appears that wells RPMW-02S and RPMW-02I were reversed during sampling. The IDs have been corrected.

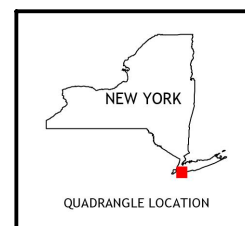
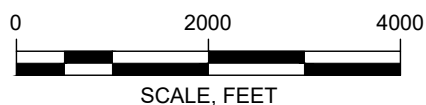
Validation Qualifiers:
J = The result is an estimated value.
U = The result was not detected above the reporting limit.
UJ = The results was not detected at or above the reporting limit shown and the reporting limit is estimated.

Figures



SOURCE:

U.S.G.S TOPOGRAPHIC MAP, 7.5-MINUTE SERIES: FAR ROCKAWAY, NY, 2023 QUADRANGLE. ACCESSED VIA THE NATIONAL GEOLOGIC MAP DATABASE (<https://ngmdb.usgs.gov/topoview/>).



Groundwater Monitoring Report
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nationalgrid



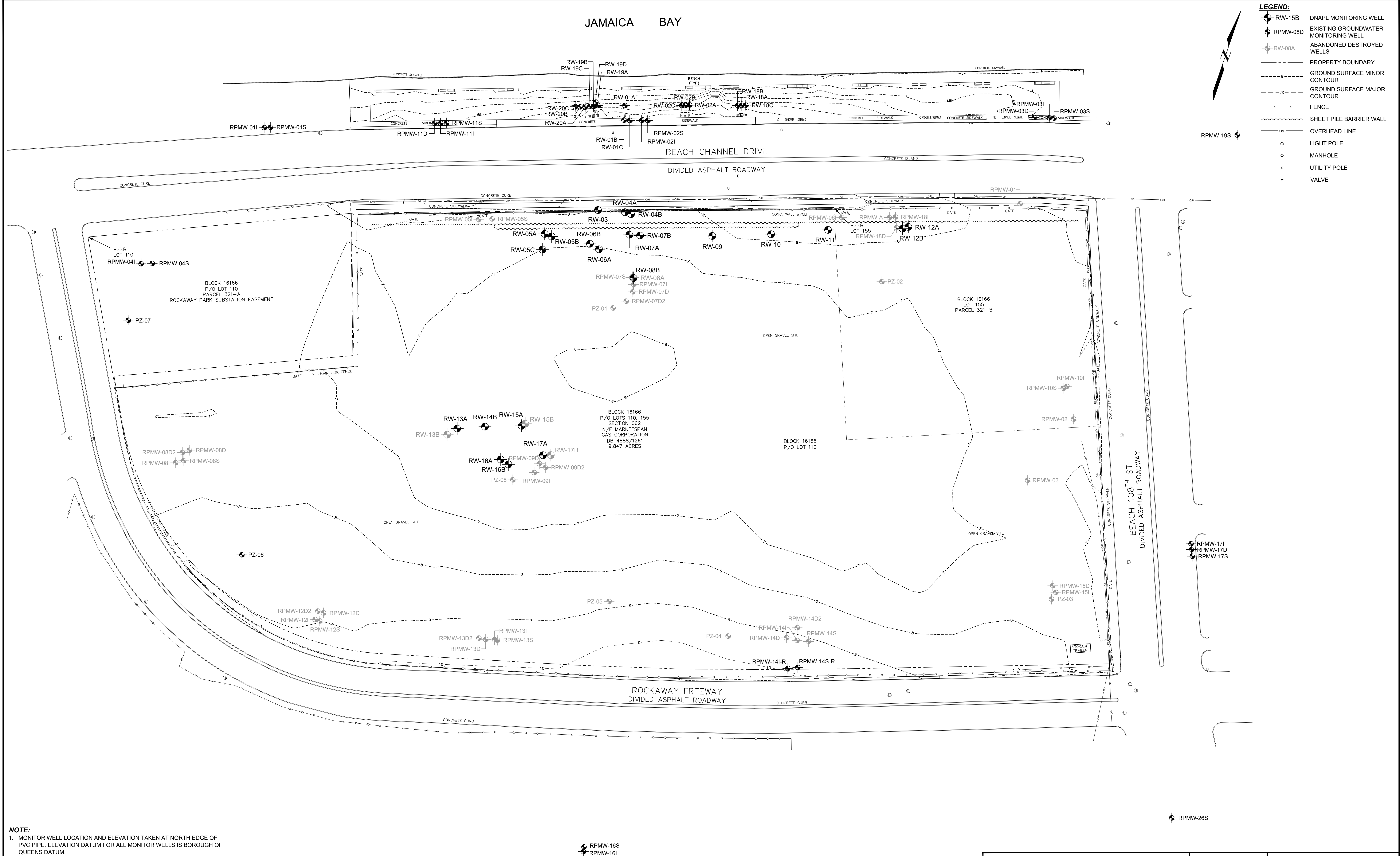
Project 1905774

SITE LOCATION MAP

August 2024

Fig. 1

JAMAICA BAY

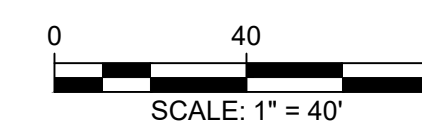


NOTE:

1. MONITOR WELL LOCATION AND ELEVATION TAKEN AT NORTH EDGE OF PVC PIPE. ELEVATION DATUM FOR ALL MONITOR WELLS IS BOROUGH OF QUEENS DATUM.

