Site Address 110 Cuttermill Rd., Great Neck, NY **NYSDEC Site #** 130072

Operable Unit OU-1 **Standby Engin. #** D007625-06

PERTINENT SITE ACTIVITIES (NON-MONITORING) SINCE LAST USEPA 5-YEAR REVIEW (SEPT. 2014)

A remedial site history summary by date since 1983 is provided in *Attachment 1*.

September 2014	The United States Environmental Protection Agency (USEPA) initiates its second 5-year review.
December 2014	Due to an oil leak in the air compressor, the air sparge (AS) portion of the treatment system was permanently shut down. The AS system has not been decommissioned and currently remains in place.
July 2015	Representatives from the USEPA, New York State Department of Environmental Conservation (NYSDEC), and HDR attend a site inspection.
October 2015	The Water Authority of Great Neck North (WAGNN) discontinues the use of supply well PW-11, removes it from service, and begins installation of a replacement.
January 2016	Due to mechanical failures, the soil vapor extraction (SVE) shuts down. Administrative delays related to funding and performing repairs resulted in extended downtime. The SVE system resumed operation in September 2016.
November 2016	HDR, on behalf of the NYSDEC, performs subsurface investigative activities associated with Task-6, Remedial System Optimization (RSO). Activities are initiated in November 2016 and conclude in February 2017. Additionally, the Stanton Cleaners building was vacated, with all associated equipment and operations removed from the site.
April 2017	WAGNN begins pumping operations on newly installed supply well PW-11A.
August 2017	HDR issues the RSO Technical Memorandum, detailing the results and conclusions of the 2016/2017 investigations.
September 2017	Due to high concentrations of chlorinated volatile organic compounds (cVOCs) detected in site sub-slab vapor samples while the facility was active, HDR recollected the vapor samples when the property was vacated.
November 2018	The SVE system malfunctioned during a routine monthly operations and maintenance (O&M) event. Subsequent troubleshooting indicated that the blower motor windings need repair and the compressor end seized. The SVE system has been off to date.

January 2019	The blower motor and compressor end were removed for repair/replacement. Further troubleshooting of the GWE&T system revealed a voltage imbalance leading into the treatment building. The service provider (PSEG) visited the site, found faulty wiring atop the pole mounted transformers, and repaired.
February 2019	HDR collected raw water samples from WAGNN supply wells PW-2A, PW-9, and PW-11A and submitted them for the emerging contaminant (EC) analysis of perfluorinated compounds (PFCs) and 1,4-dioxane.
March 2019	HDR installs one sub-slab vapor sample within the on-site boiler room building. Subsequent soil vapor intrusion (SVI) sampling is performed on both on-site buildings. Additionally, an annual expanded indoor air sampling program is initiated on the Long Island Hebrew Academy (LIHA).

OPERATIONAL AND MONITORING DATA SUMMARY

2016-2017 REMEDIATION SYSTEM OPTIMIZATION

The 2016 – 2017 RSO activities combined sampling/monitoring of multiple elements and included: an on-site and off-site subsurface soil investigation, off-site groundwater investigation, off-site soil gas investigation, on-site SVI activities, and an aquifer test of EPA-EXT-02. The sample analytical results for each investigation area summarized below. Submitted tables and figures as part of the August 2017 RSO Technical Memorandum are provided in *Attachment 2*. The results of the RSO are summarized below.

Soil Investigation

Number of On-site/Off-site Soil Borings	1 (ST-SB-1) / 2 (ST-SB-2, ST-SB-3)
Completion Depth	40 feet bgs
Number of Soil Samples	15 (collected at 5, 10, 20, 30, and 40 feet bgs for each boring)
Number of PCE Detections / Concentration Range	2 / 0.0022 mg/kg (ST-SB-1 at 10 feet bgs) to 0.0073 mg/kg (ST-SB-3 at 10 feet bgs)
Number of TCE Detections / Concentration Range	ND in all soil samples

Groundwater Investigation

Number of Boring Locations	6 (GWB-1 through GWB-5, ST-SB-3)
Sample Depth Range	70 feet bgs (various borings) to 180 feet bgs (GWB-1 and GWB-2)

