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Periodic Review Report

(May 2021-May 2022)

11-28 31st Drive, Queens, NY

NYSDEC Site # C241159

Prepared For:

GBT Real Estate, LLC

1083 Maple Lane

New Hyde Park, NY 11040

Prepared By:

Hydro Tech Environmental Engineering and Geology, DPC

77 Arkay Drive, Suite K

Hauppauge, NY 11788

May 20, 2022

CERTIFICATIONS

I, Tarek Z. Khouri, certify that I am currently a NYS registered Professional Engineer and that this Periodic Review Report for the 11-28 31st Drive Site (Site Number: C241159) was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

Tarek Z. Khouri, P.E.

Name

Signature

May 20, 2022

Date

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1.0 EXECUTIVE SUMMARY

1.1. Summary of Site Condition and Remedial History

The project site is located at 11-28 31st Drive, in the Long Island City section of Queens County, New York and is identified as Block 502 and Lot 22 on the Queens Tax Map. The site is an approximately 0.055-acre area (2,400 square feet). The site is zoned R7A (residential) and is developed with a 6-story condominium building with slab on grade of approximately 1,550 square feet. An 850 square foot open rear yard exists in the southwestern portion of the site. The new building consists of a total of 9 condominium units that have been sold and occupied since June 2022.

The Site is enrolled in the New York State (NYS) Brownfield Cleanup Program (BCP) and referred to as site No. C241159, which is administered by New York State Department of Environmental Conservation (NYSDEC). To remediate the site, GBT Real Estate LLC entered into a Brownfield Cleanup Agreement (BCA) in June 2014 (amended March 2017) with the NYSDEC.

Based upon the results of remedial investigation completed by HydroTech during 2013 and 2015, the types of contamination at the site that were identified to require remediation included:

- Volatile organic compounds (VOCs) particularly trichloroethylene, or TCE, and tetrachloroethylene, or PCE in soil, groundwater, and soil vapors
- Heavy metals in soil including copper, lead, zinc, mercury, chromium trivalent, and chromium hexavalent.

Remedial actions performed at the site, in accordance with the Decision Document dated September 2016, include:

- Removal of a 550-gallon underground gasoline storage tank (UST) (completed);
- Excavation and off-site disposal of contaminated soils/fill exceeding Track 2 restricted residential SCOs (completed);
- Treatment of groundwater contamination via in-situ chemical oxidant (ISCO) injections (completed);
- Installation of an active sub-slab depressurization (SSD) system as an engineering control to mitigate the migration of vapors into the building from groundwater (completed);
- Execution and recording of an Environmental Easement to restrict land use and prevent future exposure to any contamination remaining at the Site (completed);
- Implementation of a long-term groundwater monitoring plan (performed until November 2021 and waiting on NYSDEC decision to terminate this monitoring plan).
- Implementation of Operation and Maintenance plan for the inspection and monitoring of SSD system (on-going).
- Periodic certification of the institutional and engineering controls (on-going).

A NYSDEC's approved SMP dated November 2018 was implemented at the Site following the issuance of the Certificate of Completion (COC) on December 20, 2018. In accordance with this SMP, the remaining contamination at the Site was previously monitored through quarterly sampling events of five groundwater monitoring wells and quarterly monitoring of an active SSD system. Due to fieldwork delays caused by extended construction schedule and other circumstances including Covid-19 impacts along with NYSDEC approval of a March 2021 petition to reduce the frequency of quarterly monitoring events, a total of five quarterly sampling of groundwater monitoring wells and five quarterly inspections of the SSD system were performed between September 2019 and December 2020. An annual inspection of the active SSD system was also performed during April 2021. Findings of these activities were documented in two previous PRRs dated and May 30, 2020 and May 20, 2021.

An SMP Update dated October 15, 2021 was prepared at the request of NYSDEC in response to the March 2021 petition, to make changes to the schedule of SMP inspections, monitoring and reporting activities. The tasks described in the SMP Update can be summarized as follows:

- Suspend the quarterly groundwater sampling and reporting and perform one additional sampling event to evaluate the natural attenuation of residual PCE concentrations in groundwater before making a final decision to terminate the groundwater monitoring program at the Site. The November 2021 groundwater sampling and reporting event was conducted on monitoring wells MW-2, MW-3, MW-4 and MW-6 along with the decommissioning of MW-1 located in the rear yard. Groundwater samples were analyzed for the contaminants of concern tetrachloroethene (PCE) and trichloroethylene (TCE) via by EPA Method 8260.

- Modify the frequency of the active SSD system monitoring from quarterly events to monthly monitoring events, to be conducted by building maintenance personnel, along with annually inspections to be performed by a Qualified Environmental Professional (QEP) or a New York State licensed PE, or a qualified person who directly reports to the New York State licensed PE. The monthly SSD system monitoring would consist of a visual observation of the system for any physical wear, damage and operational issues related to the suction fan. The annual SSD system inspection would also consist of a visual observation for any physical wear, damage and operational issues associated with real time readings of the system airflow and vacuum, and organic vapor concentrations measurements at the effluent stream. A quantitative pressure field extension testing at the three vacuum monitoring points (VMP-1 to VMP-3) and the monitoring of system operational integrity would be performed annually and while the SSD system is in a full mode of operation.

Consistent with the October 2021 SMP Update, monitoring well MW-1 was decommissioned by HydroTech during October 2021 and the requested groundwater

sampling event was performed by HydroTech during December 2021. These activities were published in an Annual Groundwater Sampling Event report dated January 31, 2022. The monthly inspections of the active SSD system have been conducted by the building maintenance personnel since April 2021, soon after NYSDEC approved the March 2021 petition to modify schedules of monitoring activities in the November 2018 SMP. The annual SSD system inspection was completed by HydroTech most recently during April 2022. **Appendix 1** provides NYSDEC correspondences.

1.2 Effectiveness of the Remedial Program

Progress made during the reporting period toward meeting the remedial objectives for the Site include the individual monitoring and sampling event of groundwater quality beneath the Site, the monthly and annual inspections of the active SSD system in accordance with the October 2021 SMP Update and the implementation and management of the institutional and engineering controls in accordance with the November 2018 SMP. Monitoring data from the work completed to date shows that the remedial program is currently meeting the remedial objectives for the Site.

1.3 Compliance

No areas were identified as being currently out of compliance with the SMP requirements. As such, no steps are currently deemed necessary to correct areas of non-compliance.

2.0 Site Overview

The PRR is prepared for 11-28 31st Drive site located in the Long Island City section of Queens County, New York. This site is approximately 0.055-acre area or 2,400 square feet and is bounded by 31st Drive to the north-northeast, vacant land and a 1-story manufacturing building to the south-southwest, a 1-story cabinet manufacturing facility to the east-southeast and a vacant land to the west-northwest. This site is zoned R7A (residential) and is currently developed with a 6-story building with a total of 9 condominiums with a slab on-grade. The footprint of this building is approximately 1,550 square feet. An 850 square foot landscaped rear yard exists in the southwestern portion of the site. The 9 condominium units had been sold and occupied since June 2022.

Site environmental history was previously characterized following Site enrollment into the NYSDEC BCP as site No. C241159. As part of this Site characterization, a total of six (6) permanent groundwater monitoring wells were installed including four on-site wells designated MW-1 to MW-4 and two off-site wells designated MW-5 to MW-6, with MW-5 then presumed destroyed. Contaminants of concern identified at the Site included Volatile organic compounds (VOCs) particularly trichloroethylene, or TCE, and tetrachloroethylene, or PCE, in soil, groundwater and soil vapors and metals in soil including copper, lead, zinc, mercury, chromium trivalent, and chromium hexavalent. **Figure 1** provides a site map showing the location of monitoring wells.

During site remedial construction, several remedial actions were undertaken in compliance with the NYSDEC Decision Document dated September 2016 and were completed prior to the issuance of the Certificate of Completion (COC) in December 2018, with the exception of the SSD system. The SSD system installation was completed post-COC during September 2019 in conjunction with the finishing of the new building construction at the Site. The SSD system included five (5) sub-slab vacuum monitoring points that were installed through the building mat slab in accordance with NYSDEC

requirements. Three (3) of these vacuum monitoring points are designated as VMP-1, VMP-2 and VMP-3 and were installed as permanent points in common areas of the building. The remaining two points were designated as VMP-4 and VMP-5 and were installed as temporary points in a rear ground-level residential unit and were decommissioned soon after system start-up. **Figure 2** provides the location of the vacuum monitoring points.

The remedial actions completed at the Site consisted of the following:

- Demolished and excavated the existing building slab and disposed 145 tons of C&D waste;
- Removed the 550-gallon gasoline UST and performed a post-excavation tank assessment;
- Excavated all soil/fill exceeding Track 2 Soil Cleanup Objectives to a depth of 3 feet below grade throughout the property and a depth of 6.6 feet below grade for the elevator pit and disposed 323.5 tons of nonhazardous contaminated historic fill/native soil;
- Imported of ¾-inch stone for establishing a 6-inch layer of porous layer for the SSD system under slab and a cover in open rear yard;
- Performed in-situ chemical oxidation injections in the vicinity of the removed UST by introducing a total of 1,900 lbs of persulfate and a total 120 lbs of FeEDTA activator via three injections points.
- Installed an active SSD system, which was completed and started-up along with the completion of building construction;
- Implemented an SMP to ensure proper operation and maintenance of the Engineering Controls; and
- Recording of an Environmental Easement against the site to ensure implementation of the SMP.

3.0 Evaluation of Remedy Performances, Effectiveness, and Protectiveness

A NYSDEC's approved SMP dated November 2018 was implemented at the Site following the issuance of the Certificate of Completion (COC) dated December 20, 2018. In accordance with this SMP, the remaining contamination at the Site was monitored through quarterly sampling events of five groundwater monitoring wells and quarterly inspections of an active SSD system. Due to fieldwork delays caused by extended construction schedule and other circumstances including Covid-19 impacts along with NYSDEC approval of a March 2021 petition to reduce the frequency of quarterly monitoring events, a total of five quarterly sampling of groundwater monitoring wells and five quarterly inspections of the SSD system were performed between September 2019 and December 2020. An annual inspection of the active SSD system was also performed during April 2021. Findings of these activities were documented in two previous PRRs dated and May 30, 2020, and May 20, 2021.

An SMP Update dated October 15, 2021 was then prepared at the request of NYSDEC in response to the March 2021 petition. This update presented changes to the schedule of SMP inspections, monitoring and reporting activities. The monitoring and sampling plan contemplated in the October 2021 SMP Update can be summarized as follows:

Monitoring Program	Frequency	Monitored	Analytical/Monitoring Parameter	Analytical Method
Groundwater	Once during November 2021	Monitoring wells MW-2, MW-3, MW-4 and MW-6	PCE and TCE / Condition, PID Screen, Depth to water, depth to bottom	EPA Method 8260
SSD system	Monthly	Fan	Vacuum	Not Applicable
	Annually	Fan, alarm, effluent,	PID, Vacuum	Not Applicable

		vacuum at system gauge and vacuum at VMP-1, VMP-2, VMP-3		

A map showing the locations of monitoring wells is included in **Figure 1**. A map showing the locations of SSD vacuum monitoring points is provided in **Figure 2**. **Appendix 2** provides a copy of the October 2021 SMP Update.

3.1 Groundwater Monitoring Data

The natural attenuation of residual PCE concentrations in groundwater beneath the Site was evaluated through one additional sampling event conducted, by HydroTech, during December 2021 on existing monitoring wells, which included MW-2 and MW-3 located in the building slab on-grade and MW-4 located in the north-adjacent sidewalk to the south of 31st Drive. Monitoring well MW-1 located in the rear yard was decommissioned on October 25, 2021, and MW-6 continues to be obstructed by a locked construction fence erected around the adjacent vacant property located to the west-northwest. The locations of the monitoring wells are shown in **Figure 1**.

All groundwater samples were collected via Passive Diffusion Bag (PDB) samplers. Collected groundwater samples were analyzed for the PCE and TCE via by EPA Method 8260. A summary of findings of this additional groundwater sampling event was documented in an Annual Groundwater Sampling Event report prepared by HydroTech and dated January 31, 2022. Groundwater level measurements from the monitoring wells documented in this report indicated the groundwater flow beneath the Site continues to be toward the southwest as shown in **Figure 3**, consistent with the historic site-specific groundwater flow direction. This report also provided a graphic evaluation of historical data trends of PCE and TCE pre- and post-groundwater remediation in

MW-2, MW-3 and MW-4 along with a recommendation to terminate the groundwater monitoring and sampling program and decommission all existing monitoring wells associated with the Site.

The most recent groundwater findings during December 2022 are summarized in **Table 1**. This data indicates PCE concentrations were detected in MW-2 at 6.99 µg/L, in MW-3 at 1.28 µg/L and in MW-4 at 5.26 µg/L. It should be noted that PCE concentrations detected in MW-2 and MW-4 over time have marginally exceeded its GQS of 5 µg/L since February 2018. In addition, PCE concentrations have reached asymptotic levels in MW-2 since at least March 2020, in MW-3 since February 2018 and in MW-4 since November 2018. No TCE concentrations have been reported in any monitoring wells at the Site in exceedance of GQS since February 2018.

In summary, the concentrations detected during this reporting period continue to represent a decrease by up to 92% for PCE and 100% for TCE, and have reached asymptotically stable levels consistent with the historic groundwater sampling performed at the Site and reflects a general reduction since 2019 as a result of natural degradation. **Figures 4, 5** and **6** provide the trend of PCE and TCE concentrations in MW-2, MW-3, and MW-4 over time, respectively.

Data Usability Summary Report (DUSR) was prepared for the groundwater data by Hanibal Tayeh, Ph.D. This DUSR indicated all laboratory data for the December 2021 sampling event is deemed acceptable. The DUSR was submitted as part of the Annual Groundwater Sampling Event report, which is included in **Appendix 3**. The groundwater data was also submitted electronically to NYSDEC EQuIS database through the Environmental Information Management System, using the standardized electronic data deliverable (EDD) format.

3.2 Active Sub-Slab Depressurization System Monitoring Data

In accordance with the October SMP Update, the inspection and monitoring of the effectiveness and operation of the active SSD system installed at the Site have been performed monthly by the building maintenance personnel the since April 2021 and annually by HydroTech on April 18, 2022. The vacuum communication was verified through readings from the three existing sub-slab vacuum monitoring points 3. **Figure 2** provides the location of the vacuum monitoring points.

During the annual monitoring event, the vacuum at the sub-slab monitoring points VMP-1, VMP-2 and VMP-was measured utilizing an DP-Calc™ Micromanometer Model 8710. The SSD system components were also visually inspected for proper functioning in accordance with the SSD system Operation and Maintenance Plan in the SMP by recording the SSD system vacuum at the inline Dwyer Magnehelic dial type vacuum gauge, checking the audio/visual system alarm and observing the functioning of the fan. In addition, organic vapors were measured at the effluent of the SSD system utilizing a Photoionization detector (PID).

The results of the annual SSD system monitoring for this reporting period are summarized in **Table 2**. According to **Table 2**, the vacuum at the SSD fan was measured at a minimum of -0.74, which is consistent with the previous measurements. The negative pressure readings measured across the building slab at VMP-1 trough VMP-3 recorded a minimum of -0.03 inches H_2O and a maximum of -0.05 inches H_2O. Overall assessment of this data indicates an adequate radius of influence of the SSD system, which continue to be sufficient for mitigating potential soil vapor intrusion beneath the building. In addition, no organic vapors were detected with the PID at the SSD system effluent. **Appendix 4** provides the annual SSD system inspection checklist.

Based upon the annual SSD system inspection and the review of the monthly SSD system inspections provided by building maintenance personnel, no deficiencies such as

damaged SSD riser pipes or joints, alterations or cracks in building slab or construction changes to building structure that would alter the system performance were noted during the inspection of the SSD system.

Appendix 5 provides the monthly SSD system inspections checklist by building maintenance personnel.

4.0 Institutional Control/Engineering Control Compliance

4.1 Institutional Controls

The following Institutional Controls are included in the SMP for the site:

- The property may be used for: Restricted Residential, Commercial, and Industrial use;
- All ECs must be operated and maintained as specified in this SMP;
- All ECs must be inspected at a frequency and in a manner defined in this SMP;
- The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the New York City Department of Health and Mental Hygiene to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department;
- Groundwater and other environmental or public health monitoring must be performed as defined in this SMP;
- Data and information pertinent to site management must be reported at the frequency and in a manner as defined in this SMP;
- All future activities that will disturb remaining contaminated material must be conducted in accordance with this SMP;
- Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in this SMP;
- Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical component of the remedy shall be performed as defined in this SMP; and
- Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by the Environmental Easement.

The site-wide inspection determined that Institutional Controls have been complied with including compliance with the Environmental Easement and the SMP. There are no new conclusions or recommendations for change of Institutional Controls at this time.

4.2 Engineering Control

The Engineering Control (EC) listed at the site includes the following:

- Active SSD system

The EC present at the site appears to be operating satisfactorily as designed and installed to render the site protective to human health and environment. The SSD system operation is in compliance with the SMP. There are no new conclusions that would trigger any necessary changes or modifications to improve the operation of the EC present at the site.

Based upon the information evaluated in this report, the Institutional and Engineering Controls Certification form was filled by the remedial party GBT Real Estate LLC and certified by Tarek Z. Khouri, a New York State Licensed PE. A copy of the EC/IC certification form is included in **Appendix 6**.

4.0 Operation & Maintenance Compliance Report

The active SSD system is operating and maintained as required and in compliance with the Operation and Maintenance Plan in the SMP. No evidence or current of former deficiencies undermining the operation or functions of the EC were identified during this reporting period.

5.0 Conclusions and Recommendations

5.1 Compliance

The Site is currently developed with a new 6-strory building condominium building of approximately 1,550 square feet and an 850 square foot open rear yard in the southwestern portion. The building consists of a total of 9 condominium units that have been sold and occupied since June 2022.

The requirements stipulated in the November 2018 SMP regarding IC/EC's and the monitoring and O&M Plan, the October 2021 SMP Update regarding the changes to the schedule of groundwater sampling and SSD system monitoring were met during this reporting period. No disturbance was observed in the land use except for the current occupation of the building by new condominium owners, the decommissioning of monitoring wells MW-1 located in the rear yard at the Site. The remaining monitoring wells and the SSD system were maintained in good condition without the need for any repairs as confirmed during the monthly and annual monitoring events.

Minor deficiencies in the groundwater sampling requirements consisting of the lack of access to off-site monitoring well MW-6 were justified and deemed insignificant to impact the evaluation of groundwater quality and conclusions made in this PRR.

5.2 Performance and Effectiveness of Remedy

An evaluation of the components of the SMP and SMP Update during this reporting period indicates that the IC/EC controls were protective of human health and the environment. Overall findings of groundwater data indicate PCE concentrations in MW-2 and MW-4 have reached asymptotically stable levels that marginally exceed exceeded GQS since at least March 2020. TCE and PCE data evaluated overtime should warrant the termination of the groundwater monitoring program at this site.

SSD monitoring data indicates the system is operating as designed by mitigating potential soil vapor intrusion beneath the building and rendering the site protective to human health and environment.

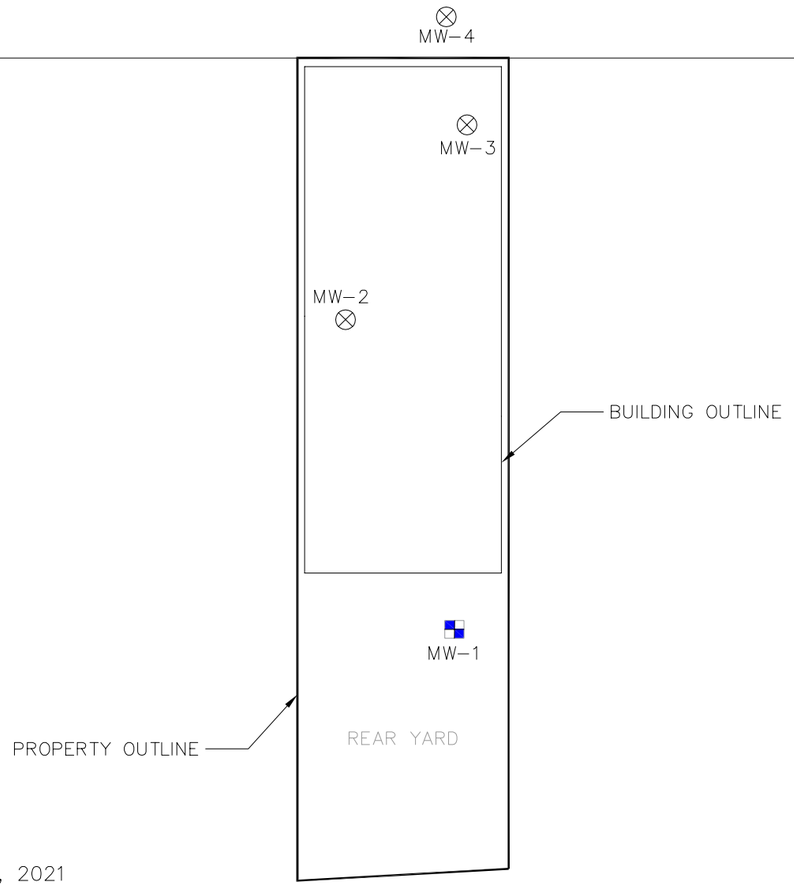
5.2 Recommendation

A summary of the recommended ICs/EC inspection, monitoring and sampling activities is provided below:

- Since the concentrations of contaminants of concern in groundwater have reached asymptotic levels that marginally exceed GQS, it is recommended that the groundwater monitoring and reporting for this Site shall be terminated and monitoring wells MW-2 to MW4 and MW-6 shall be decommissioned in accordance with NYSDEC CP-43: Groundwater Monitoring Well Decommissioning Policy (November 2009) (CP-43).
- The monthly SSD system inspections by the building maintenance personnel shall continue along with the annual SSD system by a QEP in order to insure the the proper implementation of O&M plan in the November 2018 SMP and per the inspection schedule in the October 2021 SMP Update.
- The annual submission of a PRR shall continue, consistent with the PRR schedule established in the October 2021 SMP Update. The next PRR is due May 2023 or at another frequency as may be required by the NYSDEC.

FIGURES

31ST DRIVE



LEGEND

- ⊗ MONITORING WELL
- ■ MONITORING WELL DECOMMISSIONED ON OCTOBER 25, 2021
- ——— PLYWOOD CONSTRUCTION FENCE

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BASE DRAWING PREPARED BY

PROJECT NAME AND ADDRESS

11-28 31ST DRIVE
QUEENS, NY 11106

PROJECT FIGURE

FIGURE 1: SITE MAP

PROJECT NO.	DATE
190055	1/28/22
DRAWN BY V.D.	REVIEWED BY P.M.
SCALE (11X17) NOT TO SCALE	APPROVED BY T.K.

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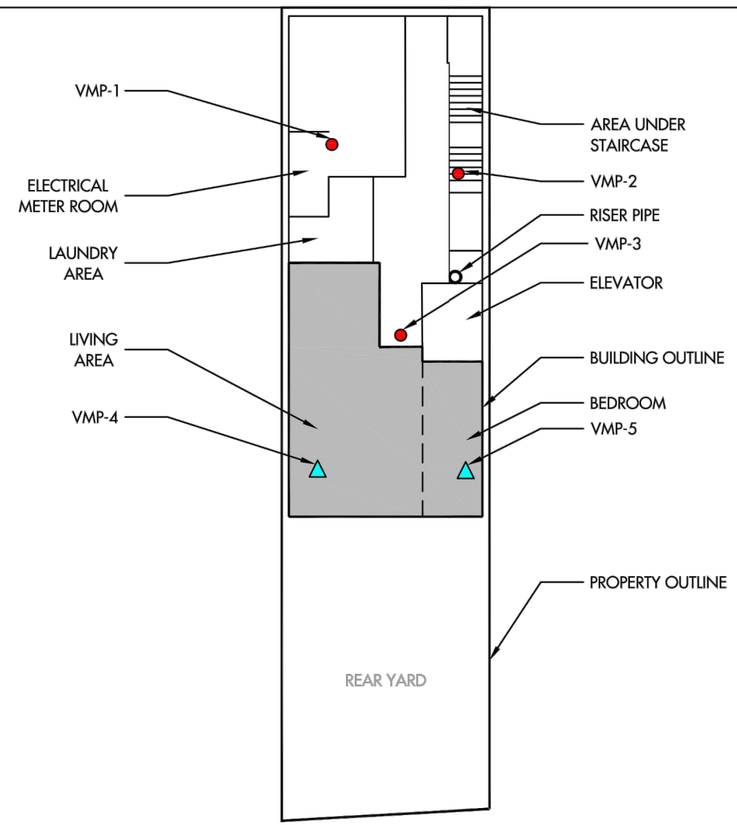
N

31ST DRIVE



LEGEND

- PERMANENT VACUUM MONITORING POINTS
- TEMPORARY VACUUM MONITORING POINTS (DECOMMISSIONED AFTER SSDS STARTUP)
- RESIDENTIAL UNIT

HYDROTECH ENVIRONMENTAL ENGINEERING AND GEOLOGY, DPC

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BASE DRAWING PREPARED BY

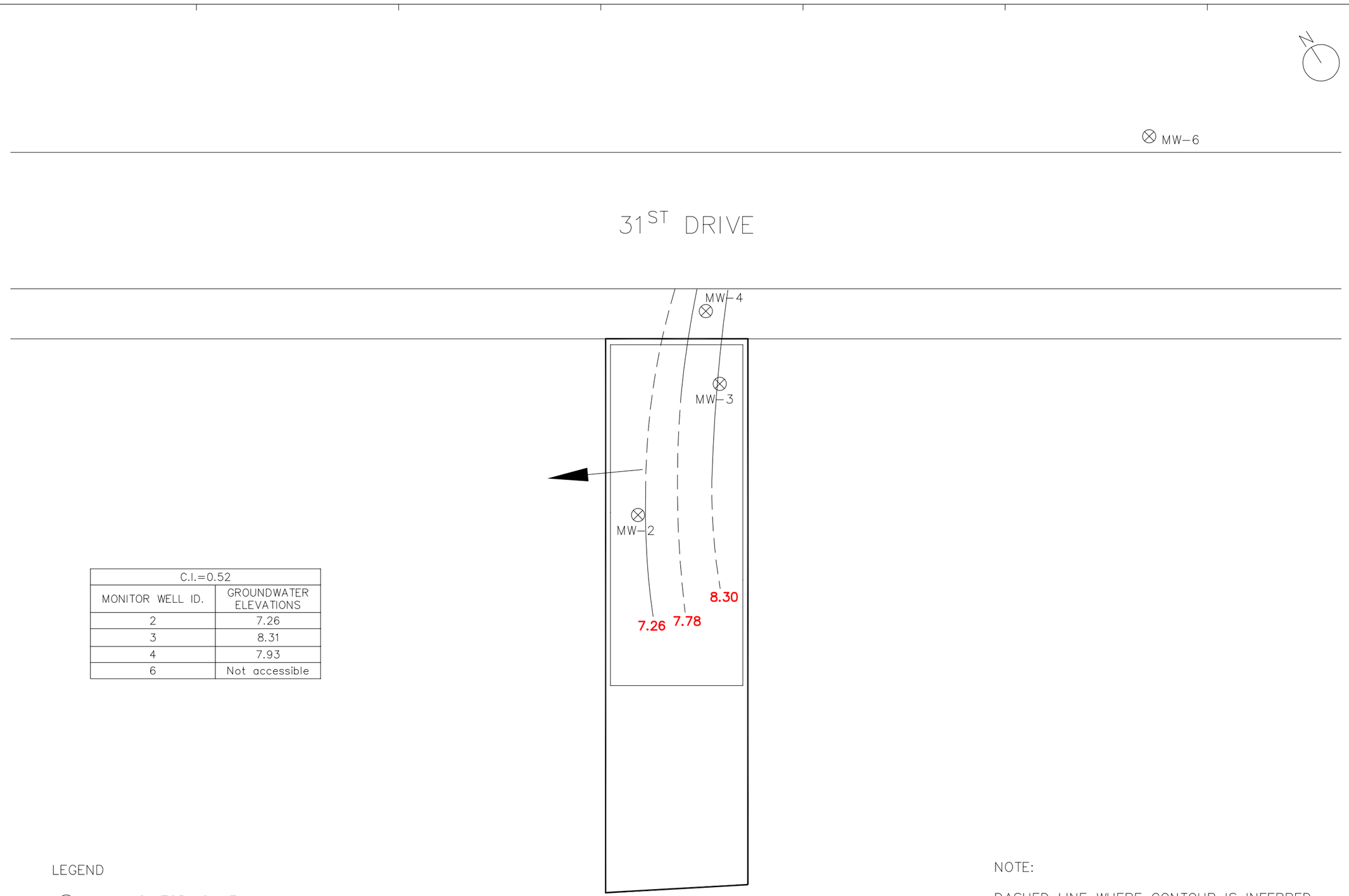
PROJECT NAME AND ADDRESS

11-28 31ST DRIVE
QUEENS, NY 11106

PROJECT FIGURE

FIGURE 2: VACUUM MONITORING POINTS LOCATIONS

PROJECT NO.	DATE
190055	5/13/21
DRAWN BY V.D.	REVIEWED BY P.M.
SCALE (11X17) NOT TO SCALE	APPROVED BY T.K.



