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Patrick Van Rossem
Project Manager
Site Investigation and Remediation

June 11, 2019

Mr. John Miller
Project Manager
New York State Division of Environmental Conservation (NYSDEC)
MGP Remedial Section, Division of Environmental Remediation
Bureau of Western Remedial Action, 11th Floor
625 Broadway
Albany, New York 12233-7017

Re: May 2019 DNAPL Recovery Report
Citizens Gas Works Former Manufactured Gas Plant Site
Carroll Gardens, Brooklyn, New York
Site No.: C224012

Dear Mr. Miller:

This progress report provides a summary of the dense non-aqueous phase liquid (DNAPL) recovery activities performed at the Citizens Former Gas Works Manufactured Gas Plant Site between May 1 and May 31, 2019. Starting in June 2019, DNAPL recovery activities will be temporarily suspended due to the upcoming start of the remedial activities, which have a planned start date of July 8, 2019. DNAPL recovery will resume sometime in 2021 after the conclusion of the remedial activities.

The current DNAPL well network includes thirteen (13) 6-inch diameter stainless steel recovery wells, five (5) 2-inch diameter PVC monitoring wells, and nine (9) 4-inch diameter PVC recovery wells; 18 of the wells have been monitored from December 2010 to May 2019 based on historic DNAPL thicknesses and accumulation rates. The attached DNAPL Measurement Summary Table includes only recovery wells with historically measurable non-aqueous phase liquid.

Recovery Summary

The recovery program liquid volumes include DNAPL, coal tar and a small quantity of ground water from the extraction activities onsite. A total of approximately 505 gallons of total fluids (DNAPL and groundwater) were recovered between May 1 and May 31, 2019. A total of approximately 47,962 gallons of total fluids have been recovered to date since the program's inception in December 2010. The summary table attached to this report lists the number of recovery events, the monthly highest DNAPL thickness, the monthly total fluids generated, and the total fluids recovered to date for each well.

Recovery wells with DNAPL thicknesses recharging within 24 or 36 hours after being pumped, or that recharged beyond the top of the well sump, were pumped on a more frequent schedule. The highest DNAPL thickness observed during the month of May 2019 was 26 feet at well

CGRW-41I. Recovery wells CGRW-4, CGRW-5I, CGRW-5D, CGRW-6I, CGRW-6D, CGRW-7I, CGRW-7D, and MW-43D were purged of DNAPL using the installed pneumatic recovery pumps. DNAPL and ground water are regularly gauged and monitored for recharge rates after purging.

Operational Activities

DNAPL recovery operations continued in May 2019. Regular maintenance was performed on the recovery equipment, pumps, air compressor supply, and generator. Activities between the ongoing DNAPL recovery operation and Gowanus-related remediation activities on Parcel 3 were coordinated between consultants and contractors in on-site meetings.

Schedule

Starting in June 2019, DNAPL recovery activities will be temporarily suspended due to the upcoming start of the Site remedial activities, which have a planned start date of July 8, 2019. DNAPL recovery is expected to resume sometime in 2021 after the conclusion of the Site remedial activities. The waste removal associated with DNAPL recovery is scheduled for June 2019.

If you have any questions or require additional information, please contact me at (516) 545-2578, or by email at Patrick.VanRossem@nationalgrid.com.

Sincerely,

Maria Stepanova for Patrick Van Rossem

Patrick J. Van Rossem
Project Manager

Enclosure

J. Alonzo (de maximis, Inc)
D. Terry (GEI Consultants, Inc.)
M. Stepanova (GEI Consultants, Inc.)
M. Benoit (Arcadis US, Inc.)

DNAPL Measurement Summary Table
May 1 to May 31, 2019
Citizens Former Gas Works MGP Site
Brooklyn, New York

Well Identification	Number of Recovery Events for Month	Highest DNAPL Thickness for Month (feet)	Fluids Generated for Month (gal)	Total Fluids Generated to Date (gal)
CGRW-1[3]	0	NA	0	208
CGRW-2	0	NA	0	240
CGRW-3	0	NA	0	310
CGRW-4	3	4	53.4	4,314
CGRW-5S	0	2.5	0	105
CGRW-5I	3	5.1	40	4,124
CGRW-5D	3	16	121	14,826
CGRW-6I	5	11	109	8,385
CGRW-6D	5	13	115	9,030
CGRW-7S[1,2]	0	NA	0	576
CGRW-7I	1	5.6	10	955
CGRW-7D	1	14	28	2,388
MW-34S[1]	0	NA	0	16
MW-41I	0	26	0	770
MW-42I	0	NA	0	151
MW-40D	0	NA	0	214
MW-43D	4	6.2	28	988
RW-203	0	NA	0	365
RW-204	0	NA	0	0
Total Fluid Recovered This Period:			**505**	
Total Fluid Recovered To Date:				**47,962**

Notes:

Recovery Wells are 6 inch diameter stainless steel

Monitoring Wells are 2 inch diameter PVC

RW-203, RW-204 are 4 inch diameter PVC

NA - Not Applicable

ND - Not Detected

[1] = MW-34S and RW-7S - LNAPL present

[2] = CGRW-7S silted, pump inoperable, seized in well

[3] = thickness data observed from staining on tape