Number of Groundwater Samples	27
Number of PCE Detections / Concentration Range	4 / 1.3 µg/L (GWB-2 at 130 feet bgs) to 3.0 µg/L (GWB-3 at 70 feet bgs)
Number of TCE Detections / Concentration Range	ND in all groundwater samples
Off-site Soil Gas Investigation	
Number of Subsurface Vapor Points	10 (ST-SG-1 S/D through ST-SG-5 S/D)
Vapor Point Depth Range	10 or 15 feet bgs (shallow) and 50 feet bgs (deep)
Number of Soil Gas Samples	9
Number of PCE Detections / Concentration Range	9 / 44.8 µg/m^3 (ST-SG-5D) to 15,596 µg/m^3 (ST-SG-2S)
Number of TCE Detections / Concentration Range	9 / 0.64 µg/m^3 (ST-SG-1S) to 1,021 µg/m^3 (ST-SG-2S)
On-site Soil Vapor Intrusion Sampling (Jan. 2016 (Active Drycleaner) and Sept. 2017 (Vacant Lot))	
Number of Sub-slab Vapor Points	2 (ST-SS-1 and ST-SS-2)
Number of PCE Detections / Concentration Range (Jan. 2016)	2 / 9,493 µg/m^3 (ST-SS-2) and 845,614 µg/m^3 (ST-SS-1)
Number of PCE Detections / Concentration Range (Sept. 2017)	2 / 813 µg/m^3 (ST-SS-1) and 1,763 µg/m^3 (ST-SS-2)
Number of TCE Detections / Concentration Range (Jan. 2016)	2 / 60.2 µg/m^3 (ST-SS-2) and 56,429 µg/m^3 (ST-SS-1)
Number of TCE Detections / Concentration Range (Sept. 2017)	2 / 81.7 µg/m^3 (ST-SS-2) and 345 µg/m^3 (ST-SS-1)
Aquifer Test	
Calculated ROI for EPA-EXT-02	250 feet (approx.)
Aquifers within Capture Zone	Upper and Intermediate UGA

SOIL VAPOR EXTRACTION SYSTEM

A figure showing the SVE system wellfield layout and header lines is provided as *Figure 1.* Graphs depicting the calculated VOC mass removal rate (lbs/day) and cumulative mass removed over time since 2003 and the more recent 2014 USEPA 5-year review are provided on *Graphs 1 and 2,* respectively. As stated above, the SVE system remains inactive since November 2018 due a blower failure. A table summarizing downtime periods greater than 14 days since the last USEPA 5-year review in 2014 can be

found in *Attachment 3.* A summary of the SVE system process data for 2018 and since 2003 can be found below.

Number of Active SVE Wells	7 (SVE-1 S/M, SVE-2 S/M, SVE-3 A/B, SS-A)
Monthly Average Flow Rate (2018)	179.51 cfm
Monthly Average VOC Mass Removal Rate (2018)	0.2 lbs/day
Total VOC Mass Removed (2018)	79.25 lbs
Total VOC Mass Removed, Cumulative (Sep. 2003 – Nov. 2018)	2,130.1 lbs

GROUNDWATER EXTRACTION AND TREATMENT SYSTEM

A figure showing the GWE&T system wellfield layout and header lines is provided as *Figure 1.* Graphs plotting the influent (INF) PCE concentration over time since 2003 and the more recent 2014 USEPA 5-year review are provided on *Graphs 3 and 4,* respectively. A graph showing the calculated VOC mass removal rate (lbs/mo) and cumulative mass removed over time since 2013 is are provided on *Graph 5.* A graph showing the total the cumulative flow and INF PCE concentration over time since 2013 can be found on *Graph 6.* A table summarizing downtime periods greater than 14 days since the last USEPA 5-year review in 2014 can be found in *Attachment 3.* A summary of the GWE&T system process data for 2018 and since 2013 can be found below.

Influent PCE Concentration Range (2018)	4.7 µg/L (March) to 8.2 µg/L (Jan.)
Average PCE Mass Removal Rate (2018)	0.13 lbs/mo
Annual PCE Mass Removed (2018)	0.65 lbs
Total PCE Mass Removed (Jan. 2013 – June 2018)	8.27 lbs
Number of Active Extraction Wells	1 (EPA-EXT-02)
Average Flow Rate (2018)	59 gpm
Annual Treated Flow (Jan. – June 2018)	14,754,312.3 gallons
Total Treated Flow (Jan. 2013 – June 2018)	410,040,143.6 gallons

GROUNDWATER SAMPLING

Maps showing the monitoring well network and schedule are provided on *Figures 2 and 3,* respectively. Maps showing groundwater sample VOC detections and flow directions for both 2018 semi-annual groundwater monitoring events (May & November 2018) can be found in *Attachment 4.* Graphs plotting the WAGNN public supply well PCE/TCE concentrations over time since the beginning of data collection and the more recent 2014 USEPA 5-year review are provided on *Graphs 7 and 8.* A summary of the 2018

semi-annual groundwater sampling events, 2018 EC sampling event (*Table 1*), and 2019 WAGNN supply sampling event (*Table 2*) are outlined below.