C.I.=0.52	
MONITOR WELL ID.	GROUNDWATER ELEVATIONS
2	7.26
3	8.31
4	7.93
6	Not accessible

LEGEND

⊗ MONITORING WELL

NOTE:

DASHED LINE WHERE CONTOUR IS INFERRED

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PROJECT NAME AND ADDRESS

11-28 31ST DRIVE
QUEENS, NY 11106

PROJECT FIGURE

FIGURE 3: GROUNDWATER FLOW CONTOUR MAP – DECEMBER 2021

PROJECT NO.	DATE
190055	5/20/22
DRAWN BY V.D.	REVIEWED BY P.M.
SCALE (11X17) NOT TO SCALE	APPROVED BY T.K.

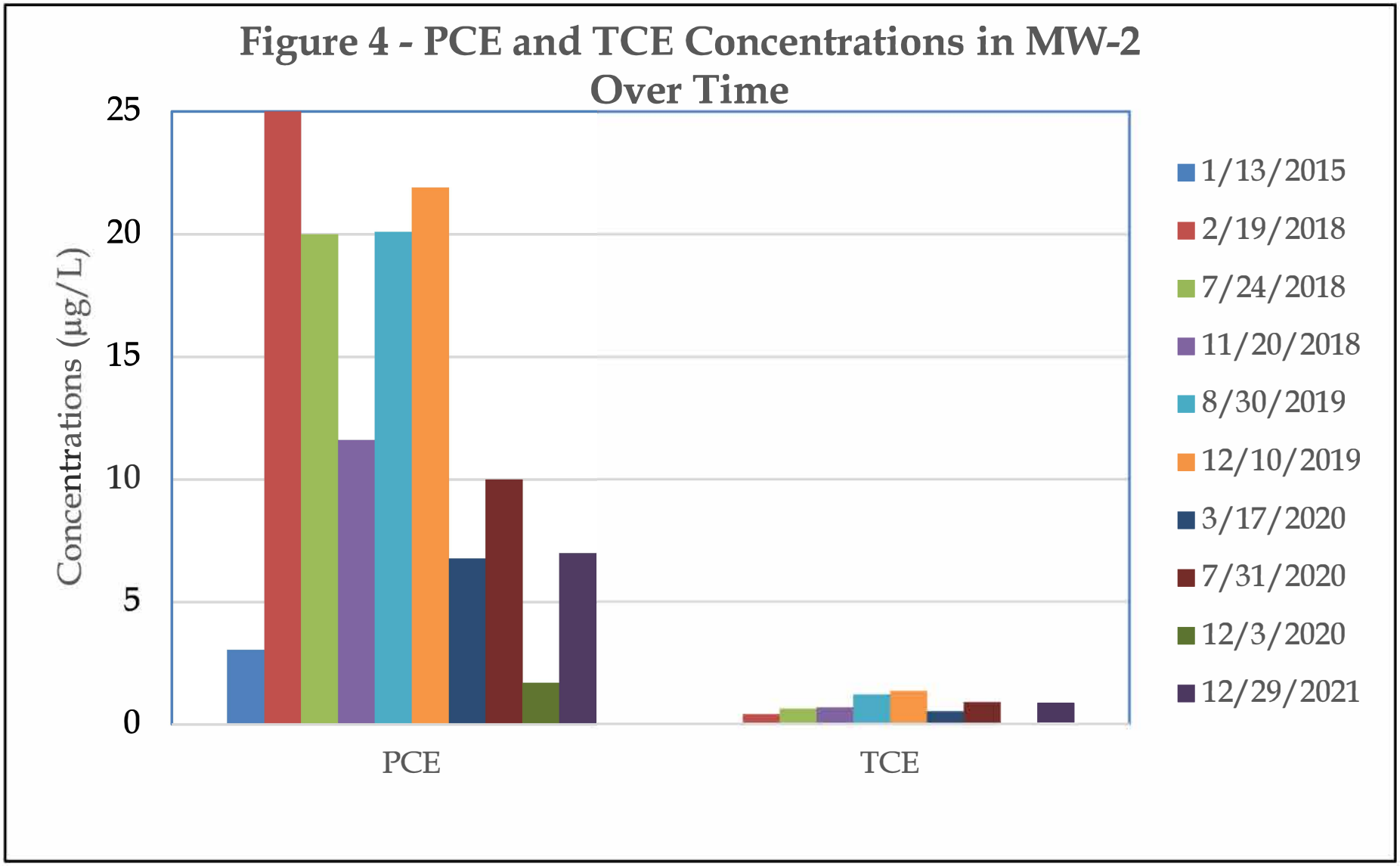


Figure 4 - PCE and TCE Concentrations in MW-2 Over Time
Concentrations (µg/L)
25
20
15
10
5
0
PCE
TCE
1/13/2015
2/19/2018
7/24/2018
11/20/2018
8/30/2019
12/10/2019
3/17/2020
7/31/2020
12/3/2020
12/29/2021

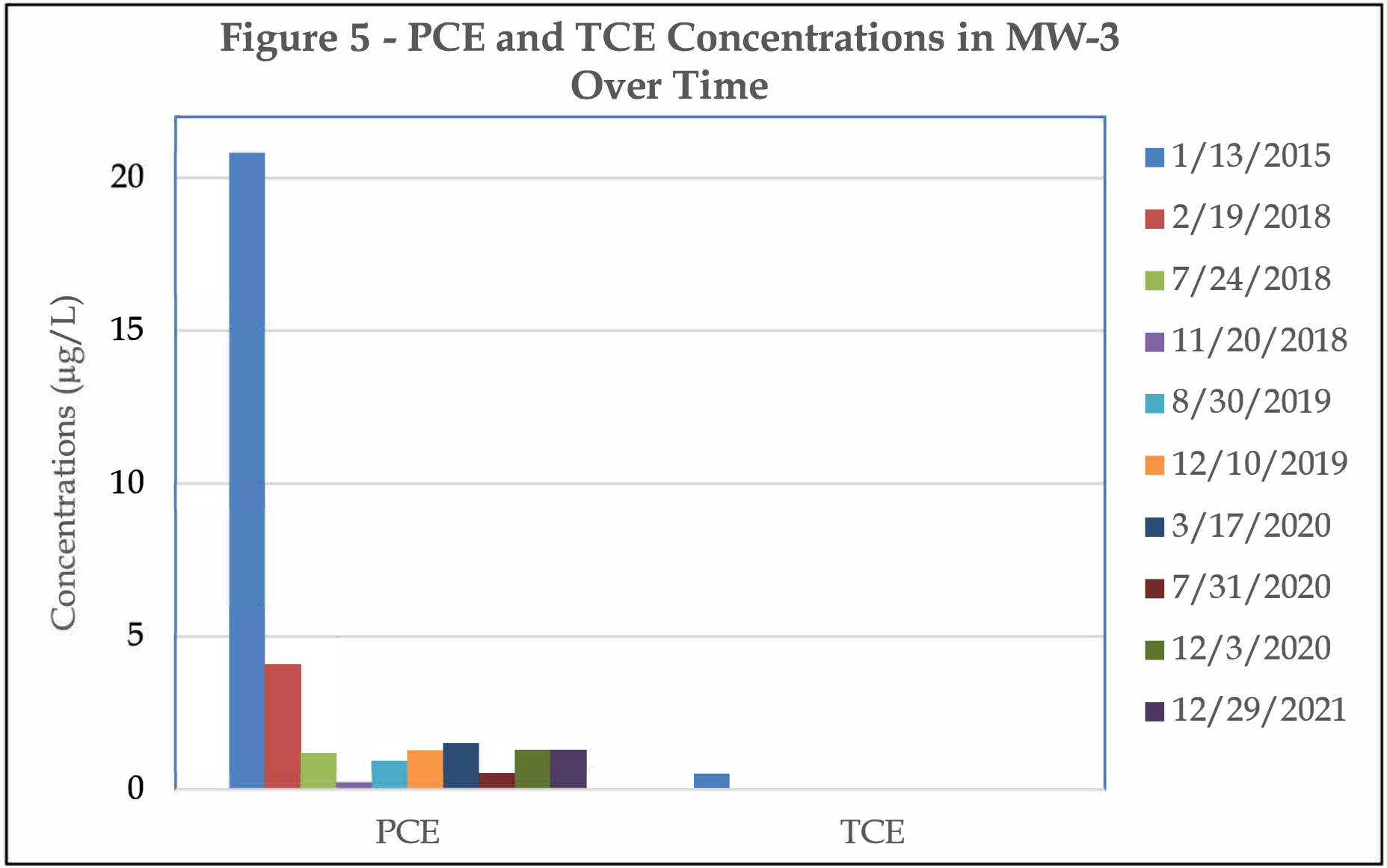
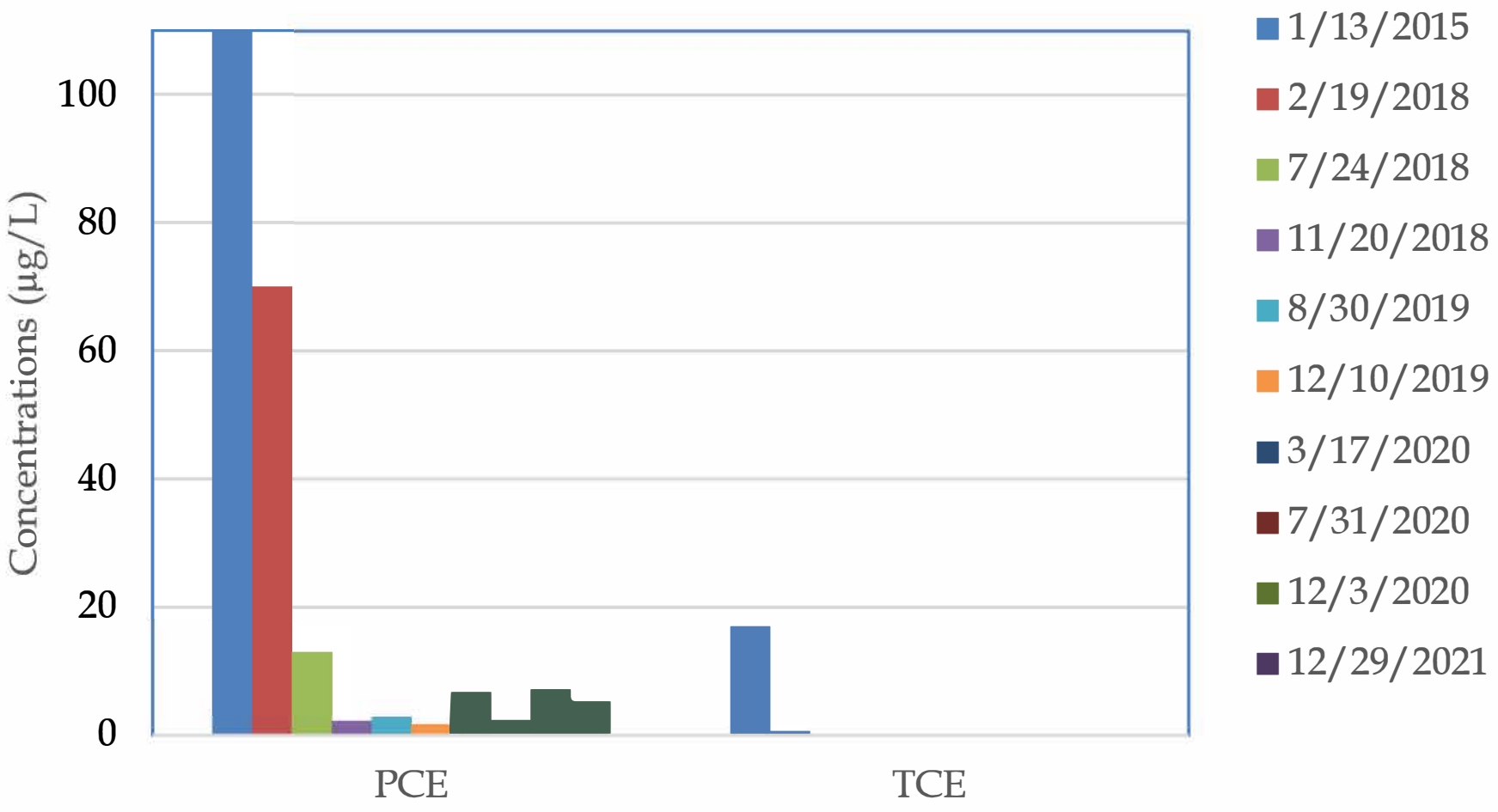


Figure 5 - PCE and TCE Concentrations in MW-3 Over Time
Concentrations (µg/L)
20
15
10
5
0
PCE
TCE
1/13/2015
2/19/2018
7/24/2018
11/20/2018
8/30/2019
12/10/2019
3/17/2020
7/31/2020
12/3/2020
12/29/2021

Figure 6 - PCE and TCE Concentrations in MW-4 Over Time



TABLES

Table 1
Groundwater Samples Analytical Results for PCE and TCE _ Over Time
11-28 31st Drive, Queens, NY

Sampling Date	MW-1		MW-2		MW-3		MW-4		MW-6	
	PCE	TCE	PCE	TCE	PCE	TCE	PCE	TCE	PCE	TCE
1/13/2015	0.2 U	0.2	**3.03**	0.2 U	**20.83**	**0.52**	**3,799.8**	**17**	**85.83**	**8.90**
2/19/2018	**0.28** J	0.2 U	**25**	**0.4** J	**4.10**	0.2 U	**70**	**0.66**	**75**	**15**
7/24/2018	0.2 U	0.2 U	**20**	**0.63**	**1.20**	0.2 U	**13**	**0.43** J	**43**	**0.46** J
11/20/2018	0.2 U	0.2 U	**11.60**	**0.68**	0.22	0.2 U	**2.28**	0.2 U	**28.4**	**0.48** J
8/30/2019	0.2 U	0.2 U	**20.1**	**1.21**	**0.92**	0.2 U	**2.87**	0.2 U	**49.6**	**0.42** DJ
12/10/2019	0.2 U	0.2 U	**21.90**	**1.35**	**1.27**	0.2 U	**1.75**	0.2 U	NA	
3/17/2020	0.2 U	0.2 U	**6.77**	**0.52**	**1.50**	0.2 U	**6.70**	0.2 U	NA	
7/31/2020	0.2 U	0.2 U	**10**	**0.90**	**0.54**	0.2 U	**2.36**	0.2 U	NA	
12/3/2020	0.2 U	0.2 U	**1.70**	0.2 U	**1.28**	0.2 U	**7.16**	0.2 U	NA	
12/29/2021	D		**6.99**	**0.86**	**1.28**	0.2 U	**5.26**	0.2 U	NA	

NOTES:
D=result is from an analysis that required a dilution
J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated
U=analyte not detected at or above the level indicated
Shaded concentration exceeds GQS of PCE or TCE of 5 µg/L
GQS=NYSDEC TOGS Standards and Guidance Values - GA
PCE=Tetrachloroethylene
TCE=Trichloroethylene
1/13/2015=Sampling performed during the Remedial Investigation
2/19/2018=Baseline sampling performed prior to ISCO Injection Program
7/24/2018= Sampling performed 2 months post-ISCO injections
11/20/2018=Quaretrly sampling performed 5 months post-ISCO injections
8/30/2019 to 12/3/2020=Quartely sampling performed 30 months post-ISCO Injections to-date
12/29/2021 = Annual sampling performed once a year after December 2020 event
NA= Not sampled due to limited access
D = Decommisioned monitoring well on October 25, 2021

Table 2
SSD System Monitoring Results
11-28 31st Drive ,Queens, New York,
NYSDEC Site Number: C241159

Date/Time	SSDS Vacuum	SSDS Effluent			Vaccum Monitoring Points				
					VMP-1	VMP-2	VMP-3	VMP-4	VMP-5
		PID	Flow	Temp	Vacuum				
9/9/2019	-0.74	0.2	518	76.46	-0.031	-0.040	-0.041	-0.036	-0.039
10/15/2019	-0.74	NA	NA	NA	-0.030	-0.036	-0.042	-0.036	-0.038
12/10/2019	-0.74	0.1	470.8	62.2	-0.024	-0.032	-0.034	D	D
3/2/2020	-0.74	0.1	440.1	65.5	-0.023	-0.035	-0.033	D	D
7/15/2020	-0.74	0.3	503.7	78.0	-0.030	-0.040	-0.060	D	D
11/19/2020	-0.75	0.1	416.8	48.8	-0.030	-0.040	-0.040	D	D
4/16/2021	-0.74	0.1	390.4	51.1	-0.030	-0.030	-0.040	D	D
4/18/2022	-0.74	0.1	M	M	-0.030	-0.030	-0.050	D	D

Vacuum --- Inch Water Flow
PID --- ppm
Flow --- CFM
Temperature --- ◦F
NA---Not measured
D---Decommissioned
M---Equipment malfunction

APPENDICES

APPENDIX 1

NYSDEC CORRESPONDENCES

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Environmental Remediation
625 Broadway, 11th Floor, Albany, NY 12233-7020
P: (518)402-9543 | F: (518)402-9547
www.dec.ny.gov

3/8/2022

George Man
GBT Real Estate LLC
57 Allen Street
New York, NY 10002
genmail@mcnyinc.com

Re: Reminder Notice: Site Management Periodic Review Report and IC/EC Certification Submittal
Site Name: 11-28 31st Drive
Site No.: C241159
Site Address: 11-28 31st Drive
Queens, NY 11106

Dear George Man:

This letter serves as a reminder that sites in active Site Management (SM) require the submittal of a periodic progress report. This report, referred to as the Periodic Review Report (PRR), must document the implementation of, and compliance with, site-specific SM requirements. Section 6.3(b) of DER-10 *Technical Guidance for Site Investigation and Remediation* (available online at http://www.dec.ny.gov/regulations/67386.html) provides guidance regarding the information that must be included in the PRR. Further, if the site is comprised of multiple parcels, then you as the Certifying Party must arrange to submit one PRR for all parcels that comprise the site. The PRR must be received by the Department no later than **May 20, 2022**. Guidance on the content of a PRR is enclosed.

Site Management is defined in regulation (6 NYCRR 375-1.2(at)) and in Chapter 6 of DER-10. Depending on when the remedial program for your site was completed, SM may be governed by multiple documents (e.g., Operation, Maintenance, and Monitoring Plan; Soil Management Plan) or one comprehensive Site Management Plan.

A Site Management Plan (SMP) may contain one or all of the following elements, as applicable to the site: a plan to maintain institutional controls and/or engineering controls ("IC/EC Plan"); a plan for monitoring the performance and effectiveness of the selected remedy ("Monitoring Plan"); and/or a plan for the operation and maintenance of the selected remedy ("O&M Plan"). Additionally, the technical requirements for SM are stated in the decision document (e.g., Record of Decision) and, in some cases, the legal agreement directing the remediation of the site (e.g., order on consent, voluntary agreement, etc.).

When you submit the PRR (by the due date above), include the enclosed forms documenting that all SM requirements are being met. The Institutional Controls (ICs) portion of the form (Box 6) must be signed by you or your designated representative. The Engineering Controls (ECs) portion of the form (Box 7) must be signed by a Professional Engineer (PE). If you cannot certify that all SM requirements are being met, you must submit a Corrective Measures Work Plan that identifies the actions to be taken to restore compliance. The work plan must include a schedule to be approved by the Department. The Periodic Review process will not be considered complete until all necessary corrective measures are completed and all required controls are certified. Instructions for completing the certifications are enclosed.

All site-related documents and data, including the PRR, must be submitted in electronic format to the Department of Environmental Conservation. The required format for documents is an Adobe PDF file with optical character recognition and no password protection. Data must be submitted as an electronic data deliverable (EDD) according to the instructions on the following webpage:

https://www.dec.ny.gov/chemical/62440.html

Documents may be submitted to the project manager either through electronic mail or by using the Department's file transfer service at the following webpage:

https://fts.dec.state.ny.us/fts/

The Department will not approve the PRR unless all documents and data generated in support of the PRR have been submitted using the required formats and protocols.

You may contact Jane O'Connell, the Project Manager, at 718-482-4599 or jane.oconnell@dec.ny.gov with any questions or concerns about the site. Please notify the project manager before conducting inspections or field work. You may also write to the project manager at the following address:

New York State Department of Environmental Conservation
One Hunters Point Plaza
47-40 21st Street
Long Island City, NY 11101

Enclosures

PRR General Guidance
Certification Form Instructions
Certification Forms

ec: w/ enclosures

ec: w/ enclosures
Jane O'Connell, Project Manager
Jane O'Connell, Hazardous Waste Remediation Supervisor, Region 2

Hydro Tech Environmental Corp. - Paul Matli - pmatli@hydrotechenvironmental.com
AMC Engineering, PLLC - Ariel Czemerinski - ariel@amc-engineering.com

The following parcel owner did not receive an ec:
Gbt Real Estate LLC - Parcel Owner

APPENDIX 2

OCTOBER 2021 SMP UPDATE

HydroTech Environmental
ENGINEERING AND GEOLOGY, DPC

NYC Office
405 Lexington Ave, 8th Fl
New York, New York 10174

Long Island Office
77 Arkay Drive, Suite K
Hauppauge, New York 11788

Tel (631) 462-5866
Email: Info@ hydrotechenvironmental.com
WWW.HYDROTECHENVIRONMENTAL.COM

October 15, 2021

New York State Department of Environmental Conservation
Division of Environmental Remediation,
47-40 21st Street
Long Island City, NY 11101
Attn.: Jane H. O'Connell, P.G., Regional Remediation Engineer

Re: Site Management Plan Update
11-28 31st Drive, Queens, New York
Block 502; Lot 22
NYSDEC BCP Site #C241159

Dear Ms. O'Connell:

HydroTech Environmental Engineering and Geology, DPC hereby submits an update to the New York State Department of Environmental Conservation (NYSDEC) approved November 2018 Site management Plan (SMP) for above-referenced Brownfield Cleanup Program (BCP) Site on behalf of GBT Real Estate LLC. This update provides proposed changes to inspections, monitoring and reporting activities of specific Site controls that will be followed and carried on during the implementation of the SMP. The contents of this update will supersede the contents in the SMP where there is a conflict in purpose or intent. The updated requirements/procedures of the SMP include the following stipulations below:

1. The text below will replace the corresponding text in, "**Executive Summary**:

Engineering Controls:	1. Sub-Slab Depressurization System
	2. In-Situ Chemical Oxidation Treatment
Inspections:	Frequency
1. Sub-Slab Depressurization System	Annually
Monitoring:	
Sub-Slab Depressurization System 2. Fan 3. Magnehelic Gauge 4. Alarm 5. Vacuum gauge	Monthly
Sub-slab vacuum monitoring points 1. Fan Effluent	Annually

In-Situ Chemical Oxidation Treatment 1. Monitoring Well Sampling	Once during November 2021
Maintenance:	
Sub-Slab Depressurization System: 1. Fan Maintenance	As needed
Reporting:	
1. Groundwater Data	Once after November 2021 Sampling Event
2. Sub-Slab Depressurization System	Annually
3. Periodic Review Report	Annually

2. The text below will replace the corresponding text in section "**2.5 Remaining Contamination"**

Sub-Section **"2.5.2 Groundwater"**:
Five (5) monitoring wells (MW-1 to MW-4 and MW-6) were utilized at the Site to determine the effectiveness of the chemical oxidant injection program. The locations of the monitoring wells are shown in **Figure 4**.

A round of pre-injection groundwater samples was obtained during February 2018 from well MW-1 to MW-4 and MW-6 and seven rounds of post-injection quarterly groundwater samples were obtained from these wells between July 2018 and December 2020. One quarterly sampling event was delayed from what was originally scheduled date during 2019 due to interior finishing activities of new building at the Site and two other events were delayed during 2020 due to impacts associated with Covid 19 pandemic. Monitoring well MW-6 has not been accessible for sampling since December 2019 as it was located behind a locked construction fence erected around a vacant property located to the north of the site.

All groundwater samples were collected via Passive Diffusion Bag (PDB) samplers. Collected groundwater samples were analyzed for the contaminants of concern tetrachloroethene (PCE) and trichloroethylene (TCE) via by EPA Method 8260. A summary of findings of the groundwater samples collected over time at the Site was documented in the Periodic Review Reports (PRR) prepared by HydroTech and dated May 30, 2020, and May 20, 2021.

The most recent results of groundwater sampling performed in December 2020 indicated PCE continues to be detected in MW-2 and MW-3 and MW-4 and its concentration marginally exceeded its GQS in MW-4, while TCE was not detected in any monitoring wells. The PCE and

TCE data reported overtime for groundwater at the Site reflects a general reduction overtime since 2018 as a result of natural degradation.

Refer to **Figure 8** for a map showing the pre- and post-injection contaminant concentrations in groundwater overtime. **Table 2** summarize the results of pre- and post-injection groundwater samples collected over time at the site.

3. The text below will replace the corresponding text in section "**4.3 ISCO Monitoring and Sampling"**

Sub-Section **"4.3.1 ISCO Monitoring"**:
Monitoring of the ISCO treatment began two months after the final injection event, and was then carried on a quarterly basis, as identified in the ISCO monitoring requirements and schedule of the 2018 SMP. Since the concentrations of contaminants of concern in groundwater have reached asymptotic levels that marginally exceeded GQS, a recommendation was made in the second PRR dated May 2021 to modify the groundwater monitoring and reporting.

Per NYSDEC requirements, one additional annual sampling event of groundwater will be performed during November 2021 to evaluate the natural attenuation of residual PCE concentrations in groundwater before making a final decision to terminate the groundwater monitoring program at the Site. This additional monitoring and sampling will exclude MW-1 located in the rear yard of a ground-level residential unit; MW-1 will be decommissioned since PCE or TCE were not detected in this well since November 2018.

A complete list of components to be inspected is provided in the Inspection Checklist, provided in **Attachment G** – Updated Site Management Forms. If the monitoring wells have been damaged, lost, or require redevelopment, maintenance, and repair, as per the Operation and Maintenance Plan in the 2018 SMP, is required immediately. The next ISCO Monitoring Requirements and Schedule is provided in **Table 3** below.

Table 3 – ISCO Monitoring Requirements and Schedule

ISCO System Component	Monitoring Parameter	Monitoring Schedule
Monitoring Wells MW-2, MW-3, MW-4 and MW-6	Condition, PID Screen, Depth to water, depth to bottom	November 2021

Sub-Section **"4.3.2 ISCO TREATMENT SAMPLING"**

The monitoring of the effectiveness of the chemical oxidant injections was carried at the Site by collecting groundwater samples from MW-1 to MW4 and MW-6, two months following oxidant

application during July 2018 and then quarterly until December 2020. Upon receiving approval from NYSDEC, this quarterly sampling was terminated, and one annual sampling event was requested during November 2021. Sampling locations required analytical parameters and modified schedule are provided in **Table 4 –** ISCO Treatment Assessment Sampling Requirements and Schedule below. Modification to the frequency or sampling requirements will require approval from the NYSDEC.

Table 4 – ISCO Treatment Assessment Sampling Requirements and Schedule

Sampling Location	**Analytical Parameters**	**Schedule**
Monitoring Wells MW-2, MW-3, MW-4 and MW-6	VOCs (Specifically TCE and PCE) (EPA Method 8260C)	November 2021
Container	(3) 40mL VOAs preserved with HCL	

A groundwater investigation report documenting the November 2021 groundwater monitoring and sampling results will be submitted to NYSDEC under a separate cover for review. This report will include an evaluation of the historical data, including graphs showing the pre- and post-remedy concentrations of PCE and TCE along with a recommendation to decommission all existing monitoring wells associated with the Site. The results of the November 2021 sampling event and the decommissioning of monitoring wells MW-1 to MW-4 and MW-6 will be reported in the subsequent 2022 PRR.

Detailed sample collection and analytical procedures and protocols from each well are provided in the Quality Assurance Project Plan provided in the November 2018 SMP.

Table 5 summarizes the wells identification number, location, depths, diameter, and screened intervals of the wells. Each value in the table refers to depth below grade. Monitoring well construction logs are included in the 2018 SMP.

Table 5 – Monitoring Well Construction Details

MW ID	Well Location	Well Diameter (inches)	Installation Depth (ft)	
			Riser Interval	Screen Interval
MW-2	On sidewalk, vicinity of dry pit in western portion	2	0 – 2.80	2.80 – 17.80
MW-3	On site, vicinity of UST in northeastern portion	2	0 – 3.00	4.00 – 18.00

MW-4	Off site, north- adjacent sidewalk	2	0 – 5.00	5.00 – 20.00
MW-6	Off site, within 70 feet in the northern and eastern vicinity	2	0 – 5.00	5.00 – 20.00

If biofouling or silt accumulation occurs in the on-site and/or off-site monitoring wells, the wells will be physically agitated/surged and redeveloped. Additionally, monitoring wells will be properly decommissioned and replaced if an event renders the wells unusable. Repairs and/or replacement of wells in the monitoring well network will be performed based on assessments of structural integrity and overall performance.

The NYSDEC will be notified prior to any repair or decommissioning of any monitoring well for the purpose of replacement, and the repair or decommissioning and replacement process will be documented in the subsequent Periodic Review Report. Well decommissioning without replacement will be done only with the prior approval of the NYSDEC. Well abandonment will be performed in accordance with NYSDEC's guidance entitled "CP-43: Groundwater Monitoring Well Decommissioning Procedures." Monitoring wells that are decommissioned because they have been rendered unusable will be replaced in kind in the nearest available location, unless otherwise approved by the NYSDEC. Deliverables for the groundwater monitoring program are specified in Section 7.0 – Reporting Requirements of the 2018 SMP.

4. The text below will replace the corresponding text in section "**4.4 SSDS Monitoring"**

Monitoring of the sub-slab depressurization system was performed following the completed construction of the SSD system during September 2019 in conjunction with the finishing of the new building construction at the site.