SOURCE:

1. BOUNDARY SURVEY, SECTION 062 - BLOCK 16166 - LOTS 110 & 155, ROCKAWAY PARK, QUEENS COUNTY, NEW YORK, PREPARED BY KENNON SURVEYING SERVICES INC., SCALE: 1" = 40', DATE: NOVEMBER 2016.



Groundwater Monitoring Report
Rockaway Park Former MGP Site
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nationalgrid

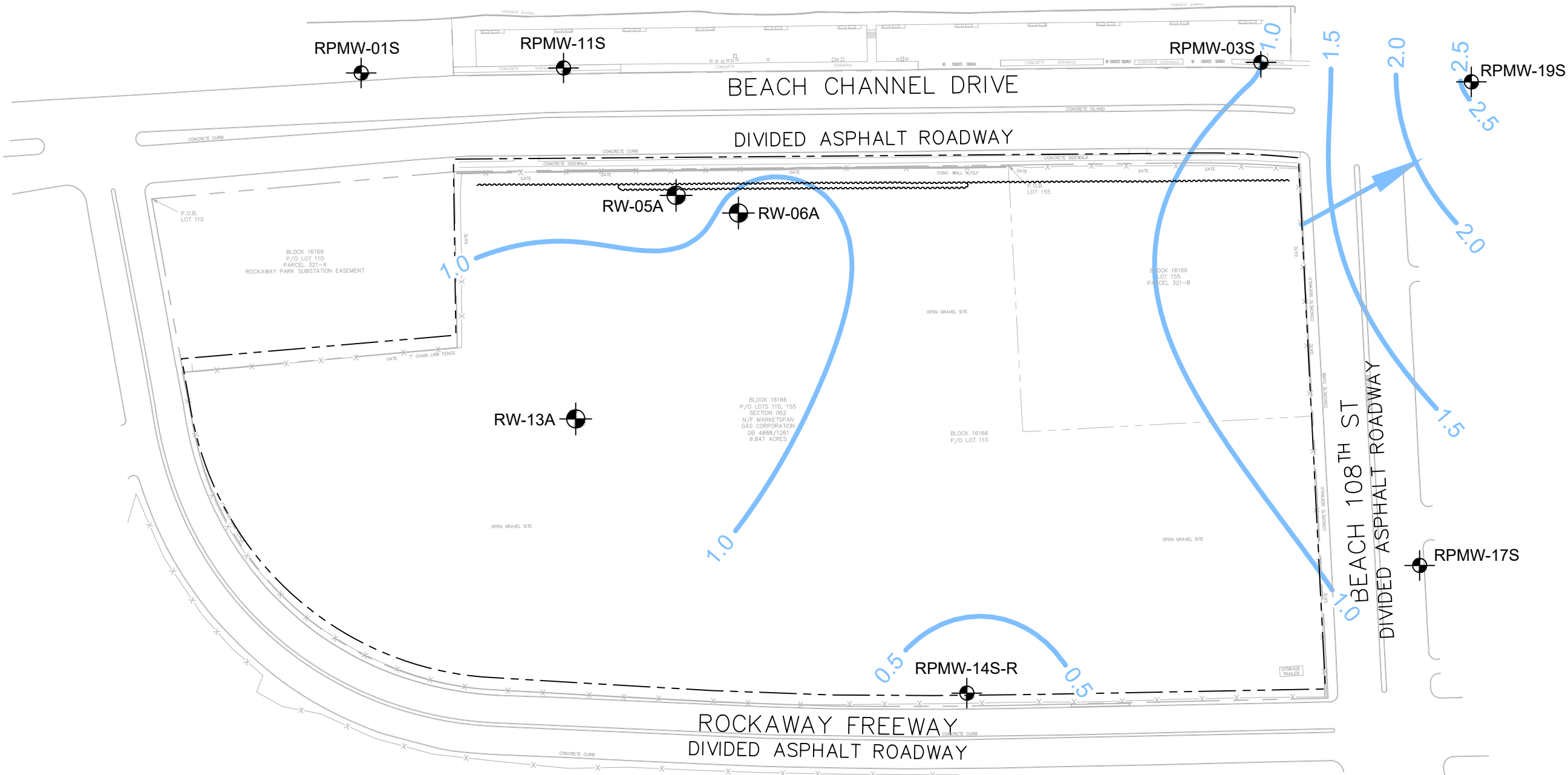


Project 1905774

MONITORING WELL LOCATION MAP

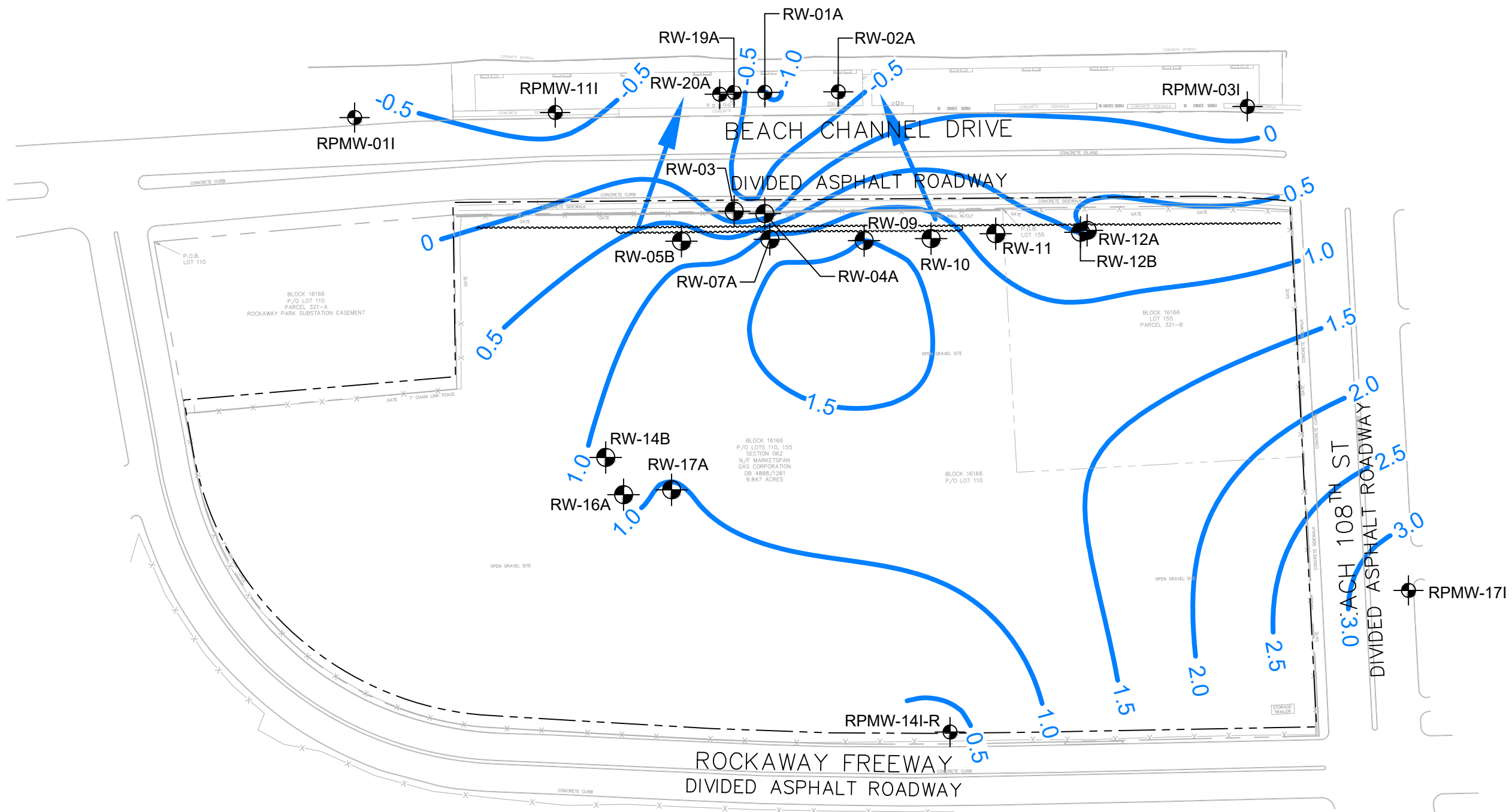
August 2024	Fig. 2
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JAMAICA BAY