2018 Semi-Annual Groundwater Sampling Events – May & November 2018	
Number of Wells Sampled for VOCs	15
Predominant Groundwater Flow Directions (May 2018)	Southwest
Number of PCE Detections / Concentration Range (May 2018)	3 / 1.2 µg/L (ST-MW-20) to 11 µg/L (ST-MW-19)
Number of TCE Detections / Concentration Range (May 2018)	1 / 2.2 µg/L (EPA-CL-4S)
Predominant Groundwater Flow Directions (Nov. 2018)	Southwest
Number of PCE Detections / Concentration Range (Nov. 2018)	8 / 1.1 µg/L (ST-MW-14 and EPA-MW-23) to 80 µg/L (ST-MW-19)
Number of TCE Detections / Concentration Range (Nov. 2018)	1 / 4.2 µg/L (EPA-CL-4D)
January 2018 Monitoring Well Emerging Contaminant Sampling Event	
Number of Wells Sampled for PFAS / 1,4-Dioxane	8 (EPA-EXT-02, EPA-MW-23, EPA-MW-26, ST-MW-15, ST-MW-16, ST-MW-18 through ST-MW-20) / 10 (plus EPA-CL-4 S/D)
Number of PFOS Detections / Concentration Range	7 / 1.07 ng/L (ST-MW-20) to 64.2 ng/L (ST-MW-26)
Number of PFOA Detections / Concentration Range	8 / 1.2 ng/L (ST-MW-15) to 25.4 ng/L (ST-MW-19)
Number of 1,4-Dioxane Detections / Concentration Range	4 / 0.11 µg/L (EPA-EXT-02) to 2.5 µg/L (EPA-MW-26)
2018 WAGNN Public Supply Well Sampling	
Number of Wells Sampled Monthly for Various Analytes (by WAGNN)	4 (PW-2A, PW-6, PW-9, PW-11A)
Raw Water Detected PCE Concentration Range	0.57 µg/L (PW-11A, 5/16/2018) to 12.4 µg/L (PW-2A, 11/7/2018)
Raw Water Detected TCE Concentration Range	0.57 µg/L (PW-6, 5/31/2018) to 8.4 µg/L (PW-2A, 11/7/2018)

February 2019 WAGNN Public Supply Well Emerging Contaminant Sampling Event

Number of Wells Sampled for PFAS / 1,4-Dioxane	3 (PW-2A, PW-9, PW-11A)
Number of PFOS Detections / Concentration Range	1 / 2.8 ng/L (PW-9)
Number of PFOA Detections / Concentration Range	1 / 6.4 ng/L (PW-9)
Number of 1,4-Dioxane Detections / Concentration Range	2 / 0.35 µg/L (PW-2A) and 0.8 µg/L (PW-11A)

SOIL VAPOR INTRUSION/INDOOR AIR SAMPLING

Recent VI sampling from 2018 to 2019 included routine semi-annual and expanded annual indoor air sampling at the LIHA, for a total of 4 events. In March 2019, HDR installed one sub-slab vapor point within the vacant boiler room building and completed air sampling activities to evaluate the presence of cVOC vapor. A map showing the sub-slab vapor point locations on the Stanton Cleaners property is provided as *Figure 4.* A summary of the 2018-2019 LIHA and 2019 and Stanton Cleaners sampling event results (see *Table 3* for the recent Stanton Cleaners analytical results (pending validation)) are outlined below.

2018-2019 LIHA Indoor Air Sampling Events

Total Number of Semi-Annual Indoor Air Samples	2
Total Number of Expanded Annual Indoor Air Samples	6
Number of PCE Detections / Concentration Range	8 / 0.81 µg/m^3 (LIHA-IA1, 5/25/2018 and LIHA-IA3, 3/14/2019) to 3.93 µg/m^3 (LIHA-IA2, 3/28/2019)
Number of TCE Detections / Concentration Range	0 / Not detected in any collected sample

March 2019 Stanton Cleaners Sub-Slab Sampling

Number of Sub-Slab Vapor Sample Locations	3 (ST-SS-1, ST-SS-2, ST-SS-3)
Number of PCE Detections / Concentration Range	3 / 1,559 µg/m^3 (ST-SS-1) to 27,802 µg/m^3 (ST-SS-2)
Number of TCE Detections / Concentration Range	3 / 10.2 µg/m^3 (ST-SS-1) to 1,988 µg/m^3 (ST-SS-2)

FUTURE SITE ACTIVITIES

- Routine data collection and O&M activities.
- Routine monitoring activities (groundwater sampling, air sampling, system sampling).
- Liquid and vapor phase granular activated carbon change outs as needed.
- Installation of two horizontal SVE wells installed under each site building. See *Attachment 5* for the proposed work scope.

ATTACHMENTS

Table 1	January 2018 Site Groundwater EC Sampling Summary
Table 2	February 2019 EC Sampling Summary for WAGNN Wells
Table 3	March 2019 Site SVI Analytical Data Summary
Figure 1	SVE and GWE&T System Layout Map
Figure 2	Monitoring Well Location Map
Figure 3	Monitoring Well Schedule Map
Figure 4	Site SVI Air Sampling Locations
Graph 1	SVE System VOC Mass Removal – 2003-2018
Graph 2	SVE System VOC Mass Removal – 2014-2018
Graph 3	GWE&T System INF PCE Concentrations – 2003-2018
Graph 4	GWE&T System INF PCE Concentrations – 2014-2018
Graph 5	GWE&T System VOC Mass Removal – 2013-2018
Graph 6	GWE&T System Flow and INF PCE Concentrations – 2013-2018
Graph 7	WAGNN Wells – Raw Water PCE and TCE Concentrations – 2002-2018
Graph 8	WAGNN Wells – Raw Water PCE and TCE Concentrations – 2014-2018
Attachment 1	Remedial Site History
Attachment 2	Table/Figures from the August 2017 RSO Technical Memorandum
Attachment 3	SVE/GWE&T System Downtime Summary
Attachment 4	2018 Groundwater Sampling Summary Figures
Attachment 5	Contractor SOW for Horizontal SVE Wells