The effectiveness of the SSD system vacuum communication was initially verified at start-up on September 9, 2019, and then on October 15, 2019, through five (5) sub-slab vacuum monitoring points including three permanent points designated as VMP-1 to VMP-3 installed in common areas of the building and two temporary points designated as VMP-4 and VMP-5 installed in a rear ground-level residential unit. The temporary sub-slab vacuum monitoring points VMP-4 and VMP-5 were decommissioned following the October 2019 monitoring in accordance with NYSDEC requirements. The effectiveness of the SSD system was then verified on a quarterly basis using the three permanent points VMP-1 to VMP-3 between December 2019 to November 2020 and monthly since April 2021.

The previous quarterly monitoring of the SSD system underwent the same delays reported for the quarterly monitoring and sampling of monitoring wells. **Figure 9b** provides the as-build location of the vacuum monitoring points.

During each monitoring event, the vacuum at the sub-slab monitoring points was measured utilizing an DP-Calc™ Micromanometer Model 8710. The SSD system components were also visually inspected for proper functioning in accordance with the SSD system Operation and Maintenance Plan in the 2018 SMP by recording the SSD system vacuum at the inline Dwyer Magnehelic dial type vacuum gauge and checking the audio/visual system alarm that are both located adjacent to the elevator door in the lobby area on the first floor and by observing the functioning of the fan. In addition, organic vapors were measured at the effluent of the SSD system utilizing a Photoionization detector (PID).

The results of the SSD system monitoring since September 2019 are summarized in **Table 6**. As **Table 6** indicates, the vacuum at the SSD fan was measured at a minimum of -0.74. The negative pressure readings measured across the building slab ranged between -0.03 inches H_2O and -0.03 inches H_2O. Overall assessment of this data indicates an adequate radius of influence of the SSD system, which continue to be sufficient for mitigating potential soil vapor intrusion beneath the building. In addition, no organic vapors were detected with the PID at the SSD system effluent. No deficiencies such as damaged SSD riser pipes or joints, alterations, or cracks in building slab or, construction changes to building structure that would alter the system performance were noted during the inspection of the SSD system.

Since the SSD system has proven to produce the required sub-slab vacuum communication for the mitigation of potential soil vapor intrusion beneath the building, the SSD system monitoring, and inspection activities will be changed from quarterly basis to annually and by also implementing monthly inspections by the building management for the duration of system operation as identified in **Table 7** representing the Remedial System Monitoring Requirements and Schedule (see below).

Monthly monitoring may be conducted by properly trained building maintenance personnel. Annual SSD system inspection shall be conducted by a qualified environmental professional as defined in 6 NYCRR Part 375, a PE who is licensed and registered in New York State, or a qualified person who directly reports to a PE who is licensed and registered in New York State.

Modification to the frequency or sampling requirements will require approval from the NYSDEC project manager. The monthly SSD system monitoring will consist for a visual observation of the system for any physical wear, damage and operational issues related to the blower units. The annual SSD system monitoring will also consist of a visual observation for any physical wear, damage and operational issues associated with the airflow readings, vacuum readings, and organic vapor concentrations at effluents. A quantitative pressure field extension testing at the three vacuum monitoring points (VMP-1 to VMP-3) and the monitoring

of system operational integrity will be performed annually and while the SSD system is in a full mode of operation. The purpose of this test is to verify the adequate communication between the suction fan and the sub-slab vacuum monitoring points and also to insure a proper system operation. **Attachment G** provides the updated annual and monthly SSD System Inspection Checklists.

Unscheduled inspections may take place when a suspected failure of the SSD system has been reported or an emergency occurs that is deemed likely to affect the operation of the system. SSD system components to be monitored include, but are not limited to, the components included in **Table 7** below.

Table 7 – SSD System Monitoring Requirements and Schedule

Remedial System Component	Monitoring Parameter	Operating Range	Monitoring Schedule
Fan	Vacuum	≤-0.70 Inch H2O	Monthly
Fan Effluent	PID	Outlet PID reading within 10% of inlet reading	Annually
Visual and Audible Alarm	On and off	Not Applicable	Monthly
Vacuum Monitoring Points (VMP-1 to VMP-3)	Vacuum	≤-0.01 Inch H2O	Annually

5. The text below will replace the corresponding text in section "**4.5 Post Remediation Groundwater Sampling**"

Groundwater samples were collected on July 24, 2018 from MW1 – MW4 and MW-6 two months after the end of the first chemical oxidant injection event performed during May 2018 to confirm the performance of the remedy. The quarterly sampling/monitoring program which began following the collection of the 2-month post- injection sampling event and then quarterly until December 2020 will be terminated and one additional sampling event is required by NYSDEC to be performed during November 2021. If the November 2021 sampling results indicate elevated VOC levels, additional sampling and monitoring for the groundwater quality may be warranted and more chemical injection events may be required.

Sampling locations and required analytical parameters are provided in **Table 4** - ISCO Treatment Assessment Sampling Requirements and Schedule. Modification to the sampling requirements will require approval from the NYSDEC.

Detailed sample collection and analytical procedures and protocols are provided in Attachment E – Quality Assurance Project Plan of the 2018 SMP.

6. The text below will replace the corresponding text in section "**7.1 Site Management Reports**"

All site management inspection, maintenance and monitoring events will be recorded on the appropriate site management forms provided in **Attachment G**. These forms are subject to NYSDEC revision. All applicable inspection forms and other records, including media sampling data and system maintenance reports, generated for the site during the reporting period will be provided in electronic format to the NYSDEC in accordance with the requirements of **Table 8** and summarized in the Periodic Review Report. Data will be reported in digital format as determined by the NYSDEC. Currently, data is to be supplied electronically and submitted to the NYSDEC EQuIS™ database in accordance with the requirements found at this link http://www.dec.ny.gov/chemical/62440.html.

Table 8 – Schedule of Interim Monitoring/Inspection Reports

Task/Report	**Reporting Frequency***
Periodic Review Report	Annually, or as otherwise determined by the Department
November 2021 Groundwater Monitoring and Sampling	December 2021 and in the PRR
Inspection Reports	Annually in the PRR

* The frequency of events will be conducted as specified until otherwise approved by the NYSDEC.

The updates made to this section does not impact the remaining paragraphs in the 2018 SMP including the following:

- All interim monitoring/inspections reports
- Routine maintenance event reporting forms
- Non-routine maintenance event reporting forms

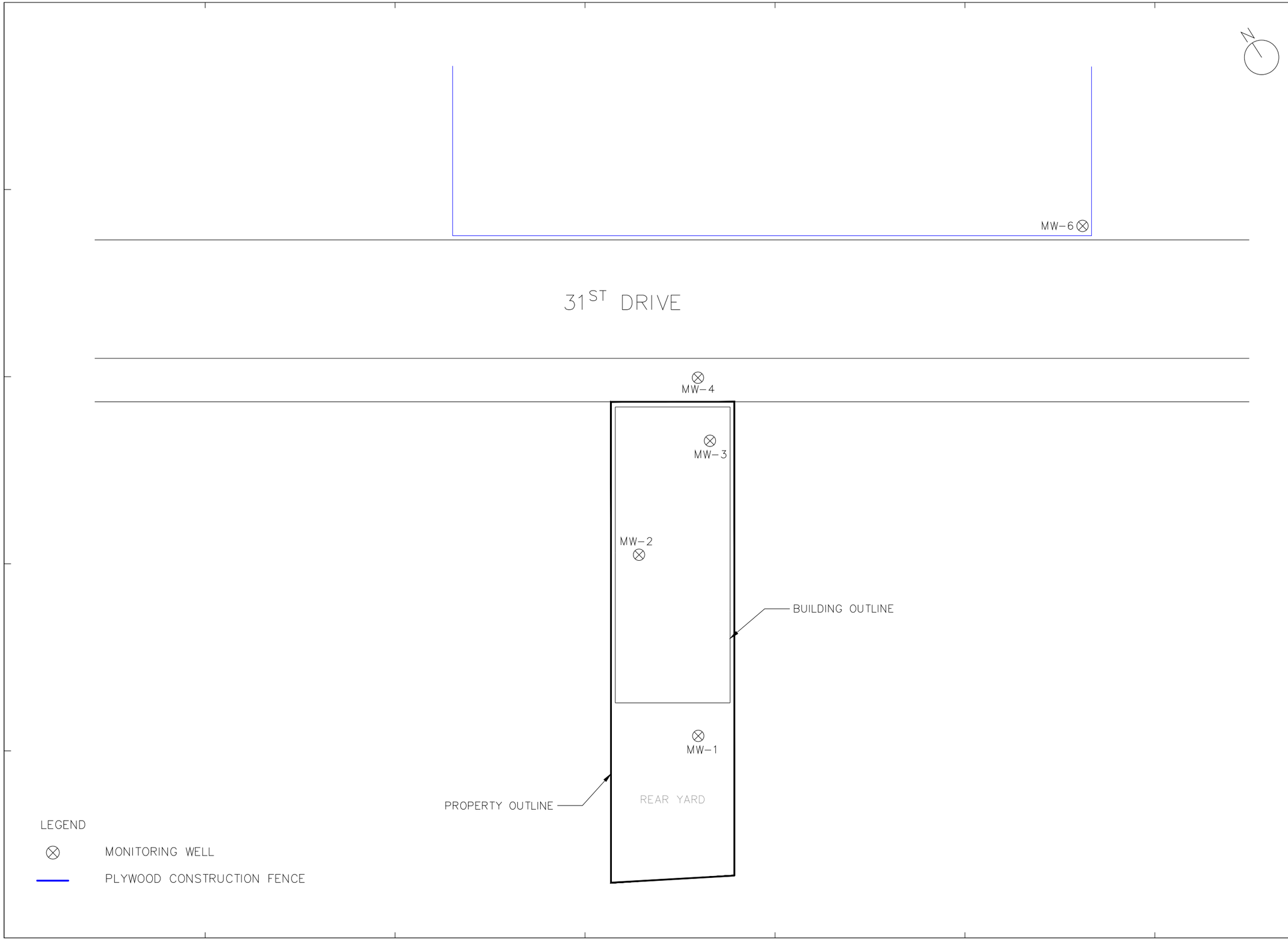
Certification

I, Tarek Z. Khouri certify that I am currently a NYS registered Professional Engineer as defined in 6 NYCRR Part 375 and that this Site Management Plan Update was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

Sincerely,
Hydro Tech Environmental Engineering and Geology, DPC

Tarek Z. Khouri, P.E.
NYS Professional Engineer # 086611

cc: George Man, GBT Real Estate LLC (by email)
Hydro Tech file 190055



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DATE	DESCRIPTION	CHK

SEAL & SIGNATURE

HYDROTECH ENVIRONMENTAL ENGINEERING AND GEOLOGY, DPC

77 ARKAY DRIVE, SUITE K
HAUPPAUGE, NY 11788

TEL: (631) 462-5866

FAX: (631) 462-5877

BASE DRAWING PREPARED BY

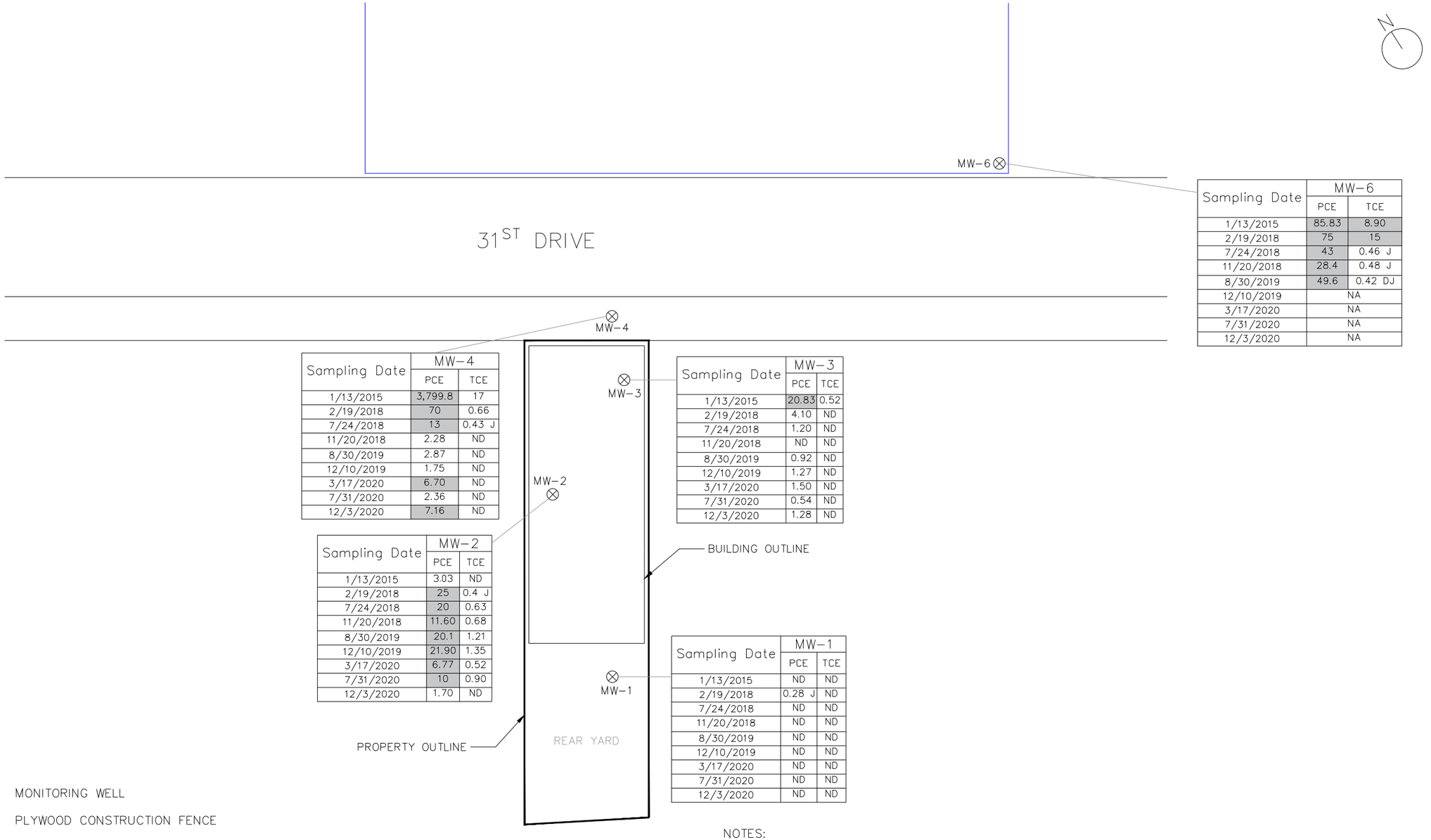
PROJECT NAME AND ADDRESS

11-28 31ST DRIVE
QUEENS, NY 11106

PROJECT FIGURE

FIGURE 4: ON AND OFF SITE SAMPLING LOCATIONS

PROJECT NO. 190055	DATE 10/13/21
DRAWN BY V.D.	REVIEWED BY P.M.
SCALE (11X17) NOT TO SCALE	APPROVED BY T.K.



Sampling Date	MW-6	
	PCE	TCE
1/13/2015	85.83	8.90
2/19/2018	75	15
7/24/2018	43	0.46 J
11/20/2018	28.4	0.48 J
8/30/2019	49.6	0.42 DJ
12/10/2019	NA	
3/17/2020	NA	
7/31/2020	NA	
12/3/2020	NA	

Sampling Date	MW-4	
	PCE	TCE
1/13/2015	3,799.8	17
2/19/2018	70	0.66
7/24/2018	13	0.43 J
11/20/2018	2.28	ND
8/30/2019	2.87	ND
12/10/2019	1.75	ND
3/17/2020	6.70	ND
7/31/2020	2.36	ND
12/3/2020	7.16	ND

Sampling Date	MW-3	
	PCE	TCE
1/13/2015	20.83	0.52
2/19/2018	4.10	ND
7/24/2018	1.20	ND
11/20/2018	ND	ND
8/30/2019	0.92	ND
12/10/2019	1.27	ND
3/17/2020	1.50	ND
7/31/2020	0.54	ND
12/3/2020	1.28	ND

Sampling Date	MW-2	
	PCE	TCE
1/13/2015	3.03	ND
2/19/2018	25	0.4 J
7/24/2018	20	0.63
11/20/2018	11.60	0.68
8/30/2019	20.1	1.21
12/10/2019	21.90	1.35
3/17/2020	6.77	0.52
7/31/2020	10	0.90
12/3/2020	1.70	ND

Sampling Date	MW-1	
	PCE	TCE
1/13/2015	ND	ND
2/19/2018	0.28 J	ND
7/24/2018	ND	ND
11/20/2018	ND	ND
8/30/2019	ND	ND
12/10/2019	ND	ND
3/17/2020	ND	ND
7/31/2020	ND	ND
12/3/2020	ND	ND

LEGEND

⊗	MONITORING WELL
———	PLYWOOD CONSTRUCTION FENCE
▒	CONCENTRATION EXCEEDS GQS OF PCE OR TCE OF 5 ug/L
GQS	NYSDEC TOGS STANDARDS AND GUIDANCE VALUES – GA
PCE	TETRACHLOROETHYLENE
TCE	TRICHLOROETHYLENE
J	ANALYTE DETECTED AT OR ABOVE THE MDL (METHOD DETECTION LIMIT) BUT BELOW THE RL (REPORTING LIMIT) – DATA IS ESTIMATED
D	RESULT IS FROM AN ANALYSIS THAT REQUIRED A DILUTION
NA	NOT SAMPLED DUE TO LIMITED ACCESS
ND	NOT DETECTED

NOTES:

1/13/2015 = SAMPLING PERFORMED DURING THE REMEDIAL INVESTIGATION

2/19/2018 = BASELINE SAMPLING PERFORMED PRIOR TO ISCO INJECTION PROGRAM

7/24/2018 = SAMPLING PERFORMED 2 MONTHS POST-ISCO INJECTIONS

11/20/2018 = QUARTERLY SAMPLING PERFORMED 5 MONTHS POST-ISCO INJECTIONS

8/30/2019 TO 12/3/2020 = QUARTERLY SAMPLING PERFORMED 30 MONTHS POST-ISCO INJECTIONS TO DATE

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DATE	DESCRIPTION	CHK

SEAL & SIGNATURE

HYDROTECH ENVIRONMENTAL ENGINEERING AND GEOLOGY, DPC

77 ARKAY DRIVE, SUITE K
HAUPPAUGE, NY 11788

TEL: (631) 462-5866

FAX: (631) 462-5877

BASE DRAWING PREPARED BY

PROJECT NAME AND ADDRESS

11-28 31ST DRIVE
QUEENS, NY 11106

PROJECT FIGURE

FIGURE 8: MAP OF PRE- AND POST-INJECTION CONTAMINANT CONCENTRATIONS IN GROUNDWATER OVERTIME.

PROJECT NO.	DATE
190055	10/12/21
DRAWN BY V.D.	REVIEWED BY P.M.
SCALE (11X17) NOT TO SCALE	APPROVED BY T.K.

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DATE	DESCRIPTION	CHK

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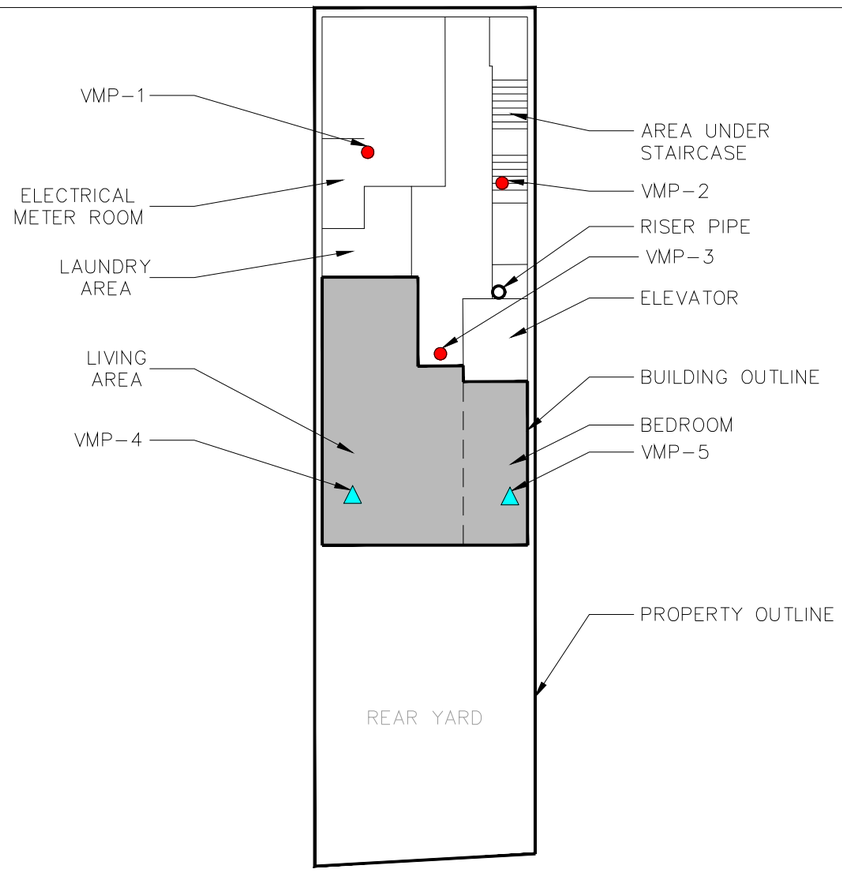
31ST DRIVE



LEGEND

- PERMANENT VACUUM MONITORING POINTS
- TEMPORARY VACUUM MONITORING POINTS (DECOMMISSIONED AFTER SSDS STARTUP)
- RESIDENTIAL UNIT

HYDROTECH ENVIRONMENTAL ENGINEERING AND GEOLOGY, DPC

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HAUPPAUGE, NY 11788

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BASE DRAWING PREPARED BY

PROJECT NAME AND ADDRESS

11-28 31ST DRIVE
QUEENS, NY 11106

PROJECT FIGURE

FIGURE 9B: AS-BUILD LOCATION OF THE VACUUM MONITORING POINTS

PROJECT NO.	DATE
190055	10/12/21
DRAWN BY V.D.	REVIEWED BY P.M.
SCALE (11X17) NOT TO SCALE	APPROVED BY T.K.

Table 2
Pre- and Post-Injection Groundwater Samples Analytical Results for PCE and TCE
11-28 31st Drive, Queens, NY

Sampling Date	MW-1		MW-2		MW-3		MW-4		MW-6	
	PCE	TCE	PCE	TCE	PCE	TCE	PCE	TCE	PCE	TCE
1/13/2015	0.2 U	0.2	**3.03**	0.2 U	**20.83**	**0.52**	**3,799.8**	**17**	**85.83**	**8.90**
2/19/2018	**0.28** J	0.2 U	**25**	**0.4** J	**4.10**	0.2 U	**70**	**0.66**	**75**	**15**
7/24/2018	0.2 U	0.2 U	**20**	**0.63**	**1.20**	0.2 U	**13**	**0.43** J	**43**	**0.46** J
11/20/2018	0.2 U	0.2 U	**11.60**	**0.68**	0.22	0.2 U	**2.28**	0.2 U	**28.4**	**0.48** J
8/30/2019	0.2 U	0.2 U	**20.1**	**1.21**	**0.92**	0.2 U	**2.87**	0.2 U	**49.6**	**0.42** DJ
12/10/2019	0.2 U	0.2 U	**21.90**	**1.35**	**1.27**	0.2 U	**1.75**	0.2 U	NA	
3/17/2020	0.2 U	0.2 U	**6.77**	**0.52**	**1.50**	0.2 U	**6.70**	0.2 U	NA	
7/31/2020	0.2 U	0.2 U	**10**	**0.90**	**0.54**	0.2 U	**2.36**	0.2 U	NA	
12/3/2020	0.2 U	0.2 U	**1.70**	0.2 U	**1.28**	0.2 U	**7.16**	0.2 U	NA	

NOTES:
D=result is from an analysis that required a dilution
J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated
U=analyte not detected at or above the level indicated
Shaded concentration exceeds GQS of PCE or TCE of 5 µg/L
GQS=NYSDEC TOGS Standards and Guidance Values - GA
PCE=Tetrachloroethylene
TCE=Trichloroethylene
1/13/2015=Sampling performed during the Remedial Investigation
2/19/2018=Baseline sampling performed prior to ISCO Injection Program
7/24/2018= Sampling performed 2 months post-ISCO injections
11/20/2018=Quaretrly sampling performed 5 months post-ISCO injections
8/30/2019 to 12/3/2020=Quartely sampling performed 30 months post-ISCO Injections to-
NA= Not sampled due to limited access

Table 6
SSD System Monitoring Results
11-28 31 Drive ,Queens, New York,
NYSDEC Site Number: C241159

Date/Time	SSDS Vacuum	SSDS Effluent			Vaccum Monitoring Points				
					VMP-1	VMP-2	VMP-3	VMP-4	VMP-5
		PID	Flow	Temp	Vacuum				
9/9/2019	-0.74	0.2	518	76.46	-0.031	-0.040	-0.041	-0.036	-0.039
10/15/2019	-0.74	NA	NA	NA	-0.030	-0.036	-0.042	-0.036	-0.038
12/10/2019	-0.74	0.1	470.8	62.2	-0.024	-0.032	-0.034	D	D
3/2/2020	-0.74	0.1	440.1	65.5	-0.023	-0.035	-0.033	D	D
7/15/2020	-0.74	0.3	503.7	78.0	-0.030	-0.040	-0.060	D	D
11/19/2020	-0.75	0.1	416.8	48.8	-0.030	-0.040	-0.040	D	D
4/16/2021	-0.74	0.1	390.4	51.1	-0.030	-0.030	-0.040	D	D

Vacuum --- Inch Water Flow
PID --- ppm
Flow --- CFM
Temperature --- ◦F
NA---Not measured
D---Decommissioned

ATTACHMENT G

UPDATED SITE MANAGEMENT FORMS

11-28 31st Drive Queens, NY 11106
ISCO Monitoring Form

Date/Time: _____
Technician Name: _____

Monitoring Wells	Condition*	PID Screenning	DTW	DTB
MW2				
MW3				
MW4				
MW6				

Legend:
DTB: Depth to bottom
DTW: Depth to water

*Conditions:
Good (no repairs)
Needs repair
Cannot be found

Needed Repairs and/or Other Comments (Specify):

Active Sub Slab Depressurization System (SSDS) Monthly Inspection Building Superintendent Form

This system protects public safety and must be operating properly to ensure the safety of occupants of the building. If you identify any problems with this system, contact HydroTech Environmental Engineering and Geology DPC for instructions and directions.

Question	No	Yes	Directions	Comments
Is the system pressure gauge operational?			If "**No**," add comment and contact HydroTech	
Does the system pressure gauge indicate proper vacuum?			If "**No**," add comment and contact HydroTech	
What is the pressure gauge reading?			If reading is **below -0.75**, Ok. If **-0.7** then comment and contact HydroTech	
Is the system alarm operational?			If "**No**," add comment and contact HydroTech	
Is the system blower/fans operating?			If "**No**," add comment and contact HydroTech	
Is air being discharged from the system vent?			If "**No**," add comment and contact HydroTech	
Are clamps in system piping properly fastened and seals near the blower intact and properly sealed?			If "**No**," add comment and contact HydroTech	
Are there any holes, cracks, or other physical deficiencies in SSDS piping?			If "**Yes**," add comment and contact HydroTech	
Are there any blockages in SSDS piping?			If "**Yes**," add comment and contact HydroTech	

This form must be signed, kept on file at the building location and be available on inspection.

Name of Building Superintendent Performing Inspection: _____

Signature of Building Superintendent Performing Inspection: _____

Date of Inspection: _____

Inspector's name and title	Site Address	Date
	11-28 31 Drive, LIC, NY	
Remedy Description of Cover Systems		
1. Review of the current remedy		
Identify the current remedy:		
□ SSDS		
How many SSDS Systems are used ?		
2. Review of the current remedy goals		
What schedule has been established for monitoring of SSDS ?		
B. Summary of Remedy Performance Assessment		
1. Evaluate remedy effectiveness:		
Based on information collected since the last O&M review, do monitoring data indicate that the system is failing or could eventually fail to meet remedy goals?		□ Yes □ No
Since the last O&M review, have monitoring data exhibited trends indicative of a new or renewed release?		□ Yes □ No
Since the last O&M review, have changes in landuse been suggested and or implemented that have the potential to reduce the protectiveness of the SSDS remedy?		□ Yes □ No
Since the last O&M review, have contaminants been identified in new locations or at higher concentrations where they pose or have the potential to pose unacceptable risks to receptors?		□ Yes □ No
If you answered yes to any of the above questions, did the information suggest the need for immediate action or is the condition being monitored to evaluate the need for future action? Use this space to comment. What actions, if any, have been taken and/or are planned in response to the new information?		□ Immediate Action □ Monitor for future □ N/A
Based on your answers to the above questions, is there reason to evaluate the need for a contingent remedy at this time? If yes, use this space to comment.		□ Yes □ No
SSDS		
PID at effluent		PPM
Vacuum guage -		Inch H20
Vacuum Reading at the 3 vacuum monitorinbg points : VMP-1= ; VMP-2= ; VMP-3=		Inch H20
Fan Condition		□ Function □ Damage
Alarm Condition		□ Function □ Damage
Was the Subslab Depressurization System (SSDS) operating upon arrival? If "No," explain below why the system was not running, efforts taken to restart the SSDS and if the system was operational when leaving. If successful in making the SSDS operational, complete the remainder of the checklist.		□ Yes

	□ No
Were all sub-slab vacuum readings less than of equal to - 0.01 inches of water? If "Yes," the SSDS is deemed still effective and the vacuum readings taken during this inspection are now the new baseline readings. If "No," system must be adjusted/amended and the SSDS re-commissioned. Discuss adjustments and amendments below:	□ Yes □ No
List below all pertinent observations and actions taken during this Inspection: i.e., sagging/damaged pipes, construction changes to building that may affect the system, pipe leaks that may need smoke test, is building still vacant, has occupancy zoning changed (i.e. commercial to residential), are non-SSDS engineered systems still functioning as designed etc. Add additional pages as needed.	
Did you observe breaking or cracks in the slab cover	□ Yes □ No
If yes describe the level of alteration needed for repairs and remedies?	