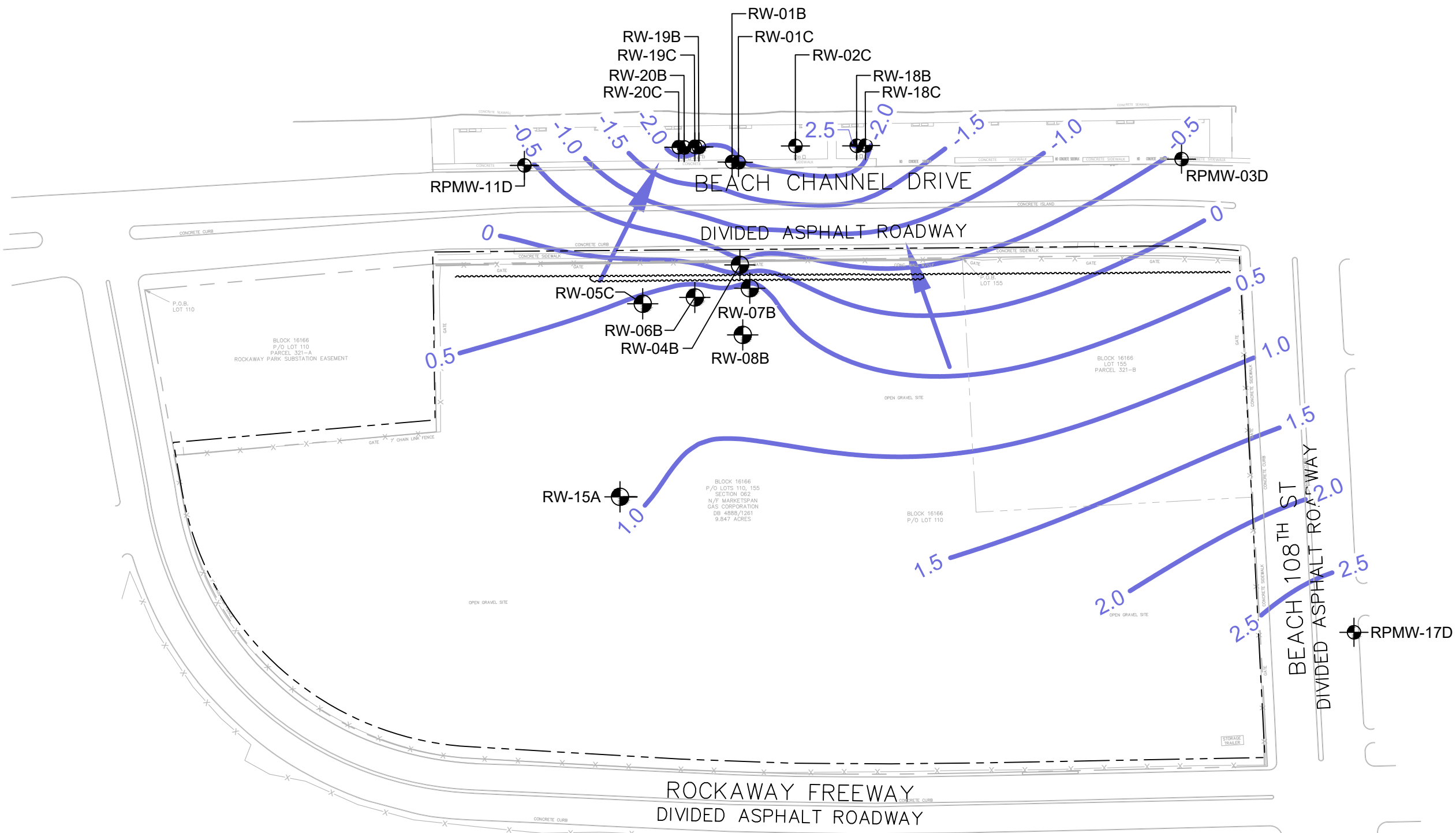
SHALLOW LOW TIDE
(SCREENED INTERVAL: 2 - 17 ft bgs)

JAMAICA BAY



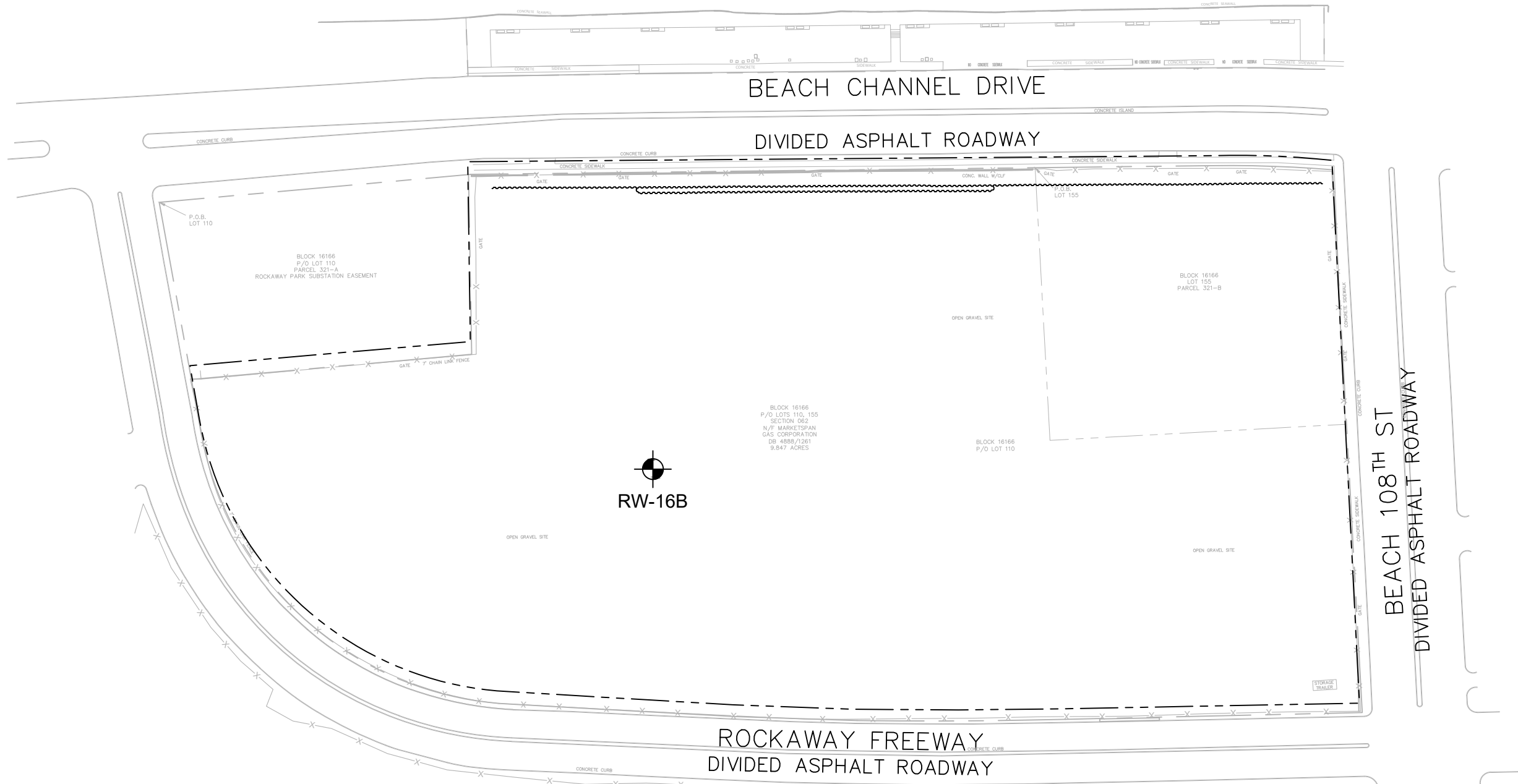
INTERMEDIATE LOW TIDE
(SCREENED INTERVAL: 17 - 45 ft bgs)