TABLES

Table 1
January 2018 Site Groundwater EC Sampling Summary
Stanton Cleaners
110 Cuttermill Road, Great Neck, NY

				Sample ID:	EPA-CL-4D-011818-20180118		EPA-CL-4S-011818-20180118		EPA-EXT-02-012218-20180122		EPA-MW-23-011918-20180119		EPA-MW-26-012218-20180122		ST-MW-15-012218-20180122	
				Sample Location:	CL-4D		CL-4S		EPA-EXT-02		EPA-MW-23		EPA-MW-26		ST-MW-15	
				Sample Date:	1/18/2018		1/18/2018		1/22/2018		1/19/2018		1/22/2018		1/22/2018	
Analyte	**CAS Number**	**Units**	**USEPA Guidance**	**NYSDWC Guidance**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
PFCs																
2-(N-methyl perfluorooctanesulfonamido) acetic acid	2355-31-9	ng/l	NS	NS	NA		NA		*18*	*U*	*20.1*	*U*	*198*	*U*	*17*	*U*
N-Ethyl-N-((heptadecafluorooctyl)sulphonyl) glycine	2991-50-6	ng/l	NS	NS	NA		NA		*18*	*U*	*20.1*	*U*	*198*	*U*	*17*	*U*
Perfluorobutanesulfonic Acid	375-73-5	ng/l	NS	NS	NA		NA		2.81		2.98		4.3		0.57	J
Perfluorobutyric Acid (PFBA)	375-22-4	ng/l	NS	NS	NA		NA		5.99	B	9.32	B	14	B	*1.98*	*U*
Perfluorodecane Sulfonic Acid	335-77-3	ng/l	NS	NS	NA		NA		*1.8*	*U*	*2.01*	*U*	*1.98*	*U*	*1.7*	*U*
Perfluorodecanoic Acid (PFDA)	335-76-2	ng/l	NS	NS	NA		NA		*1.8*	*U*	*2.01*	*U*	0.32	J	*1.7*	*U*
Perfluorododecanoic Acid (PFDoA)	307-55-1	ng/l	NS	NS	NA		NA		*1.8*	*U*	*2.01*	*U*	*1.98*	*U*	*1.7*	*U*
Perfluoroheptane Sulfonate (PFHpS)	375-92-8	ng/l	NS	NS	NA		NA		0.74	J	0.84	J	1.82	J	*1.7*	*U*
Perfluoroheptanoic Acid (PFHpA)	375-85-9	ng/l	NS	NS	NA		NA		6.61		7.67		18.8		0.52	J
Perfluorohexanesulfonic Acid	355-46-4	ng/l	NS	NS	NA		NA		6.8	B	9.58	B	25.8	B	*1.7*	*U*
Perfluorohexanoic Acid (PFHxA)	307-24-4	ng/l	NS	NS	NA		NA		9.15		13.1		28.8		0.6	J
Perfluorononanoic Acid	375-95-1	ng/l	NS	NS	NA		NA		2.22		9.13		8.7		*1.7*	*U*
Perfluorooctane Sulfonamide (FOSA)	754-91-6	ng/l	NS	NS	NA		NA		*1.8*	*U*	*2.01*	*U*	*1.98*	*U*	*1.7*	*U*
Perfluoropentanoic Acid (PFPeA)	2706-90-3	ng/l	NS	NS	NA		NA		11.7		21.6		40.7		0.6	J
Perfluorotetradecanoic Acid (PFTeA)	376-06-7	ng/l	NS	NS	NA		NA		*1.8*	*U*	*2.01*	*U*	*1.98*	*U*	*1.7*	*U*
Perfluorotridcanoic Acid (PFTriA)	72629-94-8	ng/l	NS	NS	NA		NA		*1.8*	*U*	*2.01*	*U*	*1.98*	*U*	*1.7*	*U*
Perfluoroundecanoic Acid (PFUnA)	2058-94-8	ng/l	NS	NS	NA		NA		*1.8*	*U*	*2.01*	*U*	*1.98*	*U*	*1.7*	*U*
SODIUM 1H,1H,2H,2H-PERFLUORODECANE SULFONATE	39108-34-4	ng/l	NS	NS	NA		NA		*18*	*U*	*20.1*	*U*	*198*	*U*	*17*	*U*
SODIUM 1H,1H,2H,2H-PERFLUOROOCTANE SULFONATE	27619-97-2	ng/l	NS	NS	NA		NA		4.47	J	*20.1*	*U*	*198*	*U*	*17*	*U*
Perfluorooctane Sulfonic Acid (PFOS)	1763-23-1	ng/l	NS	10	NA		NA		**15**		**25.5**		**64.2**		*1.7*	*U*
Perfluorooctanoic acid (PFOA)	335-67-1	ng/l	NS	10	NA		NA		**17**		**19.8**		**24.4**		1.2	J
1,4-Dioxane																
1,4-Dioxane	123-91-1	ug/l	0.35	1	*0.42*	*U*	*0.42*	*U*	0.11	J	*0.4*	*U*	***2.5***		0.046	J