APPENDIX 3

ANNUAL GROUNDWATER SAMPLING EVENT REPORT

HydroTech Environmental
ENGINEERING AND GEOLOGY, DPC

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405 Lexington Ave, 8th Fl
New York, New York 10174

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77 Arkay Drive, Suite K
Hauppauge, New York 11788

Tel (631) 462-5866
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WWW.HYDROTECHENVIRONMENTAL.COM

January 31, 2022

New York State Department of Environmental Conservation
Division of Environmental Remediation
47-40 21st Street
Long Island City, NY 11101

Attn.: Jane H. O'Connell, P.G., Regional Remediation Engineer

Re: Annual Groundwater Sampling Event – December 2021
11-28 31st Drive, Queens, NY
NYSBCP Site #C241159

Dear Ms. O'Connell:

This report is intended to serve as an annual groundwater sampling event for above-referenced New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) Site. The scope of work presented in this report is based upon NYSDEC approval to suspend the quarterly groundwater sampling per the 2018 Site Management Plan (SMP) and perform one annual sampling prior to making a final determination to terminate the groundwater monitoring and sampling program that was implemented at this Site pursuant to a NYSDEC-approved approved November 2018 Site Management Plan (SMP). **Attachment A** provides NYSDEC correspondences.

Groundwater Monitoring and Sampling

In accordance with the NYSDEC requirements, all monitoring wells were gauged during this annual monitoring event for the presence of free product, and also to determine the depth to groundwater. These wells included MW-2 and MW-3 located in the building slab on-grade and MW-4 located in the north-adjacent sidewalk to the south of 31st Drive.

Monitoring well MW-1 in the rear yard was decommissioned on October 25, 2021 pursuant to NYSDEC approval in Attachment A of a petition filed by HydroTech in March 2021. Monitoring well MW-6 continues to be obstructed by a locked construction fence erected around a vacant property located to the north of the Site.

The location of all monitoring wells is shown in **Figure 1**.

The monitoring well gauging was performed on three existing monitoring wells MW-2, MW-3 and MW-4 on December 13, 2021, utilizing a Solinst 122 Oil/Water Interface Probe. None of these three gauged monitoring wells were found to contain free product. The depth to water during this monitoring event ranged from 9.81 feet in MW-4 to 11.39 feet in MW-3. This depth to water in these wells represents an average increase of 0.94 feet in MW-3 and MW-4 and a

decrease by 0.56 feet in MW-2 since the last event during November 2020. In addition, no organic vapors (0.1 ppm) were detected in any of these monitoring wells using a photoionization detector (PID).

Table 1 provides the groundwater monitoring and elevation data for the period covered by this report and historical monitoring data. **Attachment B** provides the well monitoring log.

Utilizing historical monitoring well casing elevations and the depth to water, the groundwater elevation in the wells were then determined. The groundwater elevations indicate the groundwater flow direction beneath the Site continues to be toward the southwest, consistent with the historic flow directions mapped for this Site. **Figure 2** provides a contour map of groundwater flow direction during December 2021.

Passive Diffusion Bag (PDB) samplers for the groundwater sampling were then placed inside each of the three monitoring wells MW-2 to MW-4 following well gauging. The PDBs were left inside the wells on December 16, 2021 for the duration of 16 days and were recovered on December 29, 2021.

The groundwater samples were placed in laboratory-supplied containers and secured in a cooler filled with ice and maintained at a maximum 4 degrees Celsius. The samples were transmitted under proper chain of custody procedures to a State-certified (ELAP) laboratory and analyzed for tetrachloroethylene (PCE) and trichloroethylene (TCE) in accordance with EPA Method 8260.

No excess liquid from the PDBs was generated during this sampling event and as such, no Investigatory-Derived Waste (IDW) was generated.

Laboratory analytical results for PCE and TCE in groundwater samples are provided in **Table 2**. **Table 2** also provides the PCE and TCE concentrations over time and a comparison to NYSDEC 6NYCRR Part 703.5 Class groundwater Quality Standards (GQS). **Attachment C** provides a copy of the laboratory analytical report.

As **Table 2** indicates, PCE was most recently detected in MW-2 at 6.99 µg/L, in MW-3 at 1.28 µg/L and in MW-4 at 5.26 µg/L. PCE concentration in MW-2 and MW-4 marginally exceeds its GQS of 5 µg/L. By evaluating the trend of PCE detections in monitoring wells over time, it appears that PCE concentrations have reached asymptotic levels in MW-2 since at least March 2020, in MW-3 since February 2018 and in MW-4 since November 2018. No PCE exceedances of GQS were reported in MW-3 since February 2018. The marginal PCE exceedances of GQS in MW-2 and MW-4 date back to July 2020, and the most recent concentrations represent a decrease between 75% and 95% percent from the historically highest concentrations recorded in these wells since the *in-situ* chemical treatment of groundwater.

TCE was detected during this sampling event in MW-2 at a concentration of 0.86 µg/L, which is less than its GQS of 5 µg/L. TCE was not detected in any remaining wells during this sampling event. TCE concentrations have not exceeded GQS since February 2018.

Figure 3 A, 3B and **3C** provide the trend of PCE and TCE concentrations in MW-2, MW-3 and MW-4 over time.

The groundwater data was submitted electronically to the NYSDEC through the Environmental Information Management System using the NYSDEC standardized Electronic Data Deliverable (EDD) format. A Data Usability Summary Report (DUSR) was also prepared for the analytical results by an independent data reviewer, Mr. Hanibal Tayeh, Ph.D. The DUSR indicates the data is acceptable and is considered usable. A copy of the DUSR is provided in **Attachment D**.

Recommendations
PCE and TCE in groundwater continue to show low to undetected concentrations since the groundwater remediation by *in-situ* chemical oxidation (ISCO) injections during May 2018. Only PCE has been detected in two monitoring wells at concentrations that marginally exceed GQS since at least March 2020.

As was discussed in previous reports, the overall concentrations of PCE and TCE in groundwater beneath the Site have decreased by up to 92% and 100% and have reached asymptotically stable levels. Based on this conclusion, HydroTech recommends the termination of the groundwater monitoring and sampling program at this Site and the proper decommissioning of monitoring wells in accordance with NYSDEC CP-43: Groundwater Monitoring Well Decommissioning Policy (November 2009) (CP-43).

Should you have any questions, please feel free to contact our office at your convenience.

Very Truly Yours,
HydroTech Environmental Engineering and Geology, DPC

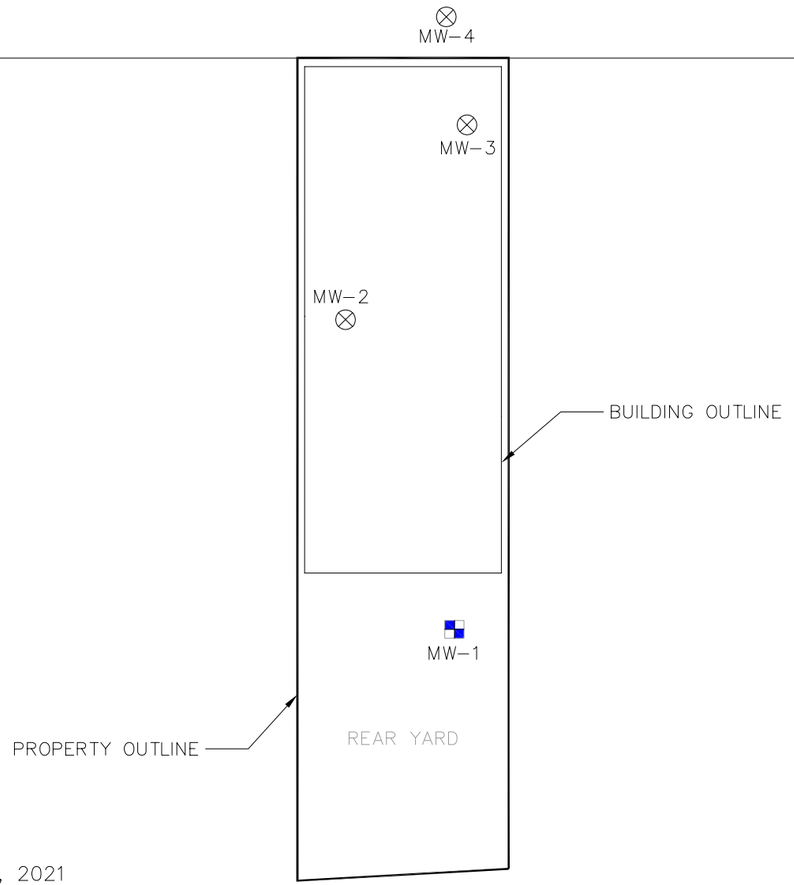
Paul I. Matli, PhD, PG
Senior Project Manager

PIM/as
Enc.

cc: Mr. George Man – GBT Real Estate LLC (by email) w/ Enc.
HydroTech file 190055 & 210098 w/ Enc.

Figures

31ST DRIVE



LEGEND

- ⊗ MONITORING WELL
- ■ MONITORING WELL DECOMMISSIONED ON OCTOBER 25, 2021
- ——— PLYWOOD CONSTRUCTION FENCE

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HYDROTECH ENVIRONMENTAL ENGINEERING AND GEOLOGY, DPC

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HAUPPAUGE, NY 11788

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FAX: (631) 462-5877

BASE DRAWING PREPARED BY

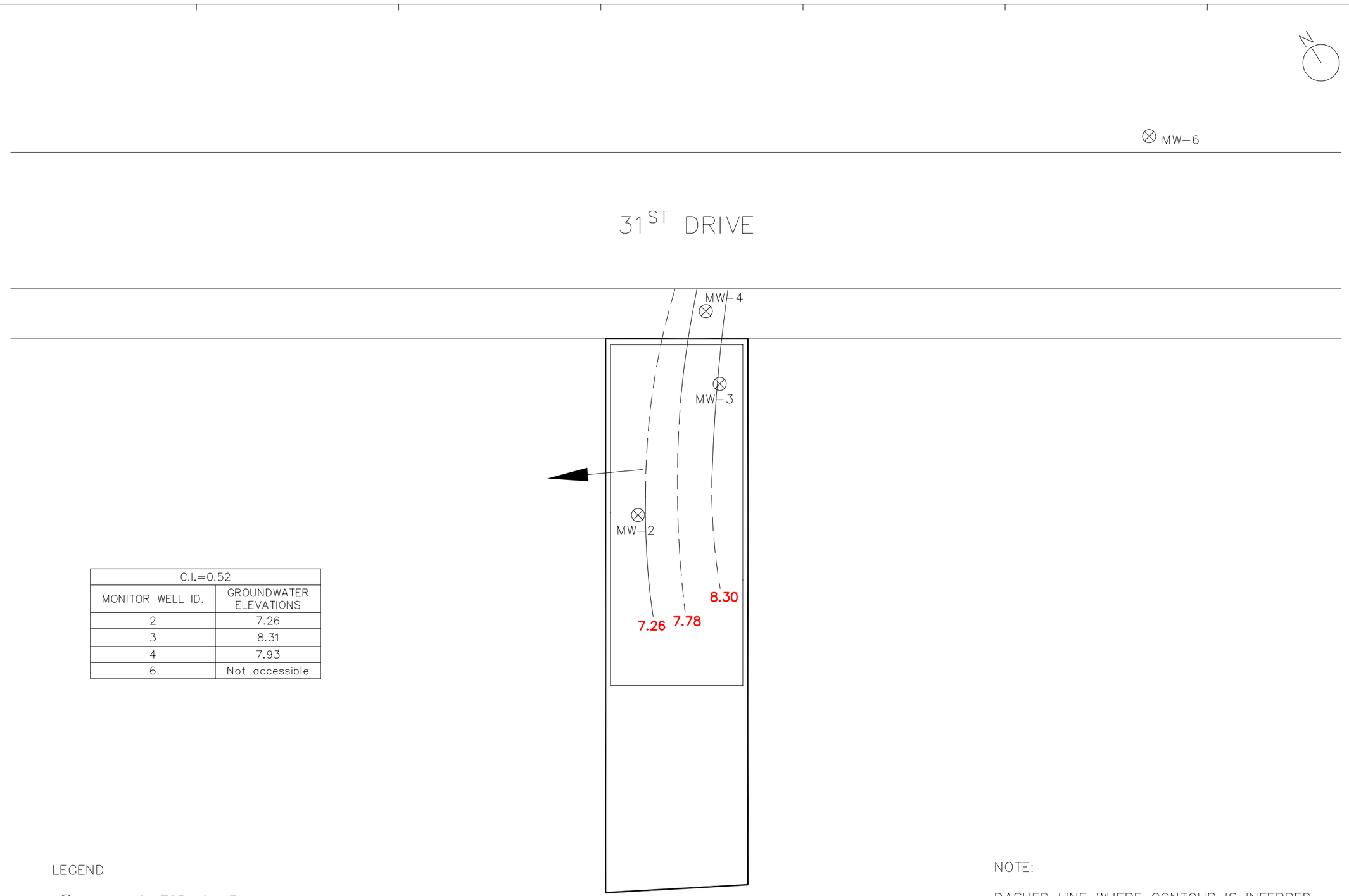
PROJECT NAME AND ADDRESS

11-28 31ST DRIVE
QUEENS, NY 11106

PROJECT FIGURE

FIGURE 1: SITE MAP

PROJECT NO.	DATE
190055	1/28/22
DRAWN BY V.D.	REVIEWED BY P.M.
SCALE (11X17) NOT TO SCALE	APPROVED BY T.K.



C.I.=0.52	
MONITOR WELL ID.	GROUNDWATER ELEVATIONS
2	7.26
3	8.31
4	7.93
6	Not accessible

LEGEND

⊗ MONITORING WELL

NOTE:

DASHED LINE WHERE CONTOUR IS INFERRED

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BASE DRAWING PREPARED BY

PROJECT NAME AND ADDRESS

11-28 31ST DRIVE
QUEENS, NY 11106

PROJECT FIGURE

FIGURE 2: GROUNDWATER FLOW CONTOUR MAP – DECEMBER 2021

PROJECT NO.	DATE
190055	1/28/22
DRAWN BY V.D.	REVIEWED BY P.M.
SCALE (11X17) NOT TO SCALE	APPROVED BY T.K.

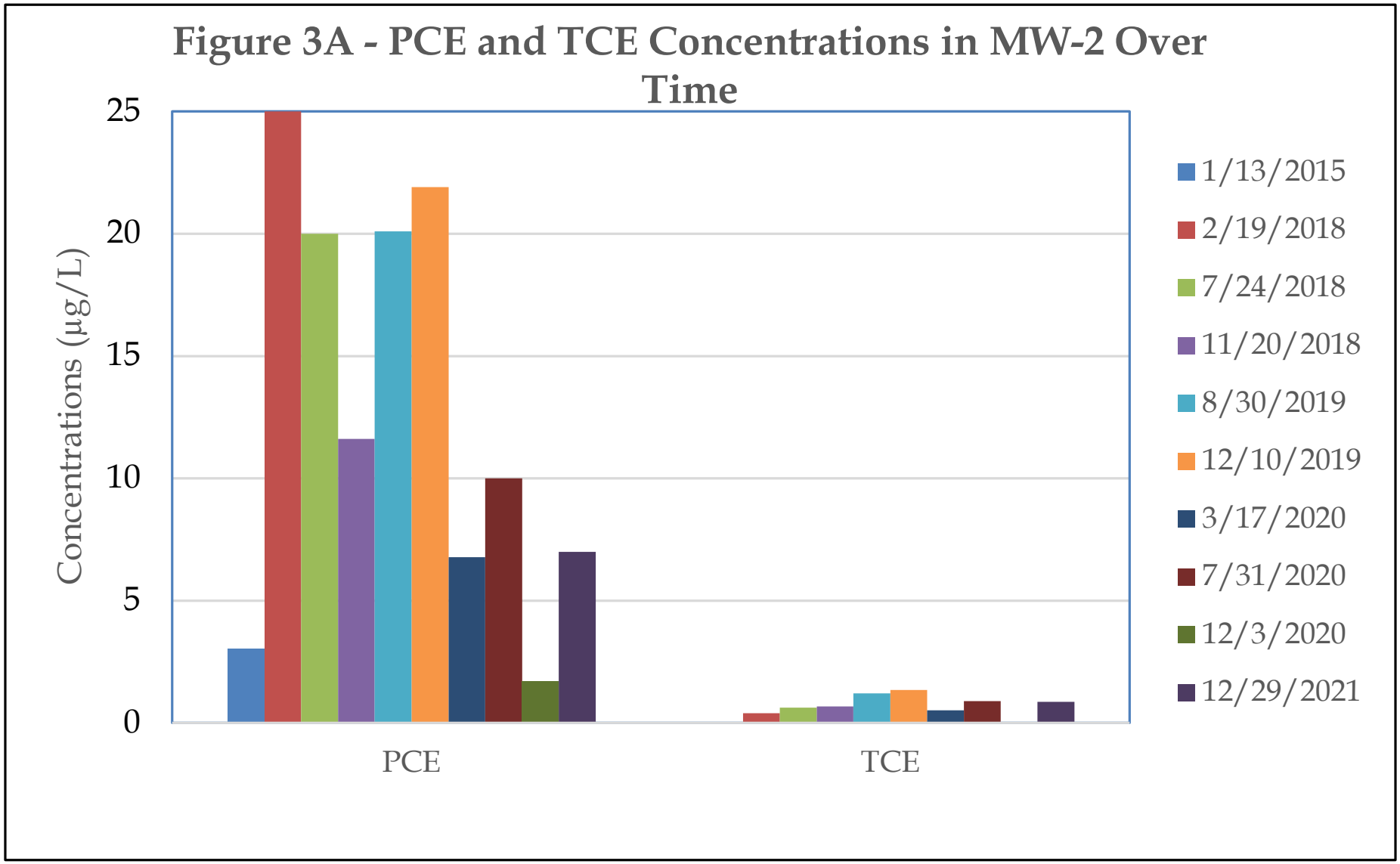


Figure 3A - PCE and TCE Concentrations in MW-2 Over Time
Concentrations (µg/L)
25
20
15
10
5
0
PCE
TCE
1/13/2015
2/19/2018
7/24/2018
11/20/2018
8/30/2019
12/10/2019
3/17/2020
7/31/2020
12/3/2020
12/29/2021

Figure 3B - PCE and TCE Concentrations in MW-3 Over Time

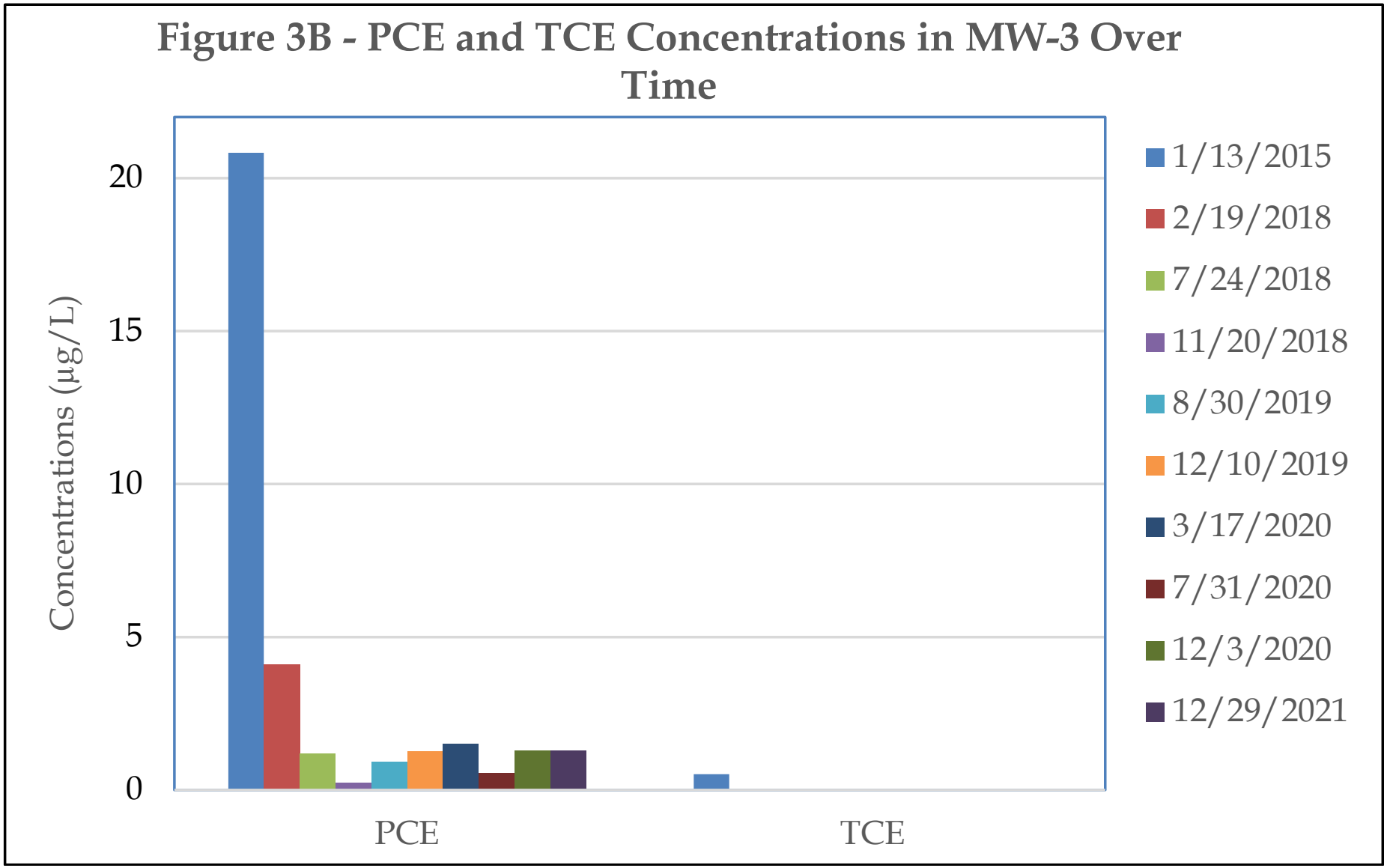
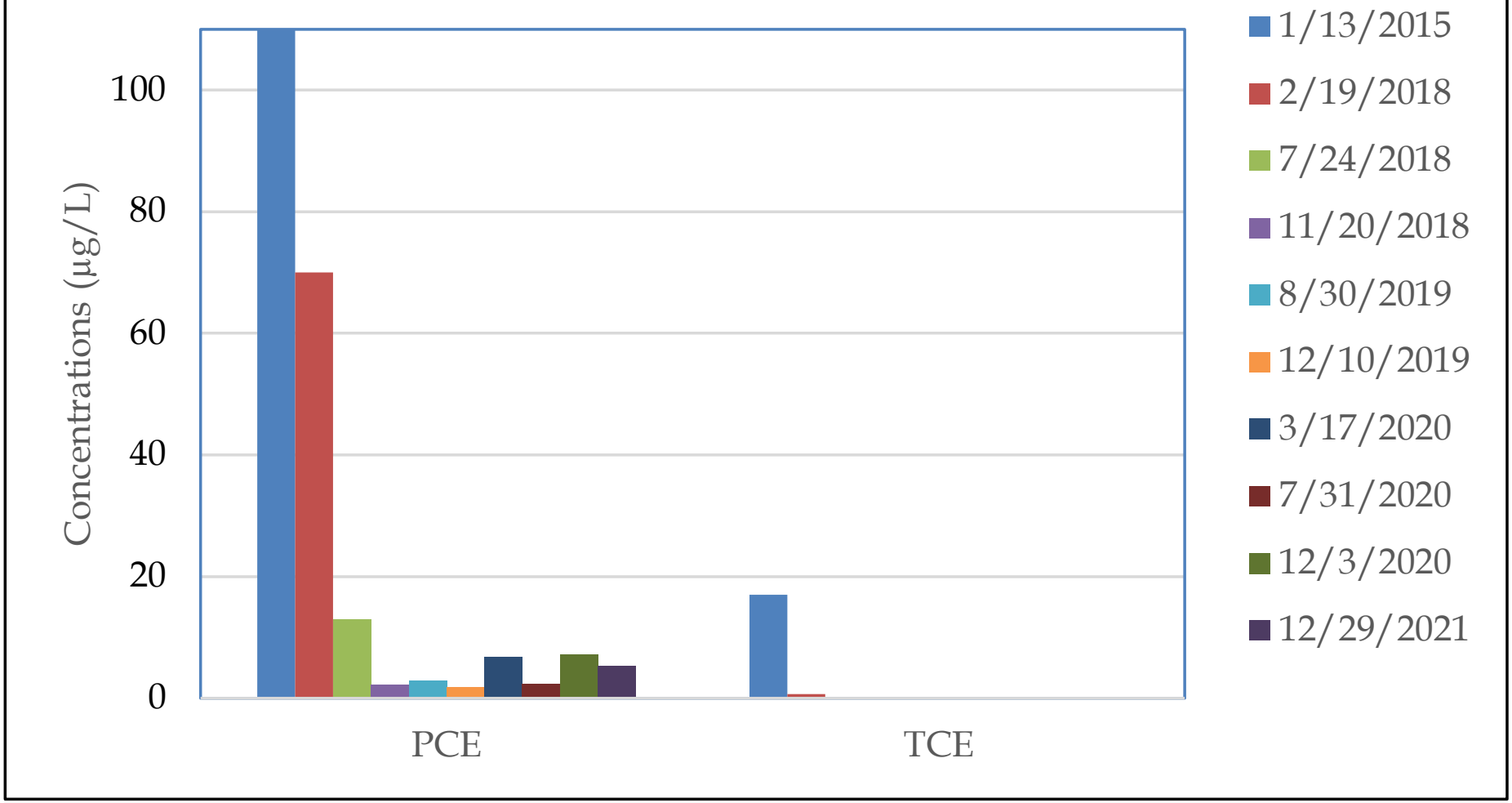


Figure 3C - PCE and TCE Concentrations in MW-4 Over Time



Tables

Table 1

Groundwater Monitoring Results Over Time

11-28 31st Drive, Queens, NY

Well ID	Casing Elevation	August 2019			November 2019			March 2020			July 2020			November 2020			December 2021		
		DTP	DTW	Water Table Elevation	DTP	DTW	Water Table Elevation	DTP	DTW	Water Table Elevation	DTP	DTW	Water Table Elevation	DTP	DTW	Water Table Elevation	DTP	DTW	Water Table Elevation
MW-1	12.7	ND	11.1	8.38	ND	11.23	8.53	ND	11.4	8.7	ND	11.55	8.85	ND	12	9.3	ND	D	D
MW-2	12.7	ND	11	8.31	ND	11.15	8.45	ND	10.8	8.08	ND	10.95	8.25	ND	10.92	8.22	ND	10.36	7.26
MW-3	11.51	ND	9.96	8.45	ND	10.1	8.59	ND	11.2	9.72	ND	9.92	8.41	ND	9.9	8.39	ND	11.39	8.31
MW-4	11.10	ND	9.44	8.34	ND	9.60	8.50	ND	9.71	8.61	ND	9.32	8.22	ND	9.36	8.26	ND	9.81	7.93
MW-6	9.47	ND	9.97	10.5	ND	10.15	10.68	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA

All values reported in feet.

DTW…Depth to Water from top of casing .

DTP…Depth to Product from top of casing

ND…None Detected

NA…Not Accessible

Water Table elevations adjusted by a site benchmarck elevation of 10 feet

D...Decommissioned monitoring well on October 25, 2021

Table 2
Groundwater Samples Analytical Results for PCE and TCE _ Over Time
11-28 31st Drive, Queens, NY

Sampling Date	MW-1		MW-2		MW-3		MW-4		MW-6	
	PCE	TCE	PCE	TCE	PCE	TCE	PCE	TCE	PCE	TCE
1/13/2015	0.2 U	0.2 U	**3.03**	0.2 U	**20.83**	**0.52**	**3,799.8**	**17**	**85.83**	**8.90**
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12/10/2019	0.2 U	0.2 U	**21.90**	**1.35**	**1.27**	0.2 U	**1.75**	0.2 U	NA	
3/17/2020	0.2 U	0.2 U	**6.77**	**0.52**	**1.50**	0.2 U	**6.70**	0.2 U	NA	
7/31/2020	0.2 U	0.2 U	**10**	**0.90**	**0.54**	0.2 U	**2.36**	0.2 U	NA	
12/3/2020	0.2 U	0.2 U	**1.70**	0.2 U	**1.28**	0.2 U	**7.16**	0.2 U	NA	
12/29/2021	D		**6.99**	**0.86**	**1.28**	0.2 U	**5.26**	0.2 U	NA	

NOTES:

All concentrations are reported in µg/L
D=result is from an analysis that required a dilution
J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated
U=analyte not detected at or above the level indicated
Shaded concentration exceeds GQS of PCE or TCE of 5 µg/L
GQS=NYSDEC TOGS Standards and Guidance Values - GA
PCE=Tetrachloroethylene
TCE=Trichloroethylene
1/13/2015=Sampling performed during the Remedial Investigation
2/19/2018=Baseline sampling performed prior to ISCO Injection Program
7/24/2018= Sampling performed 2 months post-ISCO injections
11/20/2018=Quaretrly sampling performed 5 months post-ISCO injections
8/30/2019 to 12/3/2020=Quartely sampling performed 30 months post-ISCO Injections
12/29/2021= Annual sampling performed one year after December 2020 event
NA= Not sampled due to limited access
D= Decommissioned monitoring well on October 25, 2021

Attachments

ATTACHMENT A
NYSDEC CORRESPONDENCES

Paul Matli

From: O'Connell, Jane H (DEC) <jane.oconnell@dec.ny.gov>
Sent: Wednesday, March 17, 2021 7:15 PM
To: Paul Matli
Cc: Martinkat, Sondra (DEC); genmail@mcnyinc.com; Tarek Khouri; Kuehner, Wendy S (HEALTH)
Subject: RE: C241159 - Reminder Notice: Site Management PRR and IC/EC Certification Submittal

Yes you can decommission MW-1. Please include decommissioning record in the PRR.

