

Mr. Patrick Van Rossem National Grid 175 East Old Country Road Hicksville, New York 11801

Date: May 13, 2022 Our Ref: 30004014.00002 Subject: Post-Remediation DNAPL Monitoring Status Report Former Citizens Gas Works Manufactured Gas Plant Site Borough of Brooklyn, Kings County, New York NYSDEC Site Nos. C224012 and C224012B Arcadis of New York, Inc. One Lincoln Center 110 West Fayette Street Suite 300 Syracuse New York 13202 Phone: 315 446 9120 Fax: 315 449 0017 www.arcadis.com

Dear Mr. Van Rossem,

This letter has been prepared by Arcadis of New York, Inc. (Arcadis), on behalf of National Grid, to present the initial dense non-aqueous phase liquid (DNAPL) monitoring results and proposed scope of the interim post-remediation DNAPL monitoring program for the former Citizens Gas Works manufactured gas plant (MGP) site (hereinafter, the "Site") in Brooklyn, New York (Figure 1). As you are aware, the recently-completed remediation activities at the Site included the installation of several new DNAPL recovery wells on Block 471, Lot 1 (hereinafter, "Parcel I"), Block 471, Lot 100 (hereinafter, "Parcel II"), and Block 471, Lot 200 (hereinafter, "Parcel II"). These new wells, together with the existing recovery wells that remain, will be used to monitor and remove recoverable DNAPL from intermediate and deep soils at the Site. The new and existing recovery well locations are shown on Figure 2.

The remainder of this letter summarizes the: (1) recovery well installation activities on Parcels I, II, and III of the Site; (2) initial DNAPL monitoring results through the end of March 2022; and (3) proposed scope of the interim post-remediation DNAPL monitoring program through the end of September 2022.

Recovery Well Installation

New recovery wells CGRW-08 through CGRW-18, CGRW-19I, CGRW-19D, CGRW-20I, CGRW-20D, CGRW-21I, CGRW-21D, CGRW-22I, and CGRW-22D (Figure 2) were installed by Aquifer Drilling and Testing, Inc., under contract with Creamer Environmental, Inc. and with the supervision of Arcadis, in general accordance with the *100% Remedial Design Report* (Arcadis 2017) and *Remedial Design Addendum No. 5* (National Grid 2021). New recovery wells CGRW-08 through CGRW-12 (Parcel I) were installed between October 21 and October 24, 2019 and were constructed of nominal 4-inch diameter Schedule 40 polyvinyl chloride riser and screen. Each of the new Parcel I recovery wells included a 30-foot long screen and a 15-foot long sump.

The new recovery wells on Parcel II (CGRW-13 through CGRW-18) and Parcel III (CGRW-19I, CGRW-19D, CGRW-20I, CGRW-20D, CGRW-21I, CGRW-21D, CGRW-22I, and CGRW-22D) were installed between November 22, 2021 and February 15, 2022 and were constructed of nominal 6-inch diameter Schedule 10 stainless steel riser and continuous-slot, wire-wound stainless steel screen. Each well also included a 15-foot long stainless steel sump. In addition, while drilling the boreholes for the new recovery wells on Parcels II and III, soil

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samples were generally collected in continuous intervals from approximately 20 feet below ground surface to the bottom of the well screen. Each sample was screened for volatile organic compound vapors with a photoionization detector and was visually examined and logged by Arcadis field personnel. Based on the observations made during those soil sampling activities and discussions in the field with the New York State Department of Environmental Conservation's (NYSDEC's) on-Site representative, the well screens for new recovery wells CGRW-16 (Parcel II), CGRW-19I (Parcel III), and CGRW-22I (Parcel III) were extended by 10 feet, for a total screen length of 40 feet. The remaining new recovery wells on Parcels II and III were each installed with a 30-foot long screen.

With the exceptions of recovery wells CGRW-21I, CGRW-21D, CGRW-22I, and CGRW-22D¹, each well was finished with a flush-mounted well manhole set in a concrete pad. In conjunction with these activities, the abovegrade surface completion for existing recovery well CGRW-02 (Parcel I) was also removed and replaced on December 20, 2021 with a flush-mounted well manhole set in a concrete pad. The flush-mounted surface completion for existing recovery well CGRW-203 (Parcel I), which had been damaged during the remediation project, was also replaced on March 25, 2022. Following installation, each new recovery well was developed and surveyed to record its actual ground surface elevation, measuring point elevation, and horizontal location, referenced to Site datum. The new and existing recovery well locations are shown on Figure 2 and the soil boring and well construction logs for the new recovery wells are provided in Attachment A. Table 1 summarizes the soil boring locations for the new recovery wells, including the visible impacts observed at each location. Recovery well construction details are summarized in Table 2.

Finally, it should be noted that new recovery well CGRW-11 was decommissioned with NYSDEC's approval on February 16, 2022 to facilitate the remedial excavation and pipe removal work on Parcel I. A copy of the decommissioning log for recovery well CGRW-11 is provided in Attachment B.

Initial DNAPL Monitoring

In February 2022, following the completion of the recovery well installation work, Arcadis began monitoring and periodically removing DNAPL accumulations from the new and existing recovery wells at the Site. Table 3 summarizes the recovery well fluid level measurements collected on March 31, 2022 as well as the total estimated volume of fluids (DNAPL and groundwater) removed from the recovery wells between February 10 and March 31, 2022. As indicated in Table 3, approximately 404 gallons of fluids in total were recovered during this period from recovery wells CGRW-04 (Parcel II), CGRW-06I (Parcel III), CGRW-06D (Parcel III), CGRW-08 through CGRW-10 (Parcel I), CGRW-13 (Parcel II), CGRW-16 through CGRW-18 (Parcel II), CGRW-20I (Parcel III), CGRW-21I (Parcel III), CGRW-21D (Parcel III), CGRW-22I (Parcel III), and CGRW-22D (Parcel III).

¹ New recovery wells CGRW-21I, CGRW-21D, CGRW-22I, and CGRW-22D, as well as existing recovery wells CGRW-06I and CGRW-06D, are located on Parcel III within the active staging area currently being used by Cashman Dredging & Marine Contracting Co., LLC to support the remediation of the Gowanus Canal Superfund Site. These wells will each be finished with flush-mounted surface completions in late 2022 in conjunction with the removal/restoration of the Parcel III staging area.

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Interim Post-Remediation DNAPL Monitoring Program

The DNAPL recovery wells will continue to be monitored on a weekly or more frequent basis for the first six months after the completion of the Site remediation project (i.e., through September 2022) to: (1) assess the presence and recoverability of remaining DNAPL in intermediate and deep soils at the Site; (2) determine initial DNAPL recovery rates; and (3) refine required monitoring and DNAPL removal frequencies. During this initial study period, the results of the interim post-remediation DNAPL monitoring and recovery operations will be reported to NYSDEC on a monthly basis, along with any proposed modifications to the monitoring program. As appropriate, such information will also be incorporated into the Interim Site Management Plans. Thereafter, interim post-remediation DNAPL monitoring will be conducted in accordance with the NYSDEC-approved Interim Site Management Plans.

Please let me know if you have any questions regarding the information presented herein.

Sincerely, Arcadis of New York, Inc.

Michael Benoit, PE Principal Environmental Engineer

Email: michael.benoit@arcadis.com Direct Line: 315.671.9298

CC. Andrew Prophete, National Grid John Alonzo, de maximis Terry Young, PE, Arcadis

Enclosures:

Tables:

Table 1. Soil Boring Summary for New Recovery Wells

Table 2. Recovery Well Construction Summary

Table 3. Recovery Well Gauging and Product Recovery Summary for March 31, 2022

Figures:

Figure 1. Site Location Map

Figure 2. Site Plan

Attachments:

Attachment A. Soil Boring and Well Construction Logs

Attachment B. Decommissioning Log for New Recovery Well CGRW-11

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References:

- Arcadis. 2017. *100% Remedial Design Report.* Former Citizens Gas Works MGP Site, Carroll Gardens/Public Place, Brooklyn, New York. Prepared for National Grid. November.
- National Grid. 2021. *Remedial Design Addendum No. 5*. Former Citizens Gas Works MGP Site, Carroll Gardens/Public Place, Brooklyn, New York. July 29.

Tables

National Grid

				Ground Surface		Visual Impacts Observed			
Location ID	Date Completed	Easting (feet NAD83)	Northing (feet NAD83)	Elevation (feet NAVD88)	Total Depth (feet bgs)	Depth Interval (feet bgs)	Elevation Interval (feet NAVD88)	Description	
Parcel I									
CGRW-08	10/24/2019	631902.84	671826.90	30.19	95.10		NO LOGO	GING AT THIS LOCATION	
CGRW-09	10/23/2019	631945.16	671800.56	30.28	95.10		NO LOGO	GING AT THIS LOCATION	
CGRW-10	10/23/2019	632029.75	671747.24	23.82	89.00		NO LOGO	GING AT THIS LOCATION	
CGRW-11	10/22/2019	632072.18	671721.10	20.48	85.00		NO LOGO	GING AT THIS LOCATION	
CGRW-12	10/21/2019	632105.42	671728.64	19.68	84.00		NO LOGO	GING AT THIS LOCATION	
Parcel II									
CGSB-P2RA-02/CGRW-13	12/29/2021	632648.03	671637.19	8.03	71.92	40.00 - 41.00	-31.9732.97	Sheen and staining throughout.	
						50.00 - 52.30	-41.9744.27	Scattered sheen throughout.	
CGSB-P2RA-03/CGRW-14	1/3/2022	632585.34	671638.65	7.93	72.44	26.20 - 27.50	-18.2719.57	Light NAPL coating, NAPL blebs on wood debris, sheen.	
						31.20 - 31.50	-23.2723.57	Sheen.	
						33.60 - 33.80	-25.6725.87	Staining.	
						34.00 - 34.20	-26.0726.27	Staining.	
						34.20 - 35.20	-26.2727.27	Light NAPL coating.	
						40.00 - 42.70	-32.0734.77	Moderate NAPL coating.	
						42.70 - 43.30	-34.7735.37	Light NAPL coating.	
CGSB-P2RA-04/CGRW-15	1/5/2022	632509.28	671632.75	7.86	83.50	30.00 - 31.90	-22.1424.04	Scattered NAPL blebs.	
						31.90 - 32.00	-24.0424.14	Moderate NAPL coating.	
						32.00 - 32.70	-24.1424.84	Light NAPL coating in sand layers.	
						32.70 - 34.50	-24.8426.64	Scattered NAPL blebs on sand.	
						34.50 - 34.90	-26.6427.04	Heavy NAPL coating.	
						34.90 - 35.30	-27.0427.44	Scattered NAPL blebs on sand.	
						35.30 - 37.00	-27.4429.14	Staining.	
						40.00 - 43.00	-32.1435.14	Scattered sheen.	
						43.00 - 43.40	-35.1435.54	Heavy NAPL coating.	
						43.40 - 44.90	-35.5437.04	Light to moderate NAPL coating.	
						50.00 - 50.30	-42.1442.44	NAPL blebs.	
GSB-P2RA-05/CGRW-16	1/7/2022	632414.49	671627.33	10.13	85.54	21.30 - 22.30	-11.1712.17	Black viscous NAPL coating on wood fragments.	
						30.00 - 31.00	-19.8720.87	Light to moderate NAPL coating.	
						40.00 - 40.40	-29.8730.27	Sheen.	
						40.40 - 40.50	-30.2730.37	Heavy NAPL coating, sheen.	
						40.50 - 40.80	-30.3730.67	Staining.	
						40.80 - 40.90	-30.6730.77	Light NAPL coating, staining.	



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Parcel II (continued)									
CGSB-P2RA-05/CGRW-16	1/7/2022	632414.49	671627.33	10.13	85.54	40.90 - 41.30	-30.7731.17	Staining.	
						41.30 - 41.60	-31.1731.47	Heavy NAPL coating, staining.	
						41.60 - 41.80	-31.4731.67	Staining.	
						51.10 - 52.30	-40.9742.17	Heavy NAPL coating.	
						60.00 - 60.70	-49.8750.57	Sheen.	
						66.30 - 66.40	-56.1756.27	Heavy NAPL coating.	
CGSB-P2RA-06/CGRW-17	2/10/2022	632260.34	671567.13	11.65	77.00	30.70 - 31.00	-19.0519.35	Scattered NAPL blebs.	
						35.30 - 36.00	-23.6524.35	Moderate NAPL coating.	
						36.00 - 37.40	-24.3525.75	Partings of moderate NAPL coating with scattered sheen.	
						40.00 - 40.50	-28.3528.85	Scattered light NAPL coating.	
						40.50 - 40.60	-28.8528.95	Heavy NAPL coating.	
						41.60 - 41.70	-29.9530.05	Moderate NAPL coating.	
						41.70 - 41.80	-30.0530.15	Scattered NAPL blebs.	
						41.80 - 42.00		Saturated with NAPL.	
						42.00 - 42.80		Light NAPL coating and scattered NAPL blebs.	
						42.80 - 43.50	-31.1531.85	Heavy NAPL coating.	
						43.50 - 43.90	-31.8532.25	Scattered NAPL blebs.	
						43.90 - 44.60	-32.2532.95	Saturated with NAPL.	
						44.60 - 45.30	-32.9533.65	Scattered NAPL blebs and sheen.	
						50.00 - 50.90	-38.3539.25	Saturated with NAPL.	
						50.90 - 54.30	-39.2542.65	Scattered sheen.	
CGSB-P2RA-07/CGRW-18	2/15/2022	632227.16	671548.68	11.79	77.00	10.00 - 12.80	1.791.01	Scattered NAPL blebs.	
						20.00 - 21.80	-8.2110.01	Scattered NAPL blebs, staining.	
						40.00 - 40.80	-28.2129.01	Scattered sheen.	
						40.80 - 40.90	-29.0129.11	Heavy NAPL coating and scattered sheen.	
						40.90 - 43.30	-29.1131.51	Scattered sheen.	
						43.30 - 43.80	-31.5132.01	Moderate NAPL coating and scattered sheen.	
						43.80 - 44.00	-32.0132.21	Scattered sheen.	
						45.00 - 47.00	-33.2135.21	Scattered sheen, staining.	
						47.00 - 47.40	-35.2135.61	Heavy NAPL coating.	
						47.40 - 48.10	-35.6136.31	Scattered sheen.	
						50.00 - 50.80	-38.2139.01	Moderate NAPL coating.	



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Parcel II (continued)									
CGSB-P2RA-07/CGRW-18	2/15/2022	632227.16	671548.68	11.79	77.00	50.80 - 51.60	-39.0139.81	Saturated with NAPL.	
						51.60 - 53.00	-39.8141.21	Staining.	
						53.00 - 53.30	-41.2141.51	Light NAPL coating.	
						53.30 - 53.50	-41.5141.71	Moderate NAPL coating.	
						55.00 - 55.60	-43.2143.81	Moderate NAPL coating.	
						55.60 - 56.50	-43.8144.71	Scattered sheen.	
						56.50 - 56.80	-44.7145.01	Heavy NAPL coating.	
						60.00 - 60.90	-48.2149.11	Moderate NAPL coating.	
arcel III									
GSB-P3RA-03/CGRW-19I	12/27/2021	632140.38	671472.64	9.89	89.29	24.20 - 25.10	-14.3115.21	Staining.	
						25.10 - 26.20	-15.2116.31	Heavy black viscous NAPL coating on wood fragments.	
						26.20 - 26.80	-16.3116.91	Staining.	
						26.80 - 27.70	-16.9117.81	Staining on wood fragments.	
						30.25 - 30.27	-20.3620.38	Moderate NAPL coating.	
						30.58 - 30.60	-20.6920.71	Moderate NAPL coating.	
						31.25 - 31.29	-21.3621.40	Heavy NAPL coating.	
						32.00 - 32.80	-22.1122.91	Light NAPL coating.	
						32.80 - 33.50	-22.9123.61	Heavy NAPL coating.	
						33.50 - 34.30	-23.6124.41	Moderate NAPL coating.	
						34.30 - 35.50	-24.4125.61	Light NAPL coating.	
						41.00 - 41.30	-31.1131.41	Heavy NAPL coating.	
						41.80 - 41.90	-31.9132.01	Heavy NAPL coating.	
						42.40 - 42.42	-32.5132.53	Heavy NAPL coating.	
						43.00 - 43.10	-33.1133.21	Heavy NAPL coating.	
						43.50 - 43.52	-33.6133.63	NAPL blebs.	
						43.70 - 44.30	-33.8134.41	Scattered sheen.	
						44.30 - 44.70	-34.4134.81	Light NAPL coating.	
						44.70 - 45.50	-34.8135.61	Scattered sheen.	
						50.40 - 52.80	-40.5142.91	Moderate NAPL coating.	
						52.80 - 53.50	-42.9143.61	Light NAPL coating.	
						53.80 - 53.90	-43.9144.01	Scattered sheen.	
						54.40 - 54.50	-44.5144.61	Scattered sheen.	



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Parcel III (continued)								
CGSB-P3RA-04/CGRW-19D	12/21/2021	632136.11	671467.64	9.98	118.45	20.00 - 20.80	-10.0210.82	Sheen.
						20.80 - 23.00	-10.8213.02	Saturated with viscous NAPL.
						23.00 - 23.80	-13.0213.82	Trace sheen.
						23.80 - 26.00	-13.8216.02	Moderate NAPL coating.
						32.20 - 36.30	-22.2226.32	Moderate NAPL coating.
						36.30 - 38.00	-26.3228.02	Moderate to heavy NAPL coating.
						40.00 - 44.50	-30.0234.52	Layers of moderate to heavy NAPL coating and sheen.
						44.50 - 44.90	-34.5234.92	Heavy NAPL coating.
						44.90 - 45.50	-34.9235.52	Layers of moderate to heavy NAPL coating and sheen.
						45.50 - 49.00	-35.5239.02	Trace NAPL blebs.
						52.00 - 53.00	-42.0243.02	Sheen.
						53.00 - 53.50	-43.0243.52	Moderate NAPL coating, sheen.
						53.50 - 57.30	-43.5247.32	Heavy NAPL coating, sheen.
						57.30 - 58.00	-47.3248.02	Moderate NAPL coating, sheen.
						72.70 - 74.50	-62.7264.52	Some seams of light NAPL coating.
						74.50 - 75.30	-64.5265.32	Moderate to heavy NAPL coating.
GSB-P3RA-05/CGRW-20I	12/14/2021	632064.28	671391.12	9.90	88.00	20.00 - 22.00	-10.1012.10	Saturated with viscous NAPL.
						30.40 - 31.20	-20.5021.30	Viscous NAPL blebs on some wood fractures.
						33.90 - 34.10	-24.0024.20	Moderate NAPL coating.
						34.50 - 34.80	-24.6024.90	Sheen.
						43.80 - 43.90	-33.9034.00	Heavy NAPL coating.
						44.30 - 44.40	-34.4034.50	Light NAPL coating.
						51.50 - 51.60	-41.6041.70	Light NAPL coating.
						53.20 - 53.40	-43.3043.50	Heavy NAPL coating in sand layers.
						54.70 - 54.80	-44.8044.90	Moderate NAPL coating.
						54.80 - 55.10	-44.9045.20	Heavy NAPL coating.
						58.10 - 58.50	-48.2048.60	Saturated with NAPL.
						60.00 - 61.10	-50.1051.20	Scattered sheen.
						67.50 - 67.70	-57.6057.80	Light NAPL coating.
						72.00 - 72.20	-62.1062.30	Moderate to heavy NAPL coating.



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Parcel III (continued)								
CGSB-P3RA-06/CGRW-20D	12/10/2022	632060.61	671385.05	9.97	118.21	31.30 - 31.50	-21.3321.53	Light to moderate NAPL coating, NAPL blebs.
						32.40 - 32.90	-22.4322.93	Moderate to heavy NAPL coating.
						32.90 - 33.50	-22.9323.53	Sheen.
						41.60 - 41.80	-31.6331.83	Sheen.
						42.10 - 42.30	-32.1332.33	Moderate to heavy NAPL coating.
						44.80 - 45.10	-34.8335.13	Light NAPL coating.
						52.80 - 53.20	-42.8343.23	Heavy NAPL coating to saturated with NAPL.
						54.30 - 54.40		Heavy NAPL coating to saturated with NAPL.
						54.40 - 55.20		Moderate NAPL coating.
						55.20 - 55.30		Heavy NAPL coating to saturated with NAPL.
						56.00 - 56.04	-46.0346.07	Heavy NAPL coating to saturated with NAPL.
						56.20 - 56.50	-46.2346.53	Sheen.
						56.80 - 56.90	-46.8346.93	Heavy NAPL coating to saturated with NAPL.
						60.50 - 60.60		Saturated with NAPL.
						60.60 - 61.80	-50.6351.83	Sheen.
						64.30 - 66.50	-54.3356.53	Sheen.
						70.00 - 70.30	-60.0360.33	Saturated with NAPL.
						74.75 - 76.20		Light NAPL coating.
						80.00 - 81.30		Saturated with NAPL.
						83.60 - 84.10		Moderate NAPL coating.
GSB-P3RA-07/CGRW-21I	12/1/2021	632008.62	671308.14	9.19	86.42	20.00 - 22.40	-10.8113.21	Channels of viscous NAPL.
						23.30 - 23.32	-14.1114.13	Moderate NAPL coating.
						24.80 - 24.82	-15.6115.63	Moderate NAPL coating.
						25.10 - 25.12	-15.9115.93	Moderate NAPL coating.
						25.90 - 25.92	-16.7116.73	Heavy NAPL coating.
						32.10 - 32.20	-22.9123.01	Moderate NAPL coating.
						32.70 - 33.30	-23.5124.11	Heavy NAPL coating.
						33.30 - 33.60	-24.1124.41	Sheen.
						33.60 - 35.30	-24.4126.11	Heavy NAPL coating.
						35.70 - 36.20	-26.5127.01	Light NAPL coating.
						40.00 - 42.10	-30.8132.91	Trace NAPL blebs and trace sheen.
						42.10 - 42.30	-32.9133.11	Moderate NAPL coating.



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ocation ID	Date Completed	Easting (feet NAD83)	Northing (feet NAD83)	Elevation (feet NAVD88)	Total Depth (feet bgs)	Depth Interval (feet bgs)	Elevation Interval (feet NAVD88)	Description	
arcel III (continued)									
GSB-P3RA-07/CGRW-21I	12/1/2021	632008.62	671308.14	9.19	86.42	42.30 - 43.20	-33.1134.01	Scattered sheen and staining.	
						43.20 - 44.70	-34.0135.51	Moderate NAPL coating.	
						50.00 - 51.90	-40.8142.71	Light to moderate NAPL coating.	
						51.90 - 53.90	-42.7144.71	Scattered sheen.	
						53.90 - 54.80	-44.7145.61	Black heavy NAPL coating to saturated with NAPL.	
SB-P3RA-08/CGRW-21D	12/2/2022	632004.49	671302.25	9.32	117.71	20.00 - 20.75	-10.6811.43	Saturated with viscous NAPL.	
						21.40 - 21.90	-12.0812.58	Saturated with NAPL.	
						40.00 - 41.90	-30.6832.58	Scattered sheen.	
						41.90 - 42.30	-32.5832.98	Heavy NAPL coating.	
						42.30 - 43.40	-32.9834.08	Sheen.	
						43.90 - 44.70	-34.5835.38	Scattered sheen.	
						51.30 - 51.40	-41.9842.08	Sheen.	
						51.70 - 51.80	-42.3842.48	Heavy NAPL coating to saturated with NAPL.	
						52.40 - 52.50	-43.0843.18	Saturated with NAPL.	
						52.80 - 53.60	-43.4844.28	Scattered sheen.	
						54.00 - 54.10	-44.6844.78	Heavy NAPL coating to saturated with NAPL.	
						54.50 - 54.80	-45.1845.48	Heavy NAPL coating to saturated with NAPL.	
						60.00 - 60.80	-50.6851.48	Moderate NAPL coating.	
						60.80 - 60.90	-51.4851.58	Saturated with NAPL.	
						61.50 - 61.80	-52.1852.48	Saturated with NAPL.	
						61.80 - 62.00	-52.4852.68	Sheen.	
						63.30 - 63.70	-53.9854.38	Near vertical seam saturated with NAPL.	
						80.00 - 83.00	-70.6873.68	Saturated with NAPL.	
						83.00 - 83.90	-73.6874.58	Moderate NAPL coating.	
						83.90 - 85.00	-74.5875.68	Scattered sheen.	
						85.00 - 85.30	-75.6875.98	NAPL blebs, scattered sheen.	
						85.30 - 85.80	-75.9876.48	Scattered sheen.	
						85.80 - 85.90	-76.4876.58	NAPL blebs, scattered sheen.	
						85.90 - 87.00	-76.5877.68	Scattered sheen.	
						90.00 - 90.60	-80.6881.28	Saturated with NAPL.	
						91.20 - 91.30	-81.8881.98	Saturated with NAPL.	
						92.80 - 93.90	-83.4884.58	Saturated with NAPL.	



National Grid

				Ground Surface		Visual Impacts Observed			
Location ID	Date Completed	Easting (feet NAD83)	Northing (feet NAD83)	Elevation (feet NAVD88)	Total Depth (feet bgs)	Depth Interval (feet bgs)	Elevation Interval (feet NAVD88)	Description	
Parcel III (continued)									
CGSB-P3RA-08/CGRW-21D	12/2/2022	632004.49	671302.25	9.32	117.71	94.10 - 94.30	-84.7884.98	Saturated with NAPL.	
						100.00 - 101.40	-90.6892.08	Moderate NAPL coating.	
						102.40 - 102.50		Heavy NAPL coating.	
						105.30 - 106.70		Heavy NAPL coating.	
CGSB-P3RA-09/CGRW-22I	12/7/2022	631952.18	671227.89	8.86	85.67	20.00 - 20.30		Saturated with black viscous NAPL.	
						30.00 - 30.40		Heavy NAPL coating in sand layers.	
						31.30 - 31.80	-22.4422.94	Sheen.	
						31.80 - 32.10	-22.9423.24	Heavy NAPL coating.	
						40.00 - 41.80		Light to moderate NAPL coating.	
						42.00 - 42.10		Saturated with NAPL.	
						42.50 - 42.60	-33.6433.74	Saturated with NAPL.	
						42.70 - 42.80	-33.8433.94	Saturated with NAPL.	
						43.20 - 43.30	-34.3434.44	Saturated with NAPL.	
						50.00 - 50.30	-41.1441.44	Heavy NAPL coating.	
						50.30 - 53.30	-41.4444.44	NAPL blebs and sheen.	
						53.30 - 53.80	-44.4444.94	Saturated with NAPL.	
						54.30 - 54.40		Saturated with NAPL.	
						54.80 - 54.90		Saturated with NAPL.	
CGSB-P3RA-10/CGRW-22D	11/29/2021	631948.96	671222.22	8.97	120.00	20.50 - 21.50		Trace sheen.	
						31.10 - 35.00	-22.1326.03	Saturated with NAPL.	
						35.00 - 35.90		Trace sheen.	
						40.00 - 42.60		Heavy NAPL coating.	
						42.60 - 43.30		Staining.	
						43.30 - 43.80		Saturated with NAPL.	
						50.00 - 51.00		Light NAPL coating.	
						51.00 - 51.30		Saturated with NAPL.	
						51.60 - 52.30		Saturated with NAPL, sheen.	
						52.70 - 52.90		Heavy NAPL coating and sheen.	
						54.20 - 54.30		Moderate NAPL coating, sheen.	
						54.30 - 54.40		Heavy NAPL coating, sheen.	
						54.40 - 54.50	-45.4345.53	Sheen.	
						55.30 - 55.50	-46.3346.53	Saturated with NAPL.	



National Grid

Former Citizens Gas Works Manufactured Gas Plant Site Borough of Brooklyn, Kings County, New York NYSDEC Site Nos. C224012 and C224012B

				Ground Surface			Visua	I Impacts Observed
Location ID	Date Completed	Easting (feet NAD83)	Northing (feet NAD83)	Elevation (feet NAVD88)	Total Depth (feet bgs)	Depth Interval (feet bgs)	Elevation Interval (feet NAVD88)	Description
Parcel III (continued)								
CGSB-P3RA-10/CGRW-22D	11/29/2021	631948.96	671222.22	8.97	120.00	55.50 - 55.80	-46.5346.83	Light NAPL coating and sheen.
						60.00 - 60.30	-51.0351.33	Some staining on silt.
						60.30 - 60.50	-51.3351.53	Saturated with NAPL.
						60.70 - 60.80	-51.7351.83	Saturated with NAPL.
						60.90 - 61.00	-51.9352.03	Sheen.
						61.20 - 61.30	-52.2352.33	Saturated with NAPL.
						61.67 - 61.71	-52.7052.74	Sheen.
						63.10 - 63.30	-54.1354.33	Sheen.
						70.75 - 70.79	-61.7861.82	NAPL blebs.
						71.17 - 71.21	-62.2062.24	NAPL blebs.
						80.00 - 80.80	-71.0371.83	Trace sheen, orange staining.
						80.80 - 83.20	-71.8374.23	Saturated with NAPL.
						90.70 - 91.30	-81.7382.33	Trace sheen.

Notes:

1. Horizontal reference datum is the North American Datum of 1983 (NAD83), New York State Plane East Zone.

2. Vertical reference datum is the North American Vertical Datum of 1988 (NAVD88).

3. bgs: below ground surface.

4. NAPL: non-aqueous phase liquid.



Table 2 Recovery Well Construction Summary Post-Remediation DNAPL Monitoring Status Report