Table 1
January 2018 Site Groundwater EC Sampling Summary
Stanton Cleaners
110 Cuttermill Road, Great Neck, NY

				Sample ID:	ST-MW-16-011918-20180119		DUPLICATE 1-011918-20180119		ST-MW-18-012218-20180122		ST-MW-19-011918-20180119		ST-MW-20-012218-20180122	
				Sample Location:	ST-MW-16		ST-MW-16		ST-MW-18		ST-MW-19		ST-MW-20	
				Sample Date:	1/19/2018		1/19/2018		1/22/2018		1/19/2018		1/22/2018	
Analyte	**CAS Number**	**Units**	**USEPA Guidance**	**NYSDWC Guidance**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
PFCs														
2-(N-methyl perfluorooctanesulfonamido) acetic acid	2355-31-9	ng/l	NS	NS	*20.2*	*U*	*19.6*	*U*	*198*	*U*	*20*	*U*	*170*	*U*
N-Ethyl-N-((heptadecafluorooctyl)sulphonyl) glycine	2991-50-6	ng/l	NS	NS	*20.2*	*U*	*19.6*	*U*	*198*	*U*	*20*	*U*	*170*	*U*
Perfluorobutanesulfonic Acid	375-73-5	ng/l	NS	NS	4.52		4.23		0.65	J	2.56		2.44	
Perfluorobutyric Acid (PFBA)	375-22-4	ng/l	NS	NS	*7.72*	*U*	*8.23*	*U*	5.97	B	*5.77*	*U*	3.8	B
Perfluorodecane Sulfonic Acid	335-77-3	ng/l	NS	NS	*2.02*	*U*	*1.96*	*U*	*1.98*	*U*	*2*	*U*	*1.7*	*U*
Perfluorodecanoic Acid (PFDA)	335-76-2	ng/l	NS	NS	*2.02*	*U*	*1.96*	*U*	0.37	J	*2*	*U*	*1.7*	*U*
Perfluorododecanoic Acid (PFDoA)	307-55-1	ng/l	NS	NS	*2.02*	*U*	*1.96*	*U*	*1.98*	*U*	*2*	*U*	*1.7*	*U*
Perfluoroheptane Sulfonate (PFHpS)	375-92-8	ng/l	NS	NS	0.36	J	0.41	J	*1.98*	*U*	0.79	J	0.64	J
Perfluoroheptanoic Acid (PFHpA)	375-85-9	ng/l	NS	NS	7.43		8.01		0.8	J	7.51		3.53	
Perfluorohexanesulfonic Acid	355-46-4	ng/l	NS	NS	5.22	B	5.8	B	*1.98*	*U*	6.72	B	4.47	B
Perfluorohexanoic Acid (PFHxA)	307-24-4	ng/l	NS	NS	10.6		10.7		1.73	J	7.79		6.2	
Perfluorononanoic Acid	375-95-1	ng/l	NS	NS	2.51		2.84		0.43	J	3.86		*1.7*	*U*
Perfluorooctane Sulfonamide (FOSA)	754-91-6	ng/l	NS	NS	*2.02*	*U*	*1.96*	*U*	*1.98*	*U*	*2*	*U*	*1.7*	*U*
Perfluoropentanoic Acid (PFPeA)	2706-90-3	ng/l	NS	NS	15		15.6		1.1	J	8.22		6.13	
Perfluorotetradecanoic Acid (PFTeA)	376-06-7	ng/l	NS	NS	*2.02*	*U*	*1.96*	*U*	*1.98*	*U*	*2*	*U*	*1.7*	*U*
Perfluorotridcanoic Acid (PFTriA)	72629-94-8	ng/l	NS	NS	*2.02*	*U*	*1.96*	*U*	*1.98*	*U*	*2*	*U*	*1.7*	*U*
Perfluoroundecanoic Acid (PFUnA)	2058-94-8	ng/l	NS	NS	*2.02*	*U*	*1.96*	*U*	*1.98*	*U*	*2*	*U*	*1.7*	*U*
SODIUM 1H,1H,2H,2H-PERFLUORODECANE SULFONATE	39108-34-4	ng/l	NS	NS	*20.2*	*U*	*19.6*	*U*	*198*	*U*	*20*	*U*	*170*	*U*
SODIUM 1H,1H,2H,2H-PERFLUOROOCTANE SULFONATE	27619-97-2	ng/l	NS	NS	*20.2*	*U*	*19.6*	*U*	*198*	*U*	*20*	*U*	*170*	*U*
Perfluorooctane Sulfonic Acid (PFOS)	1763-23-1	ng/l	NS	10	**21.4**		**21.9**		1.12	J	**20.8**		1.07	J
Perfluorooctanoic acid (PFOA)	335-67-1	ng/l	NS	10	**13.5**		**13.6**		1.19	J	**25.4**		3.46	
1,4-Dioxane														
1,4-Dioxane	123-91-1	ug/l	0.35	1	*0.4*	*U*	*0.4*	*U*	*0.42*	*U*	*0.42*	*U*	0.3	J