JAMAICA BAY

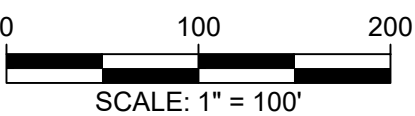
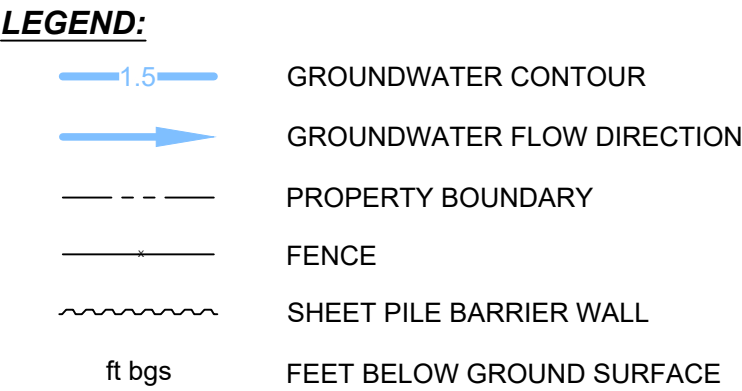


DEEP LOW TIDE
(SCREENED INTERVAL: 45 - 90 ft bgs)

JAMAICA BAY



DEEP 2 LOW TIDE
(SCREENED INTERVAL: 90 - 105 ft bgs)



NOTE:
1. CONTOURS ARE BASED ON THE DECEMBER 2018 SAMPLING EVENT.

SOURCE:
1. BOUNDARY SURVEY, SECTION 062 - BLOCK 16166 - LOTS 110 & 155, ROCKAWAY PARK, QUEENS COUNTY, NEW YORK, PREPARED BY KENNEDY SURVEYING SERVICES INC., SCALE: 1" = 40', DATE: NOVEMBER 2016.

Groundwater Monitoring Report
Rockaway Park Former MGP Site
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nationalgrid