National Grid

Date Earting Northing Elevation (rest NAD08) Envation (rest NAD08) Stream Stream Bineator (rest NAD08) Elevation (rest NAD08) </th <th></th> <th>Screene</th> <th>d Interval</th> <th></th> <th></th>												Screene	d Interval			
Easting Ea	Well ID				Elevation	Elevation			Diameter	Size	Length			Length	Total Depth of Well (feet bgs)	
CGRW-42 B27103B 627103B 671708-28 18.72 19.24 Sh. 10 S St. Werk 6.00 0.020 15.00 34.4 4.43 11.71 -28.71 5.00 6.13 CGRW-206 7122012 631807.36 671778.36 18.19 17.84 Sch. 40 PVC 4.00 0.020 20.00 34.81 -45.81 -46.92 2.00 61.88 CGRW-206 7122012 63190.241 671825.80 30.19 22.66 Sch. 40 PVC 4.00 0.020 30.00 50.10 -80.10 1.98.7 4.98.2 1.50.0 65.10 65.10 -80.10 1.98.7 4.98.2 1.50.0 65.10 50.10 -80.10 1.98.7 4.98.2 1.50.0 65.10 50.10 -80.10 1.98.7 4.98.0 55.00 65.10 7.00 1.98.2 4.98.2 1.50.0 56.00 56.00 0.020 30.00 7.00 1.98.2 4.98.2 1.50.0 56.00 56.00 56.00 0.020 30.00 2.18 <th>Parcel I</th> <th></th>	Parcel I															
CGRW-301 Str22012 S1987.53 G717.800 28.75 28.51 Sch. 40 PVC Sch. 40 PVC 40.00 0.000 20.00 48.11 - 58.61 - 49.82 - 49.82 2.00 67.18 CGRW-301 17/22012 63190.24 67178.308 10.19 2.00 5ch. 40 PVC 5ch. 40 PVC 4ch. 40 PVC 4ch. 40 0.000 30.00 5cl. 1 - 48.92 - 48.92 1.00 45.11 - 48.91 1.50 - 48.92 - 48.92 2.00 671.1 CGRW-301 102/22019 63190.24 67180.266 30.01 2.00 30.00 4.00 -0.00 -40.01 -40.91 4.0.91 5.0 4.0.91 -40.91 4.0.91 4.0.91 -40.91 4.0.91 5.0	Existing Recover	y Wells														
CGRW-206 71/22012 632156.81 671783.36 18.19 17.84 Sch. 40 PVC 5.4. 40 PVC 4.00 0.020 20.00 45.11 65.11 26.82 46.92 2.00 67.11 Now Recovery Weit 631902.44 67162.60 30.19 2.086 Sch. 40 PVC 5.4. 40 PVC 4.00 0.020 30.00 50.10 -8.0.10 19.81 -44.92 15.00 65.00 90.00 50.10 -8.0.10 19.82 -44.92 15.00 65.00 90.00 50.00 50.10 -8.0.0 19.82 -44.92 15.00 95.00 95.00 90.00 90.00 40.00 -7.00 20.82 2.49.82 15.00 95.00 90.00 <td>CGRW-02</td> <td>8/27/2009</td> <td>632130.95</td> <td>671769.29</td> <td>18.72</td> <td>18.24</td> <td>Sch. 10 SS</td> <td>SS Vee-Wire</td> <td>6.00</td> <td>0.020</td> <td>15.00</td> <td>30.43 - 45.43</td> <td>-11.7126.71</td> <td>5.00</td> <td>50.43</td>	CGRW-02	8/27/2009	632130.95	671769.29	18.72	18.24	Sch. 10 SS	SS Vee-Wire	6.00	0.020	15.00	30.43 - 45.43	-11.7126.71	5.00	50.43	
New Recovery Wells CRW-v68 10/24/2019 631902.84 671826.80 30.19 29.86 Sch. 40 PVC Sch. 40 PVC 4.00 0.020 30.00 50.10 - 80.10 - 48.91 1.5.00 95.10 CGRW-09 10/23/2019 633902.18 67180.06 30.22 29.86 Sch. 40 PVC Sch. 40 PVC 4.00 0.020 30.00 50.10 - 80.10 - 48.91 1.5.00 95.10 50.40 95.10 50.40 97.00 - 49.12 - 49.82 15.00 45.00 50.10 40.00 - 70.00 - 49.12 - 49.82 15.00 45.00 50.00 77.00 - 49.12 - 49.32 15.00 45.00 57.15 - 41.14 - 41.45 5.00 57.15 - 52.15 - 11.54 - 41.54 5.00 57.15 - 52.15 - 11.54 - 41.54 5.00 57.15 - 52.15 - 11.54 - 41.54 5.00 57.15 - 52.15 - 11.54 - 41.54 5.00 57.15 - 52.15 -11.54 - 45.86 50	CGRW-203	5/23/2012	631987.35	671773.60	28.75	28.51	Sch. 40 PVC	Sch. 40 PVC	4.00	0.020	20.00	39.68 - 59.68	-10.9330.93	2.00	61.68	
CGRW-08 10242019 63192.4 67192.50 30.19 29.86 Sch. 40 PVC Sch. 40 PVC 4.00 0.020 30.00 50.10 - 4.91 - 4.90.1 4.90.0 CGRW-09 10232019 63194.516 67180.056 30.28 29.96 Sch. 40 PVC Sch. 40 PVC 4.00 0.020 30.00 40.00 74.00 -20.18 - 4.91.8 1.95.00 85.00 CGRW-10 10222019 83207.18 67177.10 20.48 20.14 Sch. 40 PVC Sch. 40 PVC 4.00 0.020 30.00 40.00 .70.00 -19.52 - 4.95.2 15.00 85.00 CGRW-10 10212019 83207.14 67162.47 10.61 10.18 Sch. 10 SS SVee-Wire 6.00 0.020 30.00 22.15 .61.15 1.1.54 .41.54 5.00 7.7.5 CGRW-13 232201 63285.34 67163.75 1.4.2 1.0.8 SV ee-Wire 6.00 0.020 30.00 27.45 .51.5 .11.54 .41.54	CGRW-206	7/12/2012	632156.81	671789.36	18.19	17.84	Sch. 40 PVC	Sch. 40 PVC	4.00	0.020	20.00	45.11 - 65.11	-26.9246.92	2.00	67.11	
CGRW-09 10/23/2019 631945.16 67180.56 30.28 29.96 Sch. 40 PVC 4.00 0.020 30.00 50.10 -80.10 -80.82 15.00 80.10 CGRW-10 10/222019 652072.16 671721.10 20.48 20.44 20.14 Sch. 40 PVC 5ch. 40 PVC 4.00 0.020 30.00 40.00 70.00 -19.82 -49.82 15.00 80.00 CGRW-11 10/222019 65207.16 67172.10 20.48 20.44 20.44 5ch. 40 PVC 4.00 0.020 30.00 40.00 70.00 19.82 -49.82 15.00 80.40 CGRW-12 10/212019 65241.72 67172.60 10.61 10.18 Sch. 10 SS SV ee-Wir 6.00 0.020 30.00 22.15 -52.15 -11.54 -41.54 5.00 7.75 CGRW-30 8020090 652341.72 67185.37 11.42 11.08 Sch. 10 SS SV ee-Wire 6.00 0.020 30.00 27.4 57.4 1.50 7.75 CGRW-45 1/37022 652461.23 671637.15 <td< td=""><td>New Recovery W</td><td>ells</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>·</td><td></td><td></td><td></td></td<>	New Recovery W	ells										·				
CGRW-10 10/23/2019 632029.75 671747.24 23.82 23.55 Sch. 40 PVC Sch. 40 PVC 4.00 0.020 30.00 44.00 -7.40 -8.018 15.00 85.00 CGRW-11 10/22/2019 63207.12.6 67172.10 20.48 20.14 Sch. 40 PVC Sch. 40 PVC 4.00 0.020 30.00 40.00 -7.00 19.32 -48.32 15.00 85.00 CGRW-12 10/21/2018 63207.12.6 67172.10 20.84 20.14 Sch. 40 PVC Sch. 40 PVC 4.00 0.020 30.00 40.00 -9.32 -48.32 15.00 86.00 CGRW-13 10/21/2018 63201.72 671624.07 10.61 10.18 Sch. 10 SS SVee-Wire 6.00 0.020 40.00 27.28 -52.15 -11.54 -41.54 5.00 57.15 CGRW-14 1/202021 632461.27 671637.19 8.03 7.31 Sch. 10 SS SVee-Wire 6.00 0.020 30.00 27.44 -57.49 -48.89 15.00 7.12 CGRW-14 1/202021 632464.26 6	CGRW-08	10/24/2019	631902.84	671826.90	30.19	29.86	Sch. 40 PVC	Sch. 40 PVC	4.00	0.020	30.00	50.10 - 80.10	-19.9149.91	15.00	95.10	
CGRW-11 10/22/2019 632072.18 671721.10 20.48 20.14 Sch. 40 PVC 4.00 0.020 30.00 40.00 70.00 19.52 - 44.52 15.00 85.00 CGRW-12 10/21/2019 63207.18 671721.60 19.68 19.38 Sch. 40 PVC 5.4.00 PVC 4.00 0.020 30.00 40.00 70.20 19.52 - 44.52 15.00 86.00 CGRW-14 03202096 632341.72 671624.07 10.61 10.18 Sch. 10.58 S Vee-Wire 6.00 0.020 40.00 27.28 6.728 15.66 - 5.66 7.10 CGRW-34 8202009 632341.72 671634.07 10.61 10.08 Sch. 10.58 S Vee-Wire 6.00 0.020 30.00 27.48 6.728 15.86 - 45.86 5.00 7.16 CGRW-15 1750202 63264.0.36 671637.75 7.66 7.48 Sch. 10.58 S Vee-Wire 6.00 0.020 30.00 26.41 4.96.41 15.00	CGRW-09	10/23/2019	631945.16	671800.56	30.28	29.96	Sch. 40 PVC	Sch. 40 PVC	4.00	0.020	30.00	50.10 - 80.10	-19.8249.82	15.00	95.10	
CGRW-12 10/21/2019 632105.42 671728.64 19.68 19.38 Sch. 40 PVC 4.00 0.020 30.00 39.00 69.00 -19.32 -49.32 15.00 84.00 Parcel II Existing Recovery Wells Existing Recovery Wells Existing Recovery Mells Existing Recovery Mells Existing Recovery Mells 52.15 -11.54 -41.54 50.00 57.15 CGRW-03 8/30/2009 632341.72 671624.07 10.61 10.18 Sch. 10 SS SVee-Wire 6.00 0.020 30.00 22.15 5 2.15 41.54 5.00 57.15 CGRW-04 32/29/021 632484.03 671637.19 8.03 7.31 Sch. 10 SS SVee-Wire 6.00 0.020 30.00 26.92 -56.92 18.50 7.48 7.48 Sch. 10 SS SVee-Wire 6.00 0.020 30.00 26.92 -57.44 -49.89 15.00 7.19 CGRW-14 1/3/2022 63258.34 671637.33 10.13 9.85 Sch. 10 SS <t< td=""><td>CGRW-10</td><td>10/23/2019</td><td>632029.75</td><td>671747.24</td><td>23.82</td><td>23.55</td><td>Sch. 40 PVC</td><td>Sch. 40 PVC</td><td>4.00</td><td>0.020</td><td>30.00</td><td>44.00 - 74.00</td><td>-20.1850.18</td><td>15.00</td><td>89.00</td></t<>	CGRW-10	10/23/2019	632029.75	671747.24	23.82	23.55	Sch. 40 PVC	Sch. 40 PVC	4.00	0.020	30.00	44.00 - 74.00	-20.1850.18	15.00	89.00	
Parcel II Existing Recovery Wells CGRW-04 8/28/2000 632211.72 67162.407 10.61 10.18 Sch. 10.5S SVee-Wire 6.00 0.020 40.00 27.28 6.7.25 11.54 - 4.15.4 5.0.00 57.15 CGRW-04 8/28/2000 632211.72 67163.701 10.81 Sch. 10.5S SVee-Wire 6.00 0.020 40.00 27.28 6.7.25 11.54 - 4.15.00 77.28 New Recovery Wells CGRW-14 1/229/201 632648.03 671637.19 8.0.3 7.31 Sch. 10.5S SVee-Wire 6.00 0.020 30.00 27.44 57.44 19.51 - 49.51 15.00 77.28 CGRW-16 11/70222 632414.49 671637.33 10.13 9.85 Sch. 10.SS SVee-Wire 6.00 0.020 30.00 32.04 -6.04 15.00 77.00 CGRW-16 177.022 632414.49	CGRW-11	10/22/2019	632072.18	671721.10	20.48	20.14	Sch. 40 PVC	Sch. 40 PVC	4.00	0.020	30.00	40.00 - 70.00	-19.5249.52	15.00	85.00	
Schung Accovery Weits CGRW-03 8002009 632317.2 67162.407 10.61 10.18 Sch. 0SS SS Vee-Wire 6.00 0.020 30.00 22.15 5.52 1.1.54 4.1.54 5.0.0 57.28 CGRW-04 8002005 632271.48 6124.07 72.4 72.4 72.4 72.4 72.4 72.4 72.4 72.4 72.4 72.4 72.4 72.4 <th co<="" td=""><td>CGRW-12</td><td>10/21/2019</td><td>632105.42</td><td>671728.64</td><td>19.68</td><td>19.38</td><td>Sch. 40 PVC</td><td>Sch. 40 PVC</td><td>4.00</td><td>0.020</td><td>30.00</td><td>39.00 - 69.00</td><td>-19.3249.32</td><td>15.00</td><td>84.00</td></th>	<td>CGRW-12</td> <td>10/21/2019</td> <td>632105.42</td> <td>671728.64</td> <td>19.68</td> <td>19.38</td> <td>Sch. 40 PVC</td> <td>Sch. 40 PVC</td> <td>4.00</td> <td>0.020</td> <td>30.00</td> <td>39.00 - 69.00</td> <td>-19.3249.32</td> <td>15.00</td> <td>84.00</td>	CGRW-12	10/21/2019	632105.42	671728.64	19.68	19.38	Sch. 40 PVC	Sch. 40 PVC	4.00	0.020	30.00	39.00 - 69.00	-19.3249.32	15.00	84.00
CGRW-63 8/30/2009 632341.72 67/1624.07 10.61 10.18 Sch. 10 SS SS Vee-Wire 6.00 0.020 30.00 22.15 5.216 11.54 -41.54 5.00 57.15 CGRW-64 8/28/2009 632211.48 671656.37 11.42 11.08 Sch. 10 SS SV ee-Wire 6.00 0.020 40.00 27.28 -67.28 15.86 -55.86 5.00 72.28 MSW Recovery Wells 12/29/2021 632648.03 671637.19 8.03 7.31 Sch. 10 SS SS Vee-Wire 6.00 0.020 30.00 26.92 -56.92 18.89 -48.89 15.00 77.44 CGRW-15 1/5/2022 632509.28 671632.75 7.86 7.48 Sch. 10 SS SS Vee-Wire 6.00 0.020 30.00 38.50 - 62.01 1.50.41 15.00 85.50 CGRW-17 2/10/2022 63224.04 67165.73 11.12 Sch. 10 SS SV vee-Wire 6.00 0.020 30.00 32.00 62.00 <t< td=""><td>Parcel II</td><td></td><td></td><td></td><td></td><td></td><td>·</td><td></td><td></td><td>· · ·</td><td></td><td></td><td></td><td></td><td></td></t<>	Parcel II						·			· · ·						
CGRW-04 8/28/2009 632271.48 671595.37 11.42 11.08 Sch. 10 SS SS Vee-Wire 6.00 0.020 40.00 27.28 - 67.28 - 55.86 5.00 72.28 New Recovery Wells CGRW-13 12/2/021 632648.03 671637.19 8.03 7.31 Sch. 10 SS SS Vee-Wire 6.00 0.020 30.00 26.92 - 6.08 - 6.08 7.24 1.95.1 - 4.95.8 15.00 7.24 CGRW-14 11/2/022 632509.28 671637.75 7.86 7.48 Sch. 10 SS SS Vee-Wire 6.00 0.020 30.00 38.50 - 6.0.4 1.50 38.54 6.0.4 8.50 30.64 - 6.0.4 8.50 CGRW-16 17/2022 632260.34 67167.33 10.13 9.85 Sch. 10 SS SV vee-Wire 6.00 0.020 30.00 32.00 20.01 - 60.14 15.00 70.00 70.01 - 60.14	Existing Recover	y Wells														
New Recovery Wells CGRW-13 12/29/2021 632648.03 671637.19 8.03 7.31 Sch. 10 SS SS Vee-Wire 6.00 0.020 30.00 26.92 56.92 -18.89 -48.89 15.00 77.94 CGRW-14 1/3/2022 632595.34 671637.65 7.96 7.44 SS Vee-Wire 6.00 0.020 30.00 27.44 -57.44 -19.51 -49.51 15.00 77.244 CGRW-15 1/3/2022 632260.92.8 671637.75 7.86 7.48 Sch. 10 SS SS Vee-Wire 6.00 0.020 30.00 35.64 -60.64 15.00 85.50 CGRW-16 1/7/2022 632260.34 671657.13 11.65 11.12 Sch. 10 SS SS Vee-Wire 6.00 0.020 30.00 32.00 62.00 -20.21 -50.35 15.00 77.00 CGRW-17 2/10/2022 632267.16 671548.68 11.79 11.54 Sch. 10 SS SS Vee-Wire 6.00 0.020 30.00 31.56 -51.56 <t< td=""><td>CGRW-03</td><td>8/30/2009</td><td>632341.72</td><td>671624.07</td><td>10.61</td><td>10.18</td><td>Sch. 10 SS</td><td>SS Vee-Wire</td><td>6.00</td><td>0.020</td><td>30.00</td><td>22.15 - 52.15</td><td>-11.5441.54</td><td>5.00</td><td>57.15</td></t<>	CGRW-03	8/30/2009	632341.72	671624.07	10.61	10.18	Sch. 10 SS	SS Vee-Wire	6.00	0.020	30.00	22.15 - 52.15	-11.5441.54	5.00	57.15	
CGRW-13 12/29/201 632648.03 671637.19 8.03 7.31 Sch. 10 SS SS Vee-Wire 6.00 0.020 30.00 26.92 5.6.92 -18.89 -48.89 15.00 71.92 CGRW-14 1/3/2022 632585.34 671638.65 7.93 7.39 Sch. 10 SS SS Vee-Wire 6.00 0.020 30.00 27.44 -57.44 19.51 -49.51 15.00 72.44 CGRW-15 1/5/2022 632599.28 671637.33 10.13 9.85 Sch. 10 SS SS Vee-Wire 6.00 0.020 30.00 38.50 -68.50 -30.64 -60.64 15.00 85.54 CGRW-16 1/7/2022 632227.16 671627.33 11.165 11.12 Sch. 10 SS SS Vee-Wire 6.00 0.020 30.00 32.00 -62.00 -20.21 -50.35 15.00 77.00 CGRW-06 6/11/209 631945.95 67127.58 9.38 9.19 Sch. 10 SS SS Vee-Wire 6.00 0.020 30.00 31.56	CGRW-04	8/28/2009	632271.48	671595.37	11.42	11.08	Sch. 10 SS	SS Vee-Wire	6.00	0.020	40.00	27.28 - 67.28	-15.8655.86	5.00	72.28	
CGRW-14 1/3/2022 632585.34 671638.65 7.93 7.39 Sch. 10 SS SV ee-Wire 6.00 0.020 30.00 27.44 5.7.44 19.51 - 4.9.51 15.00 72.44 CGRW-15 1/5/2022 632509.28 671632.75 7.86 7.48 Sch. 10 SS SV ee-Wire 6.00 0.020 30.00 38.50 - 68.50 -30.64 - 60.64 15.00 85.54 CGRW-16 1/7/2022 632207.46 67157.13 11.65 11.12 Sch. 10 SS SV ee-Wire 6.00 0.020 30.00 32.00 - 62.00 -20.21 - 50.53 15.00 77.00 CGRW-17 2/10/202 632207.16 67157.13 11.65 11.12 Sch. 10 SS SV ee-Wire 6.00 0.020 30.00 32.00 62.00 -20.21 - 50.53 15.00 77.00 CGRW-16 0/1/2009 631945.95 67127.58 9.38 9.49 Sch. 10 SS SV ee-Wire 6.00 0.020 30.00 31.56 - 61.56 -22.18 -50.18 5.00 66.56 CGRW-061 6.0149.05	New Recovery W	ells											11			
CGRW-15 1/5/2022 632599.28 671632.75 7.86 7.48 Sch. 10 SS S Vee-Wire 6.00 0.020 30.00 38.50 6.8.50 -30.64 -60.64 15.00 83.50 CGRW-16 1/7/2022 632414.49 671627.33 10.13 9.85 Sch. 10 SS S Vee-Wire 6.00 0.020 30.00 32.00 62.00 -20.21 -60.41 15.00 85.70 CGRW-17 2/10/2022 63220.7.16 671547.63 11.65 11.12 Sch. 10 SS S Vee-Wire 6.00 0.020 30.00 32.00 62.00 -20.21 -50.35 15.00 77.00 CGRW-16 6/1/2002 633227.16 671547.88 11.79 11.65 S Vee-Wire 6.00 0.020 30.00 31.56 61.56 22.18 -50.21 15.00 77.00 CGRW-061 6/1/2009 631945.95 671273.58 9.38 9.19 Sch. 10 SS S Vee-Wire 6.00 0.020 30.00 31.56 61.56 22.18 -52.18 5.00 65.00 62.00 70.10 74.10 -	CGRW-13	12/29/2021	632648.03	671637.19	8.03	7.31	Sch. 10 SS	SS Vee-Wire	6.00	0.020	30.00	26.92 - 56.92	-18.8948.89	15.00	71.92	
CRW-16 17/2022 632414.49 671627.33 10.13 9.85 Sch. 10 St SS Vee-Wire 6.00 0.020 40.00 30.54 70.54 -20.41 -60.41 15.00 85.54 CGRW-17 2/10/2022 632260.34 671567.13 11.65 11.12 Sch. 10 St SS Vee-Wire 6.00 0.020 30.00 32.00 -62.00 -20.35 -50.35 15.00 77.00 CGRW-18 2/15/2022 632267.16 671548.68 11.79 11.54 Sch. 10 St SS Vee-Wire 6.00 0.020 30.00 32.00 -62.00 -20.21 -50.21 15.00 77.00 Parce V V V Store Stor	CGRW-14	1/3/2022	632585.34	671638.65	7.93	7.39	Sch. 10 SS	SS Vee-Wire	6.00	0.020	30.00	27.44 - 57.44	-19.5149.51	15.00	72.44	
CGRW-17 2/10/202 632260.34 671567.13 11.65 11.12 Sch. 10 SS S Vee-Wire 6.00 0.020 30.00 32.00 62.00 20.35 - 50.35 15.00 77.00 CGRW-18 2/15/2022 632227.16 671578.868 11.79 11.54 Sch. 10 SS S Vee-Wire 6.00 0.020 30.00 32.00 62.00 -20.21 - 50.01 77.00 Paret III CGRW-061 6/11/209 631945.95 671273.88 9.38 9.19 Sch. 10 SS S Vee-Wire 6.00 0.020 30.00 31.56 - 61.56 -22.18 - -52.18 5.00 66.66 CGRW-061 6/11/209 631945.92 671273.84 9.38 9.19 Sch. 10 SS S Vee-Wire 6.00 0.020 30.00 31.56 - 61.46 9.218 - -52.18 5.00 66.66 CGRW-010 12/27/2021 63214.038 671472.64 9.89 9.19 Sch. 10 SS S Vee-Wire 6.00 0.020 30.00 73.45<	CGRW-15	1/5/2022	632509.28	671632.75	7.86	7.48	Sch. 10 SS	SS Vee-Wire	6.00	0.020	30.00	38.50 - 68.50	-30.6460.64	15.00	83.50	
CGRW-18 2/15/202 632227.16 671548.68 11.79 11.54 Sch. 10 SS SS Vee-Wire 6.00 0.020 30.00 32.0 62.00 -62.01 -50.21 15.00 77.00 Parcel III Existing Recovery Wells CGRW-061 6/11/2009 631945.95 671273.58 9.38 9.19 Sch. 10 SS SS Vee-Wire 6.00 0.020 30.00 31.56 - 61.56 -22.18 - 52.18 5.00 66.56 CGRW-061 6/11/2009 631945.95 671273.58 9.38 9.19 Sch. 10 SS SS Vee-Wire 6.00 0.020 30.00 31.56 - 61.56 -22.18 - 52.18 5.00 96.56 CGRW-06D 7/9/2009 631952.12 67127.41 9.35 9.63 Sch. 10 SS SV ee-Wire 6.00 0.020 30.00 31.56 - 74.29 -24.40 - 63.40 15.00 89.99 9.99 Sch. 10 SS SV ee-Wire 6.00 0.020 30.00 73.45 - 103.45 63.47 - 93.24 15.00 118.45 63.49	CGRW-16	1/7/2022	632414.49	671627.33	10.13	9.85	Sch. 10 SS	SS Vee-Wire	6.00	0.020	40.00	30.54 - 70.54	-20.4160.41	15.00	85.54	
Parcel IIIExisting Recovery WellsCGRW-0616/11/2009631945.95671273.589.389.19Sch. 10 SSSS Vee-Wire6.000.02030.0031.56-61.56-22.18<	CGRW-17	2/10/2022	632260.34	671567.13	11.65	11.12	Sch. 10 SS	SS Vee-Wire	6.00	0.020	30.00	32.00 - 62.00	-20.3550.35	15.00	77.00	
Existing Recovery	CGRW-18	2/15/2022	632227.16	671548.68	11.79	11.54	Sch. 10 SS	SS Vee-Wire	6.00	0.020	30.00	32.00 - 62.00	-20.2150.21	15.00	77.00	
CGRW-06I6/11/2009631945.95671273.589.389.19Sch. 10 SSSS Vee-Wire6.000.02030.0031.5661.56-22.18-52.185.0066.56CGRW-06D7/9/2009631952.12671284.419.359.63Sch. 10 SSSS Vee-Wire6.000.03010.0079.4589.4570.10-80.105.0094.45New Recovery WellsCGRW-19I12/27/2021632140.38671472.649.899.19Sch. 10 SSSS Vee-Wire6.000.02040.0034.29-74.29-24.4064.4015.0089.29CGRW-19D12/21/2021632136.11671467.649.989.55Sch. 10 SSSS Vee-Wire6.000.02030.0073.45-103.45-63.4793.4715.00118.45CGRW-20I12/14/2021632064.28671391.129.909.30Sch. 10 SSSS Vee-Wire6.000.02030.0073.21-103.4163.1015.0088.00CGRW-20D12/10/202263206.61671385.059.979.25Sch. 10 SSSS Vee-Wire6.000.02030.0073.21-103.21-63.2493.4415.00188.21CGRW-21I12/1/202263206.62671308.149.199.73Sch. 10 SSSS Vee-Wire6.000.02030.0071.42-71.42-32.23-<62.2	Parcel III									· ·						
CGRW-06D 7/9/2009 631952.12 671284.41 9.35 9.63 Sch. 10 SS SS Vee-Wire 6.00 0.030 10.00 79.45 89.45 770.10 -80.10 5.00 94.45 New Recovery Wells CGRW-191 12/27/2021 632140.38 671472.64 9.89 9.19 Sch. 10 SS SS Vee-Wire 6.00 0.020 40.00 34.29 74.29 -24.40 -64.40 15.00 89.29 CGRW-19D 12/21/2021 632140.38 671472.64 9.89 9.19 Sch. 10 SS SS Vee-Wire 6.00 0.020 40.00 34.29 74.29 -24.40 -64.40 15.00 89.29 CGRW-19D 12/21/2021 632163.11 671467.64 9.98 9.55 Sch. 10 SS SS Vee-Wire 6.00 0.020 30.00 73.45 -63.47 -93.47 15.00 118.45 CGRW-201 12/1/2021 63206.61 671385.05 9.97 9.25 Sch. 10 SS SS Vee-Wire 6.00 0.020 30.00 73.21 -73.21 -73.23 -76.23 15.00 188.	Existing Recover	y Wells														
New Recovery Wells New Recovery Wells CGRW-191 12/27/2021 632140.38 671472.64 9.89 9.19 Sch. 10 SS SS Vee-Wire 6.00 0.020 40.00 34.29 74.29 -24.40 -64.40 15.00 89.29 CGRW-19D 12/21/2021 632136.11 671467.64 9.98 9.55 Sch. 10 SS SS Vee-Wire 6.00 0.020 30.00 73.45 -103.45 -63.47 -93.47 15.00 118.45 CGRW-201 12/14/2021 632066.61 671391.12 9.90 9.30 Sch. 10 SS SS Vee-Wire 6.00 0.020 30.00 73.45 -103.45 -63.47 -93.47 15.00 118.45 CGRW-201 12/10/202 632060.61 671385.05 9.97 9.25 Sch. 10 SS SS Vee-Wire 6.00 0.030 30.00 73.21 -103.21 -63.24 -93.24 15.00 118.21 CGRW-211 12/1/2022 632004.62 671308.14 9.19 9.73 Sch. 10 SS S	CGRW-06I	6/11/2009	631945.95	671273.58	9.38	9.19	Sch. 10 SS	SS Vee-Wire	6.00	0.020	30.00	31.56 - 61.56	-22.1852.18	5.00	66.56	
CGRW-19I 12/27/2021 632140.38 671472.64 9.89 9.19 Sch. 10 SS SS Vee-Wire 6.00 0.020 40.00 34.29 74.29 -24.40 -64.40 15.00 89.29 CGRW-19D 12/21/2021 632136.11 671467.64 9.98 9.55 Sch. 10 SS SS Vee-Wire 6.00 0.020 30.00 73.45 -103.45 -63.47 -93.47 15.00 118.45 CGRW-201 12/14/2021 632064.28 671391.12 9.90 9.30 Sch. 10 SS SS Vee-Wire 6.00 0.020 30.00 73.45 -103.45 -63.47 -93.47 15.00 118.45 CGRW-201 12/14/2021 632060.61 671385.05 9.97 9.25 Sch. 10 SS SS Vee-Wire 6.00 0.030 30.00 73.21 -103.21 -63.24 -93.24 15.00 118.21 CGRW-201 12/1/2022 632008.62 671308.14 9.19 9.73 Sch. 10 SS SS Vee-Wire 6.00 0.020 30.00	CGRW-06D	7/9/2009	631952.12	671284.41	9.35	9.63	Sch. 10 SS	SS Vee-Wire	6.00	0.030	10.00	79.45 - 89.45	-70.1080.10	5.00	94.45	
CGRW-19D 12/21/2021 632136.11 671467.64 9.98 9.55 Sch. 10 SS SS Vee-Wire 6.00 0.020 30.00 73.45 103.45 63.47 - 93.47 15.00 118.45 CGRW-201 12/14/2021 632064.28 671391.12 9.90 9.30 Sch. 10 SS SS Vee-Wire 6.00 0.020 30.00 43.00 - 73.00 -33.10 - 63.10 15.00 88.00 CGRW-20D 12/10/202 632060.61 671385.05 9.97 9.25 Sch. 10 SS SS Vee-Wire 6.00 0.020 30.00 43.02 - 73.00 -33.10 - 63.24 - 93.24 15.00 188.00 CGRW-211 12/1/2021 632004.28 671308.14 9.19 9.73 Sch. 10 SS SS Vee-Wire 6.00 0.020 30.00 41.42 - 71.42 -32.23 - 62.23 15.00 86.42 CGRW-21D 12/2/2022 632004.49 671302.55 9.32 9.49 Sch. 10 SS SS Vee-Wire 6.00 0.030	New Recovery W	ells											11			
CGRW-201 12/14/2021 632064.28 671391.12 9.90 9.30 Sch. 10 SS SS Vee-Wire 6.00 0.020 30.00 43.00 73.00 -63.10 - 63.10 58.00 88.00 CGRW-20D 12/10/202 632060.61 671385.05 9.97 9.25 Sch. 10 SS SS Vee-Wire 6.00 0.020 30.00 73.21 - 103.21 - 63.24 - 93.24 15.00 118.21 CGRW-211 12/1/2021 632004.49 671302.25 9.32 9.49 Sch. 10 SS SS Vee-Wire 6.00 0.020 30.00 71.42 - 73.23 - 63.23 15.00 118.21 CGRW-210 12/2/2022 632004.49 671302.25 9.32 9.49 Sch. 10 SS SS Vee-Wire 6.00 0.030 30.00 71.27 - 71.42 - 32.23 - 62.23 15.00 86.42 CGRW-21D 12/2/2022 63302.49 671302.25 9.32 9.49 Sch. 10 SS SS Vee-Wire 6.00 0.030 30.00 72.71 - 102.71 - 63.39 - 93.39 15.00 117.71 CGRW-21 <td>CGRW-19I</td> <td>12/27/2021</td> <td>632140.38</td> <td>671472.64</td> <td>9.89</td> <td>9.19</td> <td>Sch. 10 SS</td> <td>SS Vee-Wire</td> <td>6.00</td> <td>0.020</td> <td>40.00</td> <td>34.29 - 74.29</td> <td>-24.4064.40</td> <td>15.00</td> <td>89.29</td>	CGRW-19I	12/27/2021	632140.38	671472.64	9.89	9.19	Sch. 10 SS	SS Vee-Wire	6.00	0.020	40.00	34.29 - 74.29	-24.4064.40	15.00	89.29	
CGRW-20D 12/10/202 632060.61 671385.05 9.97 9.25 Sch. 10 SS SS Vee-Wire 6.00 0.030 30.00 73.21 - 103.21 - 63.24 - 93.24 15.00 118.21 CGRW-211 12/1/2021 632008.62 671308.14 9.19 9.73 Sch. 10 SS SS Vee-Wire 6.00 0.030 30.00 71.21 - 63.24 - 93.24 15.00 118.21 CGRW-21D 12/2/2022 632004.49 671302.25 9.32 9.49 Sch. 10 SS SS Vee-Wire 6.00 0.030 30.00 71.21 - 71.42 - 32.23 - 62.23 15.00 117.71 CGRW-21D 12/2/2022 63300.49 671302.25 9.32 9.49 Sch. 10 SS SS Vee-Wire 6.00 0.030 30.00 72.71 - 102.71 -63.39 - 93.39 15.00 117.71 CGRW-21D 12/2/2022 631952.18 671227.89 8.86 9.45 Sch. 10 SS SS Vee-Wire 6.00 0.020 40.00 30.67 70.67 21.81 - 61.81 15.00 85.76 85.76 85.76	CGRW-19D	12/21/2021	632136.11	671467.64	9.98	9.55	Sch. 10 SS	SS Vee-Wire	6.00	0.020	30.00	73.45 - 103.45	-63.4793.47	15.00	118.45	
CGRW-211 12/1/2021 632008.62 671308.14 9.19 9.73 Sch. 10 SS SS Vee-Wire 6.00 0.020 30.00 41.42 71.42 -32.23 -62.23 15.00 86.42 CGRW-21D 12/2/2022 632004.49 671302.25 9.32 9.49 Sch. 10 SS SS Vee-Wire 6.00 0.020 30.00 72.71 -102.71 -63.39 -93.39 15.00 117.71 CGRW-21D 12/7/2022 631952.18 671227.89 8.86 9.45 SS Vee-Wire 6.00 0.020 40.00 30.67 70.67 -21.81 -61.81 15.00 85.74	CGRW-20I	12/14/2021	632064.28	671391.12	9.90	9.30	Sch. 10 SS	SS Vee-Wire	6.00	0.020	30.00	43.00 - 73.00	-33.1063.10	15.00	88.00	
CGRW-21D 12/2/2022 632004.49 671302.25 9.32 9.49 Sch. 10 SS SS Vee-Wire 6.00 0.030 30.00 72.71 - 102.71 -63.39 - 93.39 15.00 117.71 CGRW-21D 12/7/2022 631952.18 671227.89 8.86 9.45 Sch. 10 SS SS Vee-Wire 6.00 0.020 40.00 30.67 - 70.67 -21.81 - 61.81 15.00 85.76	CGRW-20D	12/10/2022	632060.61	671385.05	9.97	9.25	Sch. 10 SS	SS Vee-Wire	6.00	0.030	30.00	73.21 - 103.21	-63.2493.24	15.00	118.21	
CGRW-22I 12/7/2022 631952.18 671227.89 8.86 9.45 Sch. 10 SS SS Vee-Wire 6.00 0.020 40.00 30.67 - 70.67 -21.81 - 61.81 15.00 85.67	CGRW-21I	12/1/2021	632008.62	671308.14	9.19	9.73	Sch. 10 SS	SS Vee-Wire	6.00	0.020	30.00	41.42 - 71.42	-32.2362.23	15.00	86.42	
	CGRW-21D	12/2/2022	632004.49	671302.25	9.32	9.49	Sch. 10 SS	SS Vee-Wire	6.00	0.030	30.00	72.71 - 102.71	-63.3993.39	15.00	117.71	
CGRW-22D 11/29/2021 631948.96 671222.22 8.97 9.43 Sch. 10 SS SS Vee-Wire 6.00 0.030 30.00 72.62 - 102.62 -63.6593.65 15.00 117.62	CGRW-22I	12/7/2022	631952.18	671227.89	8.86	9.45	Sch. 10 SS	SS Vee-Wire	6.00	0.020	40.00	30.67 - 70.67	-21.8161.81	15.00	85.67	
	CGRW-22D	11/29/2021	631948.96	671222.22	8.97	9.43	Sch. 10 SS	SS Vee-Wire	6.00	0.030	30.00	72.62 - 102.62	-63.6593.65	15.00	117.62	





Table 2 Recovery Well Construction Summary Post-Remediation DNAPL Monitoring Status Report

National Grid Former Citizens Gas Works Manufactured Gas Plant Site Borough of Brooklyn, Kings County, New York NYSDEC Site Nos. C224012 and C224012B

Notes:

1. Horizontal reference datum is the North American Datum of 1983 (NAD83), New York State Plane East Zone.

2. Vertical reference datum is the North American Vertical Datum of 1988 (NAVD88).

3. The horizontal locations, ground surface elevations, and measuring point elevations listed in this table for the existing recovery wells reflect surveys conducted by Louis J. Weber & Associates, Inc. on March 31, 2022 and

April 18, 2022. Screened intervals and well depths have been adjusted based on the ground surface elevations recorded during those surveys.

4. Recovery well CGRW-11 was decommissioned on February 16, 2022.

5. bgs: below ground surface.

6. PVC: polyvinyl chloride.

7. Sch.: Schedule.

8. SS: stainless steel.

ARCADIS

Table 3 Recovery Well Gauging and Product Recovery Summary for March 31, 2022 Post-Remediation DNAPL Monitoring Status Report

National Grid

				March 31, 2022				February 10, 2022 to March 31, 2022			
Well ID	Screened Interval (feet bmp)	Sump Length (feet)	Total Depth of Well (feet bmp)	Depth to Groundwater (feet bmp)	Depth to Product (feet bmp)	Depth to Bottom of Well (feet bmp)	Measured Product Thickness (feet)	Notes	Total Number of Recovery Events	Total Estimated Volume of Fluids Recovered (gallons)	
Parcel I											
CGRW-02	29.95 - 44.95	5.00	49.95	15.32	44.71	48.50	3.79		0	0	
CGRW-08	49.77 - 79.77	15.00	94.77	26.67	ND	91.60	0.00	Trace product perched on water and at base of well.	1	5	
CGRW-09	49.79 - 79.79	15.00	94.79	26.61	ND	94.18	0.00	Trace product observed on probe.	1	11	
CGRW-10	43.73 - 73.73	15.00	88.73	20.58	ND	88.45	0.00	Trace product observed on probe.	1	14	
CGRW-12	38.69 - 68.69	15.00	83.69	16.42	83.60	84.67	1.07		0	0	
CGRW-203	39.44 - 59.44	2.00	61.44	24.61	52.55	59.54	6.99		0	0	
CGRW-206	44.76 - 64.76	2.00	66.76	15.11	61.88	65.46	3.58		0	0	
				·					Parcel I Subtotal	30	
Parcel II											
CGRW-03	21.72 - 51.72	5.00	56.72	7.46	39.45	55.00	15.55		0	0	
CGRW-04	26.94 - 66.94	5.00	71.94	8.24	64.44	69.26	4.82		1	19	
CGRW-13	26.20 - 56.20	15.00	71.20	4.49	68.43	72.13	3.70		2	34	
CGRW-14	26.90 - 56.90	15.00	71.90	4.42	ND	72.45	0.00	Trace product observed on probe.	0	0	
CGRW-15	38.13 - 68.13	15.00	83.13	4.48	ND	83.20	0.00	Trace product observed on probe.	0	0	
CGRW-16	30.26 - 70.26	15.00	85.26	5.89	68.74	80.30	11.56		1	59	
CGRW-17	31.47 - 61.47	15.00	76.47	8.39	61.28	71.19	9.91		1	7	
CGRW-18	31.75 - 61.75	15.00	76.75	8.82	54.28	70.46	16.18		1	36	
						•		·	Parcel II Subtotal	155	
Parcel III									, i i i i i i i i i i i i i i i i i i i		
CGRW-06I	31.37 - 61.37	5.00	66.37	7.81	55.10	66.28	11.18		1	19	
CGRW-06D	79.73 - 89.73	5.00	94.73	6.92	82.49	95.43	12.94		1	31	
CGRW-19I	33.60 - 73.60	15.00	88.60	6.43	ND	84.49	0.00	Trace product observed on probe.	0	0	
CGRW-19D	73.02 - 103.02	15.00	118.02	6.96	91.87	115.24	23.37		0	0	
CGRW-20I	42.40 - 72.40	15.00	87.40	6.92	ND	84.02	0.00	Trace product observed on probe.	1	11	
CGRW-20D	72.49 - 102.49	15.00	117.49	6.59	95.69	104.04	8.35		0	0	
CGRW-21I	41.97 - 71.97	15.00	86.97	NM	NM	NM	NM	Well inaccessible at time of gauging.	1	60	
CGRW-21D	72.89 - 102.89	15.00	117.89	NM	NM	NM	NM	Well inaccessible at time of gauging.	1	36	
CGRW-22I	31.26 - 71.26	15.00	86.26	6.97	68.36	72.20	3.84		2	17	
CGRW-22D	73.08 - 103.08	15.00	118.08	6.63	85.44	115.03	29.59		1	45	
	· ·			· I					Parcel III Subtotal	220	
									SITE TOTAL	404	

Table 3

Recovery Well Gauging and Product Recovery Summary for March 31, 2022 Post-Remediation DNAPL Monitoring Status Report

National Grid Former Citizens Gas Works Manufactured Gas Plant Site Borough of Brooklyn, Kings County, New York NYSDEC Site Nos. C224012 and C224012B

Notes:

1. bmp: below measuring point.