Table 1
January 2018 Site Groundwater EC Sampling Summary
Stanton Cleaners
110 Cuttermill Road, Great Neck, NY

Notes:

NS	: No Standard
NA	: Not Analyzed
ng/l	: nanograms per liter
ug/l	: micrograms per liter
PFCs	: Perflourinated Compounds
CAS	: Chemical Abstracts Service
USEPA	: United States Protection Agency
NYSDEC	: New York State Department of Environmental Conservation
NYSDOH	: New York State Department of Health
NYSDWC	: New York State Drinking Water Council

Q	: Qualifier
U	: not detected at the indicated concentration
J	: result is estimated
B	: compound was found in the blank and sample
Bold	: the concentration exceeds NYSDWC guidance
Bold/It.	: the concentration exceeds NYSDWC and USEPA guidance

Analytical results represented on table reflect third party validation findings

NYSDWC Guidance are recommendations by the NYSDEC/NYSDOH to the NYSDOH for PFOS/PFAS and 1,4-Dioxane
https://www.health.ny.gov/press/releases/2018/2018-12-18_drinking_water_quality_council_recommendations.htm

EPA Guidance recommends a 0.35 ug/l drinking water concentration represeinting a 1x10^-6 cancer risk level for 1,4-Dioxane
https://www.epa.gov/sites/production/files/2014-03/documents/ffrro_factsheet_contaminant_14-dioxane_january2014_final.pdf

Table 2
February 2019 EC Sampling Summary for WAGNN Wells
Stanton Cleaners
110 Cuttermill Road, Great Neck, NY

				Sample:		PW-11A-20190207		PW-2A-20190207		PW-9-20190207		PW-9-20190207-1	
				Sample Location:		PW-11A		PW-2A		PW-9		PW-9 (DUP)	
				Sample Date:		2/7/2019		2/7/2019		2/7/2019		2/7/2019	
Analyte	**CAS Number**	**Units**	**NYSDWC Recom.***	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
PFCs													
Perfluoroundecanoic Acid (PFUnA)	2058-94-8	ng/l	-	*2*	*U*	*1*	*U*	*2*	*U*	*2*	*U*	*2*	*U*
2-(N-methyl perfluorooctanesulfonamido) acetic acid	2355-31-9	ng/l	-	*2*	*U*	*1*	*U*	*2*	*U*	*2*	*U*	*2*	*U*
Perfluoropentanoic Acid (PFPeA)	2706-90-3	ng/l	-	*2*	*U*	*1*	*U*	2.4		3.1			
N-Ethyl-N-((heptadecafluorooctyl)sulphonyl) glycine	2991-50-6	ng/l	-	*2*	*U*	*1*	*U*	*2*	*U*	*2*	*U*	*2*	*U*
Perfluorohexanoic acid (PFHxA)	307-24-4	ng/l	-	*2*	*U*	*1*	*U*	2.5		3			
Perfluorododecanoic acid (PFDoA)	307-55-1	ng/l	-	*2*	*U*	*1*	*U*	*2*	*U*	*2*	*U*	*2*	*U*
Perfluorodecanoic acid (PFDA)	335-76-2	ng/l	-	*2*	*U*	*1*	*U*	*2*	*U*	*2*	*U*	*2*	*U*
Perfluorodecane Sulfonic Acid	335-77-3	ng/l	-	*2*	*U*	*1*	*U*	*2*	*U*	*2*	*U*	*2*	*U*
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	ng/l	-	*2*	*UJ*	*1*	*UJ*	2.5	J-	2.5	J-		
Perfluorobutanoic Acid	375-22-4	ng/l	-	*2*	*U*	*1*	*U*	*2*	*U*	*2*	*U*	*2*	*U*
Perfluorobutanesulfonic acid (PFBS)	375-73-5	ng/l	-	*2*	*U*	*1*	*U*	*2*	*U*	*2*	*U*	*2*	*U*
Perfluoroheptanoic acid (PFHpA)	375-85-9	ng/l	-	*2*	*U*	*1*	*U*	*2*	*U*	2.5			
Perfluoroheptane Sulfonate (PFHPS)	375-92-8	ng/l	-	*2*	*U*	*1*	*U*	*2*	*U*	*2*	*U*	*2*	*U*
Perfluorononanoic acid (PFNA)	375-95-1	ng/l	-	*2*	*U*	*1*	*U*	*2*	*U*	*2*	*U*	*2*	*U*
Perfluorotetradecanoic acid (PFTA)	376-06-7	ng/l	-	*2*	*U*	*1*	*U*	*2*	*U*	*2*	*U*	*2*	*U*
Perfluorotridecanoic Acid (PFTriA)	72629-94-8	ng/l	-	*2*	*U*	*1*	*U*	*2*	*U*	*2*	*U*	*2*	*U*
Perfluorooctane Sulfonamide (FOSA)	754-91-6	ng/l	-	*2*	*UJ*	*1*	*UJ*	*2*	*UJ*	*2*	*UJ*	*2*	*UJ*
Sodium 1H,1H,2H,2H-perfluoro-1-[1,2-13C2]-octane sulfonate (6:2)	M2-6:2FTS	ng/l	-	*2*	*U*	*1*	*U*	*2*	*U*	*2*	*U*	*2*	*U*
Sodium 1H,1H,2H,2H-perfluoro-1-[1,2-13C2]-decane sulfonate (8:2)	M2-8:2FTS	ng/l	-	*2*	*U*	*1*	*U*	*2*	*U*	*2*	*U*	*2*	*U*
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	ng/l	10	*2*	*U*	*1*	*U*	2.8		2.4			
Perfluorooctanoic acid (PFOA)	335-67-1	ng/l	10	*2*	*U*	*1*	*U*	6.4		6.1			
Sum of PFOS & PFOA		ng/l	-	*4*	*U*	*2*	*U*	9.2		8.5			
1,4-Dioxane													
1,4-Dioxane (P-Dioxane)	123-91-1	ug/l	1	0.8		0.35		*0.036*	*U*	*0.034*	*U*		