Jane H. O'Connell, P.G.
Regional Remediation Engineer, Division of Environmental Remediation

New York State Department of Environmental Conservation
47-40 21st Street, Long Island City, NY 11101
P: (718) 482-4599 | F: (718) 482-6358 | M: (917) 817-1845 | jane.oconnell@dec.ny.gov
www.dec.ny.gov |

From: Paul Matli <pmatli@hydrotechenvironmental.com>
Sent: Wednesday, March 17, 2021 6:10 PM
To: O'Connell, Jane H (DEC) <jane.oconnell@dec.ny.gov>
Cc: Martinkat, Sondra (DEC) <sondra.martinkat@dec.ny.gov>; genmail@mcnyinc.com; Tarek Khouri <tkhouri@hydrotechenvironmental.com>; Kuehner, Wendy S (HEALTH) <wendy.kuehner@health.ny.gov>
Subject: RE: C241159 - Reminder Notice: Site Management PRR and IC/EC Certification Submittal

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Hello Jane – As you requested, we will update the SMP by revising affected sections to reflect the modified scope of groundwater sampling and SSDS monthly monitoring and annual inspections and reporting.

With regard to the groubwater sampling, developer has indicated that MW-1 which is located in the rear garden of a private condo on ground floor will not be accessicle as of of June 2021. This well has not shown any occurrence of PCE or TCE since at least July 2018. If possible, developer is asking for your permission to discontinue the sampling this well and abandon it properly?

Regards,

Paul I. Matli, Ph.D., P.G.
Vice President

HydroTech Environmental
ENGINEERING AND GEOLOGY, DPC
77 Arkay Drive, Suite K, Hauppauge, NY 11788
Cell: 631-241-7165 | Tel: 631-462-5866 Ext 110 | Fax: 631-462-5277
Email: pmatli@hydrotechenvironmental.com
Website: www.hydrotechenvironmental.com
Please consider the environment before printing this email

From: O'Connell, Jane H (DEC) <jane.oconnell@dec.ny.gov>
Sent: Wednesday, March 17, 2021 8:34 AM
To: Paul Matli <pmatli@hydrotechenvironmental.com>
Cc: Martinkat, Sondra (DEC) <sondra.martinkat@dec.ny.gov>; genmail@mcnyinc.com; Tarek Khouri <tkhouri@hydrotechenvironmental.com>; Kuehner, Wendy S (HEALTH) <wendy.kuehner@health.ny.gov>
Subject: RE: C241159 - Reminder Notice: Site Management PRR and IC/EC Certification Submittal

Thank you Paul. I am ok with monthly SSDS check by on-site staff and annual engineering/maintenance inspection by HydroTech. The monthly inspections must be documented and included in the PRR, along with the annual engineering/maintenance inspection. If any deficiencies are noted in the monthly inspection, HydroTech must be notified immediately to make necessary repairs, and that must be documented to DEC and DOH in an email as well as in the PRR.

Please submit draft revised sections and cover page for the SMP within 30 days to document the approved changes to the inspection/sampling frequency for the SSDS and groundwater sampling.

Jane

Jane H. O'Connell, P.G.
Regional Remediation Engineer, Division of Environmental Remediation

New York State Department of Environmental Conservation
47-40 21st Street, Long Island City, NY 11101
P: (718) 482-4599 | F: (718) 482-6358 | M: (917) 817-1845 | jane.oconnell@dec.ny.gov
www.dec.ny.gov |

NEW YORK STATE OF OPPORTUNITY. Department of Environmental Conservation

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From: Paul Matli <pmatli@hydrotechenvironmental.com>
Sent: Tuesday, March 16, 2021 5:33 PM
To: O'Connell, Jane H (DEC) <jane.oconnell@dec.ny.gov>
Cc: Martinkat, Sondra (DEC) <sondra.martinkat@dec.ny.gov>; genmail@mcnyinc.com; Tarek Khouri <tkhouri@hydrotechenvironmental.com>
Subject: RE: C241159 - Reminder Notice: Site Management PRR and IC/EC Certification Submittal

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Hello Jane – Thanks for your review of the January 2021 QSR and for the option to suspend the groundwater sampling till next fall.

My response to your question about the SSD system are highlighted in red below:

1. Does the system have remote telemetry to notify you if the blower is down? No Telemetry is being installed for this SSDS. There is a visual and audible alarm adjacent to the elevator door in the lobby area on the first floor.
2. Is there an on-site superintendent or other maintenance staff that can do monthly checks of the system. Yes, Tylor Man will be the on-site superintendent monitoring the SSD system on a monthly basis.

Regards,

Paul I. Matli, Ph.D., P.G.
Vice President
HydroTech Environmental
ENGINEERING AND GEOLOGY, DPC
77 Arkay Drive, Suite K, Hauppauge, NY 11788
Cell: 631-241-7165 | Tel: 631-462-5866 Ext 110 | Fax: 631-462-5277
Email: pmatli@hydrotechenvironmental.com
Website: www.hydrotechenvironmental.com
Please consider the environment before printing this email

From: O'Connell, Jane H (DEC) <jane.oconnell@dec.ny.gov>
Sent: Tuesday, March 16, 2021 1:31 PM
To: Paul Matli <pmatli@hydrotechenvironmental.com>
Cc: Martinkat, Sondra (DEC) <sondra.martinkat@dec.ny.gov>; genmail@mcnyinc.com; Tarek Khouri <tkhouri@hydrotechenvironmental.com>
Subject: RE: C241159 - Reminder Notice: Site Management PRR and IC/EC Certification Submittal

Paul:

I have reviewed the quarterly report dated January 13, 2021. While I agree that the quarterly groundwater sampling can be suspended, I request that you perform one additional annual sampling event in November 2021. That data should be reported in the 2021 PRR with an evaluation of the historical data, including graphs showing the pre- and post-remedy gw concentrations in each well.

As for the SSDS, I have a couple of questions:

1. Does the system have remote telemetry to notify you if the blower is down?
2. Is there an on-site superintendent or other maintenance staff that can do monthly checks of the system?

I would need answers to the questions before I can weigh in on discontinuing the quarterly system checks by HydroTech.

Jane

Jane H. O'Connell, P.G.
Regional Remediation Engineer, Division of Environmental Remediation

New York State Department of Environmental Conservation
47-40 21st Street, Long Island City, NY 11101
P: (718) 482-4599 | F: (718) 482-6358 | M: (917) 817-1845 | jane.oconnell@dec.ny.gov
www.dec.ny.gov |

NEW YORK STATE OF OPPORTUNITY. Department of Environmental Conservation

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From: Paul Matli <pmatli@hydrotechenvironmental.com>
Sent: Friday, March 12, 2021 5:44 PM
To: O'Connell, Jane H (DEC) <jane.oconnell@dec.ny.gov>
Cc: Martinkat, Sondra (DEC) <sondra.martinkat@dec.ny.gov>; genmail@mcnyinc.com; Tarek Khouri <tkhouri@hydrotechenvironmental.com>
Subject: RE: C241159 - Reminder Notice: Site Management PRR and IC/EC Certification Submittal

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Jane – Please accept my apology for my repeated emails seeking the department approval of our recommendations made in the last QSR dated January 13, 2021 to modify the SMP to terminate the groundwater sampling and reduce the schedule of inspections of active SSDS system to annual monitoring.

I appreciate your response on this inquiry as we need your directions before we mobilize to Site to performed the annual ECs inspection for the second PRR that is due by May 20, 2021.

Regards,

Paul I. Matli, Ph.D., P.G.
Vice President
HydroTech Environmental
ENGINEERING AND GEOLOGY, DPC
77 Arkay Drive, Suite K, Hauppauge, NY 11788
Cell: 631-241-7165 | Tel: 631-462-5866 Ext 110 | Fax: 631-462-5277
Email: pmatli@hydrotechenvironmental.com
Website: www.hydrotechenvironmental.com
Please consider the environment before printing this email

From: Paul Matli
Sent: Monday, March 8, 2021 12:07 PM
To: O'Connell, Jane H (DEC) <jane.oconnell@dec.ny.gov>
Cc: Martinkat, Sondra (DEC) <sondra.martinkat@dec.ny.gov>; genmail@mcnyinc.com
Subject: RE: C241159 - Reminder Notice: Site Management PRR and IC/EC Certification Submittal

Jane - Report letter is in attached.

Regards,

Paul I. Matli, Ph.D., P.G.
Vice President
HydroTech Environmental
ENGINEERING AND GEOLOGY, DPC
77 Arkay Drive, Suite K, Hauppauge, NY 11788
Cell: 631-241-7165 | Tel: 631-462-5866 Ext 110 | Fax: 631-462-5277
Email: pmatli@hydrotechenvironmental.com
Website: www.hydrotechenvironmental.com
Please consider the environment before printing this email

From: O'Connell, Jane H (DEC) <jane.oconnell@dec.ny.gov>
Sent: Monday, March 8, 2021 10:10 AM
To: Paul Matli <pmatli@hydrotechenvironmental.com>
Cc: Martinkat, Sondra (DEC) <sondra.martinkat@dec.ny.gov>; genmail@mcnyinc.com
Subject: RE: C241159 - Reminder Notice: Site Management PRR and IC/EC Certification Submittal

Paul please send me the letter/report to which you are referring.

Jane H. O'Connell, P.G.
Regional Remediation Engineer, Division of Environmental Remediation

New York State Department of Environmental Conservation
47-40 21st Street, Long Island City, NY 11101
P: (718) 482-4599 | F: (718) 482-6358 | M: (917) 817-1845 | jane.oconnell@dec.ny.gov
www.dec.ny.gov |

NEW YORK STATE OF OPPORTUNITY. Department of Environmental Conservation

From: Paul Matli <pmatli@hydrotechenvironmental.com>
Sent: Monday, March 08, 2021 9:30 AM
To: O'Connell, Jane H (DEC) <jane.oconnell@dec.ny.gov>
Cc: Martinkat, Sondra (DEC) <sondra.martinkat@dec.ny.gov>; genmail@mcnyinc.com
Subject: RE: C241159 - Reminder Notice: Site Management PRR and IC/EC Certification Submittal

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Hello Jane

Could you please advise if our recommendations in the last QSR submitted most recently for this BCP site to modify the SMP to terminate the groundwater sampling and reduce the schedule of inspections of active SSDS system to annual monitoring are approved ?

I appreciate your expedited response.

Regards,

Paul I. Matli, Ph.D., P.G.
Vice President
HydroTech Environmental
ENGINEERING AND GEOLOGY, DPC
77 Arkay Drive, Suite K, Hauppauge, NY 11788
Cell: 631-241-7165 | Tel: 631-462-5866 Ext 110 | Fax: 631-462-5277
Email: pmatli@hydrotechenvironmental.com
Website: www.hydrotechenvironmental.com
Please consider the environment before printing this email

From: Teeter, Julia J (DEC) <Julia.Teeter@dec.ny.gov>
Sent: Monday, March 8, 2021 9:23 AM
To: genmail@mcnyinc.com
Cc: Martinkat, Sondra (DEC) <sondra.martinkat@dec.ny.gov>; Zinoman, Leonard S (DEC) <leonard.zinoman@dec.ny.gov>; O'Connell, Jane H (DEC) <jane.oconnell@dec.ny.gov>; Paul Matli <pmatli@hydrotechenvironmental.com>; ariel@amc-engineering.com
Subject: C241159 - Reminder Notice: Site Management PRR and IC/EC Certification Submittal

Hello,

Attached is your electronic copy of the Periodic Review Report Reminder Notice for the subject site that was mailed today.

Please direct all questions and concerns to the Project Manager, listed on the second page of the attached correspondence.

Thank you.

Julia Teeter
she/her/hers
Office Assistant – Bureau of Technical Support
Division of Environmental Remediation

New York State Department of Environmental Conservation
625 Broadway, Albany, NY 12233
P: (518) 402-9564 | F: (518) 402-9547 | Julia.Teeter@dec.ny.gov
www.dec.ny.gov | | |

ATTACHMENT B
WELL MONITORING LOG

WELL MONITORING LOG SHEET

Project Name	11-28 31st Drive	Date	12-13-2021
Client	Mr. George Man (GBT Realty LLC)	Instrument	
Site Location	11-28 31st Drive, LIC NY	BCP Site #	# C241159
Monitoring Schedule	Monthly : _____	Quartely : _____	Annually :___x_____

Legend

S = Snow D = Dry G = Gone C = Can't Locate NA = Not Accessible
DTW = Depth to Water DTP = Depth to Product PT = Product Thickness ND = None Detected

Monitoring Well	D.T.P.	D.T.W.
MW-1	D	D
MW-2	ND	10.36
MW-3	ND	11.39
MW-4	ND	9.81
MW-6	NA	NA

Notes: All measurements in feet, below the nortnern top of well casing
Notes:
NA=Not Accessible
D= Decommissioned monitoring well

Reported By:

Donovan Edwards

ATTACHMENT C
LABORATORY ANALYTICAL REPORT

Technical Report

prepared for:

Hydro Tech Environmental (Brooklyn)
15 Ocean Avenue, Suite 2B
Brooklyn NY, 11225
Attention: Paul Matli

Report Date: 01/05/2022
Client Project ID: 190055 11-28 31 Drive, LIC, NY
York Project (SDG) No.: 21L1506

CT Cert. No. PH-0723 New Jersey Cert. No. CT005 and NY037 New York Cert. Nos. 10854 and 12058 PA Cert. No. 68-04440

120 RESEARCH DRIVE STRATFORD, CT 06615 ■ 132-02 89th AVENUE RICHMOND HILL, NY 11418
www.YORKLAB.com (203) 325-1371 FAX (203) 357-0166 ClientServices@yorklab.com

Report Date: 01/05/2022
Client Project ID: 190055 11-28 31 Drive, LIC, NY
York Project (SDG) No.: 21L1506

Hydro Tech Environmental (Brooklyn)
15 Ocean Avenue, Suite 2B
Brooklyn NY, 11225
Attention: Paul Matli

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on December 29, 2021 and listed below. The project was identified as your project: **190055 11-28 31 Drive, LIC, NY**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Sample and Analysis Qualifiers section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the Sample and Data Qualifiers Relating to This Work Order section of this report and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

York Sample ID	Client Sample ID	Matrix	Date Collected	Date Received
21L1506-01	MW-2 20211229	Water	12/29/2021	12/29/2021
21L1506-02	MW-3 20211229	Water	12/29/2021	12/29/2021
21L1506-03	MW-4 20211229	Water	12/29/2021	12/29/2021
21L1506-04	TB	Water	12/29/2021	12/29/2021

General Notes for York Project (SDG) No.: 21L1506

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

Approved By: 

Date: 01/05/2022

Cassie L. Mosher
Laboratory Manager

Sample Information

Client Sample ID: MW-2 20211229 **York Sample ID:** 21L1506-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21L1506	190055 11-28 31 Drive, LIC, NY	Water	December 29, 2021 9:50 am	12/29/2021

Volatile Organics, 8260 - TCE/PCE

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
127-18-4	**Tetrachloroethylene**	**6.99**		ug/L	0.200	0.500	1	EPA 8260C	01/04/2022 12:30	01/04/2022 23:44	OC
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
79-01-6	**Trichloroethylene**	**0.860**		ug/L	0.200	0.500	1	EPA 8260C	01/04/2022 12:30	01/04/2022 23:44	OC
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*106 %*	*69-130*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*95.2 %*	*81-117*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*103 %*	*79-122*

Sample Information

Client Sample ID: MW-3 20211229 **York Sample ID:** 21L1506-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21L1506	190055 11-28 31 Drive, LIC, NY	Water	December 29, 2021 9:55 am	12/29/2021

Volatile Organics, 8260 - TCE/PCE

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
127-18-4	**Tetrachloroethylene**	**1.28**		ug/L	0.200	0.500	1	EPA 8260C	01/04/2022 12:30	01/05/2022 00:10	OC
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
79-01-6	Trichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C	01/04/2022 12:30	01/05/2022 00:10	OC
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*106 %*	*69-130*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*95.9 %*	*81-117*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*103 %*	*79-122*

Sample Information

Client Sample ID: MW-4 20211229 **York Sample ID:** 21L1506-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21L1506	190055 11-28 31 Drive, LIC, NY	Water	December 29, 2021 9:38 am	12/29/2021

Sample Information

Client Sample ID: MW-4 20211229 **York Sample ID:** 21L1506-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21L1506	190055 11-28 31 Drive, LIC, NY	Water	December 29, 2021 9:38 am	12/29/2021

Volatile Organics, 8260 - TCE/PCE

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
127-18-4	**Tetrachloroethylene**	**5.26**		ug/L	0.200	0.500	1	EPA 8260C	01/04/2022 12:30	01/05/2022 00:35	OC
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
79-01-6	Trichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C	01/04/2022 12:30	01/05/2022 00:35	OC
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*107 %*	*69-130*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*95.9 %*	*81-117*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*103 %*	*79-122*

Sample Information

Client Sample ID: TB **York Sample ID:** 21L1506-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21L1506	190055 11-28 31 Drive, LIC, NY	Water	December 29, 2021 12:00 am	12/29/2021

Volatile Organics, 8260 - TCE/PCE

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
127-18-4	Tetrachloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C	01/04/2022 12:30	01/05/2022 01:01	OC
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
79-01-6	Trichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C	01/04/2022 12:30	01/05/2022 01:01	OC
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*106 %*	*69-130*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*96.1 %*	*81-117*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*104 %*	*79-122*

Analytical Batch Summary

Batch ID: BA21277 **Preparation Method:** EPA 5030B **Prepared By:** OC

YORK Sample ID	Client Sample ID	Preparation Date
21L1506-01	MW-2 20211229	01/04/22
21L1506-02	MW-3 20211229	01/04/22
21L1506-03	MW-4 20211229	01/04/22
21L1506-04	TB	01/04/22
BA21277-BLK1	Blank	01/04/22
BA21277-BS1	LCS	01/04/22
BA21277-BSD1	LCS Dup	01/04/22
BA21277-MS1	Matrix Spike	01/04/22
BA21277-MSD1	Matrix Spike Dup	01/04/22

Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BA21277 - EPA 5030B											
Blank (BA21277-BLK1)								Prepared & Analyzed: 01/04/2022			
Tetrachloroethylene	ND	0.500	ug/L								
Trichloroethylene	ND	0.500	"								
Surrogate: SURR: 1,2-Dichloroethane-d4	*10.7*		*"*	*10.0*		*107*	*69-130*				
Surrogate: SURR: Toluene-d8	*9.65*		*"*	*10.0*		*96.5*	*81-117*				
Surrogate: SURR: p-Bromofluorobenzene	*10.5*		*"*	*10.0*		*105*	*79-122*				
LCS (BA21277-BS1)								Prepared & Analyzed: 01/04/2022			
Tetrachloroethylene	7.16		ug/L	10.0		71.6	82-131	Low Bias			
Trichloroethylene	8.88		"	10.0		88.8	82-128				
Surrogate: SURR: 1,2-Dichloroethane-d4	*10.7*		*"*	*10.0*		*107*	*69-130*				
Surrogate: SURR: Toluene-d8	*9.55*		*"*	*10.0*		*95.5*	*81-117*				
Surrogate: SURR: p-Bromofluorobenzene	*10.4*		*"*	*10.0*		*104*	*79-122*				
LCS Dup (BA21277-BSD1)								Prepared & Analyzed: 01/04/2022			
Tetrachloroethylene	7.41		ug/L	10.0		74.1	82-131	Low Bias	3.43	30	
Trichloroethylene	9.18		"	10.0		91.8	82-128		3.32	30	
Surrogate: SURR: 1,2-Dichloroethane-d4	*10.7*		*"*	*10.0*		*107*	*69-130*				
Surrogate: SURR: Toluene-d8	*9.49*		*"*	*10.0*		*94.9*	*81-117*				
Surrogate: SURR: p-Bromofluorobenzene	*10.6*		*"*	*10.0*		*106*	*79-122*				
Matrix Spike (BA21277-MS1)	*Source sample: 21L1506-03 (MW-4 20211229)							Prepared: 01/04/2022 Analyzed: 01/05/2022			
Tetrachloroethylene	12.5		ug/L	10.0	5.26	72.3	64-139				
Trichloroethylene	9.93		"	10.0	0.00	99.3	53-145				
Surrogate: SURR: 1,2-Dichloroethane-d4	*10.8*		*"*	*10.0*		*108*	*69-130*				
Surrogate: SURR: Toluene-d8	*9.59*		*"*	*10.0*		*95.9*	*81-117*				
Surrogate: SURR: p-Bromofluorobenzene	*10.5*		*"*	*10.0*		*105*	*79-122*				
Matrix Spike Dup (BA21277-MSD1)	*Source sample: 21L1506-03 (MW-4 20211229)							Prepared: 01/04/2022 Analyzed: 01/05/2022			
Tetrachloroethylene	12.4		ug/L	10.0	5.26	71.3	64-139		0.804	30	
Trichloroethylene	10.6		"	10.0	0.00	106	53-145		6.43	30	
Surrogate: SURR: 1,2-Dichloroethane-d4	*10.6*		*"*	*10.0*		*106*	*69-130*				
Surrogate: SURR: Toluene-d8	*9.62*		*"*	*10.0*		*96.2*	*81-117*				
Surrogate: SURR: p-Bromofluorobenzene	*10.6*		*"*	*10.0*		*106*	*79-122*				

Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
21L1506-01	MW-2 20211229	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
21L1506-02	MW-3 20211229	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
21L1506-03	MW-4 20211229	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
21L1506-04	TB	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C

Sample and Data Qualifiers Relating to This Work Order

QL-02	This LCS analyte is outside Laboratory Recovery limits due the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.
ICV-E	The value reported is ESTIMATED. The value is estimated due to its behavior during initial calibration verification (recovery exceeded 30% of expected value).
CCV-E	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).

Definitions and Other Explanations

*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
High Bias	High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
Non-Dir.	Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.

YORK
ANALYTICAL LABORATORIES INC

Field Chain-of-Custody Record

York Analytical Laboratories, Inc. (YORK)'s Standard Terms & Conditions are listed on the back side of this document.
This document serves as your written authorization for YORK to proceed with the analyses requested below.
Your signature binds you to YORK's Standard Terms & Conditions.

YORK Project No. 21L1506

120 Research Drive Stratford, CT 06615 | 132-02 89th Ave Queens, NY 11418 | clientservices@yorklab.com | www.yorklab.com | 800-306-YORK | 800-306-9675

YOUR Information	Report To:	Invoice To:
Company: Hydrotech Env Eng Grp Inc	Company: SAME	Company: SAME
Address: 455 Lexington Ave New York NY 10174	Address:	Address:
Phone: 631 241 7165	Phone:	Phone:
Contact: Paul Mathi	Contact:	Contact:
E-mail:	E-mail:	E-mail:

YOUR Project Number: 190055

YOUR Project Name: 11-28 31 Drive LIC NY

YOUR PO#: 58773

Turn-Around Time
- RUSH - Next Day
- RUSH - Two Day
- RUSH - Three Day
- RUSH - Four Day ✓
- Standard (5-7 Day)

Please print clearly and legibly. All information must be complete. Samples will not be logged in and the turn-around-time clock will not begin until any questions by YORK are resolved.

Paul I Mathi

Samples Collected by: (print AND sign your name)

Matrix Codes
- S - soil / solid
- GW - groundwater
- DW - drinking water
- WW - wastewater
- O - Oil | Other

Samples From
- New York ✓
- New Jersey
- Connecticut
- Pennsylvania
- Other:

Report / EDD Type (circle selections)
- Summary Report
- QA Report
- NY ASP A Package
- NY ASP B Package
- CT RCP
- CT RCP DQA/DUE
- NJDEP Reduced Deliverables
- NJDKQP
- Standard Excel EDD
- EQuIS (Standard)
- NYSDEC EQuIS
- NJDEP SRP HazSite
- Other:

YORK Reg. Comp.
Compared to the following Regulation(s): (please fill in)
NYSDEC GQA

Sample Identification	Sample Matrix	Date/Time Sampled	Analysis Requested	Container Description
MW-2 20211229	GW	12/29/21 9:50AM	EPA 8260 for PCE & TCE only	3x vial HCl
MW-3		9:55AM		↓
MW-4 (MS/MSD)		9:30AM		8x vials none
TB				2x Vials HCl

Comments:

Samples iced/chilled at time of lab pickup? circle Yes or No

Preservation: (check all that apply)
HCl ✓ MeOH ___ HNO3 ___ H2SO4 ___ NaOH ___
ZnAc ___ Ascorbic Acid ___ Other: ___

Special Instruction
- Field Filtered
- Lab to Filter

1. Samples Relinquished by / Company	Date/Time	1. Samples Received by / Company	Date/Time	2. Samples Relinquished by / Company	Date/Time
Paul I Mathi	12/29/21 12:30pm	Francisco / Yorklab	12/29/21 1800	Francisco / Yorklab	12/29/21 1945
2. Samples Received by / Company	Date/Time	3. Samples Relinquished by / Company	Date/Time	3. Samples Received by / Company	Date/Time
Mail N York	12/29/21 1730 hrs				
4. Samples Relinquished by / Company	Date/Time	4. Samples Received by / Company	Date/Time	Samples Received in LAB by	Date/Time / Temperature
Mail N York	12/29/21			[illegible]	12/29/21 1947 / 2.2 Degrees C

ATTACHMENT D

DUSR

Date: January 31th, 2022

Mr. Paul Matli, Project Manager
Hydro Tech Environmental Engineering
And Geology, DPC
77 Arkay Drive Suite K
Haupauge, NY 11788

Re: Data Usability Summary Reports and Quality Assurance Validation Analyses for York Analytical Laboratories Project **(SDG) No.: 21L1506**

Client Project ID: 210098 11-28 31 Drive, LIC, NY

Dear Mr. Matli,

I thank you for your confidence in our data validation services and look forward to the growth of our business relationship. I Have enclosed with this letter the data usability summary reports (DUSRs) and data validation summaries for the above referenced laboratory (SDG) numbers issued by York Analytical Laboratories, Inc.

The overall evaluation of the SDG# 21L1506 displays good degree of confidence and acceptance in accordance with the guidelines in the USEPA National Functional Guidelines and the method and QC Criteria specified in NYSDEC ASP Documents except for some qualified results that are identified in the validation summaries based solely on the stated above validation guidance criteria. However, the qualified data (Bias low, Bias High, Unreliable or unusable) may be subject to the user's reconsideration or determination in the circumstances of obtaining additional information that is not contained in the data validation criteria.

If you have any questions or comments regarding any of the attached data usability summary reports and or the data validation summaries, please do not hesitate to contact me at (413) 875-5049 or via email at hanibaltayeh@gmail.com.

Sincerely,

Hanibal C. Tayeh, Ph.D.
Data Validation and Forensic Geochemistry Expert

Files: DUSR-HTE-210098 11-28 31 Drive, LIC, NY-Water 21L1506

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DATA USABILITY SUMMARY REPORT (DUSR)

Site Location: *11-28 31 Drive, LIC, NY*

York Analytical Laboratories, Inc

Laboratory (SDG) *# 21L1506*

Project No. 210098

Prepared for:

Paul Matli, Project Manager
Hydro Tech Environmental Engineering
And Geology, DPC
77 Arkay Drive Suite K
Haupauge, NY 11788

Prepared by:

Hanibal Tayeh, Ph.D.
Data Validation and Forensic Geochemistry Expert

On

January 31th, 2022

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CONTENTS

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1. GLOSSARY OF ACRONYMS & TERMS

The following acronyms and terms may have been used in the descriptive process of the Organic and Inorganic Data Validation.