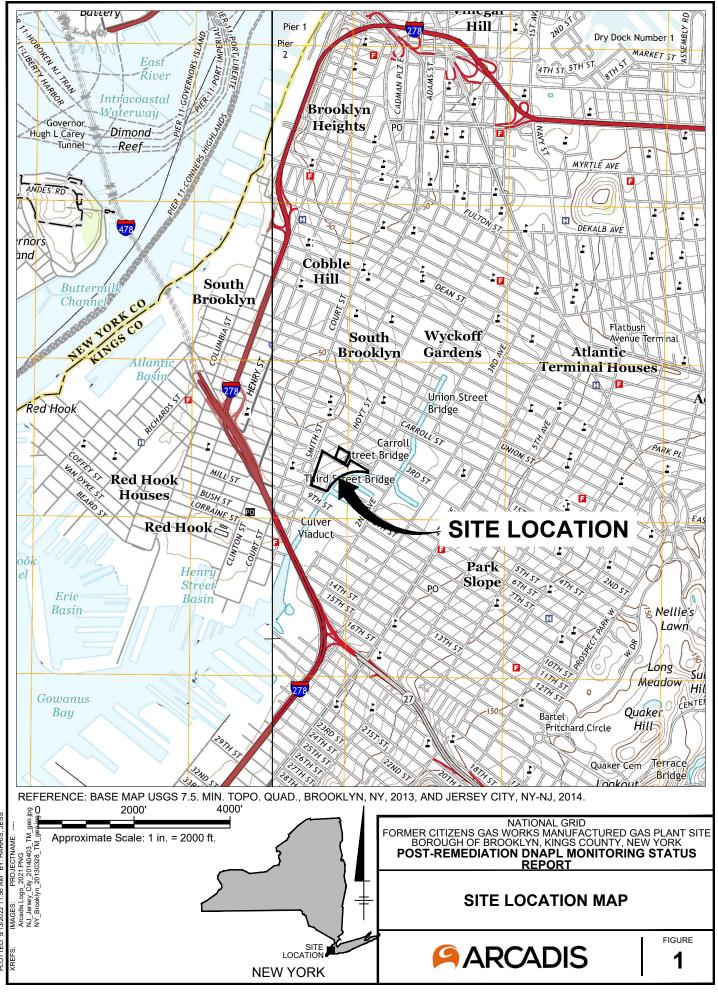
2. Est.: estimated.

3. ND: not detected.

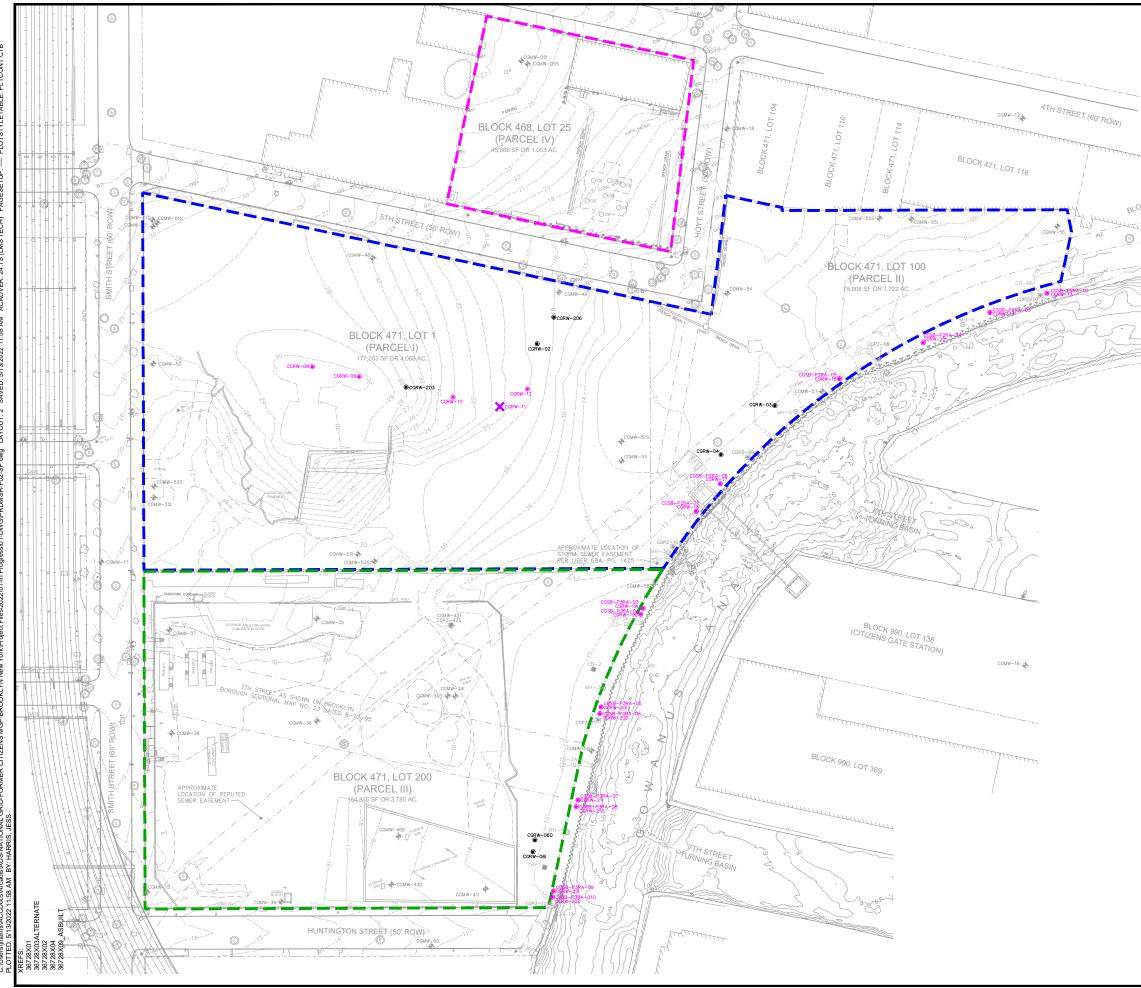
4. NM: not measured.





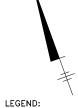


PLOTSTYLETABLE: ARCADIS.CTB I GRID-FORMER CITIZENS MGP-BROOKLYN New York/Project Files/2022/01-In Progress/01-DWG/PRDMSR-F01-SLM.dwg LAYOUT: 1 SAVED: 5/13/2022 11:56 AM ACADVER: 24.1S (LMS TECH) PAGESETUP: Users/jlharris/ACCDocs/Arcadis/AUS-NATIONAL AM





LIMIT OF BROWNFIELD CLEANUP PROGRAM SITE NO. C224012 (PARCELS | AND II) LIMIT OF BROWNFIELD CLEANUP PROGRAM SITE NO. C224012B (PARCEL III) LIMIT OF STATE SUPERFUND SITE NO. 224012 (PARCEL IV) PROPERTY LINE (APPROXIMATE) EASEMENT LINE (APPROXIMATE) TOPOGRAPHIC CONTOUR (1-FOOT INTERVAL) BATHYMETRIC CONTOUR (1-FOOT INTERVAL) EDGE OF WATER EDGE OF VEGETATION EDGE OF PAVEMENT/CONCRETE EDGE OF GRAVEL EDGE OF SOIL/AGGREGATE PILE (APPROXIMATE) EDGE OF BULKHEAD CHAIN-LINK FENCE BUILDING MTA RAILROAD TRACK CONCRETE WALL 9 SIGN စု ာ မု UTILITY POLE 8 HYDRANT SANITARY SEWER MANHOLE STORM SEWER MANHOLE WATER MANHOLE GAS MANHOLE TELECOMMINICATIONS MANHOLE ELECTRICAL MANHOLE MANHOLE (TYPE UNKNOWN) ^{CB}O⊟□ CATCH BASIN E ELECTRICAL BOX ™○ WATER VALVE GO GAS VALVE MH-1 1 HYDRAULIC RELIEF SYSTEM MANHOLE CO-1A . HYDRAULIC RELIEF SYSTEM CLEANOUT SEALED BULKHEAD BARRIER WALL CGPZ-07 I PIEZOMETER CGMW-01S-- MONITORING WELL CGRW-02 EXISTING RECOVERY WELL CGRW-08 NEW RECOVERY WELL NEW RECOVERY WELL DECOMMISSIONED DURING SITE REMEDIATION ACTIVITIES GRAPHIC SCALE NATIONAL GRID FORMER CITIZENS GAS WORKS MANUFACTURED GAS PLANT SITE BOROUGH OF BROOKLYN, KINGS COUNTY, NEW YORK POST-REMEDIATION DNAPL MONITORING STATUS REPORT SITE PLAN FIGURE 2



Attachments



Soil Boring and Well Construction Logs

Drill Drill Drill Sam	ing Co er's Na ing Me	/Finish: ompany ame: ethod: Method	r: Aquit Dave Sonie I: None			ing, In		Northing: Easting: Surface El Casing Ele Borehole I Borehole I Descriptio	vation: Depth: Diameter:	C GRW-08 Grid Gas Works MGP Site 71, Lot 1) ork						
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column			Stra	atigraphic I	Description				Boring/W Construc	
-							Drilled w	ithout sampli	ng to 95.1 fee	t bgs.						8-inch Diameter Flush- Mounted Cast Iron Frame and Cover Concrete Pad
- - - - -	- - 25 - -															#2 Sand Drain (0.6 feet to 1.5 feet bgs)
- 10		NA	NA	NA	NA											4-inch Diameter Sch. 40 PVC Riser (0.33 feet to 50.1 feet bgs) Cement- Bentonite Grout (1.5 feet to 45.1 feet bgs)
	15 -						Rema	rks: bgs	= below gro			anufa	ctured gas plant; NA	= not applie	cable/availa	able; PVC =
C		Α	RC	A	DI	S		Hor Eas	izontal refer	ence datu	m is the North		erican Datum of 1983 atum is the North An			
-		004014 CGRW-	.0002 08.ldat8					Edited by: e: G:\Clients\M	APG National Grid\Car	rroll Gardens\(06 Notes and Data	\Constru	uction\Recovery Wells		Date Page	

C	lient:	Natio	onal Grid				Boring/Well ID: CG	RW-08
5		ocation					Borehole Depth: 98	i.1 feet bgs
	Parc	cel I (B	tizens Gas lock 471, New York	Lot 1)	MGP Si	te		
_	Broo							
	VD88)	mber	0		(mqq)	Ę		
eet bgs)	(feet NA	Run Nu	Int/Type	y (feet)	dspace	colum:	Stratigraphic Description	Boring/Well Construction
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column		
	-	07	05	LL.	<u>د</u>		Drilled without sampling to 95.1 feet bgs.	
-	_	-						
F	_	-						
F	_	-						
- 20	10-	-						
-	_	-						
-	_	-						
-	_							
-	_							
- 25	5-							
-	0	NA	NA	NA	NA			4-inch Diameter Sch. 40 PVC
-	_							Riser (0.33 feet to 50.1 feet bgs)
	-							Cement- Bentonite Grout (1.5 feet to 45.1
	_							feet bgs)
	-							
- 30	0-							
Ī	-							
-	-							
-	-	-						
-	-	-						
- 35	-5 -	-						
							Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA	r = not applicable/available; PVC =
				• • •			polyvinyl chloride; Sch. = Schedule; Horizontal reference datum is the North American Datum of 1983	3 (NAD83), New York State Plane
		A	RC	A		5	East Zone (FIPS 3101). Vertical reference datum is the North An (NAVD88).	iencan venical Datum of 1988
L								
-		004014 CGRW-	.0002 -08.Idat8				Created/Edited by: APG Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recovery Wells	Date: 5/13/2022 Page: 2 of 5

(Client: National Grid Boring/Well ID: CGRW-08 Borehole Denth: 95.1 fact bas										
		ocation					Borehole Depth: 95	1 feet bgs			
	Parc	cel I (B	tizens Gas lock 471, New York	Lot 1)	NIGP SI	le					
s)	IAVD88)	lumber	e	t)	PID Headspace (ppm)	ш		Boring/Well			
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	adspac	Geologic Column	Stratigraphic Description	Construction			
Depth	Elevatio	Sample	Sample	Recovi	PID He	Geolog					
- 40	-10 - -11 - - -15 -	-					Drilled without sampling to 95.1 feet bgs.	Cement- Bentonite Grout (1.5 feet to 45.1 feet bd5.1 feet bd5.1 feet bd5.1 feet bd5.1 feet bd5.1 feet bd5.1 feet bd5.1 feet bd5.1 feet bd5.1 feet bd5.1			
- - - - 50	- - -20 -	NA	NA	NA	NA			Bentonite Chips (45.1 feet to 48.1 feet bgs)			
- - - 55	- -25 -	-					Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA	#2 Sand (48.1 feet to 80.1 feet bgs) 4-inch Diameter 0.020-inch Slot Sch. 40 PVC Screen (50.1 feet bgs) 80.1 feet bgs) = not applicable/available; PVC =			
Proje	Polyvinyl chloride; Sch. = Schedule; Horizontal reference datum is the North American Datum of 1983 (NAD83), New York State Plane East Zone (FIPS 3101). Vertical reference datum is the North American Vertical Datum of 1988 (NAVD88). Project: 30004014.0002 Created/Edited by: APG Date: 5/13/2022 Data File: CGRW-08.ldat8 Date: 6:\Clients\Vational Grid\Carroll Gardens\U6 Notes and Data\Construction\Recovery Wells Date: 5/13/2022										

CI	Client: National Grid Boring/Well ID: CGRW-08 Borehole Depth: 05.1 foot hor										
		cation		14/			Borehole Depth: 95	.1 feet bgs			
	Parc	el I (B	izens Gas lock 471, New York	Lot 1)	MGP Si	le					
(sɓq	t NAVD88)	Number	Type	eet)	ace (ppm)	olumn	Stratigraphic Description	Boring/Well			
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column		Construction			
-	-30 -	NA	NA	NA	NA		Drilled without sampling to 95.1 feet bgs.	4-inch Diameter 0.020-inch Slot Sch. 40 PVC Screen (60.1 feet to 80.1 feet bgs) #2 Sand (48.1 feet to 80.1 feet bgs)			
- 75	-40 -	<u>Λ</u>	RC		יוס	S	Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA polyvinyl chloride; Sch. = Schedule; Horizontal reference datum is the North American Datum of 1983 East Zone (FIPS 3101). Vertical reference datum is the North Am (NAVD88).	(NAD83), New York State Plane			
Project: 30004014.0002 Created							(NAVD88). Created/Edited by: APG	Date: 5/13/2022			
							Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recovery Wells	Page: 4 of 5			

(Client: National Grid Boring/Well ID: CGRW-08										
:	Site Lo	ocation:	:				Borehole Depth: 9	5.1 feet bgs			
			izens Gas lock 471,		MGP Si	te					
	Broo	oklyn, l	New York								
		_			(r						
s)	Elevation (feet NAVD88)	Sample Run Number	e	â	PID Headspace (ppm)	цп		Boring/Well			
Depth (feet bgs)	(feet N	Run N	Sample/Int/Type	Recovery (feet)	dspao	Geologic Column	Stratigraphic Description	Construction			
epth (f	evation	ample	ample	ecovel	D Hea	eologi					
	— —	S	S	R	ГЦ	0	Drilled without sampling to 95.1 feet bgs.				
-	_										
								#2 Sand			
	-							(48.1 feet to 80.1 feet bgs) 4-inch Diameter 0.020-inch Slot Sch. 40 PVC Screen			
-	-	-						Diameter 0.020-inch Slot Sch. 40			
- 80	-50 -	-						(50.1 feet to			
-	_							80.1 feet bgs)			
	-										
-	-	-									
-	_	-									
- 85	-55 -	NA	NA	NA	NA						
	00										
	_										
Ē	-	-						4-inch Diameter Sch. 40 PVC			
-	_							Sump (80.1 feet to 95.1 feet bgs)			
-	_							Bentonite Chips (80.1			
90								feet to 95.1 feet bgs)			
50	-60 -	-									
-	-	-									
-	_	-									
-	_										
	-	-									
- 95	-65 -						End of boring at 95.1 feet bgs.				
							Remarks: bgs = below ground surface; MGP = manufactured gas plant; N	A = not applicable/available; PVC =			
							polyvinyl chloride; Sch. = Schedule;				
	2	Δ	RC	` Δ		S	Horizontal reference datum is the North American Datum of 198 East Zone (FIPS 3101). Vertical reference datum is the North A (NAVD88).				
	y 1										
Deck	Project: 30004014.0002 Created/Edited by: APG Date: 5/13/2022										
-			.0002				Created/Edited by: APG	Date: 5/13/2022			

-	Project: 30004014.0002 Data File: CGRW-09.ldat8							d by: APG Clients\National Grid\Car	roll Gardens\06 Notes and Data\0	Construction\Recovery Wells	Date: 5/13/202 Page: 1 of 5
C	ARCADIS							polyvinyl chlorid Horizontal refere	e; Sch. = Schedule; ence datum is the North	American Datum of 1983	= not applicable/available; PVC = ; (NAD83), New York State Plane erican Vertical Datum of 1988
- 15	_ 15 _						Remarks:				
-	-										
- 10	_ 	NA	NA	NA	NA						Sch. 40 PVC Riser (0.31 feet to 50.1 feet bgs) Cement- Bentonite Grout (1.5 feet to 45.1 feet bgs)
-	25 -										4-inch Diameter
-											
-	30 -						Drilled without s	sampling to 95.1 feet	bgs.		Cover Concrete Pad #2 Sand Drain (0.6 feet to 1.5 feet bgs)
-	-										8-inch Diameter Flush- Mounted Cast Iron Frame and
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column		Stra	tigraphic Description		Boring/Well Construction
Drill Drill Drill Sam	Date Start/Finish: 10/23/2019 Drilling Company: Aquifer Drilling and Testing, Inc Driller's Name: Dave Moon Drilling Method: Sonic Sampling Method: None Rig Type: Fraste Multidrill XL Max						Surfa Casin Borel Borel			Boring/Well ID: C Client: National C Location: Former Citizens C Parcel I (Block 4 Brooklyn, New Y	Grid Gas Works MGP Site 71, Lot 1)

C	Client: National Grid Boring/Well ID: CGRW-09										
5		ocation					Borehole Depth: 95	.1 feet bgs			
	Parc	cel I (B	tizens Gas lock 471, New York	Lot 1)	MGP Si	te					
	Biot										
	VD88)	mber			(mqq)	ч					
eet bgs)	(feet NA	Run Nu	Int/Type	y (feet)	dspace	colum	Stratigraphic Description	Boring/Well Construction			
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column					
	ш –	05	05	Ľ	<u>د</u>	0	Drilled without sampling to 95.1 feet bgs.				
-	_	-									
-	_										
ł	_										
- 20	10-										
-	_										
-	_										
-											
-	_										
- 25	_										
-	5-	NA	NA	NA	NA			4-inch Diameter Sch. 40 PVC			
	_							Riser (0.31 feet to 50.1 feet bgs)			
	_							Cement- Bentonite Grout (1.5 feet to 45.1			
	_							feet bgs)			
	-										
- 30	0-										
-	_	-									
-	_	-									
-	_										
-	_										
— 35	-5 -										
	Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA = not applicable/available; PVC =										
							polyvinyl chloride; Sch. = Schedule; Horizontal reference datum is the North American Datum of 1983	(NAD83), New York State Plane			
		A	RC	A		5	East Zone (FIPS 3101). Vertical reference datum is the North Am (NAVD88).	erican vertical Datum of 1988			
-	Project: 30004014.0002 Created/Edited by: APG Date: 5/13/2022 Pata File: CGRW-09.ldat8 Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recovery Wells Page: 2 of 5										

	Client: National Grid Boring/Well ID: CGRW-09 Borebole Depth: 05.1 fact box										
:		ocation					Borehole Depth: 95	.1 feet bgs			
	Pare	cel I (B	tizens Gas lock 471, New York	Lot 1)	MGP Si	le					
s)	AVD88)	lumber	e		PID Headspace (ppm)	um		Designation			
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	adspace	Geologic Column	Stratigraphic Description	Boring/Well Construction			
Depth	Elevatio	Sample	Sample	Recove	PID He	Geoloç					
- - - 40 -	-10 -						Drilled without sampling to 95.1 feet bgs.	Cement- Bentonite Grout (1.5 feet to 45.1 feet bgs) 4-inch			
- - 45 -	- -15 - -	NA	NA	NA	NA			Bentonite Chips (45.1 feet to 48.1 feet bgs)			
- 50 - -	-20 - - - -	-						#2 Sand (48.1 feet to 80.1 feet bgs) 4-inch Diameter 0.020-inch Slot Sch. 40 PVC Screen (50.1 feet to 80.1 feet to 80.1 feet to 80.1 feet to Slot Sch. 40 PVC Screen (50.1 feet to 80.1 feet to 80.1 feet to Slot Sch. 40 PVC Screen (50.1 feet to 80.1 feet to 80.1 feet to Slot Sch. 40 PVC Screen (50.1 feet to 80.1 feet to Slot Sch. 40 PVC Screen (50.1 feet to 80.1 feet to Slot Sch. 40 PVC Screen (50.1 feet to 80.1 feet to 80.1 feet to Slot Sch. 40 PVC Screen (50.1 feet to 80.1 feet to 80.1 feet to 80.1 feet to 80.1 feet to 80.1 feet to 80.1 feet to			
- 35	-25 -										
	Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA = not applicable/available; PVC = polyvinyl chloride; Sch. = Schedule;										
	Horizontal reference datum is the North American Datum of 1983 (NAD83), New York State Plane East Zone (FIPS 3101). Vertical reference datum is the North American Vertical Datum of 1988 (NAVD88).										
	Project: 30004014.0002 Created/Edited by: APG Date: 5/13/2022 Data File: CGRW-09.ldat8 Template: G:(Clients:\National Grid\Carroll Gardens:\06 Notes and Data\Construction\Recovery Wells Page: 3 of 5										

(Client: National Grid Boring/Well ID: CGRW-09 Borehole Denth: 95.1 feet box											
5		ocation					Borehole Depth: 95	1 feet bgs				
	Pare	cel I (B	tizens Gas lock 471, New York	Lot 1)	MGP Si	te						
gs)	Elevation (feet NAVD88)	Sample Run Number	ype	et)	PID Headspace (ppm)	umn	Otrationarkia Darasistian	Boring/Well				
Depth (feet bgs)	tion (feet	ole Run	Sample/Int/Type	Recovery (feet)	leadspa	Geologic Column	Stratigraphic Description	Construction				
Dept	Elevat	Samp	Samp	Reco	H DIA	Geold	Drilled without sampling to 95.1 feet bgs.					
- - - 60 -	- - -30 - -						Unilled without sampling to 95.1 feet bgs.					
- - 65 - -	-35 - -	NA	NA	NA	NA			4-inch Diameter 0.020-inch Slot Sch. 40 PVC Screen (50.1 feet to 80.1 feet bgs) #2 Sand (48.1 feet to 80.1 feet bgs)				
- 70 - - - 75	-40 - - - - - 45 -	-										
	Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA = not applicable/available; PVC = polyvinyl chloride; Sch. = Schedule;											
6		Α	RC	A	DI	S	Horizontal reference datum is the North American Datum of 1983 East Zone (FIPS 3101). Vertical reference datum is the North Am (NAVD88).	(NAD83), New York State Plane erican Vertical Datum of 1988				
Project: 30004014.0002 Created/Edited by: APG Data File: CGRW-09.Idat8 Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recover							Created/Edited by: APG Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recovery Wells	Date: 5/13/2022 Page: 4 of 5				

C	Client: National Grid Boring/Well ID: CGRW-09									
s		ocation:					Borehole Depth: 95.	1 feet bgs		
	Parc	cel I (B	izens Gas lock 471, New York		MGP Si	te				
(\$	AVD88)	umber	e		(mqq) e	uu				
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring/Well Construction		
Depth (Elevatio	Sample	Sample	Recove	PID He	Geolog				
							Drilled without sampling to 95.1 feet bgs.			
-	_							#2 Sand		
-	-							#2 Sand (48.1 feet to 80.1 feet bgs) 4-inch Digmeter		
	_							Diameter 0.020-inch Slot Sch. 40 PVC Screen		
- 80	-50 -							(50.1 feet to 80.1 feet bgs)		
-	-									
-	-									
	_									
	_									
- 85	-55 -	NA	NA	NA	NA					
	_							4-inch		
	_							Diameter Sch. 40 PVC Sump (80.1		
	_							feet to 95.1 feet bgs) Bentonite		
90	_							Chips (80.1 feet to 95.1 feet bgs)		
_ 30	-60 -									
	_									
	_									
	-									
- 95	_									
	-65 -						End of boring at 95.1 feet bgs.			
							Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA polyvinyl chloride; Sch. = Schedule;	= not applicable/available; PVC =		
		Δ	RC	Έ		S	Horizontal reference datum is the North American Datum of 1983 East Zone (FIPS 3101). Vertical reference datum is the North Am (NAVD88).			
	y 1	/ -		-						
								Date: 5/13/2022 Page: 5 of 5		

Drilli Drille Drilli Sam	Date Start/Finish: Drilling Company: Driller's Name: Drilling Method: Sampling Method: Rig Type:			3/2019 fer Drilling ≥ Moon c c ≥ te Multidri		iing, In	Client: Nation Surface Elevation: 23.82 feet Casing Elevation: 23.55 feet Borehole Denth: 80 feet box	nal Grid ens Gas Works MGP Site sk 471, Lot 1)
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring/Well Construction
-	_ 25 _							8-inch Diameter Flush- Mounted Cast Iron Frame and Cover
- 5							Drilled without sampling to 89 feet bgs.	4-inch Diameter
- 10 - 10 - 15	15 - - - 10 -	NA	NA	NA	NA			Sch. 40 PVC Riser (0.27 feet to 44 feet bgs) Cement- Bentonite Grout (1.5 feet to 39 feet bgs)
C		A	RC	A	DI	S	Remarks: bgs = below ground surface; MGP = manufactured gas plan polyvinyl chloride; Sch. = Schedule; Horizontal reference datum is the North American Datum of East Zone (FIPS 3101). Vertical reference datum is the Nort (NAVD88).	1983 (NAD83), New York State Plane
-		004014 CGRW-	.0002 10.ldat8				Created/Edited by: APG emplate: G:Clients/National Grid/Carroll Gardens/06 Notes and Data/Construction/Recovery Well:	Date: 5/13/2022 Page: 1 of 5

Client: National Grid Boring/Well ID: CGRW-10 Borehole Depth: 89 fact bac										
Site Location: Former Citizens Gas Works MGP Site	Borehole Depth: 89	feet bgs								
Pormer Citizens Gas Works MGP Site Parcel I (Block 471, Lot 1) Brooklyn, New York										
Depth (feet bgs) Elevation (feet NAVD88) Sample Run Number Sample/Int/Type Recovery (feet) PID Headspace (ppm) Geologic Column	Stratigraphic Description	Boring/Well Construction								
	rilled without sampling to 89 feet bgs.	4-inch Diameter Sch. 40 PVC Riser (0.27 feet to 44 feet bgs) Cernent- Bentonite Grout (1.5 feet to 39 feet bgs)								
ARCADIS	Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA polyvinyl chloride; Sch. = Schedule; Horizontal reference datum is the North American Datum of 1983 East Zone (FIPS 3101). Vertical reference datum is the North Am (NAVD88).	(NAD83), New York State Plane								

0	Client: National Grid Boring/Well ID: CGRW-10											
5	Site Lo	ocation:					Borehole Depth: 89	feet bgs				
	Parc	cel I (B	izens Gas lock 471,	Lot 1)	MGP Si	te						
	Droc	JKIYI1, I	New York									
	(D88)	nber			(mqq	_						
et bgs)	feet NAV	kun Nur	nt/Type	(feet)	space (Columr	Stratigraphic Description	Boring/Well Construction				
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column						
ă	Ele	ů	Ň	Ř	IId	Ō	Drilled without sampling to 89 feet bgs.					
-	-	-						Cement- Bentonite				
-	_	-						Grout (1.5 feet to 39 feet bgs)				
ŀ	-15 -	-						4-inch				
- 40	_							Diameter Sch. 40 PVC Riser (0.27				
-	_	-						feet to 44 feet bgs) Bentonite				
-	_	-						Chips (39 feet to 42 feet				
	_	-						bgs)				
	-20 -	-										
- 45	_	-										
10	_											
	_	NA	NA	NA	NA							
-	_											
Ī	-25 -							#2 Sand (42				
F	20 -							feet to 74 feet bgs) 4-inch				
- 50	_							Vertical design of the second				
F	_							PVC Screen (44 feet to 74 feet bgs)				
-	_											
-	_											
+	-30 -	-										
- 55	-	-										
_												
		_		_			polyvinyl chloride; Sch. = Schedule; Horizontal reference datum is the North American Datum of 1983					
ARCADIS							East Zone (FIPS 3101). Vertical reference datum is the North Am (NAVD88).					
			_									
-		004014 CGRW-	.0002 ·10.ldat8				Created/Edited by: APG Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recovery Wells	Date: 5/13/2022 Page: 3 of 5				

C	Client: National Grid Boring/Well ID: CGRW-10										
s	Site Lo	ocation	:				Borehole Depth: 89	feet bgs			
	Pare	cel I (B	tizens Gas lock 471,	Lot 1)	MGP Si	te					
	Broo	oklyn, l	New York								
	(88)	ber			(mc						
(sbq	Elevation (feet NAVD88)	Sample Run Number	Type	feet)	PID Headspace (ppm)	olumn	Stratigraphic Description	Boring/Well			
Depth (feet bgs)	ation (fee	iple Ru	Sample/Int/Type	Recovery (feet)	Headsp	Geologic Column		Construction			
Dept	Eleva	Sam	Sam	Rec	H DIA	Geo	Drilled without sampling to 89 feet has				
- - - 60 -	-35 - - - - -40 -						Drilled without sampling to 89 feet bgs.	4-inch			
- 65 - - - - 70	- - -45 -	NA NA	NA	NA	NA			4-inch Diameter 0.020-inch Slot Sch. 40 PVC Screen (44 feet to 74 feet bgs) #2 Sand (42 feet to 74 feet bgs)			
-	-50 -						Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA polyvinyl chloride; Sch. = Schedule;	Bentonite Chips (74 feet to 89 feet bgs) 4-inch			
	Project: 30004014.0002						Horizontal reference datum is the North American Datum of 1983 East Zone (FIPS 3101). Vertical reference datum is the North Am (NAVD88). Created/Edited by: APG	(NAD83), New York State Plane erican Vertical Datum of 1988 Date: 5/13/2022			
-	Project: 30004014.0002 Data File: CGRW-10.ldat8						Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recovery Wells	Page: 4 of 5			

Clie	Client: National Grid Boring/Well ID: CGRW-10												
Site	e Loca	ation:					Borehole Depth: 89	9 feet bgs					
F	Parce	II (BI	zens Gas ock 471,		MGP Sit	te							
E	Brook	lyn, N	lew York										
	88)	er			(m								
(sɓq	Elevation (feet NAVD88)	Sample Run Number	Type	eet)	PID Headspace (ppm)	umn	Stratigraphic Description	Boring/Well					
Depth (feet bgs)	tion (fee	ole Rur	Sample/Int/Type	Recovery (feet)	leadsp	Geologic Column		Construction					
Dept	Eleva	Sam	Sam	Recc	PID F	Geol							
- 80 - 80 -		NA	NA	NA	NA		Uniled without sampling to 89 feet bgs.	A-inch Diameter Sum (74 feet to 89 feet bgs)					
- (65 -												
- 90	-						End of boring at 89 feet bgs.						
	_												
-													
-	70 -												
- 95	-												
							Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA	a = not applicable/available: PVC =					
G		4	RC	A	DI	S	Horizontal reference datum is the North American Datum of 198 East Zone (FIPS 3101). Vertical reference datum is the North Ar (NAVD88).	3 (NAD83), New York State Plane					
Project: Data File							Created/Edited by: APG Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recovery Wells	Date: 5/13/2022 Page: 5 of 5					

Projec	xt: 30	004014					Created/Ed Template:		APG tional Grid\Carr	roll Gardens\06	Notes and Data\Co	nstruction\Recove	ery Wells		Date: Page	
C		A	RC		DI	S	Remark	polyvi Horiz East 2	inyl chloride	e; Sch. = S ence datum	e; MGP = man chedule; is the North A rtical reference	merican Dat	um of 1983	(NAD83), 1	New York S	tate Plane
- 15	- - 5-															
- 10		NA	NA	NA	NA											4-inch Diameter Sch. 40 PVC Riser (0.34 feet to 40 feet bgs) Cement- Bentonite Grout (1.5 feet to 34 feet bgs)
- 5																
-0	20 -						Drilled witho	out sampling	to 85 feet by	gs.						Frame and Cover Concrete Pad #2 Sand Drain (0.6 feet to 1.5 feet bgs)
-	-															8-inch Diameter Flush- Mounted Cast Iron
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column			Stra	Boring/Well Construction						
Drill Drill Drill Sam	ing Co er's Na ing Me	/Finish: ompany ame: ethod: Method	r: Aqui Dave Soni I: None			iing, In	Client: National Grid Surface Elevation: 20.48 feet Casing Elevation: 20.14 feet Borehole Denth: 25 feet bee							rid Gas Works MGP Site 1, Lot 1)		

C	Client:	Natio	onal Grid				Boring/Well ID: CGF	RW-11
s		ocation:		10/			Borehole Depth: 85	feet bgs
	Parc	cel I (B	tizens Gas lock 471, New York	Lot 1)	NIGP SI	le		
	(88)	ber			(mq			
et bgs)	feet NAVD	an Num	nt/Type	r (feet)	space (p	Column	Stratigraphic Description	Boring/Well Construction
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column		
	_						Drilled without sampling to 85 feet bgs.	
	-	_						
-	-	_						
- 20	-	-						
-	0-	_						
-	-	_						
-	-	-						
-	-							Cement-
- 25	-5 -	_						Bentonite Grout (1.5 feet to 34 feet
-	_	NA	NA	NA	NA			bgs) 4-inch Diameter Sch. 40 PVC
-	_	-						Riser (0.34 feet to 40 feet bgs)
-	_	-						
-	-							
- 30	-10 -	_						
	_	_						
_	_	-						
_	-							
- 35	-	-						Bentonite Chips (34 feet to 38 feet
	-15 -	-					Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA	bgs)
		-					polyvinyl chloride; Sch. = Schedule;	(NAD83), New York State Plane
		A	RC	A	D	S	East Zone (FIPS 3101). Vertical reference datum is the North Am (NAVD88).	erican Vertical Datum of 1988
			0005					
		0004014 CGRW-	.0002 -11.ldat8				Created/Edited by: APG Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recovery Wells	Date: 5/13/2022 Page: 2 of 5