Notes:
All samples collected from raw pre-treatment water for the indicated public water supply wells
All samples were submitted to Con-Test Laboratories
*New York State Drinking Water Quality Council recommendations are for PFOA, PFOS, and 1,4-dioxane
https://www.health.ny.gov/press/releases/2018/2018-12-18_drinking_water_quality_council_recommendations.htm

Analytical results represented on table reflect third party validation findings

ng/l : nanograms per liter
ug/l : micrograms per liter
PFC : perfluorinated compounds
U : not detected at the indicated concentration
J : value is estimated
Q : Qualifier

NYSDEC Site No: 130072
Standy Contract: D007625-06

Table 3
March 2019 SVI Sampling Summary
Stanton Cleaners
110 Cuttermill Road, Great Neck,NY

			Sample:	ST-IA-1-20190306		ST-DUP-1-20190306		ST-IA-2-20190306		ST-OA-1-20190306		ST-SS-1-20190306		ST-SS-2-20190306		ST-SS-3-20190306	
			Location:	ST-IA-1		ST-IA-1		ST-IA-2		ST-OA-1		ST-SS-1		ST-SS-2		ST-SS-3	
			Sample Date:	3/6/2019		3/6/2019		3/6/2019		3/6/2019		3/6/2019		3/6/2019		3/6/2019	
Analyte	**CAS Number**	**Unit**		**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
1,1,1-Trichloroethane	71-55-6	ug/m3		*0.16*	*U*	*0.16*	*U*	*0.16*	*U*	*0.16*	*U*	*0.33*	*U*	*0.16*	*U*	13.1	
1,1,2,2-Tetrachloroethane	79-34-5	ug/m3		*3.43*	*U*	*3.43*	*U*	*3.43*	*U*	*3.43*	*U*	*6.87*	*U*	*3.43*	*U*	*6.87*	*U*
1,1,2-Trichloroethane	79-00-5	ug/m3		*2.73*	*U*	*2.73*	*U*	*2.73*	*U*	*2.73*	*U*	*5.46*	*U*	*2.73*	*U*	*5.46*	*U*
1,1-Dichloroethane	75-34-3	ug/m3		*2.02*	*U*	*2.02*	*U*	*2.02*	*U*	*2.02*	*U*	*4.05*	*U*	*2.02*	*U*	*4.05*	*U*
1,1-Dichloroethene	75-35-4	ug/m3		*1.98*	*U*	*1.98*	*U*	*1.98*	*U*	*1.98*	*U*	*3.96*	*U*	0.48	J	*3.96*	*U*
1,2,4-Trichlorobenzene	120-82-1	ug/m3		*3.71*	*U*	*3.71*	*U*	*3.71*	*U*	*3.71*	*U*	*7.42*	*U*	*3.71*	*U*	*7.42*	*U*
1,2,4-Trimethylbenzene	95-63-6	ug/m3		*2.46*	*U*	*2.46*	*U*	*2.46*	*U*	*2.46*	*U*	*4.92*	*U*	*2.46*	*U*	33.4	
1,2-Dibromoethane (Ethylene dibromide)	106-93-4	ug/m3		*3.84*	*U*	*3.84*	*U*	*3.84*	*U*	*3.84*	*U*	*7.69*	*U*	*3.84*	*U*	*7.69*	*U*
1,2-Dichlorobenzene	95-50-1	ug/m3		*3.01*	*U*	*3.01*	*U*	*3.01*	*U*	*3.01*	*U*	*6.01*	*U*	*3.01*	*U*	*6.01*	*U*
1,2-Dichloroethane	107-06-2	ug/m3		*2.02*	*U*	*2.02*	*U*	*2.02*	*U*	*2.02*	*U*	*4.05*	*U*	*2.02*	*U*	*4.05*	*U*
1,2-Dichloropropane	78-87-5	ug/m3		*2.31*	*U*	*2.31*	*U*	*2.31*	*U*	*2.31*	*U*	*4.62*	*U*	*2.31*	*U*	2.91	J