Acronyms:

AA	Atomic absorption, flame technique
BHC	Hexachlorocyclohexane
BFB	Bromofluorobenzene (volatile instrument performance check)
BNA	Base/Neutral/Acid
CARD	CLP Analytical Results Database
CCB	Continuing Calibration Blank
CCCs	Calibration Check Compounds
CCS	Contract Compliance Screening
CCV	Continuing Calibration Verification
CF	Calibration Factor
CLP	Contract Laboratory Program
CN	Cyanide
COC	Chain of Custody
CRDL	Contract Required Detection Limit
CRQL	Contract Required Quantitation Limit
CSF	Complete SDG File
CV	Cold Vapor
%D	Percent Difference
DAS	Delivery of Analytical Services
DCAA	2,4-Dichlophenylacetic acid
DCB	Decachlorobiphenyl (Pesticide/PCB/ surrogate compound)
DFTPP	Decafluorotriphenylphosphine (semivolatile instrument performance check)
DSF	Data Summary Form
DVA	Data Validation Assessment
ECD	Electron-Capture Detector
EICP	Extended Ion Current Profile
EPA	United States Environmental Protection Agency
FAA	Atomic absorption, furnace technique
FID	Flame ionization detector
FNP	1-Fluoronaphthalene
GC	Gas Chromatography
GC/EC	Gas Chromatography/Electron Capture
GC/MS	Gas Chromatography/Mass Spectra
GPC	Gel Permeation Chromatography (Clean Up)
ICAL	Initial Calibration
ICB	Initial Calibration Blank
ICP	Inductively Coupled Plasma
ICS	Interference Check Sample
ICV	Initial Calibration Verification
IDL	Instrument Detection Limit

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IRDA	Inorganic Regional Data Assessment
IS	Internal Standard
LCS	Laboratory Control Sample
LCL	Lower Control Limit
MCL	Maximum Contamination Level
MDL	Method Detection Limit
MS/MSD	Matrix Spike/Matrix Spike Duplicate
m/z	The ratio of mass (m) to charge (z) of ions measured by GC/MS
OADS	Organic Analysis Data Sheet (Form 1)
ORDA	Organic Regional Data Assessment
PB	Preparation Blank
PCB	Poly Chlorinated Biphenyl
PEM	Performance Evaluation Mixture
PFAS	Polyfluorinated Alkyl Substances (PFAS analytes are listed below)
PRP	Potential Responsible Party
QA/QC	Quality Assurance/Quality Control
QAPjP	Quality Assurance Project Plan
QC	Quality Control
%R	Percent Recovery of spiked amount
RAS	Routine Analytical Services
RF	Response Factor
RIC	Reconstructed Ion Chromatogram
RPD	Relative Percent Difference
RRF	Relative Response Factor
RSD	Relative Standard Deviation
RT	Retention Time
RTW	Retention Time Window
SDG	Sample Delivery Group
SMC	System Monitoring Compound
SMO	Sample Management Office
SOP	Standard Operation Procedures
SOW	Statement of Work
SPCCs	System Performance Check Compounds
SSL	Samples Shipping Log
SVOA	Semivolatile Organic Analyte
TAL	Target Analyte List
TCL	Target Compound List
TCX	Tetrachloro-m-Xylene (Pesticide/PCB surrogate compound)
TIC	Tentatively Identified Compound
TPH	Total Petroleum Hydrocarbons
TR	Traffic Report
UCL	Upper Control Limit
VOA	Volatile Organic Analyte
VTSR	Validated Time of Sample Receipt

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Polyfluorinated Alkyl Substances (PFAS) Acronyms

PFBA	Perfluorobutanoic acid
PFPeA	Perfluoropentanoic acid
PFHxA	Perfluorohexanoic acid
PFHpA	Perfluoroheptanoic acid
PFOA	Perfluorooctanoic acid
PFNA	Perfluorononanoic acid
PFDA	Perfluorodecanoic acid
PFUnA	Perfluoroundecanoic acid
PFDoA	Perfluorododecanoic acid
PFTriA or PFTrDA	Perfluorotridecanoic acid
PFTeA or PFTA	Perfluorotetradecanoic acid
PFBS	Perfluorobutanesulfonic acid
PFPeS	Perfluoropentanesulfonic acid
PFHxS	Perfluorohexanesulfonic acid
PFHpS	Perfluoroheptanesulfonic acid
PFOS	Perfluorooctanesulfonic acid
PFNS	Perfluorononanesulfonic acid
PFDS	Perfluorodecanesulfonic acid
FOSA	Perfluorooctane Sulfonamide
NMeFOSAA	N-methyl perfluorooctane sulfonamidoacetic acid
NEtFOSAA	N-ethyl perfluorooctane sulfonamidoacetic acid
4:2 FTS or 4:2	1H, 1H, 2H, 2H-perfluorohexanesulfonic acid
6:2 FTS or 6:2	1H, 1H, 2H, 2H-perfluorooctanesulfonic acid or 6:2 Fluorotelomersulfonate
8:2 FTS or 8:2	1H, 1H, 2H, 2H-perfluorodecanesulfonic acid or 8:2 Fluorotelomersulfonate

Terms:

Associated Samples: Any sample related to a particular QC analysis.

Case: A finite, usually predetermined number of samples collected over a given time period for a particular site. A Case consists of one or more Sample Delivery Group(s).

Continuing Calibration Blank (CCB): A deionized water sample run every ten (10) samples designed to detect any carryover contamination.

Continuing Calibration Verification (CCV): A deionized water sample run every ten (10) samples designed to detect any carryover contamination.

Contract Compliance Screening (CCS): A process in which the SMO inspects the data for contractual compliance and provides EMSL-LV laboratories and the Regions with their findings.

Contractual Holding Time: The time from VTSR (validated time of sample receipt) to laboratory extraction and /or analysis.

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Data Validation Qualifier (DVQ): This refers to the column on the data summary form in which EPA Region III and other qualifiers have been placed by the data validator.

Data Validation Result (DVR): This refers to the column on the data summary form used to report results that have been modified by the data validator. A result in the DVR column that is qualified “U” indicates a modification of the reporting limit.

Field Blank Field blanks are intended to identify contaminants that may have been introduced in the field. Examples are rinsate blank (RB), field blanks (FB) and trip blank (TB).

Field Duplicate: A duplicate sample generated in the field; not in the laboratory.

Initial Calibration (ICAL): The establishment of a calibration curve with the appropriate number of standards and concentration ranges. The calibration curve plots absorbances and/or emissions versus concentration of the standards.

Initial Calibration Blank (ICB): First blank run after the calibration curve.

Initial Calibration Verification (ICV): First standard run after the calibration curve.

Matrix Spike/Matrix Spike Duplicate (MS/MSD): Introduction of a known concentration of a compound into a sample to provide information about the effect of sample matrix on the extraction and/or measurement methodology.

Post Digestion Spike: The addition of known amount of standard after digestion. (Also identified as analytical spike, or spike, for furnace analyses).

Preparation Blank (PB): Blank taken through the digestion process to detect internal laboratory contamination.

Performance Evaluation Mixture: A standard used to verify that the ICAL sequence is stable throughout the GC or GC/MS analyses.

Sample Delivery Group (SDG): Defined by one of the following, whichever occurs first:
- case of sample
- each twenty field samples in a case or
- each 14-day calendar period during which field samples in a case are received, beginning with the receipt of the first sample in the SDG.

Serial Dilution: A sample run at a specific dilution to determine whether any significant chemical or physical interferences exist due to sample matrix effect, for ICP only.

Technical Holding Time: The time from sample collection to laboratory extraction and /or analysis.

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2. GLOSSARY OF DATA VALIDATION QUALIFIERS

(Used in the QA/QC Reviews for USEPA Region II)

The qualifiers listed below are used for data usability summary report (DUSR) purposes. However, it is important to note that the data validation qualifiers may differ from the qualifiers that the laboratory assigns to the data. Refer to the laboratory analytical report for the definitions of the laboratory qualifiers.

U = Not detected. The associated number indicates the approximate sample concentration necessary to be detected significantly greater than the level of the highest associated blank.

R = Unreliable result; data is rejected or unusable. Analyte may or may not be present in the sample. Supporting data or information is necessary to confirm the result.

N = Tentative identification. Analyte is considered present. Special methods may be needed to confirm its presence or absence during future sampling efforts.

J = Analyte is present. Reported value may be associated with a higher level of uncertainty than is normally expected with the analytical method.

J- = Analyte is present. Reported value may be biased low and associated with a higher level of uncertainty than is normally expected with the analytical method.

J+ = Analyte is present. Reported value may be biased high and associated with a higher level of uncertainty than is normally expected with the analytical method.

UJ = Not detected, quantitation limit may be inaccurate or imprecise.

3. NYS DEC DATA USABILITY SUMMARY PARAMETERS

The parameters listed below are used for data usability summary report (DUSR) evaluation.

Samples Handling and Management
Data Validation References
Laboratory Data Packages
Laboratory Analytical Methods
DATA Usability Assessment Summary

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4. DATA VALIDATION SUMMARY PARAMETERS

The parameters listed below are used for data validation evaluation.

	Organic Data	*Inorganic Data*
Data Completeness	*X*	*X*
Holding Time	*X*	*X*
Chromatographic Behavior	*X*	
Compound Identification	*X*	*X*
GC/MS Tuning and Mass Calibration	*X*	
Initial Calibration Verification	*X*	*X*
Continuing Calibration	*X*	*X*
Method Blank Verification	*X*	*X*
Internal Standard Area Summary	*X*	
Surrogate Recoveries	*X*	
Matrix Spike/Matrix Spike Duplicate	*X*	*X*
Laboratory Control Sample (LCS)	*X*	*X*
Laboratory and Field Duplicates	*X*	*X*
ICP Interference Check Sample results		*X*
ICP Serial Dilution results		*X*
ICP CRDL Standard		*X*
Post Digestion Spike Analysis		*X*
Analyte Quantitation		*X*

5. DATA VALIDATION ACTIVE STANDARD OPERATING PROCEDURES (SOPs)

Region 2 Quality Assurance Guidance and Standard Operating Procedures

https://www.epa.gov/quality/region-2-quality-assurance-guidance-and-standard-operating-procedures

Inorganic Validation SOPs

SOP #	Description	Date
SOP HW-3a ICP-AES Rev1 w/CRF	CLP ISM02.2 ICP-AES	September 2016
SOP HW-3b ICP-MS Rev1 w/CRF	CLP ISM02.2 ICP-MS	September 2016
SOP HW-3c Hg & CN Rev1 w/CRF	CLP ISM02.2 Mercury and Cyanide	September 2016

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Organic Validation SOPs - CLP

SOP #	Description	Date
SOP HW-33A Low Medium VOA Rev 1 w/CRF	EPA CLP Method SOM02.2 for Low/Medium VOA	September 2016
SOP HW-34A Trace VOA Rev1 w/CRF	EPA CLP Method SOM02.2 for Trace VOA	September 2016
SOP HW-35A Rev1 w/CRF	EPA CLP Method SOM02.2 for Semi-Volatiles	September 2016
SOP HW-36A Rev 1 w/CRF	EPA CLP Method SOM02.2 for Pesticides	October 2016
SOP HW-37A Rev 0 w/CRF	EPA CLP Method SOM02.2 for PCBs Aroclor	June 2015

Organic Validation SOPs – Other

SOP #	Description	Date
SOP HW-11 Rev 3	SW-846 Method 8280 for Polychlorinated Dibenzodioxins/Polychlorinated Dibenzofurans	December 2010
SOP HW-16 Rev. 2.1	SW-846 Method 8330A Nitroaromatics and Nitroamines by HPLC	December 2010
SOP HW-17 Rev.3.1	SW-846 Method 8151A for Chlorinated Herbicides by GC	December 2010
SOP HW-19 Rev. 1.1	SW-846 Method 8290 for Polychlorinated dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by HRMS	December 2010
SOP HW-22 Rev. 5	SW-846 Method 8270D for Semivolatile Organic Compounds by GC/MS	December 2010
SOP HW-25 Rev. 3	EPA Method 1613, Revision B Tetra-through Octa-chlorinated Dioxins and Furans by Isotope Dilution by HRGC/HRMS	December 2010
SOP HWSS 24 Rev. 4	SW-846 Methods 8260B & 8260C for VOCs by GC/MS	October 2014
SOP HW-29 Rev. 2	EPA Method 524.2 for Purgeable Organic Compounds in Water by GC/MS	November 2010
SOP HW-31 Rev. 6	TO-15 Air Analysis for VOCs	September 2016
SOP HW-44 Rev. 1.1	SW-846 Method 8081B for Pesticide Compounds Organochlorine Pesticides by GC	December 2010
SOP HW-46 Rev. 1	EPA Method 1668 A for Chlorinated Biphenyl Congeners and EPA Non-RAS CBC01.0	September 2008

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SOP HW-55 Rev. 2 w/CRF	EPA Non-RAS DLM02.0 for Tetra -through Octa-Chlorinated Dioxins and Furans by Isotope Dilution	December 2008

6. DATA VALIDATION REPORT NARRATIVE

NYS DEC Data Usability Summary Report	SDG # 21L1506

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NYS DEC Data Usability Summary Report
SDG # 21L1506

Site Location	210098 11-28 31 Drive, LIC, NY
Data Validation for Analytical Methods	Volatile Organic (EPA 8260C)
Number of Samples & Matrix	3 Water Samples, and 1 Trip Blank
Sampled On	12/29/2021
Analytical Laboratory	York Analytical Laboratories, Inc
Laboratory Report Number	21L1506 (01-02-03 & 04)
Data Validation Reviewer	Hanibal Tayeh, Ph.D.
Data Validation Completed	January 30th, 2022

- **SAMPLE HANDLING AND MANAGEMENT**

As per the chain of custody (COC) record included in this specific SDG, samples associated with this data set were collected on December 29th, 2021, using the proper containers in accordance with the Sample Integrity and Preservation section of the stated above USEPA method and received by the laboratory on December 29th, 2021. The attached chain of custody (COC) displays a satisfactory record in terms of client and project information, site location, field sampling details (sampler, collection date and time), sample identification and matrix, preservation, required analysis, deliverable type and date, data management process and comparison.

Client Sample Identification	Laboratory Sample Identification
MW-2 20211229	21L1506-01
MW-3 20211229	21L1506-02
MW-4 20211229	21L1506-03
TB	21L1506-04

- **DATA VALIDATION REFERNCES**

The organic data validation is conducted in accordance with the guidelines in the USEPA National Functional Guidelines for Organic Data Review and the USEPA Region II SOP HW-6-CLP Organic Data Review Preliminary review and the method and QC Criteria specified in NYSDEC ASP Documents.

- **LABORATORY DATA PACKAGES**

The laboratory data packages received from York Analytical Laboratories for the stated SDG above is considered satisfactory in terms of pagination, quality control narration and completeness. Each package contained the laboratory quality assurance summary report, quality control summary data, sample nonconformance summaries, the required data package forms and tables in accordance with NYSDEC ASP documents, instrument

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tuning information, sample preparation and analysis batch and all associated standard, quality control and sample raw data.

- **LABORATORY ANALYTICAL METHODS**

  A peer review of the quality assurance criteria listed in the laboratory data package shows with good degree of certainty the laboratory's compliance with the procedures set forth in the required USEPA analytical methods as indicated in the chain of custody. No deviations from the said methods have been noticed.

- **DATA USABILITY ASSESSMENT SUMMARY:** The overall data package assessment provided by York Analytical Laboratories for the stated above sample delivery group (SDG) suggests acceptable laboratory performances of the required methods. All samples were successfully analyzed for all target compounds in accordance with the Quality Assurance/Quality Control (QA/QC) requirements for the USEPA analytical methods used for the analyses. In view of the data usability and completeness, the minor issues listed below regarding biases identified during data validation should be taken into high degree of consideration. They are as follows:

  ✓ **Volatile Organic Compounds - EPA 8260C Method**

	Data Assessment Judgement *(Refer to Data Validation Assessment of a specific method for technical reasoning and argument behind such judgement)*	**DVA Reference**
1	**No actions are required**. The volatile compounds in default (1,2-Dibromo-3-chloropropane, 2-Butanone, Acetone, Acrolein, Methylene Chloride, trans-1,4-dichloro-2-butene) are excluded from the specific target compounds (Tetrachloroethylene, Trichloroethylene) as requested by the client per the chain of custody record.	**ICV**
2	-Detected results of Tetrachloroethylene, in the associated samples, MW-2 20211229, MW-3 20211229, MW-4 20211229, TB, should be qualified estimated (J).	**CCV**
3	**No actions are required.**	**Method Blank**
4	**No actions are required.**	**IS**
5	**No actions are required.**	**SR**
6	-Detected results of Tetrachloroethylene, in samples MW-2 20211229, MW-3 20211229, MW-4 20211229, TB, must be qualified estimated-Bias Low (J-). -Non- Detected results of Tetrachloroethylene, in samples MW-2 20211229, MW-3 20211229, MW-4 20211229, TB, must be qualified estimated (UJ).	**LCS**
7	**No actions are required.**	**DUP**
8	**No actions are required.**	**MS/MSD**

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Data Validation Assessment
SDG # 21L1506

Data Validation for Analytical Method	Volatile Organic Compounds **(EPA 8260C Method)**
Number of Samples & Matrix	3 Water Samples, and 1 Trip Blank
Sampled On	12/29/2021
Analytical Laboratory	York Analytical Laboratories, Inc
Laboratory Report Number	21L1506 (01-02-03 & 04)
Data Validation Reviewer	Hanibal Tayeh, Ph.D.
Data Validation Completed	January 30th, 2022

- **Data Completeness:** The data deliverable package provided by the laboratory in accordance with the ASP B deliverable standards is considered complete.

- **Holding Time:** According to the laboratory quality assurance report and its associated data package, the samples set listed in this SDG number were analyzed within the method holding times as recommended by USEPA and SW846 Methods.

- **Chromatographic Behavior:** This laboratory data package including but not limited to the standards, quality control samples and field sample analyses raw data (data reduction and chromatograms) display with good degree of certainty the laboratory's full compliance with the chromatographic criteria set forth in the USEPA and SW846 methods.

- **Compound Identification:** Target compounds, internal standards and surrogates were thoroughly checked and found to be within the gas chromatograph/mass spectrometry (GCMS) method quantitation limits and in accordance with the USEPA and SW846 methods for mass spectra identification and quantification using both the primary and secondary ions as defined in the method.

- **GC/MS Tuning and Mass Calibration:** The BFB tuning criteria were within control limits as outlined in the EPA and SW846 methods.

- **Initial Calibration Verification (ICV):** As indicated in the method calibration criteria, the initial calibration standards of this data set have been evaluated for compliance with method criteria for Average Response Factor (RRFs) and Percent Relative Standard Deviation (%RSDs) and in some cases the coefficient of determination COD: (RRFs greater than the required values and at least greater than 0.01 for all target compounds and >0.001 for 1,4 Dioxane; %RSD < 20% as the allowable maximum; COD greater than the allowable minimum of 0.99 or 0.995). This evaluation displays the following:
  -In the initial calibration of YL10020, on 12/15/2021, both the average RRFs and %RSDs for all target compounds were in compliance with the method calibration criteria EXCEPT for 2-Butanone, where Mean RRFs is less than the allowable minimum (SPCC >0.1).

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Additionally, %RSDs for 1,2-Dibromo-3-chloropropane, 2-Butanone, Acetone, Acrolein, Methylene Chloride, trans-1,4-dichloro-2-butene, were greater than the allowable maximum.
No action is required when less than 20% of the continuing calibration target compounds are outside the method control limits provide no Average Relative Response Factor (RRFs) is less than 0.01 for all target compounds.

Quality Judgement: **No actions are required.** The volatile compounds in default (1,2-Dibromo-3-chloropropane, 2-Butanone, Acetone, Acrolein, Methylene Chloride, trans-1,4-dichloro-2-butene) are excluded from the specific target compounds (Tetrachloroethylene, Trichloroethylene) as requested by the client per the chain of custody record.

- **Continuing Calibration Verification (CCV):** As indicated in the method calibration criteria, the continuing calibration standard of this data set has been evaluated for compliance with method criteria for the required frequency, Relative Response Factor (RRFs) and Percent Difference (%Ds). This evaluation displays the following:
  -The continuing calibration (Y2A0518-CCV1 on 01/04/2022) met the required criteria for Relative Response Factor (RRFs) and Percent Difference (%Ds), EXCEPT for Tetrachloroethylene, where %Ds was above the method allowable maximums.

  The raw data review of this continuing calibration standard file, suggests that %Ds of most of the standard target compounds were below the allowable maximum. No action is required when less than 20% of the continuing calibration target compounds are outside the method control limits provide no Average Relative Response Factor (RRFs) is less than 0.01 for all target compounds.

  Quality Judgement:
  -Detected results of Tetrachloroethylene, in the associated samples, MW-2 20211229, MW-3 20211229, MW-4 20211229, TB, should be qualified estimated (J).

- **Method Blank Verification:** Method blank analyses included in this data set of laboratory data package concluded no detection for the specific target compounds (Tetrachloroethylene, Trichloroethylene), in BA21277-BLK1 analyzed on 01/04/2022.

  Quality Judgement: No actions are required.

- **Internal Standard Area Summary (IS):** As indicated in the method internal standard criteria, the laboratory data package for the stated SDG confirmed the following:
  -The internal standard retention times were within method control limits.
  -The internal standard areas were within method control limits.

  Quality Judgement: No actions are required.

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- **Surrogate Recoveries (SR):** An evaluation of the surrogate standards behavior in the SDG data set concluded that the surrogate recoveries were within method control limits for the samples set.

  Quality Judgement: No actions are required.

- **Laboratory Control Sample (LCS):** As required by the method quality assurance/quality control criteria, the laboratory control samples in this data set have been evaluated for method compliance purposes (Percent Recoveries: %Rs and Relative Percent Difference: %RPDs). The following summarizes this evaluation:
  -In BA21277-BS1, %Rs for Tetrachloroethylene was below the method control limits.
  -In BA21277-BSD1, %Rs for Tetrachloroethylene was below the method control limits. %RPDs were below the allowable maximums.

  Quality Judgement:
  -Detected results of Tetrachloroethylene, in samples MW-2 20211229, MW-3 20211229, MW-4 20211229, TB, must be qualified estimated-Bias Low (J-).
  -Non- Detected results of Tetrachloroethylene, in samples MW-2 20211229, MW-3 20211229, MW-4 20211229, TB, must be qualified estimated (UJ).

- **Laboratory and Field Duplicates (DUP):** According to both the chain of custody record**,** and the data set provided by the laboratory, no field duplicate was collected, nor laboratory duplicate sample was analyzed.

  Quality Judgement: No actions are required.

- **Matrix Spike and Matrix Spike Duplicate (MS/MSD):** As required by the method quality assurance/quality control criteria, the matrix spike and matrix spike duplicate in a designated sample listed in this data set has been evaluated for method compliance purposes. The following summarizes this evaluation:
  -In Matrix Spike Sample BA21277-MS1 in sample MW-4 20211229, %Rs of both specific target compounds (Tetrachloroethylene, Trichloroethylene), were within method control limits.
  -In Matrix Spike Duplicate Sample BA21277-MSD1 in sample MW-4 20211229, %Rs of both specific target compounds (Tetrachloroethylene, Trichloroethylene), were within method control limits. %RPDs were below the allowable maximum.

  Quality Judgement: No actions are required.

- **Analyte Quantitation:** Target compounds were quantitated using the proper method calculation criteria in accordance with the USEPA and SW846 methods procedures and guidelines.

(All associated QC forms, tables, chromatograms and others will be attached after each Data validation Assessment summary per analytical method of the titled SDG number).

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ATTACHMENT-1

VALIDATED QUALITY DATA

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FORM VI

INITIAL CALIBRATION DATA

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.

Client: Hydro Tech Environmental (Brooklyn)

Calibration: YL10020

SDG: 21L1506

Project: 190055 11-28 31 Drive, LIC, NY

Instrument: VOA#11

Calibration Date: 12/15/21 00:49

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
1,1,1,2-Tetrachloroethane	0.5	0.2579092	2	0.2642996	4	0.296492	10	0.2737547	20	0.3098719	40	0.3056903
1,1,1-Trichloroethane	0.5	2.262375	2	2.209984	4	2.369321	10	2.20846	20	2.42029	40	2.447588
1,1,2,2-Tetrachloroethane	0.5	0.2870107	2	0.3226934	4	0.3422541	10	0.3196496	20	0.3391619	40	0.3130685
1,1,2-Trichloro-1,2,2-trifluoro ethane (Freon 113)	0.5	1.288094	2	1.436447	4	1.432323	10	1.351484	20	1.422675	40	1.44311
1,1,2-Trichloroethane	0.5	0.1264072	2	0.1344172	4	0.15216	10	0.1378356	20	0.1457084	40	0.1429272
1,1-Dichloroethane	0.5	2.370239	2	2.262916	4	2.459479	10	2.216451	20	2.404272	40	2.397284
1,1-Dichloroethylene	0.5	1.766126	2	1.805608	4	1.888334	10	1.751694	20	1.839238	40	1.813777
1,1-Dichloropropylene	0.5	1.734628	2	1.704882	4	1.787874	10	1.715347	20	1.880475	40	1.854059
1,2,3-Trichlorobenzene	0.5	0.6630504	2	0.601792	4	0.6393762	10	0.6203808	20	0.6891922	40	0.6630421
1,2,3-Trichloropropane	0.5	9.390544E-02	2	0.1183547	4	0.1192651	10	0.1170526	20	0.1164475	40	0.1090968
1,2,4,5-Tetramethylbenzene	0.5	2.957092	2	3.089013	4	3.129062	10	2.92966	20	3.170339	40	3.168601
1,2,4-Trichlorobenzene	0.5	0.809528	2	0.7892522	4	0.8131802	10	0.7870973	20	0.8950347	40	0.8955836
1,2,4-Trimethylbenzene	0.5	3.015238	2	3.181278	4	3.342222	10	3.040101	20	3.384451	40	3.050371
1,2-Dibromo-3-chloropropane	0.5	8.327025E-02	2	6.100384E-02	4	5.670702E-02	10	4.748892E-02	20	5.078406E-02	40	5.038915E-02
1,2-Dibromoethane	0.5	0.11044	2	0.1266505	4	0.1350566	10	0.1288357	20	0.1362324	40	0.1372296
1,2-Dichlorobenzene	0.5	1.487022	2	1.412022	4	1.514259	10	1.377286	20	1.507226	40	1.419649
1,2-Dichloroethane	0.5	1.078287	2	1.110294	4	1.184258	10	1.11054	20	1.193973	40	1.181345
1,2-Dichloropropane	0.5	0.2302467	2	0.2290451	4	0.2528621	10	0.2313284	20	0.2439867	40	0.2392075
1,3,5-Trimethylbenzene	0.5	3.224365	2	3.272024	4	3.469737	10	3.167339	20	3.413126	40	3.126908
1,3-Dichlorobenzene	0.5	1.71872	2	1.729459	4	1.860936	10	1.701203	20	1.929437	40	1.776162
1,3-Dichloropropane	0.5	0.2217729	2	0.2188952	4	0.2399296	10	0.2178843	20	0.2320931	40	0.2281177
1,4-Dichlorobenzene	0.5	1.610557	2	1.6557	4	1.754518	10	1.615547	20	1.85419	40	1.705777
1,4-Dioxane	10	1.003204E-03	40	6.065064E-04	80	6.175044E-04	200	4.776624E-04	400	5.289165E-04	800	5.41098E-04
2,2-Dichloropropane	0.5	2.118077	2	1.941351	4	2.097944	10	1.900684	20	2.060547	40	2.060145
2-Butanone	0.5	2.638286E-02	2	2.610364E-02	4	5.170373E-02	10	5.269348E-02	20	7.287105E-02	40	7.378027E-02
2-Chlorotoluene	0.5	3.086944	2	3.285551	4	3.374854	10	2.793992	20	3.291961	40	3.038029
2-Hexanone	0.5	5.166588E-02	2	0.0531111	4	6.480799E-02	10	5.782403E-02	20	6.864943E-02	40	6.485587E-02
4-Chlorotoluene	0.5	2.545153	2	2.532889	4	2.609945	10	2.394152	20	2.61399	40	2.324951
4-Methyl-2-pentanone	0.5	0.0799937	2	8.188479E-02	4	8.756187E-02	10	8.353012E-02	20	8.936196E-02	40	8.698091E-02
Acetone	0.5	0.3338239	2	0.1803983	4	0.1772264	10	0.1583173	20	0.2195714	40	0.2009285
Acrolein	0.5	9.404501E-02	2	4.733343E-02	4	4.576428E-02	10	4.317938E-02	20	0.0480349	40	5.649606E-02

FORM VI

INITIAL CALIBRATION DATA

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.

SDG: 21L1506

Client: Hydro Tech Environmental (Brooklyn)

Project: 190055 11-28 31 Drive, LIC, NY

Calibration: YL10020

Instrument: VOA#11

Calibration Date: 12/15/21 00:49

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Acrylonitrile	0.5	0.2225493	2	0.1616713	4	0.1565471	10	0.1373601	20	0.1513668	40	0.152899
Allyl chloride	0.5	1.857927	2	1.786618	4	1.985095	10	1.81597	20	1.950684	40	1.951247
Benzene	0.5	5.591012	2	5.228061	4	5.722384	10	5.2911	20	5.730156	40	5.65486
Bromobenzene	0.5	1.1473	2	1.156143	4	1.212604	10	1.085167	20	1.170604	40	1.066013
Bromochloromethane	0.5	0.83788	2	0.804844	4	0.8614388	10	0.7882616	20	0.8505831	40	0.8671099
Bromodichloromethane	0.5	0.2792163	2	0.2754182	4	0.3079793	10	0.2964584	20	0.3108503	40	0.3064655
Bromoform	0.5	6.889367E-02	2	7.647981E-02	4	9.075216E-02	10	8.822403E-02	20	9.781141E-02	40	9.888101E-02
Bromomethane	0.5	0.7775764	2	0.8898071	4	0.9154052	10	0.8365005	20	0.9072279	40	0.9773455
Carbon disulfide	0.5	2.889371	2	2.738424	4	2.965181	10	2.730318	20	2.829126	40	2.754066
Carbon tetrachloride	0.5	1.929628	2	1.995052	4	2.216407	10	2.114279	20	2.330357	40	2.355714
Chlorobenzene	0.5	0.7656214	2	0.7403535	4	0.8202595	10	0.7370318	20	0.7958629	40	0.7796162
Chloroethane	0.5	0.8133817	2	0.8854162	4	0.7381244	10	0.7330679	20	0.8784691	40	0.9110801
Chloroform	0.5	2.200366	2	2.179797	4	2.362272	10	2.190066	20	2.397545	40	2.423817
Chloromethane	0.5	1.438853	2	1.472562	4	1.569017	10	1.498955	20	1.575771	40	1.564451
cis-1,2-Dichloroethylene	0.5	2.002046	2	2.026666	4	2.168554	10	2.012856	20	2.145236	40	2.168262
cis-1,3-Dichloropropylene	0.5	0.3142672	2	0.3110842	4	0.3580862	10	0.3314174	20	0.3497717	40	0.3402672
Cyclohexane	0.5	2.30509	2	2.449044	4	2.543458	10	2.412431	20	2.554199	40	2.597445
Dibromochloromethane	0.5	0.1776879	2	0.1793373	4	0.2047571	10	0.1939805	20	0.2157314	40	0.2229794
Dibromomethane	0.5	9.456029E-02	2	0.0921161	4	0.1074573	10	0.0985465	20	0.1035602	40	0.100722
Dichlorodifluoromethane	0.5	1.427546	2	1.4712	4	1.469863	10	1.437492	20	1.513195	40	1.506631
Diisopropyl ether (DIPE)	0.5	4.044294	2	3.947621	4	3.769129	10	3.625414	20	3.856558	40	3.887279
Ethyl Benzene	0.5	1.418159	2	1.329513	4	1.466916	10	1.327767	20	1.421509	40	1.380541
Ethyl tert-butyl ether (ETBE)	0.5	3.364532	2	3.322978	4	3.184919	10	3.071235	20	3.256178	40	3.326824
Hexachlorobutadiene	0.5	0.3607139	2	0.350121	4	0.3665951	10	0.3738841	20	0.417432	40	0.4239209
Iodomethane	0.5		2	0.2825077	4	0.5321253	10	0.8805132	20	1.263021	40	1.468741
Isopropylbenzene	0.5	3.818357	2	3.826086	4	4.085351	10	3.726809	20	4.001949	40	3.627423
Methyl acetate	0.5	0.4572131	2	0.4206001	4	0.4428594	10	0.4004129	20	0.4317537	40	0.4436251
Methyl Methacrylate	0.5	6.050738E-02	2	0.0689317	4	7.702104E-02	10	7.160138E-02	20	7.748225E-02	40	7.677196E-02
Methyl tert-butyl ether (MTBE)	0.5	1.859094	2	1.931757	4	2.062101	10	1.917529	20	2.036013	40	2.054874
Methylcyclohexane	0.5	0.4694574	2	0.5183851	4	0.5193268	10	0.4917896	20	0.5256285	40	0.5217803
Methylene chloride	0.5	30.70157	2	6.853161	4	3.326422	10	1.953978	20	1.717982	40	1.590391

FORM VI

INITIAL CALIBRATION DATA

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.