Clie	nt: Natio	onal Grid				Boring/Well ID: CG	RW-11
	Location					Borehole Depth: 85	i feet bgs
Pa	arcel I (E	tizens Gas Block 471, New York	Lot 1)	MGP Si	te		
	JOOKIYII,						
(D88)	mber			(mqq)	E		
et bgs)	un Nui	nt/Type	/ (feet)	space	Colum	Stratigraphic Description	Boring/Well Construction
Depth (feet bgs)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column		
	- 0	ض	R	Ē	U	Drilled without sampling to 85 feet bgs.	
- 40 - 21	- - - - - -						Bentonite Chips (34 feet to 38 feet bgs) 4-inch Diameter Sch. 40 PVC Riser (0.34 feet to 40 feet bgs)
- 45 2. - - - - - - - - - - - - - - - - -	NA 	NA	NA	NA			#2 Sand (38 feet to 70 feet bgs) 4-inch Diameter 0.020-inch Slot Sch. 40 PVC Screen (40 feet to 70 feet bgs)
- - - 55 -3.						Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA	a = not applicable/available; PVC =
		RC		DI		polyvinyl chloride; Sch. = Schedule; Horizontal reference datum is the North American Datum of 1983 East Zone (FIPS 3101). Vertical reference datum is the North Am (NAVD88).	nerican Vertical Datum of 1988
Project: Data File:						Created/Edited by: APG Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recovery Wells	Date: 5/13/2022 Page: 3 of 5

Clien	Client: National Grid Boring/Well ID: CGRW-11											
Site L	_ocation	:				Borehole Depth: 85	feet bgs					
Pa	rcel I (B	tizens Gas llock 471,	Lot 1)	MGP Si	te							
Bro	ooklyn, l	New York										
(88)	ber			(mq								
bgs) et NAVD	n Num	Type	feet)	bace (p	olumn	Stratigraphic Description	Boring/Well					
Depth (feet bgs) Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column		Construction					
Dep	Sam	San	Rec	DIA	Geo	Drilled without sampling to 85 feet bgs.						
- 60 - 40 - 65 - 45 - 45 - 45 - 45 - 45 - 45 - 50	- - - NA -	NA	NA	NA			4-inch Diameter 0.020-inch Slot Sch. 40 PVC Screen (40 feet to 70 feet bgs) #2 Sand (38 feet to 70 feet bgs) #2 Sand (38 feet to 70 feet bgs)					
- - - 75 -55	-						Bentonite Chips (70 feet to 85 feet bgs) 4-inch Diameter Sch. 40 PVC Sump (70 feet to 85 feet bgs)					
1						Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA polyvinyl chloride; Sch. = Schedule;	= not applicable/available; PVC =					
9	Horizontal reference datum is the North American Datum of 1983 (NAD83), New York State Plane East Zone (FIPS 3101). Vertical reference datum is the North American Vertical Datum of 1988 (NAVD88).											
Project: 3 Data File:						Created/Edited by: APG Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recovery Wells	Date: 5/13/2022 Page: 4 of 5					

Site Location: Former Citizens Gas Works MGP Site Parcel I (Block 471, Lot 1) Brooklyn, New York	Borehole Depth: 85 feet bgs Stratigraphic Description Boring/Well Construction
Depth (feet bgs) Elevation (feet bgs) Sample Run Number Sample Run Number Recovery (feet) PID Headspace (ppm) PID Headspace (ppm)	Construction
Depth (feet bgs) Elevation (feet NAVD88) Sample Run Number Recovery (feet) PID Headspace (ppm) Geologic Column	Construction
	Construction
	Construction
	Construction
	ing to 85 feet bgs.
	ing to 85 feet bgs.
- ⁸⁰ NA NA NA NA - ⁶⁰ - 	4-inch Diameter Sch. 40 PVC Sump (70 feet to 85 fer bgs) Bentonite Chips (70 feet to 85 fer bgs)
-65 - End of boring a	85 feet bgs.
- 90 -70 -	
_ 95	
Remarks: bg	a = bolow ground surface: MGD = monufactured gos plant: NA = act applicable (susilable: DVC =
	s = below ground surface; MGP = manufactured gas plant; NA = not applicable/available; PVC = yvinyl chloride; Sch. = Schedule; rizontal reference datum is the North American Datum of 1983 (NAD83), New York State Plane st Zone (FIPS 3101). Vertical reference datum is the North American Vertical Datum of 1988 AVD88). APG Date: 5/13/20

ss MGP Site	Boring/Well ID: CGRW-12 Client: National Grid Location: Former Citizens Gas Works MGF Parcel I (Block 471, Lot 1) Brooklyn, New York	19.68 feet 19.38 feet 84 feet bgs 10 inches Coleman King	ing, Inc.	Date Start/Finish:10/21/2019Drilling Company:Aquifer Drilling and Testing, IDriller's Name:Dave MoonDrilling Method:SonicSampling Method:NoneRig Type:Fraste Multidrill XL Max													
Boring/Well Construction		igraphic Description	Geologic Column	PID Headspace (ppm)	Recovery (feet)	Sample/Int/Type	Sample Run Number	Elevation (feet NAVD88)	Depth (feet bgs)								
8-inch Diameter Flush- Mounted Cast Iron Frame and Cover								- 20 -	-								
4-inch Diameter Sch. 40 PVC		ις.	without sampling to 84 feet bg	Drilled	ΝΑ	NA	ΝΑ		- - 15 - - -	5							
Riser (0.31 feet to 39 feet bgs) Cement- Bentonite Grout (1.5 feet to 34 feet bgs)									- - - - 5-	- 10 							
New York State Plane	Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA = not applicable/available; PV0 polyvinyl chloride; Sch. = Schedule; Horizontal reference datum is the North American Datum of 1983 (NAD83), New York State Plan East Zone (FIPS 3101). Vertical reference datum is the North American Vertical Datum of 1988 (NAVD88).						ARCADIS										
New York Sta	nerican Datum of 1983 (NAD83), New Yo datum is the North American Vertical Dat	e; Sch. = Schedule; nce datum is the North Ar 3101). Vertical reference	polyvinyl chloride Horizontal refere East Zone (FIPS	S			RC		- - - - - - - - - - - - - - - - - - -	- - - 15							

C	Client: National Grid Boring/Well ID: CGRW-12											
5		ocation					Borehole Depth: 84	feet bgs				
	Parc	cel I (B	izens Gas lock 471, New York	Lot 1)	MGP Si	te						
	Dioc		New Tork									
	/D88)	mber			(mqq)	Ē						
set bgs)	(feet NA	Run Nu	nt/Type	y (feet)	lspace	: Colum	Stratigraphic Description	Boring/Well Construction				
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column						
	Ш	S	S	Ľ	Ŀ	0	Drilled without sampling to 84 feet bgs.					
-	_											
F	-	-										
-	_											
- 20	0-											
-	-	-										
-	-											
-	-	-										
	_	-										
_ 25	-5-							Cement- Bentonite Grout (1.5				
	_							feet to 34 feet bgs)				
	_	NA	NA	NA	NA			4-inch Diameter Sch. 40 PVC Riser (0.31				
	_	-						feet to 39 feet bgs)				
Ī	_	-										
-	-10 -	-										
- 30	_											
-												
-	_											
-	_											
-	-											
- 35	-15 -							Bentonite Chips (34 feet to 38 feet				
-	_						Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA	= not applicable/available: PVC =				
							polyvinyl chloride; Sch. = Schedule;					
C		Α	RC	A	DI	S	East Zone (FIPS 3101). Vertical reference datum is the North Am (NAVD88).	erican Vertical Datum of 1988				
ľ		-			_	_						
-		004014 CGRW-	.0002 ·12.ldat8				Created/Edited by: APG Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recovery Wells	Date: 5/13/2022 Page: 2 of 5				

(Client: National Grid Boring/Well ID: CGRW-12											
s	Site Lo	ocation	:				Borehole Depth: 84	feet bgs				
	Parc	cel I (B	tizens Gas lock 471,	Lot 1)	MGP Si	te						
	Broo	oklyn, l	New York									
) 88)	ber			(mď							
t bgs)	Elevation (feet NAVD88)	Sample Run Number	/Type	feet)	PID Headspace (ppm)	olumn	Stratigraphic Description	Boring/Well				
Depth (feet bgs)	ation (fe	nple Ru	Sample/Int/Type	Recovery (feet)	Heads	Geologic Column		Construction				
Dep	Elev	San	San	Rec	PID	Gec	Drilled without sampling to 84 feet bgs.					
- - - 40 -	-20 - -20 -						Uniled without sampling to 84 feet bgs.	Bentonite Chips (34 feet to 38 feet bgs) 4-inch Diameter Sch. 40 PVC Riser (0.31 feet to 39 feet bgs)				
- - 45 - -	-25 - - -	- NA	NA	NA	NA			#2 Sand (38 feet to 69 feet bgs) 4-inch Diameter 0.020-inch Slot Sch. 40 PVC Screen (39 feet to 69 feet bgs)				
- 50 - - - 55	-30 - - - - - 35 -	-						feet bgs)				
							Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA polyvinyl chloride; Sch. = Schedule;					
	Horizontal reference datum is the North American Datum of 1983 (NAD83), New York State Plane East Zone (FIPS 3101). Vertical reference datum is the North American Vertical Datum of 1988 (NAVD88).											
-		0004014 CGRW-	l.0002 -12.Idat8				Created/Edited by: APG Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recovery Wells	Date: 5/13/2022 Page: 3 of 5				

(Client: National Grid Boring/Well ID: CGRW-12											
5	Site Lo	ocation	:				Borehole Depth: 84 feet bgs					
	Parc	cel I (B	izens Gas lock 471,		MGP Si	te						
	Broo	oklyn, l	New York									
	(88C	her			(mq							
et bgs)	eet NAVI	un Num	t/Type	(feet)	pace (p	Column	Stratigraphic Description Boring/Well Construction					
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Construction					
De	Ele	Sa	Sa	Re	PIC	Ge	Drilled without sampling to 84 feet bgs.					
- - - 60 -	-40 = 						United without sampling to 84 feet bgs. #2 Sand (38 feet to 69 feet bgs) 4-inch Diameter 0.020-inch Stot Sch. 40 PVC Screen					
- 65 	-45 - - - - - 50 -	- NA	NA	NA	NA		Durinete 0.020-inch Slot Sch. 40 PVC Screen (39 feet to 69 feet bgs) We have We have					
- 75	- -55 -	-					Bentonite Chips (69 feet to 84 feet bgs) 4-inch Diameter Sch. 40 PVC Sump (69 feet to 84 feet bgs)					
Projec	ct: 30	0004014	.0002 12.Idat8		DI		Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA = not applicable/available; PVC = polyvinyl chloride; Sch. = Schedule; Horizontal reference datum is the North American Datum of 1983 (NAD83), New York State Plane East Zone (FIPS 3101). Vertical reference datum is the North American Vertical Datum of 1988 (NAVD88). Created/Edited by: APG Date: 5/13/202 Template: G:(ClientsiNational Grid/Carroll Gardens)06 Notes and Data\Construction\Recovery Wells					

(Client:	Natio	nal Grid				Boring/Well ID: CG	RW-12
9	Site Lo	ocation:					Borehole Depth: 84	feet bgs
			izens Gas lock 471,		MGP Si	te		
	Broo	oklyn, I	New York	,				
	8)	er			(u			
(sb	Elevation (feet NAVD88)	Sample Run Number	ype	et)	ce (ppr	umn	Stratigraphic Description	Boring/Well
Depth (feet bgs)	on (feet	e Run	Sample/Int/Type	Recovery (feet)	adspa	Geologic Column	Suaugraphic Description	Construction
Depth	Elevatio	Sampl	Sampl	Recov	PID Headspace (ppm)	Geolog		
- 80	-60 - -	NA	NA	NA	NA		Unlied without sampling to 84 feet bgs.	4-inch Diameter Sch. 40 PVC Sump (69 feet to 84 feet bgs) Bentonite Chips (69 feet to 84 feet bgs)
							End of boring at 84 feet bgs.	
- 85	-65 -							
-	_							
-	-							
_	_	-						
	_	-						
	-70 -							
90								
-	-	-						
-	_							
	_							
	_							
	-75 -							
- 95	_							
							Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA	. = not applicable/available; PVC =
		_				-	polyvinyl chloride; Sch. = Schedule; Horizontal reference datum is the North American Datum of 1983	3 (NAD83), New York State Plane
		Α	RC	A	D	S	East Zone (FIPS 3101). Vertical reference datum is the North Am (NAVD88).	ierican Vertical Datum of 1988
ľ		-			_			
Proje	ct: 30	004014	.0002				Created/Edited by: APG	Date: 5/13/2022

Date Start/Finish:12/28/2021 - 12/29/2021Drilling Company:Aquifer Drilling and Testing, InDriller's Name:Dave MoonDrilling Method:SonicSampling Method:5-inch x 10-foot Core BarrelRig Type:Fraste Multidrill XL Max						ing, In	c.	Easting: 632648.03 Client: National (Surface Elevation: 8.03 feet Location: Casing Elevation: 7.31 feet Location: Borehole Depth: 71.02 feet here Location:							Gas Works MGP Site I71, Lot 100)			
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column			Stra		Boring/Well Construction							
-	10-															12-inch Diameter Flush- Mounted Cast Iron Frame and Cover		
- - - - - - - - - - - - - - - -		NA	NA	NA	NA		Drilled	without sampli	ng to 20 feet b	ggs.						Concrete Pad #2 Sand Drain (0.9 feet to 1.5 feet bgs) Off-Site General Fill Material (1.5 feet to 6.5 feet bgs) 6-inch Diameter Sch. 10 Stainless Steel Riser (0.72 feet to 26.92 feet bgs) Cement- Bentonite Grout (6.5 feet to 22 feet bgs)		
	-15 -15 Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA = not applicable/available; NAPL = non-aqueous phase liquid; NR = no recovery; Sch. = Schedule. Horizontal reference datum is the North American Datum of 1983 (NAD83), New York State Plane East Zone (FIPS 3101). Vertical reference datum is the North American Vertical Datum of 1988 (NAVD88). Project: 3004014.0002 Created/Edited by: APG Date: 5/13/2022														State Plane of 1988			

Client: National Grid	В	oring/Well ID: CGSB-P2RA-02 / CGRW-13
Site Location: Former Citizens Gas Works MGP Site	В	orehole Depth: 71.92 feet bgs
Parcel II (Block 471, Lot 100) Brooklyn, New York		
Depth (reet bgs) Elevation (reet NAVD88) Sample Run Number Sample/Int/Type Recovery (feet) PID Headspace (ppm) Geologic Column	Stratigraphic Description	Boring/Well Construction
-10 - NA NA NA NA	Drilled without sampling to 20 feet bgs.	Cement- Bentonite Grout (6.5 feet to 22 feet bgs)
-15 -	NO RECOVERY.	6-inch Diameter Sch. 10 Stainless Steel Riser (0.72 feet to 26.92 feet bgs) Bentonite Chips (22 feet to 24.5 feet bgs)
²⁵ – 1 20-30 NR NA		
-20 -	NO RECOVERY.	#2 Sand (24.5 feet to 56.92 feet bgs)
-25 - 2 30-40 NR NA		bgs)
35 -		
ARCADIS	non-aqueous phase liquid; NR = no recov	ufactured gas plant; NA = not applicable/available; NAPL = /ery; Sch. = Schedule. merican Datum of 1983 (NAD83), New York State Plane e datum is the North American Vertical Datum of 1988
roject: 30004014.0002 ata File: CGSB-P2RA-02_CGRW-13.dat	Created/Edited by: APG Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Cc	Date: 5/13/2022 anstruction\Recovery Wells Page: 2 of 4

Sit	t e Lo Forn Parc	cation: ner Cit :el II (E	izens Gas Block 471,			te		3B-P2RA-02 / CGRW-13 92 feet bgs
	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring/Well Construction
	-30 -	2	30-40	NR	NA		NO RECOVERY.	
- 40 	-35 -	3	40-50	1.2	32.5 10.7 39.5		Very dark grayish brown fine SAND, some Silt, little Clay, trace medium to coarse Sand and fine angular to subangular low to medium sphericity Gravel, soft, wet, sheen and staining throughout, faint naphthalene-like odor. Very dark gray CLAY, some fine Sand and Silt, soft, wet, faint naphthalene-like odor.	6-inch Diameter 0.020-inch Continuous Stol Stainless Steel Screen (26.92 feet to 56.92 feet to 56.92 feet bgs)
	-40 -				32.0		Dark grayish brown fine SAND, little silt, soft, slight liquefaction, wet, scattered sheen	#2 Sand (24.5 feet to 56.92 feet bgs)
	-45 -	4	50-57	3.4	35.0 35.9 57.3 22.0 31.2 18.0 10.9		throughout, moderate naphthalene-like odor.	
Project:	: 30	004014	.0002				Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA non-aqueous phase liquid; NR = no recovery; Sch. = Schedule. Horizontal reference datum is the North American Datum of 1983 East Zone (FIPS 3101). Vertical reference datum is the North Am (NAVD88). Created/Edited by: APG Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recovery Wells	(NAD83), New York State Plane

	Client: National Grid Boring/Well ID: CGSB-P2RA-02 / CGRW-13										
	Site Lo	ocation	:					Borehole Depth:	71.92 feet bgs		
			tizens Gas Block 471,			te					
	Broo	oklyn, l	New York		/						
	3)	L.			(u						
(sť	NAVD8	Numbe	be	st)	ce (ppr	um			Boring/Well		
(feet b	n (feet l	e Run I	e/Int/Ty	ery (fee	adspac	jic Colt	Stratigraphic Description		Construction		
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column					
	_	4	50-57	_	ш.	-			#2 Sand (24.5 feet to 56.92 feet bac)		
-	-						Drilled without sampling to 71.92 feet bgs.		bgs) 6-inch		
-	-50 -								Diameter 0.020-inch Continuous		
ļ	_								Slot Stainless Steel Screen (26.92 feet to		
- 60									56.92 feet bgs)		
-	-										
-	-										
-	-55 -										
-	_								Bentonite		
- 65	_	NA	NA	NA	NA				Chips (56.92 feet to 71.92 feet bgs)		
									6-inch Diameter Sch. 10		
	-								Stainless Steel Sump (56.92 feet to		
-	-								71.92 feet bgs)		
-	-60 -										
-	-										
- 70	_										
	_										
		1					End of boring at 71.92 feet bgs.				
F	-65 -	1									
ł	-										
- 75	-	-									
							Remarks: bgs = below ground surface; MGP = m non-aqueous phase liquid; NR = no re		t; NA = not applicable/available; NAPL = ule.		
		Λ	RC	` / I		C	Horizontal reference datum is the Nort East Zone (FIPS 3101). Vertical refere		1983 (NAD83), New York State Plane h American Vertical Datum of 1988		
		/~		ノ ヽ		J	(NAVD88).				
	at 01	00404	0000				Created/Edited by ADC		D-4. 5/40/2022		
		004014 CGSB-I	1.0002 P2RA-02_C	GRW-13	.dat		Created/Edited by: APG Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data	a\Construction\Recovery Well	Date: 5/13/2022 s Page: 4 of 4		

Drill Drill Drill Sam	ing Co er's Na ing Me	ethod: Methoc	r: Aquit Dave Sonic	0/2021 - 1 fer Drilling ≥ Moon c c th x 10-foc te Multidri) and Test ot Core Ba	-	c.	Northing: Easting: Surface El Casing Ele Borehole I Borehole I Description	evation: Depth: Diameter:		et bgs s	Client: N Location: Former Parcel II	lational G Citizens (Grid Gas Work 71, Lot 10	RA-03 / CC s MGP Sit 00)	
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column			Stra	Boring/Well Construction						
-	10 -						Drilled	vithout samplin	ng to 20 feet b	gs.						12-inch Diameter Flush- Mounted Cast Iron Frame and Cover
-	- 5-															#2 Sand Drain (0.7 feet to 1.5 feet bgs) Off-Site General Fill Material (1.5 feet to 2 feet bgs)
5 - -	- - 0-	NA	NA	NA	NA											6-inch Diameter Sch. 10 Stainless
- 10	-															Steel Riser (0.54 feet to 27.44 feet bgs) Cement- Bentonite Grout (2 feet to 23 feet bgs)
- 15	-5 -															
			RC	A	DI		Rema	non Hor Eas (NA	izontal refere t Zone (FIPS VD88).	nase liquid; l ence datum	; MGP = man NR = no recov is the North A tical reference	ery; Sch. = S merican Datu	chedule. Im of 1983	(NAD83), I	New York S ical Datum (tate Plane of 1988
-		004014 CGSB-F	.0002 2RA-03_C	GRW-14	.dat			I/Edited by: te: G:\Clients\M	APG National Grid\Car	roll Gardens\06	Notes and Data\Co	nstruction\Recove	ry Wells		Date: Page	

(Client:	Natio	onal Grid				
	-	cation:					
:				Manka			
	Parc	el II (E	izens Gas Block 471,			le	
	Broo	oklyn,`I	New York		,		
	88)	ber			(m		
s)	IAVD	lumt	be	t)	e (bb	ш	
et bg	eet N	⊿un	it/Ty	(fee	spac	Colu	Stratigraphic Descriptio
i (fee	ion (f	le R	le/In	/ery	eads	ogic (
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	
	ш	0)	0)	Щ	<u>م</u>	0	Drilled without sampling to 20 feet bgs.
	-						
	-10 -	NA	NA	NA	NA		
		NA	NA	NA	NA		
	-						
-20	-	-			7.7		Dark gray CLAY, little Silt, soft, sticky, slight plasticity, wet
					29.1		
	-				11.3		
	_				45.2		
					16.6		
	-15 -				10.7		Little Organics (Shell fragments) and Debris (weather
					41.5		
	-			7.5	10.8		
					14.0		Trace Silt, medium stiff, moderate plasticity.
-25	-	1	20-30		5.1 3.7		
			1	1	3.1		

Boring/Well Construction

> Cement-Bentonite Grout (2 feet to 23 feet bgs)

Borehole Depth: 72.54 feet bgs

-15 -		7.5	45.2 16.6 10.7 41.5 10.8	Little Organics (Shell fragments) and Debris (weathered Wood), moist. Trace Silt, medium stiff, moderate plasticity.	Stainless Steel Riser (0.54 feet to 27.44 feet bgs) Bentonite Chips (23 feet to 25 feet bgs)
- 1 -	20-30		5.1 3.7 6.6 263.9 99.9 142.8	Dark gray interbedded CLAY and fine SAND, some medium Sand, little Silt, trace Debris (Wood), medium stiff, slight plasticity, moist to wet, light NAPL coating, NAPL blebs on wood debris, sheen, faint naphthalene-like odor.	
-20 -					
-		5.2	65.5 46.5 54.8 24.3 52.9	Dark gray SILT, little fine Sand, medium stiff, wet, faint naphthalene-like odor.	#2 Sand (25 feet to 57.44 feet bgs) 6-inch Diameter 0.020-inch Continuous Slot Stainless Steel Screen
-25 - 2	30-40		25.8 39.7 108.1 138.4 160.5	Dark gray fine SAND, some medium Sand, little coarse Sand, soft, wet, moderate naphthalene-like odor. 2-inch thick stained layers at 33.6 feet and 34.0 feet bgs. Little Silt, soft, wet, light NAPL coating, moderate naphthalene-like odor.	(27.44 feet to 57.44 feet bgs)
			DIS	Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA non-aqueous phase liquid; NR = no recovery; Sch. = Schedule. Horizontal reference datum is the North American Datum of 1983 East Zone (FIPS 3101). Vertical reference datum is the North Am (NAVD88).	3 (NAD83), New York State Plane

	Site Lo	ocation	onal Grid : tizens Gas	s Works	MGP Sit	te		SB-P2RA-03 / CGRW-14
	Parc	cel II (E	Block 471 New York	Lot 100				
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring/Well Construction
- 40	-30 -	2	30-40					
- 45	- -35 - -		40-50	5.5	265.8 228.3 187.5 165.9 175.1 61.5 71.8 20.3		Very dark gray fine SAND, little medium Sand, little Silt, soft, wet, moderate NAPL coating, moderate naphthalene-like odor. Very dark gray very fine SAND, some Silt, soft, wet, light NAPL coating, <u>moderate naphthalene-like odor</u> . Brown SILT, little very fine Sand, medium stiff, slight liquefaction, wet, faint naphthalene-like odor. Brown very fine SAND and SILT, medium stiff, moist to wet, faint naphthalene-like odor.	
- 50	-40 -				18.5		Brown very fine SAND, some Silt, soft, wet.	#2 Sand (25 feet to 57.44 feet bgs) 6-inch Diameter 0.020-inch Continuous Slot Stainless Steel Screen (27.44 feet to 57.44 feet bgs)
-	_ -45 _ _	4	50-57	4.5	25.1 15.3 12.5 10.8 13.5 8.6 9.5 10.9		Brown fine SAND, little medium Sand, soft, wet.	
			RC		DI	S		(NAD83), New York State Plane
Proje	ct: 30	0004014						Date: 5/ Page: 3 o

Client: National Grid Boring/Well ID: CGSB-P2RA-03 / CGRW-14								
Site L	ocation	:					Borehole Depth: 72	2.54 feet bgs
Pa	rcel II (I	tizens Gas Block 471,	Lot 100		te			
Bro	ooklyn,	New York	1					
88)	ber			(m				
bgs) t NAVD	humk	Type	eet)	ace (pp	lumn	Stratigraphic Description		Boring/Well
Depth (feet bgs) Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column			Construction
Dept	Sam	Sam	Recc	PID F	Geol			
	4	50-57						#2 Sand (25 feet to 57.44 feet bgs)
						Drilled without sampling to 72.54 feet bgs.		feet bgs) 6-inch Diameter
-50	-							0.020-inch Continuous Slot Stainless
	-							Steel Screen (27.44 feet to 57.44 feet
- 60	-							bgs)
	-							
	-							
-55	_							
	NA	NA	NA	NA				Bentonite
- 65								Chips (57.44 feet to 72.54 feet bgs)
	-							6-inch Diameter Sch. 10
	-							Stainless Steel Sump (57.44 feet to
-60	-							72.54 feet bgs)
	-							
- 70	_							
	_							
-65	1					End of boring at 72.54 feet bgs.		
	-							
- 75	-							
						Remarks: bgs = below ground surface; MGP = 1	manufactured das plant [,] M/	a = not applicable/available· ΝΔΡΙ =
						non-aqueous phase liquid; NR = no r	ecovery; Sch. = Schedule.	
9	Δ	RC	א'		S	Horizontal reference datum is the Nor East Zone (FIPS 3101). Vertical refer (NAVD88).	n American Datum of 198 ence datum is the North Ar	(NAD83), New York State Plane nerican Vertical Datum of 1988
	/~		/~\			(···//		
Project: 3	3000401/	1 0002				Created/Edited by: APG		Date: 5/12/2022
-		F.0002 D2RA_03 (-1-4		Template: C:/Cliente/National Grid/Carroll Gardens/06 Notes and Da		Page: 4 of 4

al Grid\Carroll Gardens\06 Notes and Data\Construction\Recovery Wells

Drill Drill Drill Sam	ling Co ler's N ling Me	/Finish: ompany ame: ethod: Method	: Aqui Dave Soni : 5-inc	M4/2022 - 1/5/2022 Northing: 671632.75 Boring/Well ID: Aquifer Drilling and Testing, Inc. Easting: 632509.28 Client: National for the second se								Grid Gas Works 71, Lot 10	s MGP Si					
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column		Stratigraphic Description								Boring/Well Construction		
-	10 -						Drilled	without sampli	ng to 20 feet b	qs.						12-inch Diameter Flush- Mounted Cast Iron Frame and Cover		
- - - 5	- 5- -						Linico			g u .						 Concrete Pad #2 Sand Drain (0.6 feet to 1.5 feet bgs) Off-Site General Fill Material (1.5 feet to 5.1 feet bgs) 		
- - - 10	 0	NA	NA	NA	NA											6-inch Diameter Sch. 10 Stainless Steel Riser (0.37 feet to 38.5 feet bgs) Cement- Bentonite Grout (5.1		
-	-5 - -															feet to 34 feet bgs)		
Projec	ct: 30	004014.	0002 12RA-04_C				Created	non Hor Eas (NA	-aqueous ph izontal refere t Zone (FIPS VD88). APG	nase liquid; ence datun S 3101). Ve	e; MGP = man NR = no recov n is the North A ertical reference	very; Sch. = umerican Da e datum is tł	Schedule. atum of 1983 he North Am	(NAD83), 1	New York S	State Plane of 1988 :: 5/12/2022		

Client: National Grid				Boring/Well ID: CG	SB-P2	RA-04 /	CGRW-15
Site Location: Former Citizens Gas Parcel II (Block 471, Brooklyn, New York			te	Borehole Depth: 83	.5 feet by	gs	
Elevation (feet NAVD88) Sample Run Number Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description			g/Well ruction
-10 - NA NA	NA	NA		Drilled without sampling to 20 feet bgs.			
-15 - -15 - -20 - -20 -	NR	NA		NO RECOVERY. Some dark gray CLAY, sticky, wet, covering gray Cobble stuck in nose.			Cement- Bentonite Grout (5.1 feet to 34 feet bgs) 6-inch Diameter Sch. 10 Stainless Steel Riser (0.37 feet to 38.5 feet bgs)
-25 - 2 30-40	7.0	196.4 147.6 382.5 397.4 370.0 392.0 250.0 168.2 174.2 30.4		Grayish brown fine SAND, some Silt, little medium Sand, soft, wet, scattered NAPL blebs, moderate naphthalene-like odor. Little Silt, soft, wet, scattered NAPL blebs, moderate naphthalene-like odor. <u>Moderate NAPL coating from 31.9 feet to 32.0 feet bgs.</u> Very dark grayish brown SILT, small interbedded fine Sand layers, medium stiff, moist to wet, light NAPL coating in Sand layers, moderate naphthalene-like odor. Little fine Sand, trace medium to coarse Sand and fine subangular low to medium sphericity Gravel, medium stiff, moist to wet, scattered NAPL blebs on Sand, moderate naphthalene-like odor. Dark grayish brown SILT, stiff, moderate liquefaction, faint to moderate naphthalene-like odor. Heavy NAPL coating from 34.5 feet to 34.9 feet bgs.			Bentonite Chips (34 feet to 36 feet

	Client: National Grid Boring/Well ID: CGSB-P2RA-04 / CGRW-15											
	Site Lo	cation					Borehole Depth: 83.	5 feet bgs				
	Form	ner Cit	tizens Gas			te						
	Parc Broc	cel II (E oklyn, l	Block 471, New York	Lot 100)							
	(D88)	nber			(mqq	_						
t bgs)	Elevation (feet NAVD88)	Sample Run Number	/Type	feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring/Well				
Depth (feet bgs)	tion (fe	ple Ru	Sample/Int/Type	Recovery (feet)	leads	ogic C		Construction				
Dept	Eleva	Sam	Sam	Recc	PID F							
				7.0	14.7 15.8		Dark grayish brown very fine SAND, some Silt, soft, wet, staining, faint naphthalene-like odor. Dark grayish brown fine SAND, little medium Sand, soft, wet.	6-inch Diameter				
-	_				10.0	•••••		Sch. 10				
-	-30 -	2	30-40					Steel Riser (0.37 feet to 38.5 feet bgs)				
	_	-										
- 40	_				4.0		Very dark gray fine SAND, some medium Sand, little coarse Sand, trace Silt, soft, wet, scattered sheen, faint naphthalene-like odor.					
-	-	-			7.9 54.8							
	_	-			54.6 68.6							
					95.9							
-	-35 -			5.7	158.3 296.7		Heavy NAPL coating and strong naphthalene-like odor from 43.0 feet to 43.4 feet bgs.					
	_	-			276.5		Dark brown fine SAND, some medium Sand, soft, wet, light to moderate NAPL coating, moderate naphthalene-like odor.					
					183.8 287.3							
- 45	_	3	40-50		137.3 145.9		Brown SILT, stiff, slight liquefaction, wet, faint naphthalene-like odor. 1-inch layer of dark gray Clay, medium stiff, moderate plasticity, moist at 45.1 feet bgs.					
-	_				145.9			#2 Sand (36 feet to 68.5				
	_	-						6-inch				
								Diameter 0.020-inch Continuous				
-	-40 -							Slot Stainless Steel Screen				
Ļ	-	-						(38.5 feet to 68.5 feet bgs)				
- 50					54.6		Dark gray very fine SAND, some Silt, soft, slight liquefaction, wet, faint to moderate naphthalene-like odor. NAPL blebs from 50.0 feet to 50.3 feet bgs.					
ŀ	-				39.7 41.5		с. 					
L	-	-			41.5 9.8							
					10.2							
F	-45 -	4	50-60	5.6	8.4 6.8							
	-	-			7.5							
					9.1 6.5							
- 55	-				8.1 8.3		Casu OII T aliff moiat					
	_				0.3	••	Gray SILT, stiff, moist.					
1							Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA non-aqueous phase liquid; NR = no recovery; Sch. = Schedule.	= not applicable/available; NAPL =				
		Λ		<u>`</u> ∧ '			Horizontal reference datum is the North American Datum of 1983 East Zone (FIPS 3101). Vertical reference datum is the North Am					
		Α	RC	A		C	(NAVD88).					
1												
		004014					Created/Edited by: APG	Date: 5/12/2022				
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	Client: National Grid Boring/Well ID: CGSB-P2RA-04 / CGRW-15											
:	Site Lo	ocation	:				Borehole Depth: 83	5 feet bgs				
	Parc	cel II (E	izens Gas Block 471,	Lot 100		te						
	Broo	oklyn, l	New York									
	3)	Ļ			(u							
(st	Elevation (feet NAVD88)	Sample Run Number	be	it)	PID Headspace (ppm)	um		Boring/Well				
Depth (feet bgs)	ן (feet N	Run M	Sample/Int/Type	Recovery (feet)	adspac	Geologic Column	Stratigraphic Description	Construction				
)epth (levation	ample	ample	Recove	ID Hea	seolog						
	Ш	о О	<i>о</i>	Ľ	<u> </u>	0						
+	-											
	-50 -	4	50-60									
	_	-										
Ē.												
- 60	-				2.8	••••	Dark grayish brown SILT, medium stiff, moderate liquefaction, wet.					
-	-	-			2.5 2.2							
-	-	-			1.8		Brown fine SAND, some medium Sand, little coarse Sand and Silt, trace fine subangular to subrounded low sphericity Gravel, soft, wet. Brown SILT, little medium to coarse Sand, trace fine to medium subangular to subrounded	#2 Sand (36				
	-55 -			5.7	1.5 1.4		low sphericity Gravel, soft, wet. [TILL]	feet to 68.5 feet bgs)				
					1.6 1.9	••••		6-inch Diameter 0.020-inch				
F	-	5	60-68		1.9			Continuous Slot Stainless Steel Screen				
- 65	-				1.8 1.6			#2 Sand (36 feet to 68.5 feet bgs) 6-inch Diameter 0.020-inch Continuous Slot Stainless Steel Screen (38.5 feet to 68.5 feet bgs)				
-	_				1.5							
	_											
	60											
ł	-60 -						Drilled without sampling to 83.5 feet bgs.					
ł	-	-										
- 70	_	-										
	_	-										
f	-	NA	NA	NA	NA			Bentonite Chips (68.5 feet to 83.5				
-	-65 -	-						feet bgs) 6-inch Diameter				
-	_	-						Sch. 10 Stainless				
- 75	_	-						Steel Sump (68.5 feet to 83.5 feet bgs)				
	-											
		1			1		Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA non-aqueous phase liquid; NR = no recovery; Sch. = Schedule.	= not applicable/available; NAPL =				
		-			-		Horizontal reference datum is the North American Datum of 1083					
	7	Α	RC	A	D	5	East Zone (FIPS 3101). Vertical reference datum is the North Am (NAVD88).	erican Vertical Datum of 1988				
-		004014					Created/Edited by: APG	Date: 5/12/2022				
Data	File:	CGSB-I	P2RA-04_C	GRW-15.	.dat		Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recovery Wells	Page: 4 of 5				