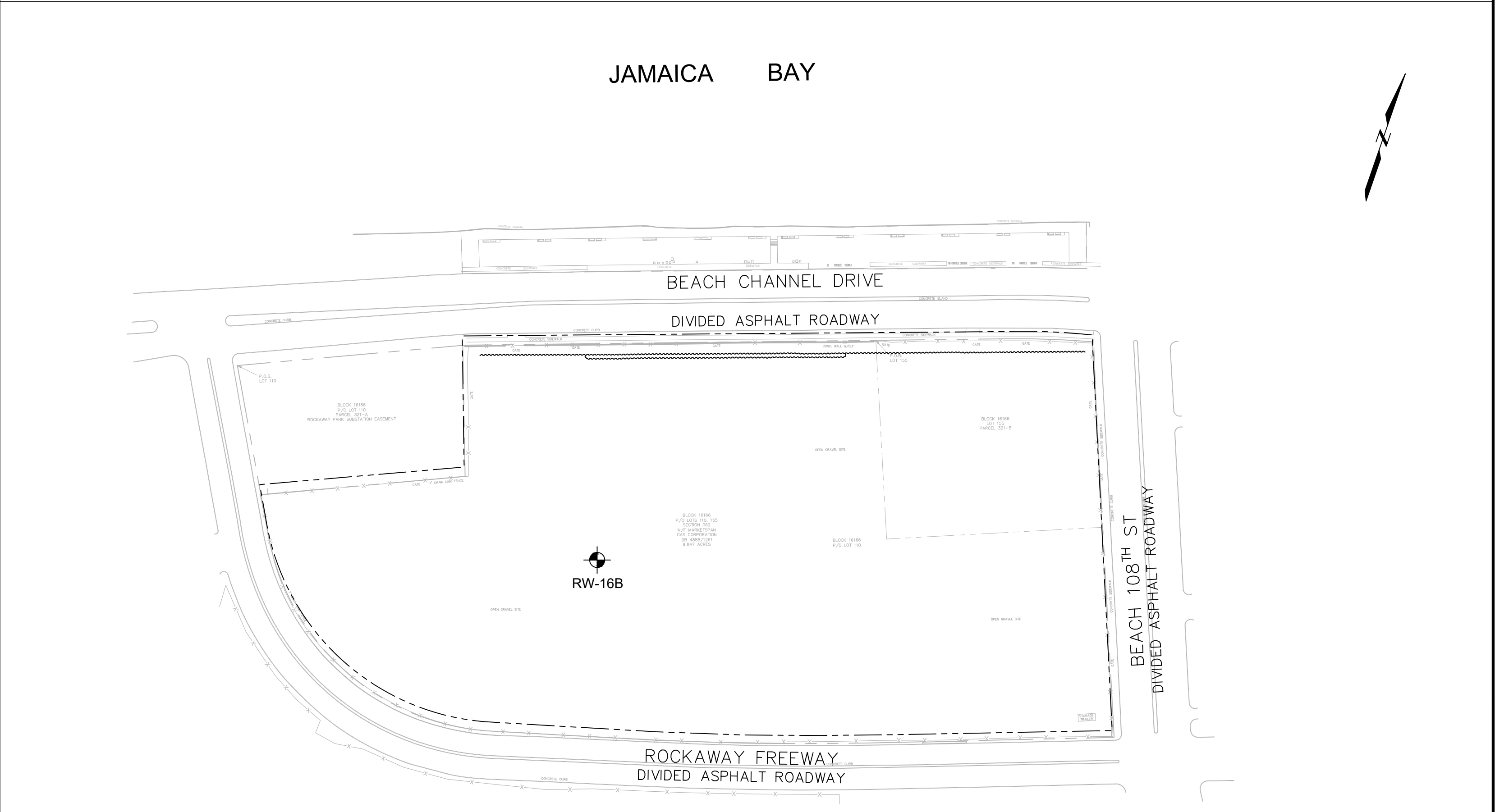
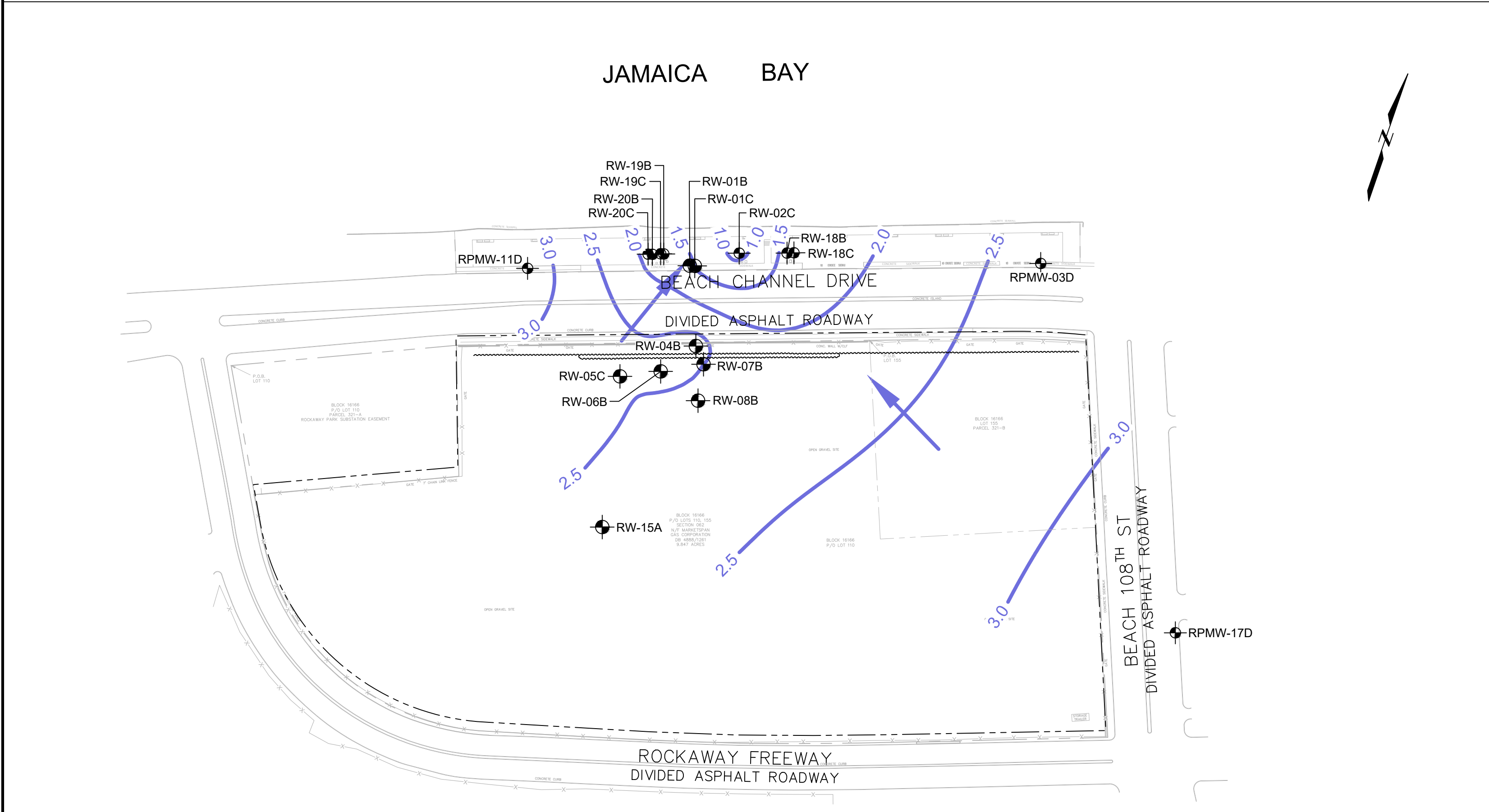
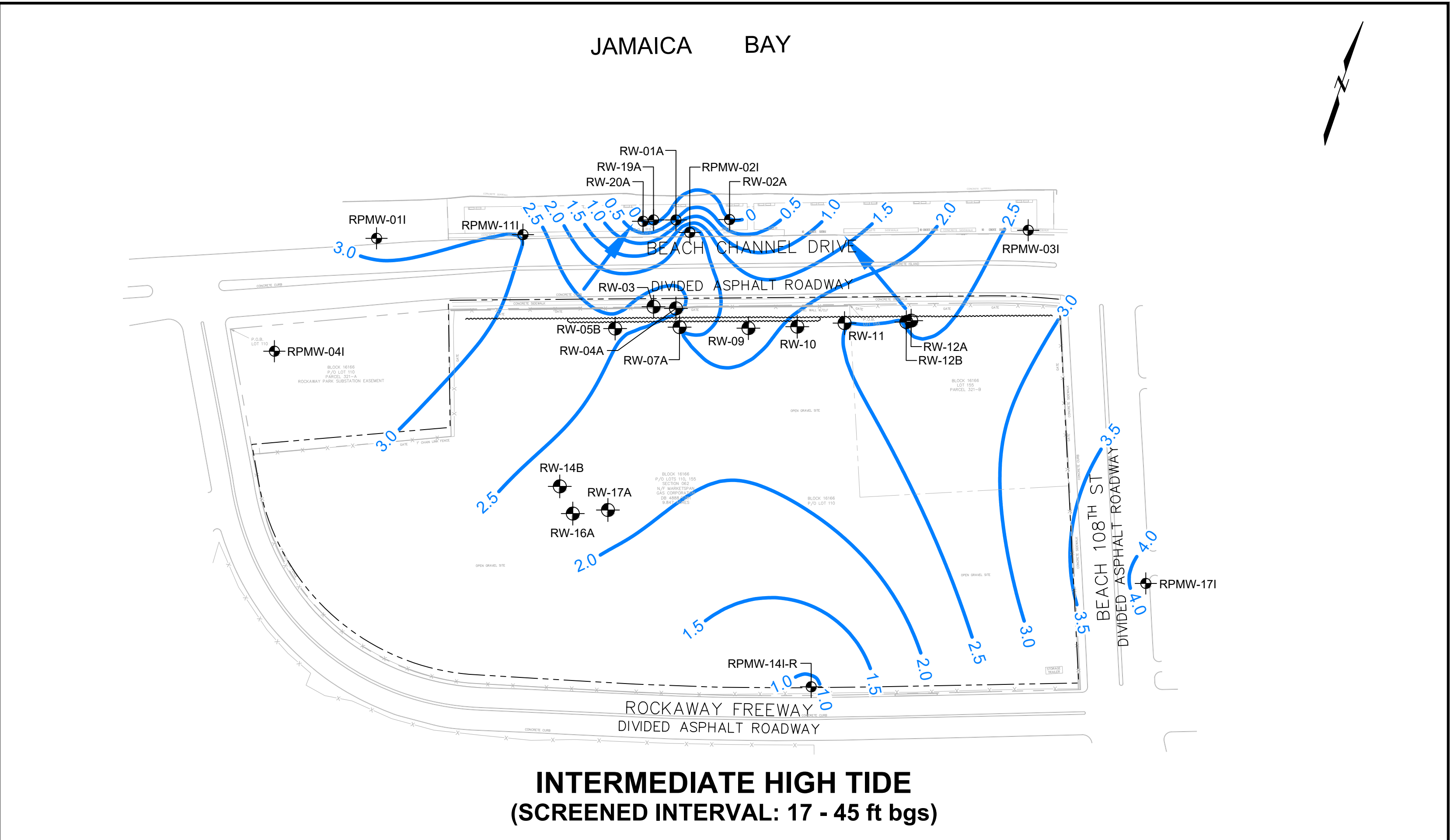
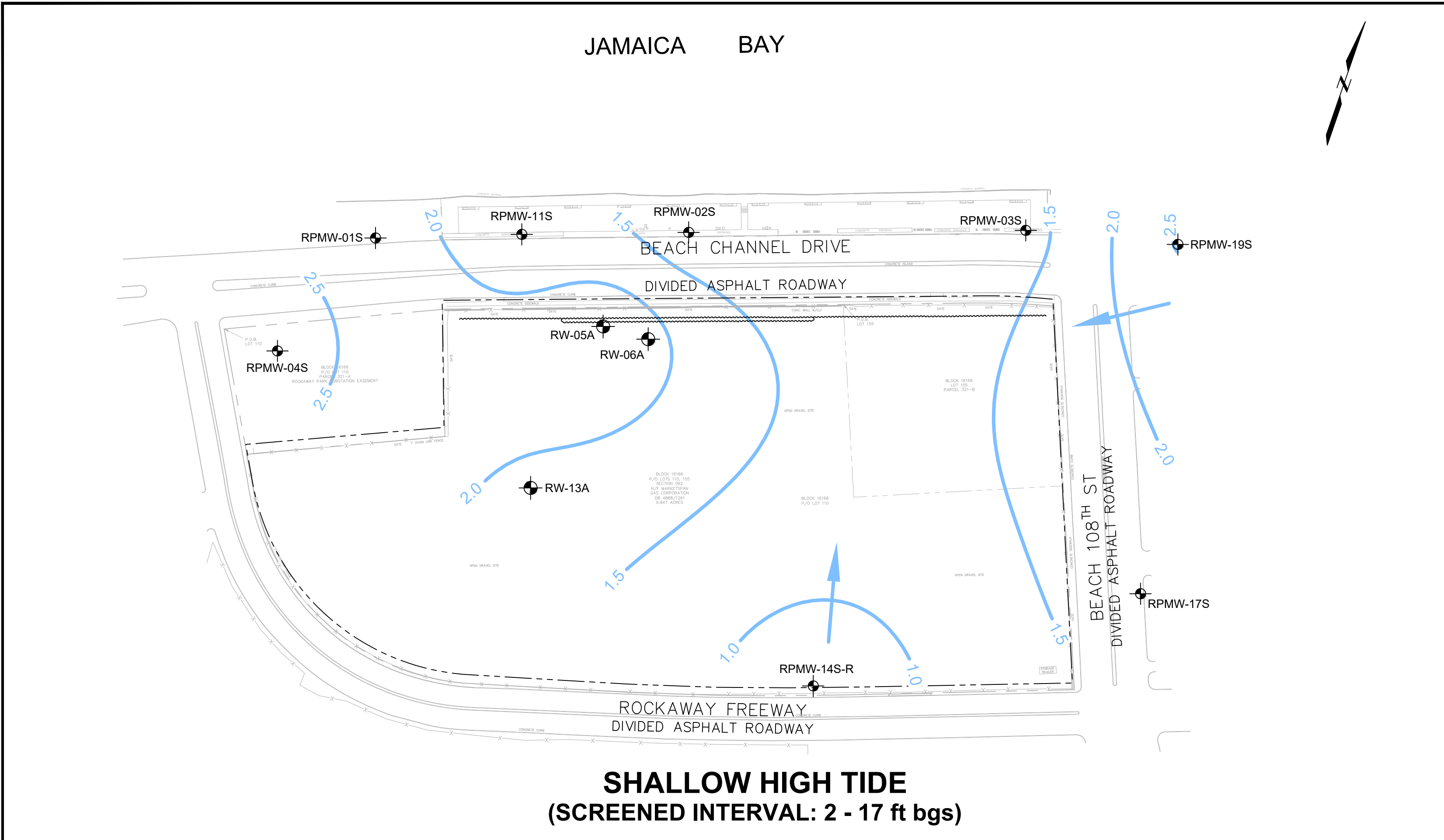


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GROUNDWATER CONTOURS
(LOW TIDE)

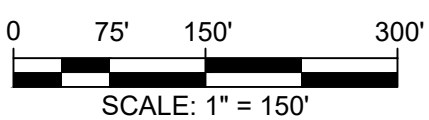
August 2024

Fig. 3



LEGEND:

- 1.5 GROUNDWATER CONTOUR
- GROUNDWATER FLOW DIRECTION
- PROPERTY BOUNDARY
- FENCE
- SHEET PILE BARRIER WALL
- ft bgs FEET BELOW GROUND SURFACE



NOTE:
1. CONTOURS ARE BASED ON THE DECEMBER 2018 SAMPLING EVENT.

SOURCE:
1. BOUNDARY SURVEY, SECTION 062 - BLOCK 16166 - LOTS 110 & 155, ROCKAWAY PARK, QUEENS COUNTY, NEW YORK, PREPARED BY KENNON SURVEYING SERVICES INC., SCALE: 1" = 40', DATE: NOVEMBER 2016.

Groundwater Monitoring Report Rockaway Park Former MGP Site Rockaway Park, New York		GROUNDWATER CONTOURS (HIGH TIDE)
	Project 1905774	August 2024
		Fig. 4