SDG: 21L1506

Client: Hydro Tech Environmental (Brooklyn)

Project: 190055 11-28 31 Drive, LIC, NY

Calibration: YL10020

Instrument: VOA#11

Calibration Date: 12/15/21 00:49

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Naphthalene	0.5	1.243666	2	1.225092	4	1.274208	10	1.216429	20	1.337726	40	1.277544
n-Butylbenzene	0.5	3.775259	2	3.711662	4	3.899168	10	3.5516	20	3.911761	40	3.629248
n-Propylbenzene	0.5	4.481918	2	4.374265	4	4.654369	10	4.230762	20	4.490836	40	4.056269
o-Xylene	0.5	1.062083	2	1.004499	4	1.115261	10	1.020034	20	1.125215	40	1.040842
p- & m- Xylenes	1	1.104128	4	1.025407	8	1.120061	20	1.032637	40	1.126779	80	1.036403
p-Diethylbenzene	0.5	2.104559	2	2.066921	4	2.090296	10	1.97043	20	2.164433	40	2.04615
p-Ethyltoluene	0.5	3.848033	2	4.091561	4	4.070422	10	3.746637	20	3.958232	40	3.693604
p-Isopropyltoluene	0.5	3.740566	2	3.789038	4	4.006639	10	3.685405	20	4.094963	40	3.744943
sec-Butylbenzene	0.5	4.113866	2	4.235909	4	4.435931	10	4.005983	20	4.413746	40	3.946109
Styrene	0.5	0.7333193	2	0.7643138	4	0.8662041	10	0.8206281	20	0.921041	40	0.8648948
SURR: 1,2-Dichloroethane-d4	10	0.8406888	10	0.8071404	10	0.8148499	10	0.8120743	10	0.8009399	10	0.8404998
SURR: p-Bromofluorobenzene	10	1.0994	10	1.165788	10	1.141589	10	1.139821	10	1.096573	10	1.042396
SURR: Toluene-d8	10	1.202341	10	1.201703	10	1.238446	10	1.217505	10	1.174982	10	1.178665
tert-Amyl alcohol (TAA)	5	4.776733E-02	20	4.028611E-02	40	4.011744E-02	100	3.917449E-02	200	4.133797E-02	400	4.311629E-02
tert-Amyl methyl ether (TAME)	0.5	2.978032	2	2.678576	4	2.69932	10	2.592269	20	2.781087	40	2.825385
tert-Butyl alcohol (TBA)	2.5	6.981586E-03	10	9.150545E-03	20	1.370861E-02	50	1.170289E-02	80	1.715636E-02	120	2.125108E-02
tert-Butylbenzene	0.5	3.004695	2	3.018279	4	3.125812	10	2.853101	20	3.170975	40	2.843602
Tetrachloroethylene	0.5	0.4374179	2	0.4466587	4	0.5320708	10	0.4828691	20	0.540642	40	0.547823
Tetrahydrofuran	0.5	0.0419972	2	5.672987E-02	4	4.703702E-02	10	4.971107E-02	20	4.858903E-02	40	5.486065E-02
Toluene	0.5	1.243815	2	1.190471	4	1.334782	10	1.204789	20	1.279922	40	1.228376
trans-1,2-Dichloroethylene	0.5	1.760113	2	1.688789	4	1.854633	10	1.697279	20	1.8055	40	1.802184
trans-1,3-Dichloropropylene	0.5	0.2311921	2	0.2377805	4	0.2687043	10	0.2429246	20	0.2642241	40	0.2575532
trans-1,4-dichloro-2-butene	0.5	0.1044942	2	5.293831E-02	4	0.101018	10	8.144655E-02	20	8.457129E-02	40	8.698977E-02
Trichloroethylene	0.5	0.3034123	2	0.2834849	4	0.3039967	10	0.2820689	20	0.3121048	40	0.3028044
Trichlorofluoromethane	0.5	2.016135	2	2.258174	4	2.243004	10	2.218422	20	2.376823	40	2.434394
Vinyl acetate	0.5	1.023996	2	0.8356459	4	0.8615476	10	0.797103	20	0.8965473	40	0.926654
Vinyl Chloride	0.5	1.479594	2	1.435064	4	1.499278	10	1.465768	20	1.548335	40	1.582534

FORM VI **INITIAL CALIBRATION DATA (Continued)**

EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 21L1506

Client: Hydro Tech Environmental (Brooklyn) Project: 190055 11-28 31 Drive, LIC, NY

Calibration: YL10020 Instrument: VOA#11

Calibration Date: 12/15/21 00:49

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
1,1,1,2-Tetrachloroethane	80	0.2910279										
1,1,1-Trichloroethane	80	2.182049										
1,1,2,2-Tetrachloroethane	80	0.2809554										
1,1,2-Trichloro-1,2,2-trifluoro ethane (Freon 113)	80	1.29799										
1,1,2-Trichloroethane	80	0.1350451										
1,1-Dichloroethane	80	2.158645										
1,1-Dichloroethylene	80	1.620796										
1,1-Dichloropropylene	80	1.678013										
1,2,3-Trichlorobenzene	80	0.6163874										
1,2,3-Trichloropropane	80	9.850244E-02										
1,2,4,5-Tetramethylbenzene	80	2.697149										
1,2,4-Trichlorobenzene	80	0.7972173										
1,2,4-Trimethylbenzene	80	2.737967										
1,2-Dibromo-3-chloropropane	80	4.256291E-02										
1,2-Dibromoethane	80	0.1271147										
1,2-Dichlorobenzene	80	1.342036										
1,2-Dichloroethane	80	1.092952										
1,2-Dichloropropane	80	0.2287822										
1,3,5-Trimethylbenzene	80	2.78397										
1,3-Dichlorobenzene	80	1.684982										
1,3-Dichloropropane	80	0.2129272										
1,4-Dichlorobenzene	80	1.624922										
1,4-Dioxane	1600	4.909434E-04										
2,2-Dichloropropane	80	1.817626										
2-Butanone	80	6.683157E-02										
2-Chlorotoluene	80	2.52694										
2-Hexanone	80	5.991953E-02										
4-Chlorotoluene	80	2.087153										
4-Methyl-2-pentanone	80	8.283191E-02										
Acetone	80	0.18006										
Acrolein	80	0.0515542										

FORM VI **INITIAL CALIBRATION DATA (Continued)**

EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 21L1506

Client: Hydro Tech Environmental (Brooklyn) Project: 190055 11-28 31 Drive, LIC, NY

Calibration: YL10020 Instrument: VOA#11

Calibration Date: 12/15/21 00:49

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Acrylonitrile	80	0.1373857										
Allyl chloride	80	1.748894										
Benzene	80	5.129081										
Bromobenzene	80	0.9488851										
Bromochloromethane	80	0.7396903										
Bromodichloromethane	80	0.2930557										
Bromoform	80	0.0967061										
Bromomethane	80	0.9514135										
Carbon disulfide	80	2.428174										
Carbon tetrachloride	80	2.142927										
Chlorobenzene	80	0.7199015										
Chloroethane	80	0.8281864										
Chloroform	80	2.184815										
Chloromethane	80	1.364516										
cis-1,2-Dichloroethylene	80	1.94318										
cis-1,3-Dichloropropylene	80	0.325544										
Cyclohexane	80	2.288041										
Dibromochloromethane	80	0.2084323										
Dibromomethane	80	9.705898E-02										
Dichlorodifluoromethane	80	1.272416										
Diisopropyl ether (DIPE)	80	3.486959										
Ethyl Benzene	80	1.23148										
Ethyl tert-butyl ether (ETBE)	80	3.039762										
Hexachlorobutadiene	80	0.3796065										
Iodomethane	80	1.396428										
Isopropylbenzene	80	3.099858										
Methyl acetate	80	0.4103501										
Methyl Methacrylate	80	7.506632E-02										
Methyl tert-butyl ether (MTBE)	80	1.872238										
Methylcyclohexane	80	0.484408										
Methylene chloride	80	1.3559										

FORM VI **INITIAL CALIBRATION DATA (Continued)**

EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 21L1506

Client: Hydro Tech Environmental (Brooklyn) Project: 190055 11-28 31 Drive, LIC, NY

Calibration: YL10020 Instrument: VOA#11

Calibration Date: 12/15/21 00:49

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Naphthalene	80	1.149861										
n-Butylbenzene	80	3.12467										
n-Propylbenzene	80	3.397826										
o-Xylene	80	0.9826044										
p- & m- Xylenes	160	0.9009924										
p-Diethylbenzene	80	1.82231										
p-Ethyltoluene	80	3.268569										
p-Isopropyltoluene	80	3.251862										
sec-Butylbenzene	80	3.404239										
Styrene	80	0.8227097										
SURR: 1,2-Dichloroethane-d4	10	0.8266248										
SURR: p-Bromofluorobenzene	10	1.005197										
SURR: Toluene-d8	10	1.19707										
tert-Amyl alcohol (TAA)	800	4.034066E-02										
tert-Amyl methyl ether (TAME)	80	2.638397										
tert-Butyl alcohol (TBA)	240	2.091833E-02										
tert-Butylbenzene	80	2.546957										
Tetrachloroethylene	80	0.5442128										
Tetrahydrofuran	80	4.858206E-02										
Toluene	80	1.138834										
trans-1,2-Dichloroethylene	80	1.633576										
trans-1,3-Dichloropropylene	80	0.2478919										
trans-1,4-dichloro-2-butene	80	7.695695E-02										
Trichloroethylene	80	0.2907813										
Trichlorofluoromethane	80	2.122098										
Vinyl acetate	80	0.8234586										
Vinyl Chloride	80	1.385628										

FORM VI

INITIAL CALIBRATION DATA (Continued)

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.
SDG: 21L1506
Client: Hydro Tech Environmental (Brooklyn)
Project: 190055 11-28 31 Drive, LIC, NY
Calibration: YL10020
Instrument: VOA#11
Calibration Date: 12/15/21 00:49

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
1,1,1,2-Tetrachloroethane	0.2855779	7.150104	9.689428	2.312148E-02			20	
1,1,1-Trichloroethane	2.30001	4.79141	5.867429	3.428801E-02			SPCC (0.1)	
1,1,2,2-Tetrachloroethane	0.3149705	7.505961	11.04229	2.780222E-02			SPCC (0.3)	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	1.381732	4.916805	3.577857	0.1011804			SPCC (0.1)	
1,1,2-Trichloroethane	0.1392144	6.080038	8.581429	4.027337E-02			SPCC (0.1)	
1,1-Dichloroethane	2.324184	4.808737	4.847714	5.186531E-02			SPCC (0.2)	
1,1-Dichloroethylene	1.783653	4.762103	3.618143	6.219965E-02			SPCC (0.1)	
1,1-Dichloropropylene	1.76504	4.410323	6.018857	5.923239E-02			20	
1,2,3-Trichlorobenzene	0.6418887	4.868644	15.02957	0.0230307			20	
1,2,3-Trichloropropane	0.1103749	9.342614	11.09814	2.173437E-02			20	
1,2,4,5-Tetramethylbenzene	3.020131	5.698153	13.37414	5.691498E-03			20	
1,2,4-Trichlorobenzene	0.826699	5.786902	14.44343	2.180426E-02			SPCC (0.2)	
1,2,4-Trimethylbenzene	3.107375	7.076423	11.69386	7.996723E-03			20	
1,2-Dibromo-3-chloropropane	5.602945E-02	23.95504	13.54871	1.824581E-02			SPCC (0.05)	*
1,2-Dibromoethane	0.1287942	7.158328	9.134143	9.674012E-03			SPCC (0.1)	
1,2-Dichlorobenzene	1.437071	4.660328	12.61129	2.167513E-02			SPCC (0.4)	
1,2-Dichloroethane	1.13595	4.28847	6.298571	3.696123E-02			SPCC (0.1)	
1,2-Dichloropropane	0.2364941	3.906389	7.104	3.380397E-02			SPCC (0.1)	
1,3,5-Trimethylbenzene	3.20821	7.004363	11.26086	0.0104847			20	
1,3-Dichlorobenzene	1.771557	5.150095	12.06957	2.314759E-02			SPCC (0.6)	
1,3-Dichloropropane	0.2245171	4.167781	8.755143	1.814121E-02			20	
1,4-Dichlorobenzene	1.688744	5.330773	12.17229	1.163126E-02			SPCC (0.5)	
1,4-Dioxane	6.09405E-04	29.78554	7.238143	5.790604E-02		0.9991011	0.99	
2,2-Dichloropropane	1.999482	5.679653	5.386143	4.154332E-02			20	
2-Butanone	5.290951E-02	38.20453	5.432714	0.1236747			SPCC (0.1)	*
2-Chlorotoluene	3.056896	9.992765	11.21629	2.012619E-02			20	
2-Hexanone	6.011912E-02	10.58701	8.783286	4.977989E-02			SPCC (0.1)	
4-Chlorotoluene	2.444033	7.809215	11.33871	8.053672E-03			20	
4-Methyl-2-pentanone	8.459218E-02	4.037167	7.929429	3.030117E-02			SPCC (0.1)	
Acetone	0.2071894	28.53277	3.728286	0.1053613			SPCC (0.1)	*
Acrolein	5.520104E-02	31.98704	3.568857	0.104562			20	*
Acrylonitrile	0.1599685	18.18247	4.456428	0.1384788			20	

FORM VI **INITIAL CALIBRATION DATA (Continued)**

EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 21L1506

Client: Hydro Tech Environmental (Brooklyn) Project: 190055 11-28 31 Drive, LIC, NY

Calibration: YL10020 Instrument: VOA#11

Calibration Date: 12/15/21 00:49

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Allyl chloride	1.870919	4.929576	4.013143	3.733205E-02			20	
Benzene	5.478093	4.63309	6.238429	2.275374E-02			SPCC (0.5)	
Bromobenzene	1.112388	7.887577	11.03057	2.657315E-02			20	
Bromochloromethane	0.8214011	5.637214	5.669	5.110888E-02			20	
Bromodichloromethane	0.2956348	4.757293	7.385	2.451316E-02			SPCC (0.2)	
Bromoform	8.824974E-02	13.04688	10.55143	2.812376E-02			SPCC (0.1)	
Bromomethane	0.8936109	7.610822	2.658857	0.1838228			SPCC (0.1)	
Carbon disulfide	2.762094	6.184375	3.865286	8.081614E-02			SPCC (0.1)	
Carbon tetrachloride	2.154909	7.410074	6.011714	4.128828E-02			SPCC (0.1)	
Chlorobenzene	0.765521	4.661911	9.604857	2.345977E-02			SPCC (0.5)	
Chloroethane	0.826818	8.557802	2.770286	0.1053698			SPCC (0.1)	
Chloroform	2.276954	4.9015	5.727572	3.477302E-02			SPCC (0.2)	
Chloromethane	1.497732	5.276423	2.125857	0.1945402			SPCC (0.1)	
cis-1,2-Dichloroethylene	2.066686	4.452108	5.417	7.486123E-02			SPCC (0.1)	
cis-1,3-Dichloropropylene	0.3329197	5.278223	7.806143	2.578957E-02			SPCC (0.2)	
Cyclohexane	2.449958	4.998334	5.879429	4.311288E-02			SPCC (0.1)	
Dibromochloromethane	0.2004151	8.711829	9.005714	1.554954E-02			SPCC (0.1)	
Dibromomethane	9.914591E-02	5.308548	7.253286	3.455071E-02			20	
Dichlorodifluoromethane	1.44262	5.649919	1.876	0.169186			SPCC (0.1)	
Diisopropyl ether (DIPE)	3.802465	5.054956	4.811714	7.809774E-02			20	
Ethyl Benzene	1.367984	5.744937	9.671571	2.014605E-02			SPCC (0.1)	
Ethyl tert-butyl ether (ETBE)	3.223775	4.003852	5.163857	3.105074E-02			20	
Hexachlorobutadiene	0.3817534	7.401812	14.57157	1.443881E-02			20	
Iodomethane	0.970556	50.24055	3.8175	7.533667E-02		0.994152	0.99	
Isopropylbenzene	3.740833	8.621229	10.618	1.890159E-02			SPCC (0.1)	
Methyl acetate	0.4295449	4.697676	4.368714	7.889892E-02			SPCC (0.1)	
Methyl Methacrylate	7.248315E-02	8.494518	7.149	2.658842E-02			20	
Methyl tert-butyl ether (MTBE)	1.961944	4.446514	4.37	5.733845E-02			SPCC (0.1)	
Methylcyclohexane	0.5043965	4.396663	6.978571	2.396314E-02			SPCC (0.1)	
Methylene chloride	6.785629	157.973	4.166714	4.429133E-02			SPCC (0.1)	*
Naphthalene	1.246361	4.719837	14.74829	2.801886E-02			20	
n-Butylbenzene	3.657624	7.368096	12.50243	2.422305E-02			20	

FORM VI **INITIAL CALIBRATION DATA (Continued)**

EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 21L1506

Client: Hydro Tech Environmental (Brooklyn) Project: 190055 11-28 31 Drive, LIC, NY

Calibration: YL10020 Instrument: VOA#11

Calibration Date: 12/15/21 00:49

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
n-Propylbenzene	4.240892	9.884212	11.074	2.100437E-02			20	
o-Xylene	1.050077	5.166021	10.23814	1.297039E-02			SPCC (0.3)	
p- & m- Xylenes	1.049487	7.485148	9.791286	2.165955E-02			SPCC (0.1)	
p-Diethylbenzene	2.037871	5.491435	12.47129	1.318006E-02			20	
p-Ethyltoluene	3.811008	7.43114	11.19643	1.702377E-02			20	
p-Isopropyltoluene	3.759059	7.189549	12.03	1.238727E-02			20	
sec-Butylbenzene	4.079398	8.62966	11.87557	2.085792E-02			20	
Styrene	0.8275873	7.733776	10.26629	1.358232E-02			SPCC (0.3)	
SURR: 1,2-Dichloroethane-d4	0.8204026	1.93311	6.225429	2.874501E-02			20	
SURR: p-Bromofluorobenzene	1.098681	5.248283	10.84857	8.666127E-03			20	
SURR: Toluene-d8	1.20153	1.819032	8.041429	1.219873E-02			20	
tert-Amyl alcohol (TAA)	4.173433E-02	7.031586	6.239143	0.1035356			20	
tert-Amyl methyl ether (TAME)	2.741867	4.782941	6.274	4.929471E-02			20	
tert-Butyl alcohol (TBA)	1.440991E-02	38.77994	4.405429	8.661807E-02		0.9906754	0.99	
tert-Butylbenzene	2.937632	7.214181	11.63157	1.257643E-02			20	
Tetrachloroethylene	0.5045278	9.517238	8.66	4.207767E-02			SPCC (0.2)	
Tetrahydrofuran	4.964384E-02	9.900346	5.689	0.0336424			20	
Toluene	1.23157	5.152141	8.109715	2.693946E-02			SPCC (0.4)	
trans-1,2-Dichloroethylene	1.748868	4.485712	4.405143	4.144787E-02			SPCC (0.1)	
trans-1,3-Dichloropropylene	0.2500387	5.577132	8.375857	0.016216			SPCC (0.1)	
trans-1,4-dichloro-2-butene	8.405929E-02	20.25772	11.23314	0.4597925			20	*
Trichloroethylene	0.2969505	3.879189	6.847143	3.589427E-02			SPCC (0.2)	
Trichlorofluoromethane	2.238436	6.352341	3.036	0.1040441			SPCC (0.1)	
Vinyl acetate	0.8807075	8.741045	4.865	5.238831E-02			20	
Vinyl Chloride	1.485172	4.474409	2.241714	0.1706684			SPCC (0.1)	

FORM VII

CONTINUING CALIBRATION CHECK

EPA 8260C

Laboratory:	York Analytical Laboratories, Inc.	SDG:	21L1506
Client:	Hydro Tech Environmental (Brooklyn)	Project:	190055 11-28 31 Drive, LIC, NY
Instrument ID:	VOA#11	Calibration:	YL10020
Lab File ID:	V11C002485.D	Calibration Date:	12/15/21 00:49
Sequence:	Y2A0518	Injection Date:	01/04/22
Lab Sample ID:	Y2A0518-CCV1	Injection Time:	19:26

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Tetrachloroethylene	A	10.0	13.5	0.5045278	0.678081	0.2	34.4	20 *
Trichloroethylene	A	10.0	10.0	0.2969505	0.3099748	0.2	4.4	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\010422\
Data File : V11C002485.D
Acq On : 4 Jan 2022 7:26 pm
Operator : OC
InstName : VOA#11
Sample : SEQ-CCV1
Misc : QBV11010422B 8260
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jan 05 10:27:38 2022
Quant Method : C:\msdchem\1\methods\V11LO0022.M
Quant Title : Volatile Organics EPA 8260C
QLast Update : Tue Dec 28 17:28:12 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) FLUOROBENZENE (ISTD)	6.497	70	353807	10.00	ppb	#	0.00
41) CHLOROBENZENE-d5 (ISTD)	9.572	117	1541832	10.00	ppb		0.00
70) 1,2-DICHLOROBENZENE-d4...	12.591	152	521572	10.00	ppb		0.00
System Monitoring Compounds							
35) d4-1,2-Dichloroethane ...	6.225	65	308643	10.72	ppb		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 107.20%				
53) Toluene-d8 (SURR)	8.041	98	1934378	9.61	ppb		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.10%				
73) p-Bromofluorobenzene (...	10.846	95	598378	10.30	ppb		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.00%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.877	85	362195m	8.87	ppb		
3) Chloromethane	2.127	50	430533	10.18	ppb		99
4) Vinyl Chloride	2.246	62	450018	10.42	ppb	#	87
5) Bromomethane	2.656	94	166584	7.64	ppb		97
6) Chloroethane	2.769	64	268306	10.13	ppb		100
7) Trichlorofluoromethane	3.035	101	771420	11.43	ppb		100
8) Ethanol	3.337	45	44184m	459.45	ppb		
9) Freon-113	3.581	101	416386	10.31	ppb		93
10) 1,1-Dichloroethylene	3.619	61	583578	10.30	ppb	#	82
11) Acrolein	3.571	56	17796m	13.61	ppb		
12) Acetone	3.735	43	52197	9.23	ppb	#	100
13) Iodomethane	3.812	142	170431	4.75	ppb		100
14) Ally Chloride	4.011	41	604177	10.50	ppb		91
15) Methyl Acetate	4.360	43	143139	10.52	ppb		99
16) Carbon disulfide	3.863	76	866315	9.34	ppb		100
17) tert-Butyl Alcohol (TBA)	4.408	59	21276	40.68	ppb	#	100
18) Methylene Chloride	4.165	49	429574	9.11	ppb		83
19) Acrylonitrile	4.453	53	42258	8.97	ppb	#	80
20) trans-1,2-Dichloroethy...	4.405	61	553161	10.27	ppb	#	100
21) tert-Butyl Methyl Ethe...	4.367	73	605129	10.30	ppb		98
22) 1,1-Dichloroethane	4.845	63	707188	10.06	ppb		99
23) Vinyl Acetate	4.864	43	216248	6.87	ppb	#	100
24) Diisopropyl ether (DIPE)	4.810	45	1138270	10.66	ppb	#	95
25) Ethyl-tert-Butyl ether...	5.163	59	972841	10.68	ppb	#	85
26) cis-1,2-Dichloroethylene	5.419	61	642991	10.48	ppb	#	82
27) 2-Butanone	5.429	72	17538	8.63	ppb	#	100
28) 2,2-Dichloropropane	5.387	77	650545	11.16	ppb	#	86
29) Tetrahydrofuran	5.686	71	14572	9.58	ppb	#	67
30) Bromochloromethane	5.670	49	248490	10.20	ppb	#	71
31) Chloroform	5.727	83	704095	10.40	ppb	#	98
32) 1,1,1-Trichloroethane	5.869	97	739306	10.70	ppb	#	100
33) Cyclohexane	5.878	56	713667	10.22	ppb		88
34) 1,1-Dichloropropylene	6.016	75	545759	10.20	ppb		77
36) Carbon Tetrachloride	6.010	117	698861	10.59	ppb		100
37) tert-Amyl alcohol (TAA)	6.238	59	113213	92.55	ppb	#	78
38) 1,2-Dichloroethane	6.295	62	380537	11.24	ppb		100
39) Benzene	6.234	78	1617191	9.89	ppb	#	75
40) tert-Amyl methyl ether...	6.273	73	794246	10.18	ppb	#	99
42) Trichloroethylene	6.847	95	477929	10.03	ppb		81
43) Methyl Cyclohexane	6.979	83	761898	9.98	ppb		84
44) Methyl Methacrylate	7.146	69	111360	9.47	ppb	#	83
45) Dibromomethane	7.248	93	151150	9.79	ppb		90
46) Bromodichloromethane	7.383	83	465025	10.14	ppb		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\010422\
Data File : V11C002485.D
Acq On : 4 Jan 2022 7:26 pm
Operator : OC
InstName : VOA#11
Sample : SEQ-CCV1
Misc : QBV11010422B 8260
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jan 05 10:27:38 2022
Quant Method : C:\msdchem\1\methods\V11LO0022.M
Quant Title : Volatile Organics EPA 8260C
QLast Update : Tue Dec 28 17:28:12 2021
Response via : Initial Calibration