C	Client:	Natio	onal Grid					Boring/Well ID:	CGSB-P2RA-04 / CGRW-15
5	Site Lo	ocation:	:					Borehole Depth:	83.5 feet bgs
	For	ner Cit	izens Gas Block 471,	Works	MGP Si	te			
	Broo	oklyn, l	New York		,				
	()	L			(٢				
(st	JAVD86	Jumbe	be	t)	e (ppn	um			Boring/Well
feet bç	ו (feet N	Run	/Int/Ty	ry (fee	adspac	ic Colu	Stratigraphic Description		Construction
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column			
- - - 80	ш -70 -	NA	NA	NA	NA	9	Drilled without sampling to 83.5 feet bgs.		6-inch Diameter Sch. 10 Stainless Steel Sump (68.5 feet to 83.5 feet bgs) Bentonite Chips (68.5 feet to 83.5
-	-75 -								feet bgs)
-	_	-					End of boring at 83.5 feet bgs.		
- 85 - -	-								
-	-80 -								
- 90 -	-								
	_								
	-85 -	-							
-	-								
- 95	-	-							
	_						Remarks: bgs = below ground surface; MGP = m	anufactured das plan	t; NA = not applicable/available; NAPL =
			RC		DI		non-aqueous phase liquid; NR = no re Horizontal reference datum is the Nort East Zone (FIPS 3101). Vertical refere (NAVD88).	covery; Sch. = Sched	ule. 1983 (NAD83), New York State Plane th American Vertical Datum of 1988
Proje	ut: 30	004014	.0002				Created/Edited by: APG		Date: 5/12/2022

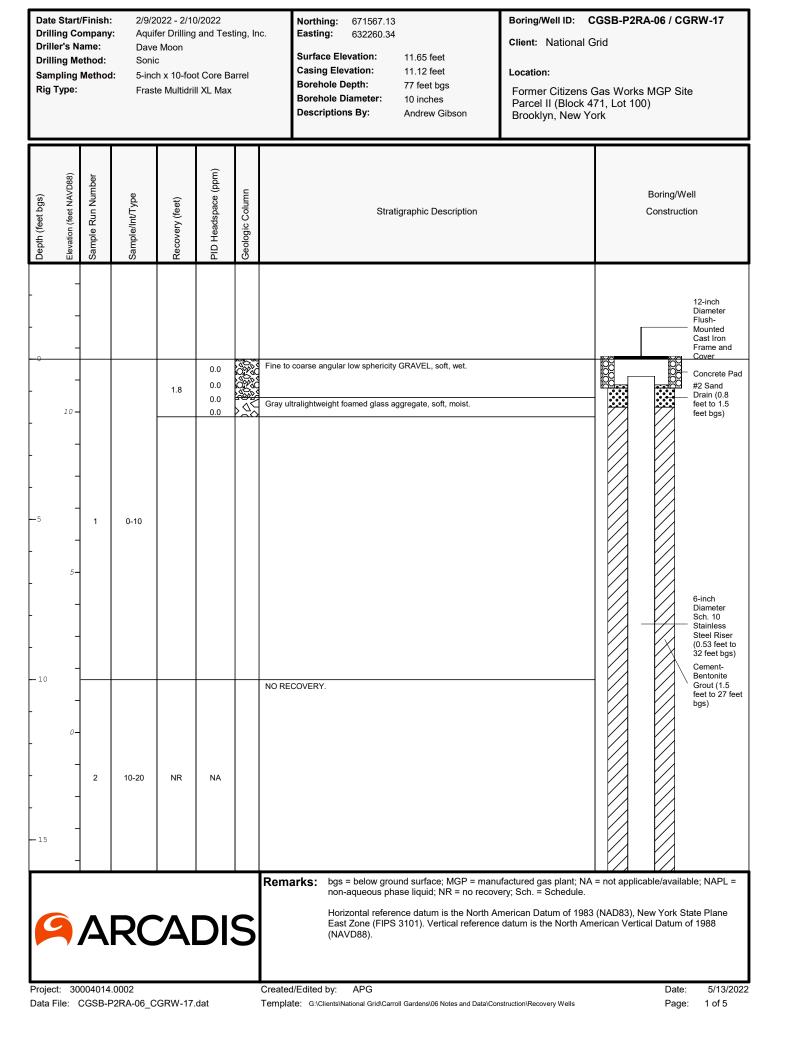
Drill Drill Drill Sam	Date Start/Finish: 1/6/2022 - 1/7/2022 Drilling Company: Aquifer Drilling and Testing Driller's Name: Dave Moon Drilling Method: Sonic Sampling Method: 5-inch x 10-foot Core Barrer Rig Type: Fraste Multidrill XL Max						c. E S C B B	orthing: asting: urface Ele asing Ele orehole E orehole E escription	vation:)epth:)iameter:	9 10.13 9.85 fi 85.54 10 inc	eet feet bgs		Boring/Well II Client: Nation Location: Former Citiz Parcel II (BI Brooklyn, N	onal G zens G lock 47	Frid Gas Works 71, Lot 10	S MGP S	
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column			Stra		Boring/Well Construction						
-							Drilled with	nout samplir	ng to 20 feet b	ogs.							12-inch Diameter Flush- Mounted Cast Iron Frame and Cover
- - - - 5 -	- - 5-							compil									 Concrete Pad #2 Sand Drain (0.5 feet to 1.5 feet bgs) Off-Site General Fill Material (1.5 feet to 5.4 feet bgs) 6-inch Diameter Sch. 10
- - 10 - - - - -		. NA	NĂ	NA	NA												Stainless Steel Riser (0.28 feet to 30.54 feet bgs) Cement- Bentonite Grout (5.4 feet to 26 feet bgs)
			RC	A	DI		Remarl	non Hori Eas (NA	-aqueous ph izontal refere t Zone (FIPS VD88).	hase liqui ence dati	d; NR = no um is the N	recove	factured gas pla rry; Sch. = Scher nerican Datum o datum is the No	dule. of 1983	(NAD83), N	lew York S cal Datum	State Plane of 1988
-		004014. CGSB-P	0002 2RA-05_C	GRW-16	.dat		Created/E Template:	-	APG lational Grid\Car	rroll Gardens	06 Notes and	Data\Con	struction\Recovery We	ells		Date Pag	

Cli	ient:	Natio	onal Grid				Boring/Well ID: CG	SB-P2RA-05 / CGRW-16
Sit	telo	cation:					Borehole Depth: 85	5.54 feet bgs
	Forn	ner Cit	izens Gas			te		
	Parc Broc	el II (E klyn, I	Block 471, New York	Lot 100))			
	(88)	ber			(mq			
(sbo	NAVD	Numl	ype	eet)	ace (pl	lumn	Stratigraphic Description	Boring/Well
(feet t	n (feet	e Run	e/Int/J	ery (fe	adspe	gic Co		Construction
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column		
	-	0,		- H	ш.	Ŭ	Drilled without sampling to 20 feet bgs.	
-	_							
		NIA	NA	NA	NA			
	_	NA	NA	INA	INA			
F	_							
- 20	-10 -				0.7	<u> </u>	Gray GRAVEL coated with Silt, some Debris (Wood fragments).	
					8.7 9.5			Cement- Bentonite
	_			2.3	10.1	\bigcirc	Black GRAVEL and COBBLES coated with Silt and Sand, some Debris	Grout (5.4 feet to 26 feet bgs)
F	_				9.6 8.5	0	(Wood fragments) coated with black viscous NAPL, soft, wet.	6-inch
-	_							Diameter Sch. 10 Stainless
								Stamess Steel Riser (0.28 feet to
-	_							30.54 feet bgs)
- 25 _	-15 -	1	20-30					
	_							Bentonite
-	-							Chips (26 feet to 28 feet bgs)
-	_							bysy bysy
-	-							
- 30 -	-20 -				96.5		Dark gray fine SAND, some Silt, trace medium Sand, trace Clay, soft, wet, light to	
-				1.0	128.6		moderate NAPL coating, moderate naphthalene-like odor.	
								#2 Sand (28 feet to 70.54 feet bgs) 6-inch Diameter 0 (220-inch
-	-							feet to 70.54 feet bgs)
-	_	2	30-40					6-inch Diameter
								0.020-inch Continuous Slot Stainless Steal Screen
	_							(30.54 feet to
<u> </u>	-25 -							70.54 feet bgs)
1							Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA non-aqueous phase liquid; NR = no recovery; Sch. = Schedule.	A = not applicable/available; NAPL =
		^		~ A			Horizontal reference datum is the North American Datum of 198 East Zone (FIPS 3101). Vertical reference datum is the North Ar	
		Ά	RC	A	UI.	5	(NAVD88).	nencan venical Datum OF 1900
Project:	: 30	004014	.0002				Created/Edited by: APG	Date: 5/13/2022
•			-:0002 P2RA-05_C	GRW-16	.dat		Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recovery Wells	Page: 2 of 5

Clien	Client: National Grid Boring/Well ID: CGSB-P2RA-05 / CGRW-16											
Site I	Site Location: Borehole Depth: 85.54 feet bgs											
Fo	rmer Ci	tizens Gas			te							
Pa Bro	rcel II (l poklyn,	Block 471, New York	Lot 100)								
D88)	nber			(mqq	_							
bgs) et NAV	n Nun	Type	feet)	ace (olumr	Stratigraphic Description	Boring/Well					
Depth (feet bgs) Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column		Construction					
Depth Elevat	Samp	Samp	Reco	H DIA	Geold							
	-											
-	_											
-	_ 2	30-40										
Ī	-											
- 40 -30				257.6	• • •	Gray SILT, some fine Sand, little medium to coarse Sand, trace fine subangular to						
-			1.8	178.2 223.2		subrounded low sphericity Gravel, soft, wet, sheen throughout, moderate naphthalene-like odor. Heavy NAPL coated Sand layer from 40.4 feet to 40.5 feet bgs. Very dark gray SILT, trace fine Sand, soft, wet, variable staining throughout,						
				195.3		moderate naphthalene-like odor. Light NAPL coating from 40.8 feet to 40.9 feet bgs. Heavy NAPL coating from 41.3 feet to 41.6 feet bgs.						
	-											
-	_											
-												
- 45 -35	_ 3	40-50										
-	_						#2 Sand (28 feet to 70.54					
							6-inch					
							0.020-inch Continuous					
-	-						Slot Stainless Steel Screen (30.54 feet to					
-	_						70.54 feet bgs)					
- 50 40												
-40				320.9 415.1		Dark gray fine SAND, little medium Sand, trace Silt, soft, wet, faint naphthalene-like odor.						
F	-			354.9		Very dark gray fine SAND, little medium Sand, trace Silt, soft, wet, heavy						
-	_			276.5 336.9		NAPL coating, moderate naphthalene-like odor.						
		50.00		288.4		Brown SILT, stiff, slight liquefaction, moist to wet, faint naphthalene-like odor.						
	_ 4	50-60	6.9	258.8								
-	_			90.2 49.4		Gray CLAY, stiff, low plasticity, moist.						
- 55 -45	_			43.3		Brown SILT, little very fine Sand, medium stiff, moist to wet.						
				45.1 115.8	••••							
						Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA non-aqueous phase liquid; NR = no recovery; Sch. = Schedule.	= not applicable/available; NAPL =					
	-					Horizontal reference datum is the North American Datum of 1983						
19	Α	RC	A	D	S	East Zone (FIPS 3101). Vertical reference datum is the North Am (NAVD88).	erican Vertical Datum of 1988					
ľ												
Project: 3	30004012	1 0002				Created/Edited by: APG	Date: 5/13/2022					
		P2RA-05_C	GRW-16	.dat		Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recovery Wells	Page: 3 of 5					

Client: National Grid Boring/Well ID: CGSB-P2RA-05 / CGRW-16									
85.54 feet bgs									
Boring/Well Construction									
#2 Sand (28 feet to 70.54 feet bgs) 6-inch Diameter 0.020-inch Continuous Slot Stainless									
reet to 70.54 feet bgs) 6-inch Diameter 0.020-inch Continuous Slot Stainless Steel Screen (30.54 feet bgs)									
Bentonite Chips (70.54 feet to 85.54 feet bgs) 6-inch									
NA = not applicable/available; NAPL = e. 983 (NAD83), New York State Plane									

Client: National Grid									CGSB-P2RA-05 / CGRW-16
Sit	e Lo	cation:						Borehole Depth:	85.54 feet bgs
F	Form	ner Cit	izens Gas Block 471,			te			
E	Broo	oklyn, N	New York	201 100	/				
	Elevation (feet NAVD88)	umber	Ø		PID Headspace (ppm)	Ľ			
et bgs	feet NA	kun Nu	nt/Typ	(feet)	space	Colum	Stratigraphic Description		Boring/Well Construction
Depth (feet bgs)	/ation (Sample Run Number	Sample/Int/Type	Recovery (feet)	Head	Geologic Column			
Del	Elev	Sar	Sar	Re	DIA	Ge	Drilled without sampling to 85.54 feet bgs.		bas)
-		NA	NA	NA	NA		Uniled without sampling to 85.54 feet bgs.		bgs) Bentonite Chips (70.54 feet to 85.54 feet bgs) 6-inch Diameter Sch. 10 Stainless Steel Sump (70.54 feet to 85.54 feet bgs)
	-						End of boring at 85.54 feet bgs.		
Ē	_								
-	-								
F	-								
-	_								
90	-80 -								
	00								
	_								
-	-								
-	_								
-	_								
- 95									
-	-85 -								
							Remarks: bgs = below ground surface; MGP = ma non-aqueous phase liquid; NR = no rec	anufactured gas pla overy; Sch. = Scheo	nt; NA = not applicable/available; NAPL = Jule.
P		Α	RC	A	DI	S	Lievizontel reference detune is the North	American Datum o	f 1983 (NAD83), New York State Plane
Project: Data Fil			.0002 2RA-05_C	GRW-16.	.dat		Created/Edited by: APG Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\	Construction\Recovery We	Date: 5/13/2022 Ils Page: 5 of 5



Cli	Client: National Grid Boring/Well ID: CGSB-P2RA-06 / CGRW-17										
Sif	te Lo	cation:					Borehole Depth: 77	feet bgs			
	Form	ner Cit	izens Gas			te					
	Parc Broo	el II (E klyn, I	Block 471, New York	Lot 100)						
	88)	ber			(mc						
(sb	NAVD	Numl	ype	eet)	tce (pl	lumn	Stratigraphic Description	Boring/Well			
(feet b	n (feet	e Run	e/Int/T	ery (fe	adspe	jic Co	Oraligi aprilo Desonpriori	Construction			
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column					
	ш	0		Ľ	Ē.	0					
	-5 -										
	_										
F		2	10-20	NR	NA						
ł	_										
_ 20	_						Black fine to medium subangular to subrounded low to medium sphericity GRAVEL, little				
					53.7		Silt and fine to coarse Sand, trace Debris (Wood fragments), soft, wet, moderate petroleum-like odor.				
-					15.6 15.5		Dark gray CLAY, trace Silt, soft, low to moderate plasticity, moist.	Cement- Bentonite			
	-10 -				72.8			Grout (1.5 feet to 27 feet bgs)			
	_				23.6 12.6			bgs)			
F					17.7			6-inch Diameter			
ŀ	_			8.3	38.3			Sch. 10 Stainless			
0.5	-				6.3 39.8		Shell fragments from 24.7 feet to 25.0 feet bgs.	Steel Riser (0.53 feet to 32 feet bgs)			
- 25		3	20-30		6.4			Jack Bigs)			
F					44.5 24.3						
-	-15 -				67.8						
	_				9.8 35.3						
F					12.5	===		Bentonite Chips (27 feet to 29.5			
-	_							feet bgs)			
2.0	-										
- 30	_				81.3		Dark gray CLAY, trace Silt, soft, moist, faint naphthalene-like odor. Scattered NAPL blebs from 30.7 feet to 31.0 feet bgs.				
-					117.0 50.0	•	Dark gray SILT, some Clay, little to trace fine Sand, soft, moist, faint to moderate sulfur-like				
-	-20 -				34.5	••••	odor.				
	_				54.3 78.1	• • • •		#2 Sand (29.5 feet to			
ŀ		4	30-40	7.4	104.5	••••	At 33.7 feet bgs, 1-inch layer of dark gray fine SAND, some Silt, little medium Sand, soft, wet, faint to moderate sulfur-like odor.	62 feet bgs)			
-	_				115.3		Dark gray SILT and very fine SAND, soft, moist to wet, faint naphthalene-like odor.	Diameter 0.020-inch			
- 35	_				177.2 196.5			Continuous Slot Stainless Steel Screen (32 feet th 62			
					276.8 256.6		Very dark gray fine SAND, some Silt, little medium to coarse Sand, trace fine angular to subangular low to high sphericity Gravel, soft, wet, moderate NAPL coating, moderate partitudence like date	(32 feet to 62 feet bgs)			
						•	naphthalene-like odor. Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA				
							non-aqueous phase liquid; NR = no recovery; Sch. = Schedule.				
C		Λ	RC	` /		C	Horizontal reference datum is the North American Datum of 1983 East Zone (FIPS 3101). Vertical reference datum is the North Am (NAVC920)				
				ノ ー		J	(NAVD88).				
Project: Data Fil			.0002 P2RA-06 C	GRW-17	dat		Created/Edited by: APG Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recovery Wells	Date: 5/13/2022 Page: 2 of 5			

	Client: National Grid Boring/Well ID: CGSB-P2RA-06 / CGRW-17												
	Site Location: Borehole Depth: 77 feet bgs Former Citizens Gas Works MGP Site												
	Parc	el II (E	Block 471, New York			le							
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring/Well Construction					
-	-25 -			7.4	391.5 407.0		Dark gray very fine SAND, some Silt, soft, slight liquefaction, wet, partings of moderate NAPL coating with scattered sheen throughout, moderate naphthalene-like odor.						
-	-	4	30-40		356.9	••••••							
- 40 - - - - 45 -	-30 -	5	40-50	5.3	607.0 366.2 328.4 415.1 531.8 427.6 615.3 383.8 299.1 353.4 401.9		 Dark gray very fine SAND and SILT, soft, wet, moderate naphthalene-like odor. Scattered light NAPL coating from 40.0 feet to 40.5 feet bgs, scattered NAPL blebs from 41.7 feet to 41.8 feet bgs, and light NAPL coating and scattered NAPL blebs from 42.0 feet to 42.8 feet bgs. At 40.5 feet bgs, 1-inch layer of very dark gray fine SAND, some Silt, soft, wet, heavy NAPL coating. Moderate naphthalene-like odor. At 41.6 feet bgs, 1-inch layer of very dark gray fine SAND, some Silt, soft, wet, heavy NAPL coating. Moderate naphthalene-like odor. At 41.8 feet bgs, 2-inch layer of very dark gray fine SAND, some Silt, soft, wet, saturated with NAPL, strong naphthalene-like odor. Very dark gray fine SAND, some Silt, soft, wet, heavy NAPL coating, strong naphthalene-like odor. Very dark gray fine SAND, some Silt, soft, wet, saturated with NAPL, strong naphthalene-like odor. Very dark gray fine SAND, some Silt, soft, wet, saturated with NAPL, strong naphthalene-like odor. Very dark gray fine SAND, some Silt, soft, wet, scattered NAPL blebs moderate naphthalene-like odor. Very dark gray fine SAND, some Silt, soft, wet, saturated with NAPL, strong naphthalene-like odor. Very dark gray fine SAND, some Silt, soft, wet, scattered NAPL blebs and sheen, moderate naphthalene-like odor. 	6-inch Diameter 0.020-inch Continuous Stot Stainless Steel Screen (32 feet to 62 feet bgs) #2 Sand (29.5 feet to 62 feet bgs)					
- 50 - - - 55	-40 -	6	50-60	4.3	258.9 381.2 375.3 315.5 289.1 257.6 283.8 31.5 24.2		Very dark gray fine SAND, some Silt, soft, wet, saturated with NAPL, strong naphthalene-like odor. Dark gray very fine SAND, little Silt, medium stiff, wet, scattered sheen. Dark gray SILT, some very fine Sand, medium stiff, wet, scattered sheen, moderate naphthalene-like odor.						
6		Α	RC		DI	S	Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA non-aqueous phase liquid; NR = no recovery; Sch. = Schedule. Horizontal reference datum is the North American Datum of 1983 East Zone (FIPS 3101). Vertical reference datum is the North Am (NAVD88).	(NAD83), New York State Plane					
	ct: 30 File: (.0002 P2RA-06_C	GRW-17	.dat		Created/Edited by: APG Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recovery Wells	Date: 5/13/2022 Page: 3 of 5					

	Client: National Grid Boring/Well ID: CGSB-P2RA-06 / CGRW-17										
	Site Lo	ocation:	:				Borehole Depth: 77	feet bgs			
	Pare	cel II (E	izens Gas Block 471,			te					
	Broo	oklyn, l	New York	1							
	88)	Der			(mc						
(sbq	Elevation (feet NAVD88)	Sample Run Number	Type	eet)	PID Headspace (ppm)	olumn	Stratigraphic Description	Boring/Well			
Depth (feet bgs)	ation (fee	iple Ru	Sample/Int/Type	Recovery (feet)	Headsp	Geologic Column		Construction			
Depi	Eleva	Sam	Sam	Rec	PID	Geo					
	-45 -	-									
	-	-									
	-	6	50-60					#2 Sand			
-	_							(29.5 feet to 62 feet bgs)			
- 60					10.8		Gray SILT, medium stiff, wet.	6-inch Diameter 0.020-inch			
-	-	7	60-62	1.8	13.3 9.3		At 60.6 feet bgs, 1-inch layer of dark gray CLAY, soft, sticky, slight plasticity, wet.	Continuous Slot Stainless Steel Screen (32 feet to 62			
-	-50 -	- 			10.1		Dark gray fine SAND, little Silt, trace medium Sand, soft, wet. Drilled without sampling to 77 feet bgs.	Steel Screen (32 feet to 62 feet bgs)			
-	-										
	-	-									
CE	-	-									
- 65	-	-									
F	-55 -										
F											
-	-										
-	-	NA	NA	NA	NA			Bentonite Chips (62 feet to 77 feet			
- 70	-	-						bgs) 6-inch Diameter			
	-	-						Sch. 10 Stainless Steel Sump			
	-60 -							(62 feet to 77 feet bgs)			
-	-	-									
F	_										
ŀ											
- 75	-]									
	_						Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA	= not applicable/available: NAPL =			
							non-aqueous phase liquid; NR = no recovery; Sch. = Schedule.				
	9	Δ	RC	Ά		S	Horizontal reference datum is the North American Datum of 1983 East Zone (FIPS 3101). Vertical reference datum is the North Am (NAVD88).				
	7 .	- 1	•	- 1							
		004014					Created/Edited by: APG	Date: 5/13/2022			
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(Client:	Natio	onal Grid					Boring/Well ID:	CGSB-P2RA-06 / CGRW-17
9	Site Lo	cation						Borehole Depth:	77 feet bgs
	Form	ner Cit	izens Gas Block 471,	S Works	MGP Sit	te			
	Broc	oklyn, l	New York		/				
	3)	er.			(u				
(sć	NAVD8	Numbe	/be	et)	ce (ppr	uur			Boring/Well
(feet b	n (feet I	e Run	e/Int/Ty	ery (fee	adspa	gic Coli	Stratigraphic Description		Construction
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column			
	-65 -	NA	NA	NA	NA		Drilled without sampling to 77 feet bgs.		Sch. 10 Schilless
							End of boring at 77 feet bgs.		62 feet to 77 feet bgs)
-	-								Bentonite Chips (62 feet to 77 feet
-	_								bgs)
- 80	_								
	_								
-	-70 -								
-									
-	_								
-	_								
- 85	_								
	_								
	-75 -								
-	_								
-									
-	_								
- 90	_								
	_								
	-80 -								
-	_								
F									
-	_								
- 95	-								
	-						-		
							Remarks: bgs = below ground surface; MGP = n non-aqueous phase liquid; NR = no re	manufactured gas pla ecovery; Sch. = Sche	nt; NA = not applicable/available; NAPL = dule.
		Λ	RC	` /		C	East Zone (FIPS 3101). Vertical refer	th American Datum c ence datum is the No	of 1983 (NAD83), New York State Plane rth American Vertical Datum of 1988
		/-\		ノ ー		J	(NAVD88).		
	. = -	00101	0000						
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Drill Drill Drill Sam	ing Co er's N ing Mo	/Finish: ompany: ame: ethod: Method	: Aquit Dave Soni : 5-inc	/2022 - 2/′ fer Drilling ≥ Moon c c th x 10-foc te Multidri	and Test ot Core Ba	-	nc. Easting: 632227.16 Client: National Surface Elevation: 11.79 feet Casing Elevation: 11.54 feet Location: Borehole Denth: 77 foot hos							lational G Citizens ((Block 4	Gas Works MGP Site 71, Lot 100)				
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column			Stra		Boring/Well Construction								
-	-																12-inch Diameter Flush- Mounted Cast Iron Frame and Cover		
	10	1	0-10	NR	NA		NO RECOVE	RY.									 Concrete Pad #2 Sand Drain (0.5 feet to 1.5 feet bgs) 6-inch Diameter Sch. 10 Stainless Steel Riser (0.25 feet to 32 feet bgs) Cement- Bentonite 		
- 10 - - - 15		2	10-20	2.8	56.2 43.1 39.5 28.7 59.6 62.1		Black DEBRI sphericity Gra petroleum-lik	avel, Cobble	ragments), es, fine to ci	little Silt a	nd fine to co	arse angu scattered	ilar to subanı	gular low			Grout (1.5 feet to 28 feet bgs)		
			RC		DI		Remarks	non-ad Horizc East Z (NAVI	queous ph ontal refere Zone (FIPS D88).	nase liqui ence datu	d; NR = no ım is the N	o recover	y; Sch. = S erican Datu	chedule. Im of 1983	= not applic (NAD83), N erican Verti	Vew York S cal Datum	of 1988		
		004014. CGSB-P	0002 2RA-07_C	GRW-18	.dat		Created/Edit Cemplate: G		APG onal Grid\Car	roll Gardens	06 Notes and	Data\Constr	ruction\Recove	ry Wells		Date Page			

Page:

	Client: National Grid Boring/Well ID: CGSB-P2RA-07 / CGRW-18										
	Site Lo	ocation					Borehole Depth: 77	feet bgs			
	Parc	cel II (E	izens Gas Block 471,			te					
	Broo	okiyn, l	New York								
	D88)	lber			(mqc						
et bgs)	Elevation (feet NAVD88)	Sample Run Number	t/Type	(feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring/Well Construction			
Depth (feet bgs)	vation (fe	mple R	Sample/Int/Type	Recovery (feet)	Heads	ologic (Construction			
De	Ele	Sa	Sa	Re	ЫС	Ge					
-	-5 -										
ļ	-	2	10-20								
_	-	-									
_ 20	-										
	-	_		1.8	68.9 90.2		Black SILT, little Clay and fine Sand, trace medium to coarse Sand, Cobbles, and Debris (Wood fragments), soft, wet, scattered NAPL blebs, staining, petroleum-like odor.				
_	-10 -			1.0	70.1 93.1			Cement- Bentonite			
ŀ	_							Grout (1.5 feet to 28 feet bgs)			
ŀ								6-inch Diameter			
-	-	-						Sch. 10 Stainless Steel Riser (0.25 feet to			
- 25	-	3	20-30					(0.23 feet to 32 feet bgs)			
-	-	-									
-	-15 -	_									
-	-										
-	-							Bentonite Chips (28 feet to 30 feet			
- 30	-							bgs)			
	_			1.3	NA		DEBRIS (WOOD fragments).				
	-20 -	_									
	_	_						#2 Sand (30			
-		4	30-40								
ŀ	-							teet to 62 feet bgs) 6-inch Diameter 0.020-inch Continuous			
- 35	-	1						Slot Stainless Steel Screen			
_		-					Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA	feet bgs)			
		-					non-aqueous phase liquid; NR = no recovery; Sch. = Schedule. Horizontal reference datum is the North American Datum of 1983				
	1	А	RC	A	D	S	East Zone (FIPS 3101). Vertical reference datum is the North Am (NAVD88).	erican Vertical Datum of 1988			
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	Client:	Natio	onal Grid				Boring/Well ID: CGS	B-P2RA-07 / CGRW-18
							Borehole Depth: 77	feet bgs
	Site Lo			10/	MODIO	to.		
	Parc	el II (E	izens Gas Block 471,			le		
	Broo	oklyn, l	New York					
	(880	lber			(mq			
(sb	Ξlevation (feet NAVD88)	Sample Run Number	ype	et)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring/Well
Depth (feet bgs)	(feet	Run	Sample/Int/Type	Recovery (feet)	dspa	c Col	Stratigraphic Description	Construction
pth (f	/ation	nple	nple,	covel	Неа	ologi		
Del	Elev	Sar	Sar	Re	DIA	Ge		
F	-25 -							
	_							
-		4	30-40					
-	-							
- 40	_				172.6		Very dark gray SILT and very fine SAND, soft, slight liquefaction, wet, scattered sheen	
	-				317.8		throughout, faint naphthalene-like odor. Fine Sand dominated layer, heavy NAPL coating from 40.8 feet to 40.9 feet	
					357.1		bgs.	
-	-30 -			4.0	235.1			
	_	5	40-45		393.1 251.7			
F					191.5			
_	_				318.6		Moderate NAPL coating from 43.3 feet to 43.8 feet bgs.	
- 45	_				050.0		Very dark gray very fine SAND and SILT, soft, wet, scattered sheen throughout, staining,	6-inch
	_				256.2 193.1		faint naphthalene-like odor.	Diameter 0.020-inch Continuous
-					271.3			Slot Stainless
_	-35 -			4.0	503.1			(32 feet to 62
		6	45-50		178.2		Black fine SAND, little Silt, soft, wet, heavy NAPL coating, moderate naphthalene-like odor. Very dark gray very fine SAND and SILT, soft, slight liquefaction, wet, scattered sheen	#2 Sand (30
-	_				193.3 205.8		throughout, faint naphthalene-like odor. Black fine SAND, little Silt, soft, wet, moderate naphthalene-like odor.	feet to 62 feet bgs)
	-				159.8			
[
- 50	-				050 -		Very dark gray fine SAND, little medium Sand, little Silt, soft, wet, moderate NAPL coating,	
	_				252.7 512.8		moderate naphthalene-like odor.	
F					212.8		Black fine SAND, little medium Sand and Silt, soft, wet, saturated with NAPL, strong naphthalene-like odor.	
Ļ	-40 -			3.5	195.3		Very dark gray very fine SAND and SILT, soft, wet, staining, faint naphthalene-like odor.	
		7	50-55		176.1		Light NAPL coating from 53.0 feet to 53.3 feet bgs.	
F	_				109.1 99.3		Black fine SAND, little Silt, soft, wet, moderate NAPL coating, moderate naphthalene-like odor.	
	-					•~• ~ • ~ •		
- 55	-						Very dark gray fine SAND, little Silt, soft, wet, moderate NAPL coating, moderate	
	_	8	55-60	4.0	389.1 276.5		naphthalene-like odor. Dark grayish brown SILT and very fine SAND, soft, wet, scattered sheen.	
			1	1	210.0	10000	Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA	
1							non-aqueous phase liquid; NR = no recovery; Sch. = Schedule.	
		Λ		` ∧ '		C	Horizontal reference datum is the North American Datum of 1983 East Zone (FIPS 3101). Vertical reference datum is the North Am	
		Α	RC	A		C	(NAVD88).	
	at ac	00404	0000					D-1 5/10/2022
	ect: 30 File: (.0002 P2RA-07_C	GRW-18	.dat		Created/Edited by: APG Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recovery Wells	Date: 5/12/2022 Page: 3 of 5
							. , , , , , , , , , , , , , , , , , , ,	v

Borehole Depth: 77 feet bgs

Site Location:

	Broo	oklyn, f	Vew York					
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring/Well Construction
-	-45 - -	8	55-60	4.0	220.8 197.5 223.5 151.2 123.3 109.8		Dark grayish brown SILT and very fine SAND, soft, wet, scattered sheen, faint naphthalene-like odor. Very dark gray fine SAND, little Silt, soft, wet, heavy NAPL coating, moderate naphthalene-like odor. Dark grayish brown SILT, some fine Sand, soft, wet, faint naphthalene-like odor.	#2 Sand (30 feet to 62 feet bgs) 6-inch
- 60		9	60-62	2.0	218.5 227.3 138.3 115.1		Very dark gray fine SAND, little Silt, soft, wet, moderate NAPL coating, moderate naphthalene-like odor. Dark gray SILT, some very fine Sand, little Clay, soft, slight liquefaction, wet, faint naphthalene-like odor.	Image: Constraint of the second se
- 65	-55 -	NA	NA	NA		V	Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA non-aqueous phase liquid; NR = no recovery; Sch. = Schedule. Horizontal reference datum is the North American Datum of 1983 East Zone (FIPS 3101). Vertical reference datum is the North Arr (NAVD88).	8 (NAD83), New York State Plane
Proje	ct: 30	004014					Created/Edited by: APG Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recovery Wells	Date: 5/12/2022 Page: 4 of 5
_ a.u								

	Client:	Natio	onal Grid					Boring/Well ID:	CGSB-P2RA-07 / CGRW-18
	Site Lo	cation:						Borehole Depth:	77 feet bgs
	Form	ner Cit	izens Gas Block 471,	Works	MGP Sit	te			
	Broc	oklyn, I	New York	201100	,				
	()	L			(٢				
ls)	JAVD88	Jumbe	be	t)	e (ppr	um			Boring/Well
feet bç	i (feet N	Run N	/Int/Ty	ry (fee	idspac	c Colu	Stratigraphic Description		Construction
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column			
	ш	00 NA	NA	NA	NA	0	Drilled without sampling to 77 feet bgs.		Sch. 10 Stainless
	-65 -						End of boring at 77 feet bgs.		Steel Sump (62 feet to 77
-	_								feet bgs) Bentonite Chips (62
	_								feet to 77 feet bgs)
	_								
- 80									
-	_								
-	-70 -								
	-								
	_								
-									
- 85	_								
-	-								
	-75 -								
	_								
F	_								
- 90	-								
-	-								
	-80 -								
ŀ	_								
-	-								
- 95	-								
	_								
							Remarks: bgs = below ground surface; MGP = n non-aqueous phase liquid; NR = no re	manufactured gas pla ecovery; Sch. = Sche	ant; NA = not applicable/available; NAPL = edule.
		Λ		>			Horizontal reference datum is the Nor East Zone (FIPS 3101). Vertical refer	rth American Datum o ence datum is the No	of 1983 (NAD83), New York State Plane orth American Vertical Datum of 1988
		/4	RC	A		C	(NAVD88).		
		004014 CGSB-F	.0002 P2RA-07_C	GRW-18	.dat		Created/Edited by: APG Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Da	ta\Construction\Recovery Wo	Date: 5/12/2022 rells Page: 5 of 5

Drilling Method: Sonic Surface Elevation: 9.89 feet Location: Sampling Method: 5-inch x 10-foot Core Barrel Sonic 9.19 feet Location: Rig Type: Fraste Multidrill XL Max Borehole Depth: 89.29 feet bgs Former Citizens Gas Borehole Diameter: 10 inches Descriptions By: Andrew Gibson Brooklyn, New York	1, Lot 200)
Depth (feet bgs) Elevation (teet NAVD88) Sample Run Number Sample/Int/Type Recovery (feet) PID Headspace (ppm) Geologic Column Geologic Column	Boring/Well Construction
Drilled without sampling to 20 feet bgs.	12-inch Diameter Flush- Mounted Cast Iron Frame and Cover
	Concrete Pad #2 Sand Drain (0.9 feet to 1.5 feet bgs) X X X X X X X X X X X X X X X X X X X
	Stainless Steel Riser (0.60 feet to 34.29 feet bgs) Cement- Bentonite Grout (7.1 feet to 27 feet bgs)
Project: 30004014.0002 Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA = ne non-aqueous phase liquid; NR = no recovery; Sch. = Schedule. Horizontal reference datum is the North American Datum of 1983 (NA East Zone (FIPS 3101). Vertical reference datum is the North American (NAVD88).	IAD83), New York State Plane

Client:	National	Grid
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Borehole Depth: 89.29 feet bgs

Site Location:

Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Z Sample/Int/Type	Kecovery (feet)	PID Headspace (ppm)	Geologic Column	Drilled without sampling to 20 feet bgs.		
- 20 - - - -	-10 -			7.7	9.7 18.6 21.5 17.5 10.1 9.5 385.0 289.2		Very dark gray ROCK, light sheen in water within sample sleeve. [FILL] At 21.2 feet bgs, 1-inch layer of very dark gray CLAY, some fine Sand, some Silt, little crushed Rock fragments, soft, sticky, moist to wet. At 21.7 feet bgs, 3-inch layer of very dark gray CLAY, some fine Sand, some Silt, little crushed Rock fragments, soft, sticky, moist to wet. Black CLAY, little Silt, trace fine Sand, soft, sticky, wet, staining.	Cement- Bentonite Grout (7.1 feet to 27 feet bgs) 6-inch Diameter Sch. 10	
-	-20 -	1	20-30		155.8 261.4 65.1 257.4 345.0 148.4		Black DEBRIS (WOOD fragments), heavily coated with black viscous NAPL. Black SILT, some Clay, trace fine Sand, soft, moist, staining. Black to brown DEBRIS (WOOD fragments), black staining at top transitioning downward to presumed natural color at bottom.	Bentonite Chips (27 feet bgs)	
- 30 - - - 35	-20 -	2	30-40	7.3	330.1 329.6 293.1 146.0 386.0 167.1 284.0 334.7 354.2 253.9 89.0 293.2		Black SILT, some fine Sand, trace medium Sand, soft, wet, moderate NAPL coating in Sand dominated layers at 30.3 feet at 30.6 feet bgs, moderate naphthalene-like odor. Dark gray SILT, trace fine Sand, medium stiff, moist, faint naphthalene-like odor. At 31.3 feet bgs, 0.5-inch layer of black fine SAND, some medium Sand, little coarse Sand, trace subangular to subrounded low to medium sphericity fine Gravel and Silt, soft, wet, heavy NAPL coating, moderate naphthalene-like odor. Dark grayish brown fine SAND, some medium Sand, little coarse Sand, soft, wet, light NAPL coating, moderate naphthalene-like odor. Black fine SAND, some medium Sand, little coarse Sand, soft, wet, light NAPL coating, moderate naphthalene-like odor. Black fine SAND, some medium Sand, soft, slight liquefaction, wet, moderate NAPL coating, moderate naphthalene-like odor. Very dark grayish brown fine SAND, some medium Sand, little coarse Sand, trace medium subrounded low sphericity Gravel, soft, wet, light NAPL coating, moderate naphthalene-like odor.	#2 Sand (29.5 feet to 74.29 feet bgs) 6-inch Diameter 0.020-inch Continuous Slot Stainless Steel Screen (34.29 feet to	
	293.2 Dark grayish brown SILT, little fine Sand, trace medium to coarse Sand and fine (34.29 feet to (34.29 feet to (34.29 feet to) (34.29 feet to) (34.29 feet to) <tr< td=""></tr<>								

Borehole Depth: 89.29 feet bgs

Site Location:

	Broo	Brooklyn, New York								
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring/Well Construction		
-	_			7.3	102.3 352.0 102.6		Dark grayish brown SILI, little tine Sand, trace medium to coarse Sand and tine subangular to subrounded low to medium sphericity Gravel, stiff, moist, faint naphtagyish brown StLT, stiff, moist.	bgs)		
-	-30 -	2	30-40							
- 40 - -	-30 - -			6.6	279.8 194.8 260.0 313.9 398.3 267.2 170.0 174.0		 Grayish brown SILT, stiff, moist, faint naphthalene-like odor. Dark grayish brown SILT, some very fine Sand, medium stiff, slight to moderate liquefaction, wet, moderate naphthalene-like odor. Heavy NAPL coating from 41.0 feet to 41.3 feet bgs. Heavy NAPL coating from 41.8 feet to 41.9 feet bgs and at 42.4 feet bgs. Heavy NAPL coating from 43.0 feet to 43.1 feet bgs. NAPL blebs at 43.5 feet bgs. 			
- 45 - -	-35 - -	3	40-50		148.3 255.2 86.2 87.7 56.1 77.1		Scattered sheen from 43.7 feet to 44.3 feet bgs. Dark grayish brown fine SAND, little Silt, trace medium Sand, soft, wet, light NAPL coating, moderate naphthalene-like odor. Grayish brown very fine SAND, some Silt, little fine Sand, soft, slight liquefaction, wet, moderate naphthalene-like odor. Scattered sheen from 44.7 feet to 45.5 feet bgs. Olive brown and dark greenish gray CLAY, some Silt, trace very fine Sand, medium soft, slight plasticity, moist.	#2 Sand (29.5 feet to 74.29 feet bgs) 6-inch Diameter 0.020-inch		
- - - 50 -	-40 -				348.3 335.9 337.2 264.8 300.6		Grayish brown fine SAND, some very fine Sand, little Silt, trace medium Sand, soft, wet, faint naphthalene-like odor. Black fine SAND, some medium Sand, little coarse Sand, soft, wet, moderate NAPL coating, moderate naphthalene-like odor.	Continuous Slot Stainless Steel Screen (34.29 feet to 74.29 feet bgs)		
- 55	- -45 -	4	50-60	5.7	353.9 325.9 162.2		Brown very fine SAND, some fine Sand, some Silt, soft, wet, light NAPL coating, moderate naphthalene-like odor. Brown very fine SAND and SILT, soft, slight liquefaction, wet. Scattered sheen from 53.8 feet to 53.9 feet bgs and 54.4 feet to 54.5 feet bgs.			
•	Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA = not applicable/available; NAPL = non-aqueous phase liquid; NR = no recovery; Sch. = Schedule. Horizontal reference datum is the North American Datum of 1983 (NAD83), New York State Plane East Zone (FIPS 3101). Vertical reference datum is the North American Vertical Datum of 1988 (NAVD88).									
		004014 CGSB-F	.0002 P3RA-03_C	GRW-19	l.dat		Created/Edited by: APG Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recovery Wells	Date: 5/13/2022 Page: 3 of 5		

Clien	t: Natio	onal Grid				Boring/Well ID: CGS	SB-P3RA-03 / CGRW-19I
Site I	_ocation	:				Borehole Depth: 89.	29 feet bgs
Fo	rmer Ci	tizens Gas			te		
Pa Bro	rcel III (ooklyn,	Block 471 New York	, Lot 200))			
88)	ber			(mď			
ogs) t NAVE	Num	Type	set)	ace (p	lumn	Stratigraphic Description	Boring/Well
(feet l on (fee	e Rur	e/Int/]	ery (fe	eadspe	gic Cc		Construction
Depth (feet bgs) Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column		
			-	ш			
-	-						
	- 4	50-60					
	4	50-60					
-	-						
60 -50						Dark gravish brown fine SAND, little Silt, soft, wet.	
	_			4.7 3.8			
Ī				5.3		Dark gray SILT, medium stiff, moderate liquefaction, wet.	
-	-			3.9 3.0			
_	_		5.0	2.7			
				2.5			
-	-			3.1 4.6			
65 -55	- 5	60-70		9.1	••••		#2 Sand (29.5 feet to
							#2 Sand (29.5 feet to 74.29 feet bgs) 6-inch
-							6-inch Diameter
-	-						Diameter 0.020-inch Continuous Slot Stainless Steel Screen (34.29 feet to
	_						
							74.29 feet bgs)
-	-						
-70 -60					0.0.0.0		
			1.3	30.3 18.7		Dark gray fine SAND, some very fine Sand, little Silt, soft, wet.	
-	6	70-73		10.2			
-	-	10-13					
	_						
ſ						Drilled without sampling to 89.29 feet bgs.	
F	-						
- 75 -65	NA	NA	NA	NA			Bentonite Chips (74.29
							feet to 89.29 feet bgs)
	-	1	1	1	1	Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA	= not applicable/available; NAPL =
						non-aqueous phase liquid; NR = no recovery; Sch. = Schedule.	(NADR3) Now York State Diana
G	Δ	RC	` Λ Ι		5	Horizontal reference datum is the North American Datum of 1983 East Zone (FIPS 3101). Vertical reference datum is the North Am (NAVD88).	
	/~					(14.14.200).	
Project: 3 Data File:		4.0002 P3RA-03_C	GRW-19	l.dat		Created/Edited by: APG Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recovery Wells	Date: 5/13/2022 Page: 4 of 5

C	Client: National Grid						Bori	ing/Well ID: C	GSB-P3RA-03 / CGRW-19I
s	Site Lo	ocation					Bore	ehole Depth:	89.29 feet bgs
			izens Gas Block 471			te			
	Broo	oklyn, l	New York	, _5, 20(- /				
	3)	Ļ			(u				
(sť	NAVD8	Numbe	be	et)	e (ppn	um			Boring/Well
(feet bç	n (feet I	e Run l	e/Int/Ty	ary (fee	adspac	jic Colt	Stratigraphic Description		Construction
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column			
- - - - - - - - - - - - - - - - - - -	-70 - -70 - - -75 - -	NA NA	NA	NA	NA		Drilled without sampling to 89.29 feet bgs.		Bentonite Stainless Steel Sump (74.29 feet to 88.29 feet bgs) Bentonite Chips (74.29 feet to 89.29 feet bgs) 6-inch Diameter Sch. 10 Stainless Steel Sump (74.29 feet to 89.29 feet bgs) 9-inch Diameter Sch. 10 Stainless Steel Sump (74.29 feet to 89.29 feet bgs)
90	-80 -						End of boring at 89.29 feet bgs.		
	-								
Ī	_								
F	_								
ŀ	_	-							
ŀ	_	-							
- 95	-85 -	-							
	-								
Γ							Remarks: bgs = below ground surface; MGP = manuface non-aqueous phase liquid; NR = no recovery		
F		A	RC	A	DI	S	Horizontal reference datum is the North Ame East Zone (FIPS 3101). Vertical reference da (NAVD88).		
-)004014 CGSB-I	.0002 P3RA-03_C	GRW-19	.dat		Created/Edited by: APG Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Constru	ruction\Recovery Wells	Date: 5/13/2022 Page: 5 of 5

Date Start/Finish: Drilling Company: Driller's Name: Drilling Method: Sampling Method: Rig Type:			: Aqui Dave Soni : 5-inc	4/2021 - 1 fer Drilling e Moon c c th x 10-foo te Multidri) and Tesi ot Core Ba	ting, In arrel	Easting:632136.11Client:NSurface Elevation:9.98 feetCasing Elevation:9.55 feetLocation:Borehole Depth:118.45 feet bgsFormer (Borehole Diameter:10 inchesParcel II	Boring/Well ID: CGSB-P3RA-04 / CGRW-19D Client: National Grid Location: Former Citizens Gas Works MGP Site Parcel III (Block 471, Lot 200) Brooklyn, New York			
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring/Well Construction			
-								12-inch Diameter Flush- Mounted Cast Iron Frame and Cover			
- - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - -	NA	ΝΑ	NA	NA		Drilled without sampling to 20 feet bgs.	Concrete Pad #2 Sand Drain (0.6 feet to 1.5 feet bgs) * * * * * * * * * * * * * * * * * * *			
- - 15	_ _5 _							Cement- Bentonite Grout (10.8 feet to 67.5 feet bgs)			
C		A	RC	A	DI	S	Remarks: bgs = below ground surface; MGP = manufactured gas non-aqueous phase liquid; NR = no recovery; Sch. = Sr Horizontal reference datum is the North American Datu East Zone (FIPS 3101). Vertical reference datum is the (NAVD88).	chedule. m of 1983 (NAD83), New York State Plane			
		004014. CGSB-P	0002 '3RA-04_C	GRW-19	D.dat		reated/Edited by: APG emplate: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recover	Date: 5/13/2022 y Wells Page: 1 of 7			

Client:	National	Grid
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Borehole Depth: 118.45 feet bgs

Site Location:

	Broo	okiyn, i	New York						
Depth (feet bgs)	Elevation (feet NAVD38)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring/Well Construction	
-	-	NA	NA	NA	NA		Drilled without sampling to 20 feet bgs.		
- 2	0 -10 - - - 5 -15 -	1	20-30	6.0	117.1 95.1 256.4 156.9 145.0 117.8 75.0 66.4 100.1 132.0 251.7 360.4		Black fine to coarse SAND and angular to subangular GRAVEL, wet, sheen, moderate naphthalene-like odor. Black fine SAND, some Silt, little Clay, trace Gravel, wet, saturated with viscous NAPL, strong naphthalene-like odor. Dark gray to black CLAY, some Silt, little fine Sand, little Debris (Wood fragments), stiff, trace sheen, faint naphthalene-like odor. Dark brown to brown DEBRIS (WOOD fragments), moderate NAPL coating, moderate naphthalene-like odor.	Cement- Bentonite Grout (10.8 feet to 67.5 feet bgs) 6-inch	
- 3	-	2	30-40	8.0	343.0 259.1 297.5 339.5 297.1 396.4 294.3 251.0 170.9 155.0 151.4		Very dark gray CLAY, trace Silt, moderate stiffness, moist. Dark gray to brown fine SAND, little Silt, little medium Sand, soft, loose, moist, moderate NAPL coating, moderate naphthalene-like odor.	Diameter Sch. 10 Stainless Steel Riser (0.43 feet to 73.45 feet bgs)	
	129.2 Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA = not applicable/available; NAPL = non-aqueous phase liquid; NR = no recovery; Sch. = Schedule. Horizontal reference datum is the North American Datum of 1983 (NAD83), New York State Plane East Zone (FIPS 3101). Vertical reference datum is the North American Vertical Datum of 1988 (NAVD88). roject: 30004014.0002 Created/Edited by: APG Date: 5/13/2022								

Boring/Well ID: CGSB-P3RA-04 / CGRW-19D

Borehole Depth: 118.45 feet bgs

Site Location:

	Broc	oklyn, l	New York									
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring/Well Construction				
-		2	30-40	8.0	117.9 104.3		Brown fine SAND and SILT, little medium Sand, moist, moderate to heavy NAPL coating, moderate naphthalene-like odor.					
- 40	-30 - -				313.8 115.7 213.6 222.9 215.7 117.6		Brown to gray SAND and SILT, little medium Sand, trace Clay, moderate stiffness, moist, layers of moderate to heavy NAPL coating and sheen, strong naphthalene-like odor. Brown to gray SILT, little fine Sand, little Clay, stiff, moist, layers of moderate to heavy NAPL coating and sheen, strong naphthalene-like odor.					
- 45	-35 -	3	40-50	9.0	9.0	9.0	9.0	9.0	114.0 201.0 217.4 356.9 241.3 117.3 141.7 72.3 40.9		Heavy NAPL coating from 44.5 feet to 44.9 feet bgs. Brown SILT, trace fine Sand, trace Clay, very stiff, moist to dry, trace NAPL blebs, faint naphthalene-like odor.	Cement- Bentonite Grout (10.8 feet to 67.5 feet bgs) 6-inch Diameter
- - 50	-40 -				22.0 17.4 44.1 30.9 40.7 19.4		Brown fine SAND and SILT, some medium Sand, moderately stiff, moist.	Sch. 10 Stainless Steel Riser (0.43 feet to 73.45 feet bgs)				
- - - 55	- - 45 -	4	50-60	8.0	13.4 22.0 44.8 142.1 117.9 159.0 204.3 255.3 317.4 322.0		Brown fine SAND, some Silt, sheen, moderate naphthalene-like odor. Moderate NAPL coating from 53.0 feet to 53.5 feet bgs. Heavy NAPL coating from 53.5 feet to 57.3 feet bgs.					
C	Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA = not applicable/available; NAPL = non-aqueous phase liquid; NR = no recovery; Sch. = Schedule. Horizontal reference datum is the North American Datum of 1983 (NAD83), New York State Plane East Zone (FIPS 3101). Vertical reference datum is the North American Vertical Datum of 1988 (NAVD88).											
Projec Data F			I.0002 P3RA-04_C	GRW-19	D.dat		Created/Edited by: APG Template: G:Clients/National Grid/Carroll Gardens/06 Notes and Data/Construction/Recovery Wells	Date: 5/13/2022 Page: 3 of 7				

Borehole Depth: 118.45 feet bgs

Site Location:

	Broo	okiyn, i	New York								
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type				Stratigraphic Description	Boring/Well Construction			
-		4	50-60	8.0	301.4 277.7 176.4 189.3		Brown fine SAND, some Silt, sheen, moderate naphthalene-like odor. Heavy NAPL coating from 53.5 feet to 57.3 feet bgs. Moderate NAPL coating from 57.3 feet to 58.0 feet bgs.				
- 60 - - - - 65 -	-50 - - - - - - - - 55 - -	5	60-70	8.3	3.4 3.0 2.3 2.1 3.5 3.6 3.3 4.4 4.8 5.2 5.1 4.9 5.7 4.8 2.4		Grayish brown fine SAND, some Silt, trace Clay, moist to wet. Grayish brown CLAY, some Silt, trace fine Sand, moderate liquefaction, moderate stiffness, moist to wet. Grayish brown fine SAND, some Silt, trace Clay, trace subround Gravel, moist.	Cement- Bentonite Grout (10.8 feet to 67.5 feet bgs) 6-inch Diameter Sch. 10 Stainless Steel Riser (0.43 feet to 73.45 feet bgs)			
- - 70 - -	-60 -	6	70-80	5.3	1.7 63.6 44.7 66.8 32.6 90.9 171.7 356.1		Grayish brown fine SAND, some medium Sand, loose, moist, moderate naphthalene-like odor. Some seams of light NAPL coating from 72.7 feet to 74.5 feet bgs. Some Silt from 73.0 feet to 73.5 feet bgs.	Bentonite Chips (67.5 feet to 70 feet bgs) #2 Sand (70 feet to 103.45 feet bgs) 6-inch Diameter 0.020-inch Continuous			
Projec	342.0 342.0 Trace Silt, moderate to heavy NAPL coating, strong naphthalene-like odor from 74.5 feet to 75.3 feet bgs. Stot Stainless Steel Screen (73,45 feet to 103,45 feet to 104,45 fe										

Client	Client: National Grid Boring/Well ID: CGSB-P3RA-04 / CGRW-19D Borehole Denth: 118 45 fact bas											
Site L	ocation	:				Borehole Depth: 11	8.45 feet bgs					
		tizens Gas Block 471			te							
Bro	ooklyn, Ì	New York	, -	~ /								
vD88)	mber			PID Headspace (ppm)	Ē							
t bgs) eet NA	nN ur	t/Type	(feet)	pace	Colum	Stratigraphic Description	Boring/Well					
Depth (feet bgs) Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	leads	Geologic Column		Construction					
Dept Eleva	Sam	Sam	Recc	PID F	Geol							
- ·	-											
-	- 6	70-80										
	Ū	10.00										
-	-											
- 80 - 70												
				4.5 10.2		Brown SILT, some rounded to angular Gravel (increasing roundness with depth), little fine Sand, little Clay, moderate stiffness, medium to very dense, moist.						
-	-			30.8	• • • •							
-	-			23.8	• • • •							
				15.2 81.4	•							
-				33.1	••••							
	-			23.7	••••							
- 85 - 75			8.6	9.7 11.0	• • • •							
_ 85 75	7	80-90		23.7	• • • •							
-	-			11.0 12.2	• • • •		#2 Sand (70 feet to 103.45 feet bgs)					
. .	_			5.3	•		6-inch Diameter					
				4.5	• • • •		0.020-inch Continuous					
-	-			3.3 3.5	•		Slot Stainless Steel Screen (73.45 feet to					
-	_				_•_		103.45 feet bgs)					
- 90 -80				14.2		Brown fine to medium SAND, little coarse Sand, little Silt, loose, slight liquefaction, moist to wet, faint naphthalene-like odor.						
- ·	-			19.1 114.0								
				99.6								
				224.1								
-	- 8	90-100	5.7	93.5 156.6								
	_			283.0								
				117.9 51.8								
95 -85	1			188.0		Brown SILT, some fine Sand, little subround Gravel, wet.						
						Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA	= not applicable/available: NAPL =					
						non-aqueous phase liquid; NR = no recovery; Sch. = Schedule.	not approable/available, IVAF L -					
	Λ		` ∧ '		C	Horizontal reference datum is the North American Datum of 1983 East Zone (FIPS 3101). Vertical reference datum is the North Am						
	/~	RC	ノト		J	(NAVD88).						
Project: 3						Created/Edited by: APG	Date: 5/13/2022					
Data File:	CGSB-	P3RA-04_C	GRW-19	D.dat		Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recovery Wells	Page: 5 of 7					

Client	t: Natio	onal Grid				Boring/Well ID: CGS	B-P3RA-04 / CGRW-19D
Site L	ocation	:				Borehole Depth: 118	3.45 feet bgs
For	rmer Ci	tizens Gas			te		
Pai Bro	rcel III (poklyn,	Block 471 New York	, Lot 200	J)			
/D88)	nber			(mqq	_		
t bgs) eet NAV	INN UN	t/Type	(feet)	pace	Colum	Stratigraphic Description	Boring/Well Construction
Depth (feet bgs) Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column		Construction
Depi	Sam	Sam	Rec	PID I	Geo		
-	-						
-	- 8	90-100					
	_						
							#2 Sand (70 feet to 103.45
- 100 -90	1			15.7		Brown SILT, some fine Sand, some subround Gravel, moderate stiffness, wet.	feet bgs) 6-inch
-	-		2.0	19.8 21.0			Diameter 0.020-inch Continuous
-	9	100-103		26.7		Brown fine to medium SAND, some subround to subangular Gravel, loose, moist to dry.	Slot Stainless Steel Screen (73 45 feet to
							(73.45 feet to 103.45 feet bgs)
-						Drilled without sampling to 118.45 feet bgs.	bgs)
-	-						
- 105 -95	_						
-	-						
-	-						
-	_						
-	NA	NA	NA	NA			Bentonite Chips
- 110-100							(103.45 feet to 118.45 feet bgs)
-	_						6-inch Diameter
							Sch. 10 Stainless
-	1						Steel Sump (103.45 feet to 118.45 feet
-	-						bgs)
-	_						
<u> </u>	1						
						Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA	= not applicable/available; NAPL =
						non-aqueous phase liquid; NR = no recovery; Sch. = Schedule.	
G	Λ	RC	` \			Horizontal reference datum is the North American Datum of 1983 East Zone (FIPS 3101). Vertical reference datum is the North Am (NAVD88).	
	/~				J		
Project: 3 Data File:		4.0002 P3RA-04_C	GRW-19	D.dat		Created/Edited by: APG Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recovery Wells	Date: 5/13/2022 Page: 6 of 7

Ċ	lient:	Natio	nal Grid					Boring/Well ID: CC	GSB-P3RA-04 / CGRW-19D
5	Site Lo	cation:						Borehole Depth:	18.45 feet bgs
			izens Gas Block 471			te			
	Broc	oklyn, N	New York	, LUI 200))				
	VD88)	mber	0		PID Headspace (ppm)	Ē			
et bgs	eet NA	un Nu	it/Type	(feet)	space	Colum	Stratigraphic Description		Boring/Well Construction
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	Head	Geologic Column			
De	Elev	Sar	Sar	Rec	DID	Ge	Drilled without sampling to 118.45 feet bgs.		
-	-	NA	NA	NA	NA				Bentonite Chips (103.45 feet to 118.45 feet bgs)
-									6-inch Diameter
-	_						End of boring at 118.45 feet bgs.		Sch. 10 Stainless Steel Sump
- 120	-110 —								(103.45 feet to 118.45 feet bgs)
-	-								
-	_								
-	-								
- 125	-115 -								
_	_								
F	_								
-	_								
- 130	-120 -								
-	_								
-	-								
-	-								
- 135	-125 -								
- 100	123								
				1			Remarks: bgs = below ground surface; MGP = r non-aqueous phase liquid; NR = no re		
		_				-		th American Datum of 198	33 (NAD83), New York State Plane
ß		Α	RC	Ά		S	East Zone (FIPS 3101). Vertical refer (NAVD88).	ence datum is the North A	merican Vertical Datum of 1988
ľ	, -					_			
Projec	ct: 30	004014	.0002				Created/Edited by: APG		Date: 5/13/2022

Drill Drill Drill Sam	ing Co er's Na ing Me	/Finish: ompany: ame: ethod: Method	: Aquit Dave Sonio : 5-inc	D/2021 - 1 fer Drilling Moon c h x 10-foc te Multidril	and Test ot Core Ba	ting, In arrel	Northing:671391.12Easting:632064.28Surface Elevation:9.90 feetCasing Elevation:9.30 feetBorehole Depth:88 feet bgsBorehole Diameter:10 inchesDescriptions By:Andrew Gibson	Boring/Well ID: CGSB-P3RA-05 / CGRW-201 Client: National Grid Location: Former Citizens Gas Works MGP Site Parcel III (Block 471, Lot 200) Brooklyn, New York			
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description		Boring/Well Construction		
-							led without sampling to 20 feet bgs.		12-inch Diameter Flush- Mounted Cast Iron Frame and Cover		
- - 5 -	- - 5- -	ΝΑ	ΝΑ	ΝΑ	NA				6-inch Diameter Sch. 10		
- - 10 - - - - -	-5 -								Stainless Steel Riser (0.6 feet to 43 feet bgs) Cement- Bentonite Grout (1.5 feet to 39 feet bgs)		
Projec	ct: 30	004014.	RC 0002 3RA-05_C				marks: bgs = below ground surface; MGP = ma non-aqueous phase liquid; NR = no reco Horizontal reference datum is the North East Zone (FIPS 3101). Vertical reference (NAVD88).	very; Sch. – Schedule. American Datum of 1983 (NAE e datum is the North Americar	D83), New York State Plane		

с	Client: National Grid Boring/Well ID: CGSB-P3RA-05 / CGRW-201												
s	ite Lo	cation:					Borehole Depth: 88	feet bgs					
	Parc	el III (izens Gas Block 471 New York			te							
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring/Well Construction					
-	-10	NA	NA	NA	NA		Drilled without sampling to 20 feet bgs.						
- 20 - - - - - - -	-10 - 	1	20-30	5.7	20.1 18.1 37.6 7.6 212.1 308.8 300.7 200.9 134.2 271.0 358.7 95.5		Black CLAY, some Silt, little fine Sand, little fine to coarse Gravel, loose, wet, saturated with viscous NAPL, very faint organic-like odor. Stiff, moist. DEBRIS (WOOD fragments).	Cement- Bentonite Grout (1.5 feet to 39 feet bgs) 6-inch Diameter Sch. 10 Stainless Steel Riser (0.6 feet to 43 feet bgs)					
- 30 - - - 35	-20 - - - -25 -	2	30-40	4.8	167.3 156.5 210.0 56.0 17.6 21.9 26.8 185.9 123.6 146.0		Very dark gray CLAY, trace Silt, soft, slight plasticity, moist. DEBRIS (WOOD fragments), wet, viscous NAPL blebs on some wood fractures. Dark gray CLAY, little fine Sand, trace Silt, medium stiff, slight plasticity, moist. Black SILT, little fine Sand, trace Clay, trace Organics (Roots), soft, moist, organic odor. Very dark grayish brown SILT, some very fine Sand, little Clay, soft, moist. Very dark grayish brown fine SAND, little Silt, trace medium to coarse Sand, soft, wet, moderate naphthalene-like odor. Moderate NAPL coating from 33.9 feet to 34.1 feet bgs. Sheen from 34.5 feet to 34.8 feet bgs.						
Projec	t: 30	004014	.0002 23RA-05_C			S	Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA non-aqueous phase liquid; NR = no recovery; Sch. = Schedule. Horizontal reference datum is the North American Datum of 1983 East Zone (FIPS 3101). Vertical reference datum is the North Ameri(NAVD88). Created/Edited by: APG Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recovery Wells	(NAD83), New York State Plane					

Client	Client: National Grid Boring/Well ID: CGSB-P3RA-05 / CGRW-201										
Site Lo	ocation	:				Borehole Depth: 88	feet bgs				
		izens Gas Block 471			te						
		New York		, 							
	<u> </u>			(ר							
Depth (feet bgs) Elevation (feet NAVD88)	Sample Run Number	be	t)	PID Headspace (ppm)	um		Boring/Well				
Depth (feet bgs) Elevation (feet NA	: Run N	Sample/Int/Type	Recovery (feet)	adspac	Geologic Column	Stratigraphic Description	Construction				
) epth (i levation	ample	ample	ecove	D Hea	eologi						
	S	S	К	Ē	U						
	-						Cement- Bentonite				
-	2	30-40					Grout (1.5 feet to 39 feet				
		00-40					bgs) 6-inch				
							Diameter Sch. 10 Stainless				
<u>40</u> -30 -				124.0		Dark gray fine SAND, some medium Sand, little coarse Sand, trace fine subrounded low sphericity Gravel, soft, wet, faint to moderate naphthalene-like odor.	Steel Riser (0.6 feet to 43 feet bgs)				
-	-			119.0		Sphonory Gravel, son, wet, raint to moderate naphulaiene-like 0000.	Bentonite Chips (39				
	_			132.7 130.3			feet to 41 feet bgs)				
				112.2 136.1	•••••						
-			6.6	212.5							
-	-			154.4 217.2		Dark grayish brown fine SAND, little Silt, soft, wet, moderate naphthalene-like odor. Heavy NAPL coating from 43.8 feet to 43.9 feet bgs. Light NAPL coating from 44.3 feet to 44.4 feet bgs.					
<u>45</u> -35 -	3	40-50		394.6		Dark gray SILT and fine SAND, soft, wet, moderate naphthalene-like odor. Dark gray fine SAND, some medium Sand, little coarse Sand, trace fine subrounded low					
				396.6 357.7		sphericity Gravel, soft, wet, moderate naphthalene-like odor.					
				296.5 312.5							
-	1										
	-						#2 Sand (41				
-	_						feet to 73 feet				
50 -40 -							bgs) 6-inch Diameter 0.020-inch Continuous				
- 50 -40				282.0		Dark gray fine SAND, some Silt, soft, slight liquefaction, wet, moderate naphthalene-like odor.	Slot Stainless Steel Screen				
-	-			246.3 335.1		Interbedded with gray Clay, trace Silt, soft, moderate plasticity, moist. Dark gray SILT and very fine SAND, trace Clay, soft, wet, faint to strong naphthalene-like	(43 feet to 73 feet bgs)				
-	-			348.1		Dark gray SLL I and very line SAND, trace Clay, sort, wet, faint to strong naphtnalene-like odor. Light NAPL coating on coarse Sand layer from 51.5 feet to 51.6 feet bgs.					
-	4	50-60	8.5	284.3 243.3							
	4	00-00	0.0	337.2 292.1		Alternating Silty and Sandy layers, heavy NAPL coating in Sand layers from 53.2 feet to 53.4 feet bgs.					
-				292.1							
- 55 -45 -	-			375.4 325.2		Moderate NAPL coating from 54.7 feet to 54.8 feet bgs. Heavy NAPL coating from 54.8 feet to 55.1 feet bgs.					
1						Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA non-aqueous phase liquid; NR = no recovery; Sch. = Schedule.	= not applicable/available; NAPL =				
	Λ		` ∧ '		C	Horizontal reference datum is the North American Datum of 1983 East Zone (FIPS 3101). Vertical reference datum is the North Am					
9	/\	RC	J		J	(NAVD88).					
Project: 30 Data File:			:GRW-201	l.dat		Created/Edited by: APG Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recovery Wells	Date: 5/13/2022 Page: 3 of 5				

Borehole Depth: 88 feet bgs

Site Location:

	DIOC	эктуп, т	New York							
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring/Well Construction		
-		4	50-60	8.5	396.8 251.5 13.2 36.0 370.5		Dark gray SIL I and very fine SAND, trace Clay, soft, wet, faint to strong naphthalene-like odor. Dark gray fine SAND, some medium Sand, little coarse Sand, trace Silt, soft, wet, moderate naphthalene-like odor. Black fine SAND, some medium to coarse Sand, trace Silt, soft, wet, saturated with NAPL, strong naphthalene-like odor.			
- 60 - - - - - - - - - - - - -	-50 - - - -55 - - - - - - - - - - - - - - -	5	60-70	7.7	215.3 235.1 379.1 394.4 79.8 67.1 120.6 95.8 81.5 48.5 128.5 183.0 312.3 279.5 343.0 28.9		Dark gray fine SAND and SILT, soft, wet, scattered sheen, moderate naphthalene-like odor. Dark gray fine SAND, some medium Sand, little coarse Sand, soft, wet, faint naphthalene-like odor. Sheen from 60.9 feet to 61.1 feet bgs. Brown SILT, stiff, moist. Grayish brown SILT, stiff, moderate liquefaction, wet. Black fine to medium SAND, little Silt, soft, wet, faint naphthalene-like odor. Light NAPL coating from 67.5 feet to 67.7 feet bgs.	#2 Sand (41 feet to 73 feet bgs) 6-inch Diameter 0.020-inch Continuous Slot Stainless Steel Screen (43 feet to 73 feet bgs)		
- - 70 - -	-60 -	6 NA	70-73 NA	2.2 NA	262.0 347.2 176.2 274.3 298.6 NA		Black fine SAND, some medium Sand, little Silt, soft, wet, moderate naphthalene-like odor. Little coarse Sand. trace Silt. moderate to heavy NAPL coating. strong naphthalene-like odor from 72.0 feet to 72.2 feet bgs. Drilled without sampling to 88 feet bgs.	Bentonite Chips (73 feet to 88 feet		
		А	RC	A	DI		Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA non-aqueous phase liquid; NR = no recovery; Sch. = Schedule. Horizontal reference datum is the North American Datum of 1983 East Zone (FIPS 3101). Vertical reference datum is the North Am (NAVD88). Created/Edited by: APG	bgs) 6-inch Diameter 9-1-10 = not applicable/available; NAPL = (NAD83), New York State Plane		

c	lient:	Natio	onal Grid					Boring/Well ID:	CGSB-P3RA-05 / CGRW-20I
s	ite Lo	ocation:						Borehole Depth:	88 feet bgs
			izens Gas Block 471			te			
	Broo	oklyn, Ì	New York	,	,				
	8)	ar			(u				
(sɓ	NAVD8	Numbe	/be	et)	oe (ppr	um			Boring/Well
(feet b	n (feet	e Run	e/Int/Ty	ery (fee	adspa	gic Coli	Stratigraphic Description		Construction
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column			
-	_				<u>ц</u>	-	Drilled without sampling to 88 feet bgs.		Stainless Steel Sump
F	_	-							(73 feet to 88 feet bgs)
-	_	-							
	_	-							
	-70 -								
- 80									
F	-								6-inch Diameter
-	-	NA	NA	NA	NA				Sch. 10 Stainless Steel Sump
-	_	-							(73 feet to 88 feet bgs)
	_	-							Bentonite Chips (73 feet to 88 feet
- 85	-75 -								bgs)
- 05	-								
F	_								
F	_	-							
							End of boring at 88 feet bgs.		
-	_	-							
90	-80 -	-							
50									
F	-								
F	-	-							
ŀ	-	-							
ŀ	-								
- 95	-85 -								
Γ							Remarks: bgs = below ground surface; MGP = ma non-aqueous phase liquid; NR = no rec	anufactured gas plan overy; Sch. = Sched	t; NA = not applicable/available; NAPL = ule.
		~		• • •			Horizontal reference datum is the North	American Datum of	1983 (NAD83), New York State Plane
		Ά	RC	A	UI.	5	East Zone (FIPS 3101). Vertical referer (NAVD88).	ice datum is the Nor	un American Verticai Datum ot 1988
Projec	:t: 30	004014	.0002				Created/Edited by: APG		Date: 5/13/2022