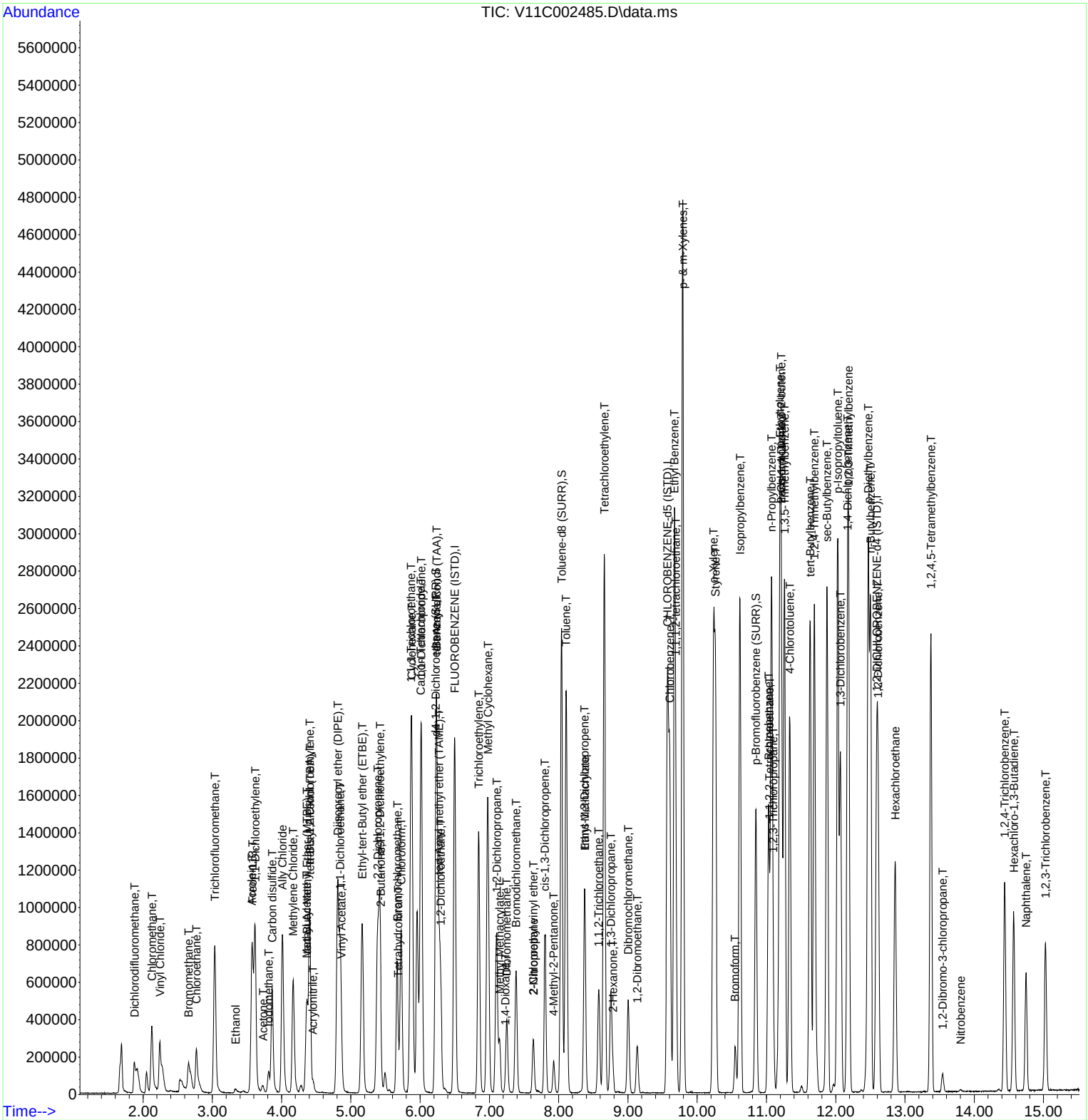
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
47)	1,2-Dichloropropane	7.107	63	354403	9.67	ppb		97
48)	1,4-Dioxane	7.229	88	21889m	159.61	ppb		
49)	2-Nitropropane	7.637	43	123169	11.76	ppb		95
50)	2-Chloroethyl vinyl ether	7.633	63	111253	10.77	ppb		96
51)	cis-1,3-Dichloropropene	7.800	75	509701	9.82	ppb		92
52)	4-Methyl-2-Pentanone	7.929	43	130964	10.14	ppb	#	88
54)	Toluene	8.105	91	1859442	9.69	ppb		100
55)	Ethyl Methacrylate	8.378	69	243749	9.91	ppb	#	36
56)	trans-1,3-Dichloropropene	8.371	75	387517	10.15	ppb		98
57)	1,1,2-Trichloroethane	8.577	97	212538	9.86	ppb		94
58)	1,3-Dichloropropane	8.753	76	345498	9.94	ppb	#	86
59)	Tetrachloroethylene	8.660	166	1045487	13.54	ppb	#	100
60)	2-Hexanone	8.782	43	95752	10.14	ppb	#	51
61)	Dibromochloromethane	9.004	129	326808	10.42	ppb		99
62)	1,2-Dibromoethane	9.132	107	201199	9.79	ppb		94
63)	Chlorobenzene	9.604	112	1203366	10.05	ppb		92
64)	1,1,1,2-tetrachloroethane	9.690	131	461384	10.07	ppb		97
65)	Ethyl Benzene	9.671	91	2138006	10.10	ppb		93
66)	p- & m-Xylenes	9.790	91	3325581	20.73	ppb		94
67)	o-Xylene	10.236	91	1628223	10.04	ppb		97
68)	Styrene	10.262	104	1303860	10.17	ppb	#	100
69)	Bromoform	10.547	173	148470	10.31	ppb	#	76
71)	p-Ethyltoluene	11.195	105	2208129	10.34	ppb	#	99
72)	Isopropylbenzene	10.618	105	2233215	10.31	ppb		96
74)	1,1,2,2-Tetrachloroethane	11.045	83	171266	9.28	ppb	#	68
75)	Bromobenzene	11.032	77	658908	10.26	ppb		82
76)	trans-1,4-Dichloro-2-b...	11.215	75	53002	10.72	ppb	#	1
77)	1,2,3-Trichloropropane	11.096	110	66898	10.07	ppb		54
78)	n-Propylbenzene	11.073	91	2482155	10.21	ppb		94
79)	2-Chlorotoluene	11.215	91	1828749	10.53	ppb		99
80)	4-Chlorotoluene	11.337	91	1406555	10.22	ppb		96
81)	1,3,5-Trimethylbenzene	11.259	105	1877554	10.23	ppb	#	72
82)	tert-Butylbenzene	11.632	119	1735168	10.26	ppb		91
83)	1,2,4-Trimethylbenzene	11.693	105	1812905	10.30	ppb		97
84)	sec-Butylbenzene	11.872	105	2374400	10.21	ppb		95
85)	1,3-Dichlorobenzene	12.068	146	1035010	10.05	ppb		94
86)	p-Isopropyltoluene	12.030	119	2205822	10.30	ppb		96
87)	1,4-Dichlorobenzene	12.171	146	983570	9.98	ppb		93
88)	1,2,3-Trimethylbenzene	12.187	105	1593595	9.91	ppb		95
89)	p-Diethylbenzene	12.469	105	1137577	10.42	ppb		87
90)	1,2-Dichlorobenzene	12.610	146	819844	9.85	ppb	#	100
91)	n-Butylbenzene	12.501	91	2064266	10.29	ppb		95
92)	Hexachloroethane	12.861	117	321569	9.37	ppb		98
93)	1,2-Dibromo-3-chloropr...	13.544	75	26943	9.32	ppb	#	54
94)	1,2,4,5-Tetramethylben...	13.374	119	1724551	10.72	ppb		96
95)	Nitrobenzene	13.804	77	6671m	9.06	ppb		
96)	1,2,4-Trichlorobenzene	14.440	180	456187	9.99	ppb		97
97)	Hexachloro-1,3-Butadiene	14.571	225	214732	10.77	ppb		99
98)	Naphthalene	14.748	128	667715	10.05	ppb		100
99)	1,2,3-Trichlorobenzene	15.030	180	337246	9.67	ppb		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\010422\
Data File : V11C002485.D
Acq On : 4 Jan 2022 7:26 pm
Operator : OC
InstName : VOA#11
Sample : SEQ-CCV1
Misc : QBV11010422B 8260
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jan 05 10:27:38 2022
Quant Method : C:\msdchem\1\methods\V11LO0022.M
Quant Title : Volatile Organics EPA 8260C
QLast Update : Tue Dec 28 17:28:12 2021
Response via : Initial Calibration



FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory:	York Analytical Laboratories, Inc.	SDG:	21L1506
Client:	Hydro Tech Environmental (Brooklyn)	Project:	190055 11-28 31 Drive, LIC, NY
Matrix:	Water		
Batch:	BA21277	Laboratory ID:	BA21277-BS1
Preparation:	EPA 5030B	Initial/Final:	25 mL / 25 mL

COMPOUND	SPIKE ADDED ppb	LCS CONCENTRATION ppb	LCS % REC. #	QC LIMITS REC.
Tetrachloroethylene	10.0	7.16	71.6 *	82 - 131
Trichloroethylene	10.0	8.88	88.8	82 - 128

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory:	York Analytical Laboratories, Inc.	SDG:	21L1506
Client:	Hydro Tech Environmental (Brooklyn)	Project:	190055 11-28 31 Drive, LIC, NY
Matrix:	Water		
Batch:	BA21277	Laboratory ID:	BA21277-BSD1
Preparation:	EPA 5030B	Initial/Final:	25 mL / 25 mL

COMPOUND	SPIKE ADDED ppb	LCSD CONCENTRATION ppb	LCSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Tetrachloroethylene	10.0	7.41	74.1 *	3.43	30	82 - 131
Trichloroethylene	10.0	9.18	91.8	3.32	30	82 - 128

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

APPENDIX 4

ANNUAL SSD SYSTEM INSPECTION CHECKLIST

Inspector's name and title	Site Address	Date
Donavan Edwards Environmental tech	11-28 31 Drive, LIC, NY	4/18/22

Remedy Description of Cover Systems	
1. Review of the current remedy	
Identify the current remedy:	
☑ SSDS	
How many SSDS Systems are used ?	1
2. Review of the current remedy goals	
What schedule has been established for monitoring of SSDS ?	
B. Summary of Remedy Performance Assessment	
1. Evaluate remedy effectiveness:	
Based on information collected since the last O&M review, do monitoring data indicate that the system is failing or could eventually fail to meet remedy goals?	☐ Yes ☑ No
Since the last O&M review, have monitoring data exhibited trends indicative of a new or renewed release?	☐ Yes ☑ No
Since the last O&M review, have changes in landuse been suggested and or implemented that have the potential to reduce the protectiveness of the SSDS remedy?	☐ Yes ☑ No
Since the last O&M review, have contaminants been identified in new locations or at higher concentrations where they pose or have the potential to pose unacceptable risks to receptors?	☐ Yes ☑ No
If you answered yes to any of the above questions, did the information suggest the need for immediate action or is the condition being monitored to evaluate the need for future action? Use this space to comment. What actions, if any, have been taken and/or are planned in response to the new information?	☐ Immediate Action ☐ Monitor for future ☑ N/A
Based on your answers to the above questions, is there reason to evaluate the need for a contingent remedy at this time? If yes, use this space to comment.	☐ Yes ☑ No
SSDS	
PID at effluent	0.0 PPM
Vacuum guage -	.70 Inch H20
Vacuum Reading at the 3 vacuum monitorinbg points : VMP-1= 0.03 ; VMP-2= 0.03 ; VMP-3= 0.05	Inch H20
Fan Condition	☑ Function ☐ Damage
Alarm Condition	☑ Function ☐ Damage
Was the Subslab Depressurization System (SSDS) operating upon arrival? If "No," explain below why the system was not running, efforts taken to restart the SSDS and if the system was operational when leaving. If successful in making the SSDS operational, complete the remainder of the checklist.	☐ Yes

	☐ No
Were all sub-slab vacuum readings less than of equal to - 0.01 inches of water? If "Yes," the SSDS is deemed still effective and the vacuum readings taken during this inspection are now the new baseline readings. If "No," system must be adjusted/amended and the SSDS re-commissioned. Discuss adjustments and amendments below:	☐ Yes ☑ No
List below all pertinent observations and actions taken during this Inspection: i.e., sagging/damaged pipes, construction changes to building that may affect the system, pipe leaks that may need smoke test, is building still vacant, has occupancy zoning changed (i.e. commercial to residential), are non-SSDS engineered systems still functioning as designed etc. Add additional pages as needed. Has occupancy (residential)	
Did you observe breaking or cracks in the slab cover	☐ Yes ☑ No
If yes describe the level of alteration needed for repairs and remedies?	

APPENDIX 5

MONTHLY SSD SYSTEM INSPECTION CHECKLIST

Active Sub Slab Depressurization System (SSDS) Monthly Inspection Building Superintendent Form

This system protects public safety and must be operating properly to ensure the safety of occupants of the building. If you identify any problems with this system, contact HydroTech Environmental Engineering and Geology DPC for instructions and directions.

Question	No	Yes	Directions	Comments
Is the system pressure gauge operational?		✓	If "No," add comment and contact HydroTech	
Does the system pressure gauge indicate proper vacuum?		✓	If "No," add comment and contact HydroTech	
What is the pressure gauge reading? -0.74			If reading is **below -0.75**, Ok. If **-0.7** then comment and contact HydroTech	
Is the system alarm operational?		✓	If "No," add comment and contact HydroTech	
Is the system blower/fans operating?		✓	If "No," add comment and contact HydroTech	
Is air being discharged from the system vent?		✓	If "No," add comment and contact HydroTech	
Are clamps in system piping properly fastened and seals near the blower intact and properly sealed?		✓	If "No," add comment and contact HydroTech	
Are there any holes, cracks, or other physical deficiencies in SSDS piping?	✓		If "Yes," add comment and contact HydroTech	
~~Are there any blockages in SSDS piping?~~	✓		If "Yes," add comment and contact HydroTech	

This form must be signed, kept on file at the building location and be available on inspection.

Name of Building Superintendent Performing Inspection: George May

Signature of Building Superintendent Performing Inspection: George May

Date of Inspection: April 1, 2021

Active Sub Slab Depressurization System (SSDS) Monthly Inspection Building Superintendent Form

This system protects public safety and must be operating properly to ensure the safety of occupants of the building. If you identify any problems with this system, contact HydroTech Environmental Engineering and Geology DPC for instructions and directions.

Question	No	Yes	Directions	Comments
Is the system pressure gauge operational?		✓	If "**No**," add comment and contact HydroTech	
Does the system pressure gauge indicate proper vacuum?		✓	If "**No**," add comment and contact HydroTech	
What is the pressure gauge reading?	-0.74 O.K		If reading is **below -0.75**, Ok. If **-0.7** then comment and contact HydroTech	
Is the system alarm operational?		✓	If "**No**," add comment and contact HydroTech	
Is the system blower/fans operating?		✓	If "**No**," add comment and contact HydroTech	
Is air being discharged from the system vent?		✓	If "**No**," add comment and contact HydroTech	
Are clamps in system piping properly fastened and seals near the blower intact and properly sealed?		✓	If "**No**," add comment and contact HydroTech	
Are there any holes, cracks, or other physical deficiencies in SSDS piping?	✓		If "**Yes**," add comment and contact HydroTech	
Are there any blockages in SSDS piping?	✓		If "**Yes**," add comment and contact HydroTech	

This form must be signed, kept on file at the building location and be available on inspection.

Name of Building Superintendent Performing Inspection: GEORGE MAN

Signature of Building Superintendent Performing Inspection: George Man

Date of Inspection: MAY 1, 2021

Active Sub Slab Depressurization System (SSDS) Monthly Inspection Building Superintendent Form

This system protects public safety and must be operating properly to ensure the safety of occupants of the building. If you identify any problems with this system, contact HydroTech Environmental Engineering and Geology DPC for instructions and directions.

Question	No	Yes	Directions	Comments
Is the system pressure gauge operational?		✓	If "**No**," add comment and contact HydroTech	
Does the system pressure gauge indicate proper vacuum?		✓	If "**No**," add comment and contact HydroTech	
What is the pressure gauge reading? -0.7 OK			If reading is **below -0.75**, Ok. If **-0.7** then comment and contact HydroTech	
Is the system alarm operational?		✓	If "**No**," add comment and contact HydroTech	
Is the system blower/fans operating?		✓	If "**No**," add comment and contact HydroTech	
Is air being discharged from the system vent?		✓	If "**No**," add comment and contact HydroTech	
Are clamps in system piping properly fastened and seals near the blower intact and properly sealed?		✓	If "**No**," add comment and contact HydroTech	
Are there any holes, cracks, or other physical deficiencies in SSDS piping?	✓		If "**Yes**," add comment and contact HydroTech	
Are there any blockages in SSDS piping?	✓		If "**Yes**," add comment and contact HydroTech	

This form must be signed, kept on file at the building location and be available on inspection.

Name of Building Superintendent Performing Inspection: GEORGE MAN

Signature of Building Superintendent Performing Inspection: George Man

Date of Inspection: June 1, 2024

Active Sub Slab Depressurization System (SSDS) Monthly Inspection Building Superintendent Form

This system protects public safety and must be operating properly to ensure the safety of occupants of the building. If you identify any problems with this system, contact HydroTech Environmental Engineering and Geology DPC for instructions and directions.

Question	No	Yes	Directions	Comments
Is the system pressure gauge operational?		✓	If "**No**," add comment and contact HydroTech	
Does the system pressure gauge indicate proper vacuum?		✓	If "**No**," add comment and contact HydroTech	
What is the pressure gauge reading? -0.74 OK			If reading is **below -0.75**, Ok. If **-0.7** then comment and contact HydroTech	
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Is the system blower/fans operating?		✓	If "**No**," add comment and contact HydroTech	
Is air being discharged from the system vent?		✓	If "**No**," add comment and contact HydroTech	
Are clamps in system piping properly fastened and seals near the blower intact and properly sealed?		✓	If "**No**," add comment and contact HydroTech	
Are there any holes, cracks, or other physical deficiencies in SSDS piping?	✓		If "**Yes**," add comment and contact HydroTech	
Are there any blockages in SSDS piping?	✓		If "**Yes**," add comment and contact HydroTech	

This form must be signed, kept on file at the building location and be available on inspection.

Name of Building Superintendent Performing Inspection: GEORGE MAY

Signature of Building Superintendent Performing Inspection: George May

Date of Inspection: July 2, 2021

Active Sub Slab Depressurization System (SSDS) Monthly Inspection Building Superintendent Form

This system protects public safety and must be operating properly to ensure the safety of occupants of the building. If you identify any problems with this system, contact HydroTech Environmental Engineering and Geology DPC for instructions and directions.

Question	No	Yes	Directions	Comments
Is the system pressure gauge operational?		✓	If "**No**," add comment and contact HydroTech	
Does the system pressure gauge indicate proper vacuum?		✓	If "**No**," add comment and contact HydroTech	
What is the pressure gauge reading? -0.74 OK			If reading is **below -0.75**, Ok. If **-0.7** then comment and contact HydroTech	
Is the system alarm operational?		✓	If "**No**," add comment and contact HydroTech	
Is the system blower/fans operating?		✓	If "**No**," add comment and contact HydroTech	
Is air being discharged from the system vent?			If "**No**," add comment and contact HydroTech	
Are clamps in system piping properly fastened and seals near the blower intact and properly sealed?		✓	If "**No**," add comment and contact HydroTech	
Are there any holes, cracks, or other physical deficiencies in SSDS piping?	✓		If "**Yes**," add comment and contact HydroTech	
Are there any blockages in SSDS piping?	✓		If "**Yes**," add comment and contact HydroTech	

This form must be signed, kept on file at the building location and be available on inspection.

Name of Building Superintendent Performing Inspection: GEORGE MAN

Signature of Building Superintendent Performing Inspection: George Man

Date of Inspection: Aug. 2, 2024

Active Sub Slab Depressurization System (SSDS) Monthly Inspection Building Superintendent Form

This system protects public safety and must be operating properly to ensure the safety of occupants of the building. If you identify any problems with this system, contact HydroTech Environmental Engineering and Geology DPC for instructions and directions.

Question	No	Yes	Directions	Comments
Is the system pressure gauge operational?		✓	If "**No**," add comment and contact HydroTech	
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Are there any blockages in SSDS piping?	✓		If "**Yes**," add comment and contact HydroTech	

This form must be signed, kept on file at the building location and be available on inspection.

Name of Building Superintendent Performing Inspection: GEORGE MAN

Signature of Building Superintendent Performing Inspection: George Man

Date of Inspection: SEPT 1, 2021

Active Sub Slab Depressurization System (SSDS) Monthly Inspection Building Superintendent Form

This system protects public safety and must be operating properly to ensure the safety of occupants of the building. If you identify any problems with this system, contact HydroTech Environmental Engineering and Geology DPC for instructions and directions.

Question	No	Yes	Directions	Comments
Is the system pressure gauge operational?		✓	If "No," add comment and contact HydroTech	
Does the system pressure gauge indicate proper vacuum?		✓	If "No," add comment and contact HydroTech	
What is the pressure gauge reading?	-0,74		If reading is **below -0.75**, Ok. If **-0.7** then comment and contact HydroTech	
Is the system alarm operational?		✓	If "No," add comment and contact HydroTech	
Is the system blower/fans operating?		✓	If "No," add comment and contact HydroTech	
Is air being discharged from the system vent?		✓	If "No," add comment and contact HydroTech	
Are clamps in system piping properly fastened and seals near the blower intact and properly sealed?		✓	If "No," add comment and contact HydroTech	
Are there any holes, cracks, or other physical deficiencies in SSDS piping?	✓		If "Yes," add comment and contact HydroTech	
Are there any blockages in SSDS piping?	✓		If "Yes," add comment and contact HydroTech	

This form must be signed, kept on file at the building location and be available on inspection.

Name of Building Superintendent Performing Inspection: GEORGE MAN

Signature of Building Superintendent Performing Inspection: George Man

Date of Inspection: Oct, 1, 2021

Active Sub Slab Depressurization System (SSDS) Monthly Inspection Building Superintendent Form

This system protects public safety and must be operating properly to ensure the safety of occupants of the building. If you identify any problems with this system, contact HydroTech Environmental Engineering and Geology DPC for instructions and directions.

Question	No	Yes	Directions	Comments
Is the system pressure gauge operational?		✓	If "No," add comment and contact HydroTech	
Does the system pressure gauge indicate proper vacuum?		✓	If "No," add comment and contact HydroTech	
What is the pressure gauge reading?	-0.74		If reading is **below -0.75**, Ok. If **-0.7** then comment and contact HydroTech	
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Are there any blockages in SSDS piping?	✓		If "Yes," add comment and contact HydroTech	

This form must be signed, kept on file at the building location and be available on inspection.

Name of Building Superintendent Performing Inspection: GEORGE MAN

Signature of Building Superintendent Performing Inspection: George Man

Date of Inspection: NOV. 1, 2021

Active Sub Slab Depressurization System (SSDS) Monthly Inspection Building Superintendent Form

This system protects public safety and must be operating properly to ensure the safety of occupants of the building. If you identify any problems with this system, contact HydroTech Environmental Engineering and Geology DPC for instructions and directions.

Question	No	Yes	Directions	Comments
Is the system pressure gauge operational?		✓	If "**No**," add comment and contact HydroTech	
Does the system pressure gauge indicate proper vacuum?		✓	If "**No**," add comment and contact HydroTech	
What is the pressure gauge reading?	-074		If reading is **below -0.75**, Ok. If **-0.7** then comment and contact HydroTech	
Is the system alarm operational?		✓	If "**No**," add comment and contact HydroTech	
Is the system blower/fans operating?		✓	If "**No**," add comment and contact HydroTech	
Is air being discharged from the system vent?		✓	If "**No**," add comment and contact HydroTech	
Are clamps in system piping properly fastened and seals near the blower intact and properly sealed?		✓	If "**No**," add comment and contact HydroTech	
Are there any holes, cracks, or other physical deficiencies in SSDS piping?	✓		If "**Yes**," add comment and contact HydroTech	
Are there any blockages in SSDS piping?	✓		If "**Yes**," add comment and contact HydroTech	

This form must be signed, kept on file at the building location and be available on inspection.

Name of Building Superintendent Performing Inspection: GEORGE MAY

Signature of Building Superintendent Performing Inspection: George May

Date of Inspection: Dec 1, 2024

Active Sub Slab Depressurization System (SSDS) Monthly Inspection Building Superintendent Form

This system protects public safety and must be operating properly to ensure the safety of occupants of the building. If you identify any problems with this system, contact HydroTech Environmental Engineering and Geology DPC for instructions and directions.

Question	No	Yes	Directions	Comments
Is the system pressure gauge operational?		✓	If "No," add comment and contact HydroTech	
Does the system pressure gauge indicate proper vacuum?		✓	If "No," add comment and contact HydroTech	
What is the pressure gauge reading?	0.74		If reading is **below -0.75**, Ok. If **-0.7** then comment and contact HydroTech	
Is the system alarm operational?		✓	If "No," add comment and contact HydroTech	
Is the system blower/fans operating?		✓	If "No," add comment and contact HydroTech	
Is air being discharged from the system vent?		✓	If "No," add comment and contact HydroTech	
Are clamps in system piping properly fastened and seals near the blower intact and properly sealed?		✓	If "No," add comment and contact HydroTech	
Are there any holes, cracks, or other physical deficiencies in SSDS piping?	✓		If "Yes," add comment and contact HydroTech	
Are there any blockages in SSDS piping?	✓		If "Yes," add comment and contact HydroTech	

This form must be signed, kept on file at the building location and be available on inspection.

Name of Building Superintendent Performing Inspection: GEORGE NIAN

Signature of Building Superintendent Performing Inspection: George Nian

Date of Inspection: Jan, 2, 2022

Active Sub Slab Depressurization System (SSDS) Monthly Inspection Building Superintendent Form

This system protects public safety and must be operating properly to ensure the safety of occupants of the building. If you identify any problems with this system, contact HydroTech Environmental Engineering and Geology DPC for instructions and directions.

Question	No	Yes	Directions	Comments
Is the system pressure gauge operational?		✓	If "No," add comment and contact HydroTech	
Does the system pressure gauge indicate proper vacuum?		✓	If "No," add comment and contact HydroTech	
What is the pressure gauge reading? -0.74			If reading is **below -0.75**, Ok. If **-0.7** then comment and contact HydroTech	
Is the system alarm operational?		✓	If "No," add comment and contact HydroTech	
Is the system blower/fans operating?		✓	If "No," add comment and contact HydroTech	
Is air being discharged from the system vent?		✓	If "No," add comment and contact HydroTech	
Are clamps in system piping properly fastened and seals near the blower intact and properly sealed?		✓	If "No," add comment and contact HydroTech	
Are there any holes, cracks, or other physical deficiencies in SSDS piping?	✓		If "Yes," add comment and contact HydroTech	
Are there any blockages in SSDS piping?	✓		If "Yes," add comment and contact HydroTech	

This form must be signed, kept on file at the building location and be available on inspection.

Name of Building Superintendent Performing Inspection: GEORGE MAN

Signature of Building Superintendent Performing Inspection: George Man

Date of Inspection: Feb 2, 2022

Active Sub Slab Depressurization System (SSDS) Monthly Inspection Building Superintendent Form

This system protects public safety and must be operating properly to ensure the safety of occupants of the building. If you identify any problems with this system, contact HydroTech Environmental Engineering and Geology DPC for instructions and directions.

Question	No	Yes	Directions	Comments
Is the system pressure gauge operational?		✓	If "No," add comment and contact HydroTech	
Does the system pressure gauge indicate proper vacuum?		✓	If "No," add comment and contact HydroTech	
What is the pressure gauge reading? -0.74			If reading is **below -0.75**, Ok. If **-0.7** then comment and contact HydroTech	
Is the system alarm operational?		✓	If "No," add comment and contact HydroTech	
Is the system blower/fans operating?		✓	If "No," add comment and contact HydroTech	
Is air being discharged from the system vent?		✓	If "No," add comment and contact HydroTech	
Are clamps in system piping properly fastened and seals near the blower intact and properly sealed?		✓	If "No," add comment and contact HydroTech	
Are there any holes, cracks, or other physical deficiencies in SSDS piping?	✓		If "Yes," add comment and contact HydroTech	
Are there any blockages in SSDS piping?	✓		If "Yes," add comment and contact HydroTech	

This form must be signed, kept on file at the building location and be available on inspection.

Name of Building Superintendent Performing Inspection: GEORGE MAN

Signature of Building Superintendent Performing Inspection: George Man

Date of Inspection: Mar. 3, 2022

Active Sub Slab Depressurization System (SSDS) Monthly Inspection Building Superintendent Form

This system protects public safety and must be operating properly to ensure the safety of occupants of the building. If you identify any problems with this system, contact HydroTech Environmental Engineering and Geology DPC for instructions and directions.

Question	No	Yes	Directions	Comments
Is the system pressure gauge operational?		✓	If "No," add comment and contact HydroTech	
Does the system pressure gauge indicate proper vacuum?		✓	If "No," add comment and contact HydroTech	
What is the pressure gauge reading? -0.74			If reading is **below -0.75**, Ok. If **-0.7** then comment and contact HydroTech	
Is the system alarm operational?		✓	If "No," add comment and contact HydroTech	
Is the system blower/fans operating?		✓	If "No," add comment and contact HydroTech	
Is air being discharged from the system vent?		✓	If "No," add comment and contact HydroTech	
Are clamps in system piping properly fastened and seals near the blower intact and properly sealed?		✓	If "No," add comment and contact HydroTech	
Are there any holes, cracks, or other physical deficiencies in SSDS piping?	✓		If "Yes," add comment and contact HydroTech	
Are there any blockages in SSDS piping?	✓		If "Yes," add comment and contact HydroTech	

This form must be signed, kept on file at the building location and be available on inspection.

Name of Building Superintendent Performing Inspection: GEORGE MAN

Signature of Building Superintendent Performing Inspection: George Man

Date of Inspection: April 2, 2022

APPENDIX 6
EC/IC INSPECTION AND CERTIFICATION FORM

Enclosure 2

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Site Management Periodic Review Report Notice

Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. C241159

Site Name 11-28 31st Drive

Site Address: 11-28 31st Drive Zip Code: 11106
City/Town: Queens
County: Queens
Site Acreage: 0.055

Reporting Period: April 20, 2021 to April 20, 2022

	YES	NO
1. Is the information above correct?	X	☐
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	X	☐
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	X
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	X
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	X

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Restricted-Residential, Commercial, and Industrial	X	☐
7. Are all ICs in place and functioning as designed?	X	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

Box 2A

	YES	NO
8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?		X
9. Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years)	X	

If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.

If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.

SITE NO. C241159 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
4-502-22	GBT Real Estate LLC	Soil Management Plan Ground Water Use Restriction Site Management Plan O&M Plan IC/EC Plan Landuse Restriction Monitoring Plan

Prohibition of use of groundwater without treatment
Compliance with a soils management plan
Compliance with a site management plan
Quarterly monitoring of groundwater
Use as restricted residential
Compliance with Operations & Maintenance Plan for SSDS

Box 4

Description of Engineering Controls

Parcel	Engineering Control
4-502-22	Vapor Mitigation Monitoring Wells

Sub-slab depressurization system
Groundwater monitoring with treatment by ISCO if needed

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the Engineering Control certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
X	☐

2. For each Engineering control listed in Box 4, I certify by checking "YES" below that all of the following statements are true:

   (a) The Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
X	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. C241159

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I GEORGE MAN at 57 ALLEN STREET N.Y N.Y 10002
print name print business address

am certifying as GBT Real ESTATE LLC (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

George Man 5/19/22
Signature of Owner, Remedial Party, or Designated Representative Rendering Certification Date

EC CERTIFICATIONS

Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Tarek Z. Khouri at 77 Arkay Drive, suite K, Hauppauge NY 11788
print name print business address

am certifying as a Professional Engineer for the Remedial party
(Owner or Remedial Party)

Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification	Stamp (Required for PE)	Date
		5/20/2022