Drill Drill Drill Sam	ling Co ler's N ling Me	/Finish: ompany ame: ethod: Method	: Aqui Dave Soni : 5-inc	/2021 - 12 fer Drilling ≥ Moon c c th x 10-foc te Multidri) and Test ot Core Ba	-	с.	Northing: 671385.05 Easting: 632060.61 Surface Elevation: 9.97 feet Casing Elevation: 9.25 feet Borehole Depth: 118.21 feet bgs Borehole Diameter: 10 inches Descriptions By: Andrew Gibson Boring/Well ID: CGSB-P3RA-06 / CGRW-20D Client: National Grid Location: Former Citizens Gas Works MGP Site Parcel III (Block 471, Lot 200) Brooklyn, New York								
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column			Stra	Boring/Well Construction						
-	_ 						Drilled	without sampli	ng to 20 feet b	gs.						12-inch Diameter Flush- Mounted Cast Iron Frame and Cover Concrete Pad
-	-															#2 Sand Drain (0.9 feet to 1.5 feet bgs)
5 - -	5_	NA	NA	NA	NA									× × × × × × × × × × × × × × × × × × ×		Off-Site General Fill Material (1.5 feet to 11.8 feet bgs) 6-inch Diameter Sch. 10
- 10 -	- 0- -													× × × × × × × × × × × ×	* * * * * * * * * * * * * * * * * * *	 Stainless Steel Riser (0.72 feet to 73.21 feet bgs)
	_ _5 _															Cement- Bentonite Grout (11.8 feet to 68 feet bgs)
			RC	A	DI			marks: bgs = below ground surface; MGP = manufactured gas plant; NA = not applicable/available; NAPL = non-aqueous phase liquid; NR = no recovery; Sch. = Schedule. Horizontal reference datum is the North American Datum of 1983 (NAD83), New York State Plane East Zone (FIPS 3101). Vertical reference datum is the North American Vertical Datum of 1988 (NAVD88).								
		004014. CGSB-P	0002 3RA-06_C	GRW-20	D.dat			d/Edited by: te: G:\Clients\N	APG National Grid\Car	roll Gardens\06	Notes and Data\Cor	struction\Recovery W	Vells		Dat Pag	

(Client: National Grid Boring/Well ID: CGSB-P3RA-06 / CGRW-20D									
5	Forr		izens Gas Block 471			te	Borehole Depth: 118	.21 feet bgs		
	Broo	oklyn, I	New York	, LOI 200	5)					
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring/Well Construction		
- 20	-10 -	NA	NA	NA	NA		Drilled without sampling to 20 feet bgs.			
- 25	-15 - -	1	20-30	NR	NA		NO RECOVERY.	Cement- Bentonite Grout (11.8 feet to 68 feet bgs) 6-inch Diameter Sch. 10 Stainless Steel Riser (0.72 feet to 73.21 feet bgs)		
- 30 - - - 35	-20 - - - - -25 -	2	30-40	6.5	40.3 142.7 54.4 292.7 145.9 108.5 35.2 71.9 34.3 77.0 75.3 62.7		 Very dark gray SILT, trace fine Sand, trace Organics (Wood debris), medium stiff, moist, moderate naphthalene-like odor. At 31.3 feet and 31.5 feet bgs, Sand layers with light to moderate NAPL coating. At 31.4 feet bgs, 1-inch Sand layer with NAPL blebs. Dark gray fine SAND, some Silt, little medium Sand, soft, wet, moderate naphthalene-like odor. Moderate to heavy NAPL coating from 32.4 feet to 32.9 feet bgs. Sheen from 32.9 feet to 33.5 feet bgs. Dark grayish brown fine SAND, some medium Sand, little coarse Sand, trace fine subangular to subround low to medium sphericity Gravel, trace Silt, soft, wet, faint naphthalene-like odor. 			
G	Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA = not applicable/available; NAPL = non-aqueous phase liquid; NR = no recovery; Sch. = Schedule. Horizontal reference datum is the North American Datum of 1983 (NAD83), New York State Plane East Zone (FIPS 3101). Vertical reference datum is the North American Vertical Datum of 1988 (NAVD88).									
		004014 CGSB-I	.0002 P3RA-06_C	GRW-20	D.dat		Created/Edited by: APG Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recovery Wells	Date: 5/13/2022 Page: 2 of 7		

С	Client: National Grid Boring/Well ID: CGSB-P3RA-06 / CGRW-20D								
s	ite Lo	ocation	:				Borehole Depth: 118	8.21 feet bgs	
	Form	ner Ci	tizens Gas			te			
			Block 471 New York		0)				
_									
	(88)	ber			(mq				
(sɓq	Elevation (feet NAVD88)	Run Number	Type	set)	PID Headspace (ppm)	Column	Stratigraphic Description	Boring/Well	
Depth (feet bgs)	on (fee	e Rur	Sample/Int/Type	Recovery (feet)	adsp	gic Co		Construction	
Depth	Elevatio	Sample F	Sampl	Recov	ID He	Geologic			
	ш	07	0,	6.5	32.1		Dark grayish brown tine SAND, some medium Sand, little coarse Sand, trace tine subangular to subround low to medium sphericity Gravel, trace Silt, soft, wet, faint		
ŀ	_	-					naphthalene-like odor.		
Ī	_	2	30-40						
-	-	-							
- 40	-30 -								
					111.2		Dark gray fine SAND, some medium Sand, little coarse Sand, soft, wet, faint naphthalene-like odor.		
-	-	-			33.2 32.8				
-	-	-			90.7		At 41.6 feet bgs, 2-inch layer of dark gray SILT, some fine Sand, medium stiff, faint naphthalene-like odor, moist to wet, sheen. Some Silt, trace medium Sand, soft, wet, faint to moderate naphthalene-like		
				5.1	156.0 47.6		odor. Moderate to heavy NAPL coating from 42.1 feet to 42.3 feet bgs.		
-	_				85.0		Dark gray SILT, some very fine Sand, medium stiff, moist to wet, faint naphthalene-like		
-	-	-			16.3 36.2	•	odor. Dark gray fine SAND, some medium Sand, little coarse Sand, trace Silt, soft, wet.		
- 45	-35 -	3	40-50		121.6 222.8		Some Silt, light NAPL coating, moderate naphthalene-like odor.		
		5	40-50					Cement- Bentonite	
-	_							Grout (11.8 feet to 68 feet	
-	_	-						bgs) 6-inch	
								Diameter Sch. 10 Stainless	
-	_							Steel Riser (0.72 feet to	
F	_	-						73.21 feet bgs)	
- 50	-40 -								
					390.1 90.7	•••••	Gray fine SAND, some medium Sand, little coarse Sand, trace Silt, soft, wet, faint naphthalene-like odor.		
-	-	-			98.7		Little to some Silt, little medium and coarse Sand, faint naphthalene-like odor.		
-	_	-			71.7				
					122.3 249.3		Very dark gray very fine SAND and SILT, laminar beds alternating between Silt and Sand, soft to medium stiff, slight liquefaction, moderate naphthalene-like odor.		
		4	50-60	7.9	58.7		Heavy NAPL coating to saturated with NAPL from 52.8 feet to 53.2 feet bgs, 54.3 feet to 54.4 feet bgs, 55.2 feet to 55.3 feet bgs, and 56.0 feet bgs.		
F	-				116.7 313.7		Moderate NAPL coating from 54.4 feet to 55.2 feet bgs.		
- 55	-45 -	-			336.8				
					126.4 39.2		Very dark gray very fine SAND and SILT, laminar beds alternating between Silt and Sand, soft to medium stiff, slight liquefaction, moderate naphthalene-like odor. Sheen from 56.2		
		1			<u>.</u>		Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA	= not applicable/available; NAPL =	
							non-aqueous phase liquid; NR = no recovery; Sch. = Schedule. Horizontal reference datum is the North American Datum of 1983	(NAD83) New York State Plane	
		Δ	RC	ע`		S	East Zone (FIPS 3101). Vertical reference datum is the North Am (NAVD88).		
	V			/~~					
		004014 CGSB-	1.0002 P3RA-06_C	GRW-20	D.dat		Created/Edited by: APG Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recovery Wells	Date: 5/13/2022 Page: 3 of 7	

Borehole Depth: 118.21 feet bgs

Site Location:

	Brooklyn, New York											
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring/Well Construction				
-	_	4	50-60	7.9	82.7 19.4 10.2 10.9 6.1		teet to 56.5 teet bgs. Heavy NAPL coating to saturated with NAPL from 56.8 teet to 56.9 feet bgs. Dark gray CLAY, little Silt, little plasticity, medium stiff, moist, faint naphthalene-like odor. Dark gray fine SAND, some medium Sand, little coarse Sand, soft, wet, faint naphthalene-like odor.					
- 60	-50 -				313.9 317.2 324.3 199.9		Dark gray SILT, little very fine Sand, medium stiff, moist, faint naphthalene-like odor. Dark grayish brown fine SAND, some medium Sand, little coarse Sand, soft, sheen throughout, moderate naphthalene-like odor. Saturated with NAPL from 60.5 feet to 60.6 feet bgs. Grayish brown SILT, stiff, moderate liquefaction, wet, faint naphthalene-like odor.	Cement- Bentonite				
- 65	- -55 -	5	60-70	6.5	98.0 34.5 22.3 30.2 25.0 350.0 319.8 308.9		Black fine SAND, little medium Sand, soft, wet, sheen, moderate naphthalene-like odor.	Grout (11.8 feet to 68 feet bgs) 6-inch Diameter Sch. 10 Stainless Steel Riser (0.72 feet to 73.21 feet bgs)				
-	-				359.2			Bentonite Chips (68 feet to 70.5 feet bgs)				
- 70 - -	-60 - -	6	70-80	6.2	35.8 79.7 16.8 66.0 11.5 23.0 13.9 15.2		 Black SILT, some very fine Sand, medium stiff, wet, moderate naphthalene-like odor. Saturated with NAPL from 70.0 feet to 70.3 feet bgs. Dark grayish brown SILT, some very fine Sand, stiff, moderate liquefaction, wet. 	#2 Sand (70.5 feet to 103.21 feet bgs)				
- 75	-65 -				47.0 43.1 351.7 253.8		Black fine SAND, little medium Sand, soft, wet, light NAPL coating, moderate naphthalene-like odor. Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA	6-inch Diameter 0.030-inch Continuous Slot Stainless Steel Screen (73.21 feet to				
6	ARCADIS IN THE ARCADI											
-		004014 CGSB-F	.0002 P3RA-06_C	GRW-20	D.dat		Created/Edited by: APG Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recovery Wells	Date: 5/13/2022 Page: 4 of 7				

	Client: National Grid Boring/Well ID: CGSB-P3RA-06 / CGRW-20D										
Sit	te Lo	cation:					Borehole Depth: 118	3.21 feet bgs			
	Parc	el III (izens Gas Block 471 New York			e					
Depth (feet bgs)	Elevation (feet NAVD88) Sample Run Number Sample/Int/Type Recovery (feet) PID Headspace (ppm) Geologic Column						Stratigraphic Description	Boring/Well Construction			
-	-	6	70-80	6.2	314.6	• • • •	Black fine SAND, little medium Sand, soft, wet, light NAPL coating, moderate naphthalene-like odor.	103.21 feet bgs)			
-	- 70 - - - - - 75 - - - - 75 - -	7	80-90	7.8	320.1 363.4 201.4 297.4 253.0 303.8 368.8 294.8 148.9 282.6 80.7 77.1 83.1 18.8 24.4		Black fine SAND, little medium Sand, soft, wet, saturated with NAPL, moderate naphthalene-like odor. Dark grayish brown SILT, little very fine Sand, soft, wet, faint naphthalene-like odor. Very dark grayish brown medium SAND, some fine Sand, little coarse Sand, soft, wet, moderate NAPL coating. Dark greenish gray CLAY, moderate plasticity, stiff, moist. Pulverized ROCK. Dark grayish brown SILT, some Clay, little fine Sand, trace medium to coarse Sand, trace fine subangular to subround low to medium sphericity Gravel, stiff, moist. [TILL]	#2 Sand (70.5 feet to 103.21 feet bgs) 6-inch Diameter 0.030-inch Continuous Slot Stainless Steel Screen (7.21 feet to			
-	- 80 - - - - - 85 -	8	90-100	3.4	140.4 103.5 83.6 15.0 17.3 27.0		Brown CLAY, some Silt, little fine Sand, trace medium to coarse Sand, trace fine to coarse subangular to subround low to medium sphericity Gravel, stiff, moist. [TILL] Brown fine SAND, some medium Sand, little coarse Sand, little fine to medium subangular to subround low to medium sphericity Gravel, trace Silt, soft, wet.	103.21 feet bgs)			
Project:	: 30	004014	.0002				Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA non-aqueous phase liquid; NR = no recovery; Sch. = Schedule. Horizontal reference datum is the North American Datum of 1983 East Zone (FIPS 3101). Vertical reference datum is the North Am (NAVD88). Created/Edited by: APG	(NAD83), New York State Plane			

Client	Client: National Grid Boring/Well ID: CGSB-P3RA-06 / CGRW-20D										
Site L	ocation	:				Borehole Depth: 11	3.21 feet bgs				
Par	cel III (tizens Gas Block 471			te						
Bro	oklyn, I	New York									
(88)	ber			(mq							
t bgs) eet NAVI	nn Num	t/Type	(feet)	pace (p	Column	Stratigraphic Description	Boring/Well				
Depth (feet bgs) Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column		Construction				
Del	Sar	Sar	Re	DIG	Ge						
	-										
	8	90-100									
- ·							#2 Sand				
- 100 - <i>90</i> ·					0.0.0.0		(70.5 feet to 103.21 feet bgs)				
 			2.0	3.4 3.2		Brown fine SAND, some medium Sand, little coarse Sand, trace Silt and fine to medium subangular to subround low to medium sphericity Gravel, soft, wet.	6-inch Diameter 0.030-inch				
	9	100-103		3.4 2.7		Some Silt, little medium to coarse Sand, stiff.	Continuous Slot Stainless Steel Screen				
							#2 Sand (70.5 feet to 103.21 feet bgs) 6-inch Diameter 0.030-inch Continuous Slot Stainless Steel Screen (73.21 feet to 103.21 feet bgs)				
						Drilled without sampling to 118.21 feet bgs.					
<u> </u>											
-											
	NA	NA	NA	NA			Bentonite Chips				
- 110- <i>100</i> ·							(103.21 feet to 118.21 feet bgs)				
	-						6-inch Diameter Sch. 10				
	-						Stainless Steel Sump (103.21 feet to 118.21 feet				
							bgs)				
- 115- <i>105</i> ·											
						Remarks: bgs = below ground surface; MGP = manufactured gas plant; NA non-aqueous phase liquid; NR = no recovery; Sch. = Schedule.					
9	Δ	RC	<u>`</u> ΔΙ		5	Horizontal reference datum is the North American Datum of 1983 East Zone (FIPS 3101). Vertical reference datum is the North Am (NAVD88).					
Project: 3						Created/Edited by: APG	Date: 5/13/2022				
Data File:	CGSB-	P3RA-06_C	GRW-20I	D.dat		Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recovery Wells	Page: 6 of 7				

	Client:	Natio	nal Grid					Boring/Well ID: CGSB-P3RA-06 / CGRW-20D			
	Site Lo	ocation:						Borehole Depth: 11	8.21 feet bgs		
			izens Gas Block 471			te					
	Broc	oklyn, I	New York	, 201 201	.,						
	()	-			(
s)	AVD88	lumbe	e	â	udd) e	ш			Boring/Well		
eet bg	(feet N	Run N	'Int/Ty	y (fee	dspac	c Colu	Stratigraphic Description		Construction		
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column					
	Ш	S	S	Ľ	Ē	U	Drilled without sampling to 118.21 feet bgs.				
-	-	NA	NA	NA	NA				Chips (103.21 feet to 118.21 feet bgs)		
							End of boring at 118.21 feet bgs.		Diameter Sch. 10		
-	_								Stainless Steel Sump (103.21 feet		
- 12	0-110 -								to 118.21 feet bgs)		
-	-	-									
_	_	-									
	_										
F	_	-									
- 12	5-115 -										
-	_	-									
	_										
-	_										
- 13	0-120 -	-									
-	_										
Ļ	_										
	_										
F	_										
- 13	5-125 -										
							Remarks: bgs = below ground surface; MGP = r	nanufactured gas plant; NA			
							non-aqueous phase liquid; NR = no re	ecovery; Sch. = Schedule.			
	9	Δ	RC	Ъ	DĽ	S	East Zone (FIPS 3101). Vertical refer (NAVD88).				
	¥ 1	- 1	•	- 1		-					
Proje	ect: 30	004014	.0002				Created/Edited by: APG		Date: 5/13/2022		

Date Start/Finish:11/29/2021 - 12/1/2021Drilling Company:Aquifer Drilling and Testing, InDriller's Name:Dave MoonDrilling Method:SonicSampling Method:5-inch x 10-foot Core BarrelRig Type:Fraste Multidrill XL Max					с.	Casing Ele Borehole I	g: 632008.62 Client: National Grid e Elevation: 9.19 feet p Elevation: 9.73 feet Location: ble Depth: 86.42 feet bgs ble Diameter: 10 inches									
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column			Stra	atigraphic I	Description				Boring/V Construc	
-	10-						Drilled v	vithout sampli	ng to 20 feet b	D05.				×	×	
- - - - - - - - - - - - - - - - - - -		NA	ΝΑ	NA	NA			, arout selfipli		чдэ.				x x x x x x x x x x x x x x x x x x x	x x x x x x x x x x x x x x x x x x x	Off-Site General Fill Material (0 feet to 6.5 feet bgs) 6-inch Diameter Sch. 10 Stainless Steel Riser (0.54 feet ags to 41.42 feet bgs) Cement- Bentonite Grout (6.5 feet to 35 feet bgs)
6		Δ	RC			S	Rema	app Hoi Eas	licable/avail izontal refer	able; NAP ence datu	L = non-aque m is the Nort	ieous th Am	round surface; MGP phase liquid; NR = n erican Datum of 198 datum is the North Ar	o recovery; S 3 (NAD83), N	ch. = Sch Iew York S	edule. State Plane
Projec	ct: 30	004014					Created	/Edited by: e: G:\Clients\I	APG National Grid\Ca	rroll Gardens\(06 Notes and Data	ta\Const	truction\Recovery Wells		Date Pag	

Client:	National	Grid
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Borehole Depth: 86.42 feet bgs

Site Location:

	Broc	oklyn, l	New York							
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring/Well Construction		
	_						Drilled without sampling to 20 feet bgs.			
	-10 -	NA	NA	NA	NA					
- 25	-15 -	1	20-30	6.0	25.3 27.3 51.4 138.3 107.5 115.0 54.8 17.3 73.3 48.6 66.2 427.0		Black CLAY, trace coarse Sand, Silt, fine to medium angular to subrounded low to medium sphericity Gravel, and Organics, low to moderate plasticity, moist, channels of viscous NAPL throughout, moderate naphthalene-like odor. Very dark gray CLAY, little Silt, little fine Sand, soft, low to moderate plasticity, moist, moderate naphthalene-like odor. Moderate NAPL coating on 0.25-inch thick Sand seams at 23.3 feet, 24.8 feet, and 25.1 feet bgs. Some Silt, little fine Sand, soft, trace plasticity, moist. Heavy NAPL coating on 0.25-inch thick Sand seam at 25.9 feet bgs.	Cement- Bentonite Grout (6.5 feet to 35 feet		
-	-20 -							bgs) 6-inch Diameter Sch. 10 Stainless Steel Riser (0.54 feet ags to 41.42 feet bgs)		
- 30	-25 -	2	30-40	6.1	153.3 325.9 191.4 382.8 243.3 279.4 141.0 299.6 268.7 37.7 209.9		Very dark gray CLAY, some Silt, little fine Sand, soft, moist, faint naphthalene-like odor. Very dark grayish brown SILT, trace Clay, trace Organics, trace fine Sand, soft, moist, faint naphthalene-like odor. Dark grayish brown fine SAND, little Silt, trace medium Sand, moist to wet, moderate naphthalene-like odor. At 32.1 feet bgs, 1-inch layer of moderate NAPL coating. At 32.4 feet bgs, 3-inch layer of black Silt, little fine Sandy Clay, soft, moderate naphthalene-like odor. Heavy NAPL coating from 32.7 feet to 33.3 feet bgs. Dark gray very fine SAND and SILT, medium stiff, slight liquefaction, moist, sheen, moderate naphthalene-like odor. Dark grayish brown fine SAND, little medium Sand, little Silt, trace coarse Sand, trace fine angular to subrounded low to medium sphericity Gravel, soft, wet, heavy NAPL coating, moderate naphthalene-like odor. Gray CLAY, trace Silt, trace fine Sand, soft to medium stiff, slight to moderate plasticity, faint naphthalene-like odor. Gray fine SAND little medium Sand, trace coarse Sand, soft wet light NAPL coating Remarks: ags = above ground surface; bgs = below ground surface; MGP =	Bentonite Chips (35 feet to 37 feet		
	ARCADIS (NAVD88).									
		004014 CGSB-F	.0002 P3RA-08_C	GRW-21	l.dat		Created/Edited by: APG Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recovery Wells	Date: 5/13/2022 Page: 2 of 5		

	Site Lo Forr Parc	ocation: ner Cit cel III (onal Grid tizens Gas Block 471 New York	, Lot 200		te		SB-P3RA-07 / CGRW-21I 42 feet bgs
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring/Well Construction
- - - - - - - - - - - - - - - -	-30 = -30 = - - - - 35 = - - - - - - - - - - - - - - - - - - -	2	30-40	4.7	81.6 170.0 73.7 251.4 44.8 151.8 234.1 144.5 194.4 156.1		 Dark gray fine SAND, little medium Sand, little Silt, trace coarse Sand, soft, slight liquefaction, wet, trace NAPL blebs and trace sheen throughout, moderate naphthalene-like odor. Black fine SAND, some medium Sand, little coarse Sand, trace Gravel, soft, wet, moderate NAPL coating, moderate naphthalene-like odor. Gray fine SAND, little medium Sand, little Silt, soft, wet, scattered sheen and staining, moderate naphthalene-like odor. Dark grayish brown fine SAND, some medium Sand, little coarse Sand, trace fine subrounded to rounded medium sphericity Gravel, soft, wet, moderate NAPL coating, moderate naphthalene-like odor. 	Bentonite Chips (35 feet to 37 feet bgs) 6-inch Diameter Sch. 10 Stainless Steel Riser (0.54 feet ags to 41.42 feet bgs)
		4	50-60 RC	4.8	58.7 132.9 276.1 186.4 19.0 35.8 115.4 383.6 366.3 381.5		Very dark gray fine SAND, some medium Sand, little coarse Sand, soft, wet, moderate naphthalene-like odor. Light to moderate NAPL coating from 50.0 feet to 51.9 feet bgs. Scattered sheen. Black heavy NAPL coating to saturated with NAPL, strong naphthalene-like odor. Remarks: ags = above ground surface; bgs = below ground surface; MGP = applicable/available; NAPL = non-aqueous phase liquid; NR = no Horizontal reference datum is the North American Datum of 1983 East Zone (FIPS 3101). Vertical reference datum is the North Am Created/Edited by: APG	recovery; Sch. = Schedule. (NAD83), New York State Plane

Client	Client: National Grid Boring/Well ID: CGSB-P3RA-07 / CGRW-211								
Sital	ocation					Borehole Depth: 86.	42 feet bgs		
Site Location: Former Citizens Gas Works MGP Site									
Par	cel III (Block 471 New York							
610	Skiyff,				_				
~				Ê					
Depth (feet bgs) Elevation (feet NAVD88)	Sample Run Number	Ð		PID Headspace (ppm)	Ē				
Depth (feet bgs) Elevation (feet NA	N N	Sample/Int/Type	Recovery (feet)	pace	Geologic Column	Stratigraphic Description	Boring/Well Construction		
ר (fee tion (fe	ole Ri	ole/In	very	leads	ogic (Construction		
Deptl Eleval	Sam	Sam	Reco	- CIC	Geolo				
-	-								
-									
-	1								
F -	4	50-60							
-50 -	1								
- 60				126.3	====	Gray CLAY, some Silt, medium stiff, moist to wet, moderate naphthalene-like odor.			
L				33.3					
-	1			27.1		Gray SILT, little fine Sand, soft, moderate liquefaction, wet, moderate naphthalene-like odor.			
	4			16.7 13.9		Dark grayish brown fine SAND, some Silt, moist to wet, faint naphthalene-like odor.			
			5.2	12.3		Olive brown fine SAND, some medium Sand, little coarse Sand, soft, wet, faint naphthalene-like odor.			
[-				7.7			#2 Sand (37		
55 -				17.7			feet to 71.42		
				19.4 16.4		Black fine SAND, some medium Sand, little coarse Sand, soft, wet.	6-inch Diameter		
- 65 -	5	60-70					0.020-inch Continuous		
-							• • Steel Screen		
-	1						(41.42 feet to 71.42 feet bgs)		
-	-								
-									
-									
-60 -	-								
- 70									
-	1			26.4		Black fine SAND, little medium Sand, little Silt, trace coarse Sand, soft, wet, faint naphthalene-like odor.			
F -	-			18.9 31.5		Olive brown grading to gray SILT, little fine Sand, medium stiff, moist.			
				16.5					
-	1			12.8		Olive brown fine SAND, little medium Sand, little Silt, soft, moist to wet.			
F -	6	70-80	5.8	15.4 16.8			6-inch Diameter Sch. 10		
L				12.1		Black fine SAND, some Silt, little medium Sand, trace coarse Sand, soft,	Sch. 10 Stainless Steel Sump		
-65 -	1			11.5		moist to wet.	(71.42 feet to 86.42 feet		
- 75	4			13.2			bgs) Bentonite		
				10.8 9.7			Chips (71.42 feet to 86.42		
	-				-	Remarks: ags = above ground surface; bgs = below ground surface; MGP =			
1						applicable/available; NAPL = non-aqueous phase liquid; NR = no	•		
9	Λ	D	` \		C	Horizontal reference datum is the North American Datum of 1983 East Zone (FIPS 3101). Vertical reference datum is the North American Jone (FIPS 3101).			
	/-\		ノー		J	(NAVD88).			
1									
Project: 30	0004014	.0002				Created/Edited by: APG	Date: 5/13/2022		
Data File:			GRW-21	l.dat		Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recovery Wells	Page: 4 of 5		

Client: National Grid Boring/V									SB-P3RA-07 / CGRW-21I
:	Site Lo	ocation	:				Borehole Depr	h: 86	5.42 feet bgs
			izens Gas Block 471			te			
	Broo	oklyn, Ì	New York		,				
	8)	er			(u				
(sɓ	Elevation (feet NAVD88)	Sample Run Number	ype	et)	PID Headspace (ppm)	nmn	Stratigraphic Description		Boring/Well
Depth (feet bgs)	on (feet	e Run	Sample/Int/Type	Recovery (feet)	edspa	Geologic Column	Suaugraphic Description		Construction
Depth	Elevatic	Sampl	Sampl	Recov	PID He	Geolo			
	-								(eet bys)
	-								
Ī	-	6	70-80						
Ī	-70 -								
- 80	_						Drilled without sampling to 86.42 feet bgs.		
-	_								Bentonite Chips (71.42 feet to 86.42
-	_								feet bgs) 6-inch
-	_								Diameter Sch. 10 Stailess
		NA	NA	NA	NA				Steel Sump (71.42 feet to 86.42 feet
0.5	-75 -		nA.						bgs)
- 85	-	_							
							End of boring at 86.42 feet bgs.		
	_								
-	-								
-	-80 -	-							
- 90	_								
ł	_	_							
-	_								
-									
	-								
	-85 -	1							
- 95	-	1							
Г		I	1	1	1	1	Remarks: ags = above ground surface; bgs = below ground surfa applicable/available; NAPL = non-aqueous phase liquid	ce; MGP : NR = no	= manufactured gas plant; NA = not p recovery: Sch. = Schedule
							Horizontal reference datum is the North American Datu	m of 198:	3 (NAD83), New York State Plane
ARCADIS						5	East Zone (FIPS 3101). Vertical reference datum is the (NAVD88).	NOTULAN	rendan venudal Datum of 1988
-)004014 CGSB-I	.0002 P3RA-08_C	GRW-21	.dat		Created/Edited by: APG Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recove	y Wells	Date: 5/13/2022 Page: 5 of 5

Date Start/Finish:12/1/2021 - 12/2/2021Drilling Company:Aquifer Drilling and Testing, InDriller's Name:Dave MoonDrilling Method:SonicSampling Method:5-inch x 10-foot Core BarrelRig Type:Fraste Multidrill XL Max					and Test ot Core Ba	arrel	AC. Easting: 632004.49 Client Surface Elevation: 9.32 feet Casing Elevation: 9.49 feet Loca Borehole Depth: 117.71 feet bgs Borehole Diameter: 10 inches Par	ng/Well ID: CGSB-P3RA-08 / CGRW-21D nt: National Grid ation: mer Citizens Gas Works MGP Site rcel III (Block 471, Lot 200) ioklyn, New York
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring/Well Construction
-	- 10 -						Drilled without sampling to 20 feet bgs.	
- 10		NA	NA	NA	NA			x x x x x x x
G		A	RC	A	DI	S	applicable/available; NAPL = non-aqueous phase	n Datum of 1983 (NAD83), New York State Plane
		004014 CGSB-F	.0002 23RA-08_C	GRW-21	D.dat		Created/Edited by: APG Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\	Recovery Wells Page: 1 of 7

	Client:	Natio	onal Grid				Boring/Well ID: CG	6B-P3RA-08 / CGRW-21D
;	Site Lo	ocation					Borehole Depth: 11	7.71 feet bgs
	Parc	cel III (izens Gas Block 471 New York			te		
	Бю	JKiyn, 1						
_	VD88)	Imber	Ø		(mqq)	Ľ		
eet bgs	(feet NA	Run Nu	Int/Type	y (feet)	dspace	c Colum	Stratigraphic Description	Boring/Well Construction
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column		
	-						Drilled without sampling to 20 feet bgs.	
-	-	-						
-	-	NA	NA	NA	NA			
-	-10 -	-						
_ 20	-	-			47.2 17.4		Black fine to medium angular GRAVEL, little Debris (Wood fragments), soft, wet, saturated with viscous NAPL.	
-	-	-		3.0	263.9		Drilled without sampling through GRAVEL obstruction. Very dark gray CLAY, little Silt, trace fine Sand, soft, sticky, wet, saturated with NAPL, faint naphthalene-like odor.	
-	-	-			108.9 102.0 101.3		Light brownish gray GRAVEL.	
-	-	-			101.3			
-	-15 -	-						
- 25	-	1	20-30					Cement- Bentonite
-	-	-						Grout (7 feet to 69 feet bgs)
-	-	-						6-inch Diameter Sch. 10
-	-	-						Stainless Steel Riser (0.17 feet ags to 72.71 feet
-	-20 -	-						bgs)
- 30	-	-					NO RECOVERY.	
-	-	-						
-	-	-						
-	-	2	30-40	NR	NA			
-	-25 -	-						
- 35	-	-						
							Remarks: ags = above ground surface; bgs = below ground surface; MGP = applicable/available; NAPL = non-aqueous phase liquid; NR = no	manufactured gas plant; NA = not recovery; Sch. = Schedule.
		Λ	RC	<u>`</u> \		C	Horizontal reference datum is the North American Datum of 1983 East Zone (FIPS 3101). Vertical reference datum is the North Am (NAVD88).	(NAD83), New York State Plane erican Vertical Datum of 1988
		/~						
Proje	ct: 30	004014	.0002				Created/Edited by: APG	Date: 5/13/2022

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Client:	National	Grid
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Borehole Depth: 117.71 feet bgs

Site Location:

	Bro	oklyn, I	New York					
Depth (feet bas)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring/Well Construction
-	- - -30 -	2	30-40	NR	NA		NO RECOVERY.	
- 4 - - - 4	- - -35 -	3	40-50	5.2	145.6 84.4 66.5 195.8 398.2 308.6 519.9 591.7 512.5 448.0 451.3		Dark grayish brown fine SAND, some medium Sand, little coarse Sand, little Silt, soft, wet, scattered sheen throughout. Black medium SAND, little coarse Sand, little Silt, soft, wet, heavy NAPL coating, moderate naphthalene-like odor. Dark grayish brown fine SAND, little medium Sand, trace coarse Sand, soft, wet, sheen throughout, moderate naphthalene-like odor. At 43.3 feet bgs, 2-inch layer of dark gray SILT, little very fine Sand, medium stiff, wet. Some medium Sand, little coarse Sand, little Silt, soft, wet, naphthalene-like odor.	
- - - 5	- - -40 - 0	-				0 0 0 0	Dark grayish brown fine SAND, some medium Sand, little coarse Sand, little Silt, soft, wet,	Cement- Bentonite Grout (7 feet to 69 feet bgs) 6-inch Diameter Sch. 10 Stainless Steel Riser (0.17 feet ags to 72.71 feet bgs)
- - - 5	- - - 45 - 5	4	50-60	4.8	270.0 385.5 427.3 471.9 592.0 311.7 348.3 253.4 341.7 415.5		 Dark grayish brown line SAND, some medium Sand, nue Coase Sand, nue Sand,	
			RC	A	DI			recovery; Sch. – Schedule. ; (NAD83), New York State Plane ierican Vertical Datum of 1988
	iject: 30 ta File:		1.0002 P3RA-08_C	GRW-21	D.dat		Created/Edited by: APG Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recovery Wells	Date: 5/13/202 Page: 3 of 7

Depth (feet bgs) Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring/Well Construction
- - -50 -	- - - - - - - - - - - - - - - - - - -						
- 60 - - - <i>55</i> -	5	60-70	5.0	155.2 197.5 328.5 251.2 229.3 176.8 89.7 42.8 62.7 17.7		Dark grayish brown fine SAND, some medium to coarse Sand, soft, wet, moderate NAPL coating, moderate naphthalene-like odor throughout. At 60.8 feet bgs, 1-inch layer of coarse Sand saturated with NAPL. Very dark grayish brown SILT, little very fine Sand, moderately stiff, wet, faint naphthalene-like odor throughout. Saturated with NAPL from 61.5 feet to 61.8 feet bgs. Sheen from 61.8 feet to 62.0 feet bgs. Near vertical seam saturated with NAPL from 63.3 feet to 63.7 feet bgs. Grayish brown fine SAND, little medium Sand, little Silt, soft, wet, faint naphthalene-like odor.	Cement- Bentonite Grout (7 feet bgs) 6-inch Diameter Sch. 10 Stainless Steel Riser (0.17 feet ags to 72.71 feet
- - -60 -							Bentonite Chips (69
- 70 - 75 75	6	70-80	5.9	24.2 17.9 13.0 10.4 10.5 17.6 15.3 11.8 22.2 32.1 53.1 27.0		Dark gray grading to black fine SAND, some medium Sand, little coarse Sand, little fine to medium subrounded low sphericity white, red, and black Gravel, soft, wet, faint naphthalene-like odor. Dark grayish brown SILT, some fine Sand, little medium Sand, medium stiff, wet. Some Clay, trace very fine Sand, stiff, moist. Dark grayish brown fine SAND, some medium Sand, little coarse Sand, soft, wet, faint naphthalene-like odor. Black fine SAND, little Silt, trace medium Sand, silvery flecks, soft, wet, organic odor. Dark grayish brown fine SAND, some medium Sand, soft, wet, faint naphthalene-like odor.	#2 Sand (71 feet to 102.71 feet to 102.71 feet to 102.71 feet bgs) 6-inch Diameter 0.030-inch Continuous Slot Stainless Steel Screen

	ite Lo Forn Parc	o cation : ner Cit	izens Gas Block 471 New York			ē		SB-P3RA-08 / CGRW-21D
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring/Well Construction
80	-70 -	6	70-80		211.9		Black fine SAND, little medium Sand, trace coarse Sand, trace Silt, soft, wet, saturated with NAPL, strong naphthalene-like odor.	102.71 feet bgs)
85	- 75 -	7	80-90	7.0	521.5 601.9 106.7 736.5 356.2 377.7 191.5 87.2 118.1 82.4 68.9 68.6 53.0		Black SILT, little very fine Sand, medium stiff, moist to wet, moderate NAPL coating, moderate naphthalene-like odor. Grayish brown SILT, some very fine Sand, medium stiff, moist to wet, scattered sheen throughout, moderate naphthalene-like odor. NAPL bleb from 85.0 feet to 85.3 feet bgs and 85.8 feet to 85.9 feet bgs. Slight to moderate liquefaction.	#2 Sand (71 feet to 102.71 feet bgs) 6-inch
- 90	-80 -				158.4 100.1 51.9		Dark grayish brown fine SAND, little medium Sand, little Silt, soft, wet, saturated with NAPL, strong naphthalene-like odor. Dark grayish brown CLAY and SILT, medium stiff, slight plasticity, moist, faint naphthalene-like odor. Fine to coarse subangular to subrounded low to medium sphericity GRAVEL, some Silt,	Diameter 0.030-inch Continuous Slot Stainless Steel Screen (72.71 feet to 102.71 feet to 102.71 feet bgs)
- 95	-85 -	8	90-100	6.3	71.2 70.5 234.5 317.1 251.3 229.5 101.9 44.6 21.7		soft, wet, saturated with NAPL. Dark yellowish brown SILT, some fine Sand, little medium Sand, trace coarse Sand, fine to coarse subangular to subrounded low to medium sphericity Gravel, stiff to medium stiff, moist to wet, faint to moderate naphthalene-like odor. [TILL] Saturated with NAPL from 92.8 feet to 93.9 feet bgs and 94.1 feet to 94.3 feet bgs. Dark gray fine SAND, some medium Sand, little coarse Sand, trace fine subrounded low sphericity Gravel, soft, wet, faint naphthalene-like odor.	
Project	t: 30	004014	.0002 >3RA-08_C			S	Remarks: ags = above ground surface; bgs = below ground surface; MGP = applicable/available; NAPL = non-aqueous phase liquid; NR = no Horizontal reference datum is the North American Datum of 1983 East Zone (FIPS 3101). Vertical reference datum is the North Am (NAVD88). Created/Edited by: APG Template: G:(Clients/National Grid/Carroll Gardens/06 Notes and Data)Construction/Recovery Wells	recovery; Sch. = Schedule. (NAD83), New York State Plane

nal Grid\Carroll Gardens\06 Notes and Data\Construction\Recovery Wells Templa

(Client:	Natio	onal Grid				Boring/Well ID: CGS	SB-P3RA-08 / CGRW-21D
:		ocation					Borehole Depth: 11	7.71 feet bgs
	Pare	cel III (izens Gas Block 471 New York			te		
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring/Well Construction
-	- -90 -	8	90-100	6.3	10.2		Dark gray fine SAND, some medium Sand, little coarse Sand, trace fine subrounded low sphericity Gravel, soft, wet, faint naphthalene-like odor.	6-inch Diameter 0.030-inch Continuous Slot Stainless Steel Screen
- 100 - - - - - - - - -	-95 - -95 - - - 	9	100-110	6.8	117.3 84.5 29.0 41.0 28.5 29.1 25.7 8.9 72.8 92.1 172.1 131.1 68.0 31.8		Dark gray fine SAND, some medium Sand, soft, moderate liquefaction, wet, moderate NAPL coating, moderate naphthalene-like odor. Olive gray fine SAND, some medium Sand, little coarse Sand, soft, wet, faint naphthalene-like odor. Heavy NAPL coating from 102.4 feet to 102.5 feet bgs. Black fine SAND, some Silt, little medium Sand, soft, wet, heavy NAPL coating, moderate naphthalene-like odor. Gray SILT, little fine to coarse Sand, little fine to medium subangular to subrounded low sphericity Gravel, stiff, moist, faint naphthalene-like odor. [TILL]	Bentonite Chips (102.71 feet to 102.71 feet bgs) #2 Sand (71 feet to 102.71 feet bgs)
-	- - -105 -	NA	NA	NA	NA		Drilled without sampling to 117.71 feet bgs. Remarks: ags = above ground surface; bgs = below ground surface; MGP =	6-inch Diameter Sch. 10 Stainless Steel Sump (102.71 feet to 117.71 feet bgs)
		Α	RC	A	DI	S	applicable/available; NAPL = non-aqueous phase liquid; NR = no	recovery; Sch. = Schedule. (NAD83), New York State Plane
Proie	ct· 30	004014	0002				Created/Edited by: APG	Date: 5/13/2022

Cli	ient:	Natio	nal Grid				Borir	ng/Well ID: CGS	B-P3RA-08 / CGRW-21D
Sit	te Lo	cation:					Bore	hole Depth: 117	.71 feet bgs
			izens Gas Block 471			e			
	Broc	oklyn, I	New York	, LUI 200)				
	VD88)	Imber	Ø		PID Headspace (ppm)	u			
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	space	Geologic Column	Stratigraphic Description		Boring/Well Construction
oth (fe	ation (i	nple F	nple/Ir	overy	Head	ologic			
Det	Elev	Sar	Sar	Rec	DIA	Ge	Drilled without sampling to 117.71 feet bgs.		
	_								Bentonite Chips (102.71 feet
	-	NA	NA	NA	NA				to 117.71 feet bgs)
-	_						End of boring at 117.71 feet bgs.		6-inch Diameter Sch. 10
-	10 -								Stainless Steel Sump
- 120	10 -								(102.71 feet to 117.71 feet bgs)
	_								
-	_								
-	_								
_									
	_								
-1	15 -								
- 125	_								
-									
	_								
-	_								
-	_								
-									
-1	20 -								
	_								
-	_								
-	_								
_									
	-								
-1	25 -								
- 135	_								
1							Remarks: ags = above ground surface; bgs = below gro applicable/available; NAPL = non-aqueous ph	bund surface; MGP = hase liquid; NR = no	manutactured gas plant; NA = not recovery; Sch. = Schedule.
6		Λ		<u>`</u> ∧ '		C	Horizontal reference datum is the North Amer East Zone (FIPS 3101). Vertical reference da		
		/-\	RC	JAI		3	(NAVD88).		
1									
Project:	: 30	004014	.0002				Created/Edited by: APG		Date: 5/13/2022

Drill Drill Drill Sam	ing Co er's Na ing Me	/Finish: ompany ame: ethod: Method	: Aquit Dave Soni : 5-inc	/2021 - 12 fer Drilling ≥ Moon c c th x 10-foc te Multidril	and Test ot Core Ba	arrel	с.	Northing: Easting: Surface El Casing Ele Borehole I Borehole I Descriptio	631952.1 levation: evation: Depth: Diameter:	8.86 9.45 85.6 10 in		1	Client: Location Former Parcel I	Vell ID: C National G : Citizens (III (Block 4 n, New Yo	Gas Work 71, Lot 2	ks MGP \$		V-22I
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column			Stra	atigraph	c Descript	ion				Boring/ Constru		
-	- 10 -																	
- - - - - - - - - - - - - - - - - - -		ΝΑ	NA	ΝΑ	NA	S	Reman	'ks: ags app Hot Eas	ng to 20 feet h s = above gru blicable/avail rizontal refer avDas).	round su liable; N/	APL = non- tum is the	-aqueous North An	phase liqu	id; NR = no um of 1983	recovery; (NAD83),	Sch. = Scl New York	Gee Maa fee bg: 6-i-i Diat Sc Sc St St St St St Be Gr to b bg: Diant; N hedule State	nch ameter h. 10 sinless sel Riser 59 feet ags 30 feet
-		004014. CGSB-P	0002 '3RA-08_C	GRW-221	l.dat			Edited by: c: G:\Clients\	APG National Grid\Ca	arroll Garde	ns\06 Notes ar	nd Data\Cons	struction\Recov	ery Wells		Da Pa		5/13/2022 1 of 5

c	Client:	Natio	onal Grid				Boring/Well ID: CGS	SB-P3RA-09 / CGRW-22I
s	Site Lo	cation					Borehole Depth: 85.	.67 feet bgs
	Form	ner Cit	izens Gas			te		
	Parc Broc	cei III (oklyn, I	Block 471 New York	, Lot 20(U)			
	D88)	nber			(mqq	_		
(sbq	Elevation (feet NAVD88)	Sample Run Number	Type	feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring/Well
Depth (feet bgs)	ion (fe	ole Ru	Sample/Int/Type	Recovery (feet)	eadsp	ogic C		Construction
Dept	Elevat	Samp	Samp	Reco	H D IA	Geold		
							Drilled without sampling to 20 feet bgs.	
ŀ	_							
Ļ	_	NA	NA	NA	NA			
	-10 -							
Ī	10							
- 20	-				209.5	~~~~	Black DEBRIS (WOOD fragments), some fine to coarse Gravel-sized angular fractured Rock, little fine Sand, little Silt, soft, wet, saturated with black viscous NAPL.	
	_				85.5		Black CLAY, little Silt, soft, sticky, moist to wet.	
				2.4	61.5 135.1			Cement- Bentonite
F					128.2			Grout (8 feet to 28 feet
ŀ	-							bgs) 6-inch Discreter
	-15 -							Diameter Sch. 10 Stainless
								Steel Riser (0.59 feet ags to 30.67 feet
- 25	-	1	20-30					bgs)
-	_							
	_							
[
F	-							
ŀ	-20 -							Bentonite Chips (28 feet to 30 feet
	_						Very dark gray CLAY, some fine Sand, some Silt, soft, sticky, wet, heavy NAPL coating in	bgs)
- 30					92.7 85.9		Sand layers, moderate naphthalene-like odor.	
ŀ	-			2.1	176.5			
	_				95.0 103.2		Sheen from 31.3 feet to 31.8 feet bgs. Heavy NAPL coating from 31.8 feet to 32.1 feet bgs.	
								#2 Sand (30
F	_	2	30-40					#2 Sand (30 feet to 70.67 feet bgs)
-	-25 -							6-inch Diameter
- 35	_							0.020-inch Continuous Slot Stainless Steel Screen (30 67 feet to
								Steel Screen (30.67 feet to 70.67 feet
	_		1	I	<u>I</u>	I	Remarks: ags = above ground surface; bgs = below ground surface; MGP =	manufactured gas plant; NA = not
							applicable/available; NAPL = non-aqueous phase liquid; NR = no	
		Δ	RC	` Δ		S	Horizontal reference datum is the North American Datum of 1983 East Zone (FIPS 3101). Vertical reference datum is the North Am (NAVD88).	
							(
		004014 CGSB-I	.0002 P3RA-08_C	GRW-22	l.dat		Created/Edited by: APG Template: G:(Clients)National Grid(Carroll Gardens)06 Notes and Data\Construction\Recovery Wells	Date: 5/13/2022 Page: 2 of 5

Site Lo Fori Pare	ocation: mer Cit cel III (onal Grid tizens Gas Block 471 New York	, Lot 200		te		5B-P3RA-09 / CGRW-22I 67 feet bgs
Depth (feet bgs) Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring/Well Construction
30 - - 40 -	2	30-40		95.5 197.1		Very dark gray fine SAND, some medium Sand, little coarse Sand, soft, slight liquefaction, wet, light to moderate NAPL coating, faint naphthalene-like odor.	
35 -	-		3.6	155.5 114.4 174.7 55.5 345.3		Very dark gray SILT, little very fine Sand, stiff, moist to wet, faint to moderate naphthalene-like odor. Saturated with NAPL from 42.0 feet to 42.1 feet bgs, 42.5 feet to 42.6 feet bgs, 42.7 feet to 42.8 feet bgs, and 43.2 to 43.3 feet bgs.	
- 45 - 40 -	3	40-50					#2 Sand (30 feet to 70.67 feet bgs) 6-inch Diameter 0.020-inch Continuous Slot Stainless Steel Screen (30.67 feet bgs)
- 50 45	4	50-60	5.8	52.1 137.1 150.5 165.3 98.5 173.3 286.4 153.8 72.8 229.1 143.8 138.7		Very dark gray fine SAND, some Silt, soft, wet, heavy NAPL coating, moderate naphthalene-like odor. Dark grayish brown SILT, some very fine Sand, soft, moderate liquefaction, wet, NAPL blebs and sheen throughout, faint naphthalene-like odor. Black fine SAND, little Silt, soft, wet, saturated with NAPL, moderate naphthalene-like odor. Dark grayish brown SILT, some very fine Sand, medium stiff, moist to wet. Saturated with NAPL from 54.3 feet to 54.4 feet and 54.8 feet to 54.9 feet bgs. Dark gray SILT, little very fine Sand, stiff, moist, faint naphthalene-like odor.	
Project: 30 Data File:	0004014	1.0002		DI		Remarks: ags = above ground surface; bgs = below ground surface; MGP = applicable/available; NAPL = non-aqueous phase liquid; NR = no Horizontal reference datum is the North American Datum of 1983 East Zone (FIPS 3101). Vertical reference datum is the North American Datum of 1988). Created/Edited by: APG Template: G:(Clients/National Grid/Carroll Gardens/06 Notes and Data/Construction/Recovery Wells	manufactured gas plant; NA = not recovery; Sch. = Schedule. (NAD83), New York State Plane

	Natio	onal Grid					B-P3RA-09 / CGRW-22I 67 feet bgs
For Par	mer Ci cel III (tizens Gas Block 471 New York			te		
Depth (feet bgs) Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring/Well Construction
50 -	4	50-60					
- 60 55 - 55 -			4.9	0.7 0.8 0.8 0.7 0.8 0.7 0.9 1.0 1.1		Dark grayish brown fine SAND, some medium Sand, little coarse Sand, soft, wet. Dark yellowish brown fine SAND, some medium Sand, little coarse Sand, trace fine subrounded medium to high sphericity Gravel, soft, wet.	#2 Sand (30 feet to 70.67 feet bgs) 6-inch Diameter 0.020-inch Continuous Slot Stainless Steel Screen
60 -	-	60-70					Slot Stainless Stel Screen (30.67 feet bgs)
- 70 	6	70-73	1.3	1.0 1.0 0.9		Dark grayish brown fine SAND, some medium Sand, little coarse Sand, soft, wet.	6-inch Diameter
- <i>65</i> -	NA	NA	NA	NA		Drilled without sampling to 85.67 feet bgs.	Sch. 10 Stainless Steel Sump (70.67 feet to 85.67 feet bgs) Bentonite Chips (70.67 feet to 85.67 feet bgs)
Project: 30				DI		Remarks: ags = above ground surface; bgs = below ground surface; MGP = applicable/available; NAPL = non-aqueous phase liquid; NR = no Horizontal reference datum is the North American Datum of 1983 East Zone (FIPS 3101). Vertical reference datum is the North Americ(NAVD88). Created/Edited by: APG	recovery; Sch. = Schedule. (NAD83), New York State Plane
Data File:			GRW-22	.dat		Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recovery Wells	Page: 4 of 5

(Client:	Natio	onal Grid				Boring/Well ID:	CGSB-P3RA-09 / CGRW-22I
5	Site Lo	ocation:					Borehole Depth:	85.67 feet bgs
	Parc	cel III (I	izens Gas Block 471	, Lot 200		te		
	Broo	oklyn, Ì	New York					
	8)	er			(u			
(sb	Elevation (feet NAVD88)	Sample Run Number	ype	et)	ce (ppr	umn	Stratigraphic Description	Boring/Well
Depth (feet bgs)	on (feet	e Run	Sample/Int/Type	Recovery (feet)	adspa	Geologic Column	Suaugraphic Description	Construction
Depth	Elevatic	Sampl	Sampl	Recov	PID Headspace (ppm)	Geolog		
- - - 80 - - - - - - - -	-70 - -70 - - - -75 -	NA	NA	NA	NA		Drilled without sampling to 85.67 feet bgs.	Bentonite Chips (70.67 feet bgs) G-inch Diameter Sch. 10 Stainless Steel Sump (70.67 feet to 85.67 feet bgs)
-	_	-					End of boring at 85.67 feet bgs.	
-	_							
	_							
	-80 -							
	_							
- 90								
F	-							
+	-							
-	-							
ļ	-85 -							
95	_	-						
- 33								
		1	1	I	1		Remarks: ags = above ground surface; bgs = below ground surface; Mapplicable/available; NAPL = non-aqueous phase liquid; NF	IGP = manufactured gas plant; NA = not
6		A	RC	A	DI	S	Horizontal reference datum is the North American Datum of East Zone (FIPS 3101). Vertical reference datum is the Nor (NAVD88).	1983 (NAD83), New York State Plane
		004014					Created/Edited by: APG	Date: 5/13/2022
Data	File: (CGSB-F	P3RA-08_C	GRW-22	l.dat		Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recovery Well	s Page: 5 of 5

Drill Drill Drill Sam	ing Co er's Na ing Me	/Finish: ompany ame: ethod: Method	: Aquit Dave Soni I: 5-inc	2/2021 - 1 fer Drilling ≥ Moon c h x 10-foc te Multidril	and Test ot Core Ba	ting, In arrel	c. Easting: 631948.96 Client: N Surface Elevation: 8.97 feet Casing Elevation: 9.43 feet Location: Borehole Depth: 120 feet bgs Borehole Diameter: 10 inches Parcel III	ational Grid Citizens Gas Works MGP Site (Block 471, Lot 200) , New York
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring/Well Construction
-	10 -						Drilled without sampling to 20 feet bgs.	
		NA	NA	NA	NA			x x x x x x x
F		A	RC	A	DI	S	Remarks: ags = above ground surface; bgs = below ground surface applicable/available; NAPL = non-aqueous phase liquid Horizontal reference datum is the North American Datu East Zone (FIPS 3101). Vertical reference datum is the (NAVD88).	; NR = no recovery; Sch. = Schedule. m of 1983 (NAD83), New York State Plane
		004014 CGSB-F	.0002 23RA-10_C	:GRW-221	D.dat		Created/Edited by: APG Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recover	Date: 5/13/2022 y Wells Page: 1 of 7

	Client:	Natio	onal Grid				Boring/Well ID: CGS	8B-P3RA-10 / CGRW-22D
	Site Lo	ocation:					Borehole Depth: 120) feet bgs
	Parc	cel III (izens Gas Block 471			te		
	Broo	oklyn, l	New York					
	188)	ber			(mď			
t bgs)	et NAVI	Run Number	//Type	(feet)	pace (p	Solumn	Stratigraphic Description	Boring/Well
Depth (feet bgs)	Elevation (feet NAVD88)	Sample Ru	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column		Construction
Dep	Elev	Sar	Sar	Rec	DID	Ge	Drilled without sampling to 20 feet bgs.	
-	_	-						
-	-	NA	NA	NA	NA			
	-10 -							
_ 20	_							
20	_				1.0 7.5		Dark grayish-brown fine to medium angular to subrounded GRAVEL, low to medium sphericity, some coarse Sand, little fine to medium Sand, trace Silt, soft, wet, faint naphthalene-like odor.	
ŀ	_	-			2.7		Some Silt, trace sheen, faint naphthalene-like odor from 20.5 feet to 21.5 feet bgs. WOOD.	
ŀ	_			4.9	4.6 24.9			
F	_				50.1 63.3			
ŀ	-15 -	-			255.0 181.9			
- 25	-	1	20-30		247.8			
-	_	-						Cement- Bentonite Grout (8.9
	_							feet to 64 feet bgs) 6-inch
	_							Diameter Sch. 10 Stainless
	-20 -							Steel Riser (0.46 feet ags to 72.62 feet
	-20 -							bgs)
- 30	_				50.2		Gray fine SAND, some Silt, trace medium Sand, soft, wet, naphthalene-like odor.	
-	_	-			89.2 50.3		Black fine SAND, little Silt, trace medium to coarse Sand, soft, wet, saturated with NAPL, naphthalene-like odor.	
F	-				170.2 120.1			
-	_	2	30-40	5.9	182.0 222.0			
-	-25 -				270.0 60.7			
- 35	_				170.9		Gray SILT, some fine Sand, moist to wet, trace sheen, naphthalene-like odor.	
					364.5 317.0			
							Remarks: ags = above ground surface; bgs = below ground surface; MGP = applicable/available; NAPL = non-aqueous phase liquid; NR = no	manufactured gas plant; NA = not recovery; Sch. = Schedule.
		Δ	RC	` ∆		ς	Horizontal reference datum is the North American Datum of 1983 East Zone (FIPS 3101). Vertical reference datum is the North Am (NAVD88).	
		1					(1917-200).	
Proje	ect: 30	004014	.0002				Created/Edited by: APG	Date: 5/13/2022
			P3RA-10_C	GRW-22	D.dat		Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recovery Wells	Page: 2 of 7

Client	t: Natio	onal Grid				Boring/Well ID: CGS	B-P3RA-10 / CGRW-22D
Site L	ocation	:				Borehole Depth: 120) feet bgs
Pa	rcel III (tizens Gas Block 471	, Lot 200		te		
Bro	ooklyn,	New York					
8)	ц.			ш			
gs) NAVD8	Sample Run Number	ype	et)	ce (ppi	nmn	Stratigraphic Description	Boring/Well
(feet b on (feet	e Run	Sample/Int/Type	Recovery (feet)	adspa	Geologic Column	Suaugraphic Description	Construction
Depth (feet bgs) Elevation (feet NAVD88)	Sampl	Sampl	Recov	PID Headspace (ppm)	Geolog		
				<u> </u>			
-	-						
-	2	30-40					
30							
- 40				223.7		Very dark gray fine SAND, little Silt, trace medium Sand, soft, wet, heavy NAPL coating, moderate naphthalene-like odor.	
-	-			118.7 146.4			
-	_		3.8	78.2 184.4			
	_			180.3		Gray SILT, soft, moist, staining, moderate naphthalene-like odor.	
				239.7 231.4		Dark grayish brown fine SAND, some Silt, trace medium Sand, soft, wet, saturated with NAPL, moderate naphthalene-like odor.	
35							
- 45	- 3	40-50					Cement-
-	-						Bentonite Grout (8.9 feet to 64 feet
-	_						bgs) 6-inch
							Diameter Sch. 10 Stainless
							Steel Riser (0.46 feet ags to 72.62 feet
40	-						bgs)
- 50				269.1		Dark gray fine SAND, little Silt, trace medium sand, soft, wet, light NAPL coating, moderate	
-	_			151.4		naphthalene-like odor. Saturated with NAPL from 51.0 feet to 51.3 feet bgs.	
				216.7 160.8		Dark gray SILT, some very fine Sand, soft, wet, moderate naphthalene-like odor. Saturated with NAPL from 51.6 feet to 52.3 feet bgs. Sheen at 51.9 feet bgs.	
				294.4 62.2		Heavy NAPL coating and sheen from 52.7 feet to 52.9 feet bgs.	
-	- 4	50-60	6.3	88.4			
45	-			161.0 190.8		⁷ Dark gray SILT and fine SAND, alternating bands of Silt and Sand, soft, wet. Sand layer with moderate NAPL coating from 54.2 feet to 54.3 feet bgs, Sand layer with heavy NAPL coating from 54.3 feet to 54.4 feet bgs, Silt layers with sheen from 54.2 feet to	
- 55	-			418.5		54.5 feet bgs. Dark gray SILT, some fine Sand, soft, wet, moderate naphthalene-like odor.	
				591.7 320.7		2-inch Sand layer saturated with NAPL at 55.3 feet bgs. Sand layer with light NAPL coating and sheen from 55.5 feet to 55.8 feet bgs.	
						Remarks: ags = above ground surface; bgs = below ground surface; MGP = applicable/available; NAPL = non-aqueous phase liquid; NR = no	
	Λ		` ∧ '		C	Horizontal reference datum is the North American Datum of 1983 East Zone (FIPS 3101). Vertical reference datum is the North Am	
	/4	RC	J		3	(NAVD88).	
Project: 3 Data File:		4.0002 P3RA-10 C	GRW-22	D.dat		Created/Edited by: APG Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recovery Wells	Date: 5/13/2022 Page: 3 of 7

	Boring/Well ID: CGS	B-P3RA-10) / CGRW-22D
e Location:	Borehole Depth: 120	feet bgs	
Former Citizens Gas Works MGP Site Parcel III (Block 471, Lot 200)			
Brooklyn, New York			
Elevation (feet NAVD88) Sample Run Number Sample/Int/Type Recovery (feet) PID Headspace (ppm) Geologic Column	Stratigraphic Description		pring/Well Instruction
	Sand, soft, wet, moderate naphthalene-like odor.		
- 4 50-60			Cement- Bentonite
 215.8 227.5 227.5 227.5 25.5 142.4 aphthalene-like odor. Sati to 60.8 feet bgs. Gray SILT, some fine Sand Sheen from 60.9 feet to 61 Sand layer saturated of Sheen at 61.7 feet bgs 			Grout (8.9 feet to 64 feet bgs)
55 55 60-70 115.3 Sheen from 63.1 feet 1 69.4 69.4 Moist, faint naphthaler 32.1 25.9 Olive brown fine SAND, so faint naphthalere-like odor	ne-like odor. ome medium Sand, little Silt, trace coarse Sand, moist to wet,		6-inch Diameter Sch. 10 Stainless Steel Riser (0.46 feet ags to 72.62 feet bgs) Bentonite Chips (64 feet to 66.5
60 -			feet bgs)
- 14.4 Fine SAND, some Silt, trac odor. 35.5 NAPL blebs at 70.8 fe 41.4 24.0 5.0 211.9	ee medium and coarse Sand, soft, wet, faint naphthalene-like		#2 Sand (66.5 feet to 102.62 feet bgs)
65 - 6 70-80 22.3 24.3 9.9 Trace fine subrounded 11.6 Little medium Sand, lit	d to rounded low sphericity Gravel. ittle Silt.		6-inch Diameter 0.030-inch Continuous Slot Stainless Steel Screen (72.62 feet to 102.62 feet to bgs)

(Client: National Grid Boring/Well ID: CGSB-P3RA-10 / CGRW-22D							
Site Location: Borehole Depth: 120 feet bgs								
	Former Citizens Gas Works MGP Site Parcel III (Block 471, Lot 200)							
	Brooklyn, New York							
	88)	Der			(mc			
(sɓq	Elevation (feet NAVD88)	Sample Run Number	Type	eet)	PID Headspace (ppm)	olumn	Stratigraphic Description	Boring/Well
Depth (feet bgs)	ition (fee	ple Ru	Sample/Int/Type	Recovery (feet)	Headsp	Geologic Column		Construction
Dept	Eleva	Sam	Sam	Rec	PID	Geo		••••
-								
-	_	6	70-80					
-	-70 -							
- 80					243.7	• • • •	Dark yellow-brown SILT, trace very fine Sand, stiff, moist, trace sheen, orange staining,	
_	_				393.8		faint naphthalene-like odor. Black fine SAND, some medium Sand, little coarse Sand, trace fine subrounded low	
					343.6 371.5	•••••	sphericity Gravel, soft, wet, saturated with NAPL, strong naphthalene-like odor.	
-				5.3	417.7			
-	_				317.0 79.0		Dark grayish brown SILT, some fine Sand, trace medium to coarse Sand, fine to coarse	
-	-75 -				21.3 14.0		subangular to subrounded low to medium sphericity Gravel and Cobbles, stiff, moist, faint naphthalene-like odor. [TILL]	
- 85	_	7	80-90		10.3 9.8			
	_							#2 Sand (66.5 feet to
								102.62 feet bgs) 6-inch
	_							Diameter 0.030-inch
-	_							Continuous Slot Stainless Steel Screen
-	-80 -							(72.62 feet to 102.62 feet bgs)
- 90							Brown fine SAND, some Silt, trace medium Sand, soft, wet, faint naphthalene-like odor.	
	_				93.3 47.9		Trace sheen from 90.7 feet to 91.3 feet bgs.	
					34.7 14.6			
-	_				6.4		Dark grayish brown fine SAND, some medium Sand, little coarse Sand and Silt, soft, wet, faint naphthalene-like odor.	
-	_	8	90-100	6.0	21.7 37.1			
-	-85 -				29.2 16.7			
- 95	_				4.9			
					13.2 8.1		Dark grayish brown fine SAND and SILT, soft, moist to wet, faint naphthalene-like odor.	
							Remarks: ags = above ground surface; bgs = below ground surface; MGP = applicable/available; NAPL = non-aqueous phase liquid; NR = no	
Horizontal reference datum is the North American Datum of 1983 (NAD83), New York State Plane East Zone (FIPS 3101). Vertical reference datum is the North American Vertical Datum of 1988 (NAVD88).								
	-1. 05	0404	0000					
	ct: 300 File: C		.0002 P3RA-10_C	GRW-22	D.dat		Created/Edited by: APG Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recovery Wells	Date: 5/13/202 Page: 5 of 7

Client:	Client: National Grid Boring/Well ID: CGSB-P3RA-10 / CGRW-22D						
Site Location: 120 feet bgs							
Former Citizens Gas Works MGP Site							
Broo	Parcel III (Block 471, Lot 200) Brooklyn, New York						
VD88)	mber			PID Headspace (ppm)	<u>د</u>		
Depth (feet bgs) Elevation (feet NAVD88)	Sample Run Number	Sample/Int/Type	(feet)	space	Geologic Column	Stratigraphic Description	Boring/Well Construction
th (fee ation (fi	nple R	nple/In	Recovery (feet)	Heads	logic (Constitución
Dep	Sam	Sam	Rec	PID	Geo		
	8	90-100					6-inch
90 -							Diameter 0.030-inch Continuous
							Slot Stainless Steel Screen
- 100 -				4.6		Dark gray fine SAND, little medium Sand, little Silt, trace coarse Sand, soft, wet, faint naphthalene-like odor.	(72.62 feet to 102.62 feet bgs)
				22.2 15.3			#2 Sand (66.5 feet to
				7.8			102.62 feet bgs)
				5.7 4.0			
			6.0	7.3		Dark gray SILT, little fine Sand, stiff, moist.	
95 -				2.7 3.3		Brown fine SAND, little medium to coarse Sand, soft, wet, faint naphthalene-like odor.	
- 105 -	9	100-110		10.1			
	Ū	100 110		3.0 2.7			
						Gray SILT, little fine Sand, trace medium to coarse Sand, fine subangular to subround low sphericity Gravel, stiff, moist, faint naphthalene-like odor. [TILL]	
	-						
	_						
							Bentonite
100 -							Chips (102.62 feet to 120 feet
- 110 -				2.5		Dark grayish-brown fine SAND, some medium Sand, little coarse Sand, trace Silt, soft,	bgs) 6-inch
				2.4		wet.	Diameter Sch. 10
				2.9 2.7			Stainless Steel Sump (102.62 feet
				2.0		Some Silt, little medium Sand.	to 117.62 feet bgs)
	10	110-120	6.0	1.9 1.7		Some medium Sand, little Silt.	
105 -				2.0			
				2.2 1.5			
- 115 -				1.9 2.1			
				2.1		Remarks: ags = above ground surface; bgs = below ground surface; MGP =	6-inch manufactured gas plant; NA = not
1						applicable/available; NAPL = non-aqueous phase liquid; NR = no	recovery; Sch. = Schedule.
9	Λ	DC	` \		S	Horizontal reference datum is the North American Datum of 1983 East Zone (FIPS 3101). Vertical reference datum is the North Am (NAVD88).	
	/~				J		
Project: 30 Data File:			GRW-22	D.dat		Created/Edited by: APG Template: G:\Clients\National Grid\Carroll Gardens\06 Notes and Data\Construction\Recovery Wells	Date: 5/13/2022 Page: 6 of 7

Client: National Grid							Boring/Well I): CG	SB-P3RA-10 / CGRW-22D
	Site Lo	cation:					Borehole Dep	th: 12	20 feet bgs
	Former Citizens Gas Works MGP Site Parcel III (Block 471, Lot 200)								
	Broc	oklyn, I	New York	, 201 201	,				
	Elevation (feet NAVD88)	umber	υ	_	PID Headspace (ppm)	uг			
et bgs	feet N∕	sun Ni	nt/Typ	r (feet)	space	Colun	Stratigraphic Description		Boring/Well Construction
Depth (feet bgs)	vation (Sample Run Number	Sample/Int/Type	Recovery (feet)	Head	Geologic Column			
De	Ele	Sa	Sal	Re	DIA	Ge			Diameter
	_								Sch. 10 Stainless Steel Sump
									(102.62 feet to 117.62 feet
-	_	10	110-120						bgs) Bentonite Chips
F	-110 -								(102.62 feet to 120 feet
- 12	0 -								bgs)
	_						End of boring at 120 feet bgs.		
-	_								
-	-								
	-115 -								
- 12	.5 -								
-	_								
-	_								
	_								
-	-120 -								
- 13	0 -								
Ļ	_								
	_								
ł	-								
-	-125 -								
- 13	5 -								
Γ							Remarks: ags = above ground surface; bgs = below ground surfa applicable/available; NAPL = non-aqueous phase liqui	ce; MGP : d; NR = no	= manufactured gas plant; NA = not o recovery; Sch. = Schedule.
							Horizontal reference datum is the North American Date	ım of 1983	3 (NAD83), New York State Plane
	7	Α	RC	A	UI.	5	East Zone (FIPS 3101). Vertical reference datum is the (NAVD88).	e North An	nerican Vertical Datum of 1988
		_							
Proje	ect: 30	004014	.0002				Created/Edited by: APG		Date: 5/13/2022

Data File: CGSB-P3RA-10_CGRW-22D.dat

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Attachment B

Decommissioning Log for New Recovery Well CGRW-11

FIGURE 3	
WELL DECOMMISSIONING RECORD	
	WWWD (COULD)
Site Name: Catizers Forner AVGP Site, National Gria	Well I.D.: CGRW-11
Site Location: Brookyn, NY	Driller: ADT/O-Moon
Drilling Co.: ADT	Inspector: A. Giloson
	Date: 2/16/22
DECOMMISSIONING DATA	WELL SCHEMATIC*
(Fill in all that apply)	Depth
	(feet)
OVERDRILLING Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	34 -
Depth temporary casing installed	
Casing type/dia. (in.)	- Bentriste 77
Method of installing	
CASING PULLING	38 - 1/
Method employed	
Casing retrieved (feet)	- Send it
Casing type/dia. (in)	
CASING PERFORATING	
Equipment used	<u>40</u>
Number of perforations/foot	- 500
Size of perforations	- SCreen 20 slot
Interval perforated	70 #2 Sand
GROUTING	10
Interval grouted (FBLS) 0-85	-
# of batches prepared	- Sup
For each batch record: Quantity of water used (gal.)	
	85 -
Quantity of cement used (lbs.) Cement type	
Quantity of bentonite used (lbs.) 46 36 130 4974 p5	
Quantity of calcium chloride used (lbs.)	XIIII
Volume of grout prepared (gal.) -80 Volume of grout used (gal.) -70	
Volume or grout acces (Str.)	
COMMENTS: NAPL Purged before groutdag,	* Sketch in all relevant decommissioning data, including:
Grant has 5% Beatonite ponder grandes	interval overdrilled, interval grouted, casing left in hole,
	well stickup, etc.
DATA NA 1001.	
Drilling Contractor () the Contractor	Department Representative

A. Gibs n. Arcadis, Oversight