1,2-Dichlorotetrafluoroethane	76-14-2	ug/m3		*3.49*	*U*	*3.49*	*U*	*3.49*	*U*	*3.49*	*U*	*6.99*	*U*	*3.49*	*U*	*6.99*	*U*
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/m3		*2.46*	*U*	*2.46*	*U*	*2.46*	*U*	*2.46*	*U*	*4.92*	*U*	*2.46*	*U*	17.2	
1,3-Butadiene	106-99-0	ug/m3		*1.11*	*U*	*1.11*	*U*	*1.11*	*U*	*1.11*	*U*	*2.21*	*U*	*1.11*	*U*	*2.21*	*U*
1,3-Dichlorobenzene	541-73-1	ug/m3		*3.01*	*U*	*3.01*	*U*	*3.01*	*U*	*3.01*	*U*	*6.01*	*U*	*3.01*	*U*	*6.01*	*U*
1,4-Dichlorobenzene	106-46-7	ug/m3		*3.01*	*U*	*3.01*	*U*	*3.01*	*U*	*3.01*	*U*	*6.01*	*U*	*3.01*	*U*	*6.01*	*U*
1,4-Dioxane	123-91-1	ug/m3		*1.8*	*U*	*1.8*	*U*	*1.8*	*U*	*1.8*	*U*	*3.6*	*U*	*1.8*	*U*	*3.6*	*U*
2,2,4-Trimethylpentane	540-84-1	ug/m3		0.51	J	0.61	J	1.07	J	*2.34*	*U*	*4.67*	*U*	*2.34*	*U*	*4.67*	*U*
2-Butanone	78-93-3	ug/m3		0.62	J	0.97	J	0.91	J	0.62	J	*2.95*	*U*	0.53	J	3.24	
2-Chlorotoluene	95-49-8	ug/m3		*2.59*	*U*	*2.59*	*U*	*2.59*	*U*	*2.59*	*U*	*5.18*	*U*	*2.59*	*U*	*5.18*	*U*
4-Ethyltoluene	622-96-8	ug/m3		*2.46*	*U*	*2.46*	*U*	*2.46*	*U*	*2.46*	*U*	*4.92*	*U*	*2.46*	*U*	10.3	
4-Methyl-2-Pentanone	108-10-1	ug/m3		*2.05*	*U*	*2.05*	*U*	*2.05*	*U*	*2.05*	*U*	*4.1*	*U*	*2.05*	*U*	*4.1*	*U*
Acetone	67-64-1	ug/m3		6.89	B	7.36	B	5.94	B	10.7	B	4.28	Q	*1.19*	*U*	14	Q
Allyl Chloride (3-Chloropropene)	107-05-1	ug/m3		*1.57*	*U*	*1.57*	*U*	*1.57*	*U*	*1.57*	*U*	*3.13*	*U*	*1.57*	*U*	*3.13*	*U*
Benzene	71-43-2	ug/m3		0.89	J	0.89	J	1.05	J	0.73	J	*3.19*	*U*	1.34	J	4.79	
Bromodichloromethane	75-27-4	ug/m3		*3.35*	*U*	*3.35*	*U*	*3.35*	*U*	*3.35*	*U*	*6.7*	*U*	*3.35*	*U*	*6.7*	*U*
Bromoform	75-25-2	ug/m3		*5.17*	*U*	*5.17*	*U*	*5.17*	*U*	*5.17*	*U*	*10.3*	*U*	*5.17*	*U*	*10.3*	*U*
Bromomethane	74-83-9	ug/m3		*1.94*	*U*	*1.94*	*U*	*1.94*	*U*	*1.94*	*U*	*3.88*	*U*	*1.94*	*U*	*3.88*	*U*
Carbon Disulfide	75-15-0	ug/m3		*1.56*	*U*	*1.56*	*U*	*1.56*	*U*	*1.56*	*U*	*3.11*	*U*	*1.56*	*U*	1.96	J
Carbon Tetrachloride	56-23-5	ug/m3		*0.19*	*U*	*0.19*	*U*	*0.19*	*U*	*0.19*	*U*	*0.38*	*U*	0.19		*0.38*	*U*
Chlorobenzene	108-90-7	ug/m3		*2.3*	*U*	*2.3*	*U*	*2.3*	*U*	*2.3*	*U*	*4.61*	*U*	0.6	J	*4.61*	*U*
Chlorodibromomethane	124-48-1	ug/m3		*4.26*	*U*	*4.26*	*U*	*4.26*	*U*	*4.26*	*U*	*8.52*	*U*	*4.26*	*U*	*8.52*	*U*
Chloroethane	75-00-3	ug/m3		*1.32*	*U*	*1.32*	*U*	*1.32*	*U*	*1.32*	*U*	*2.64*	*U*	*1.32*	*U*	*2.64*	*U*
Chloroform	67-66-3	ug/m3		*2.44*	*U*	*2.44*	*U*	*2.44*	*U*	*2.44*	*U*	*4.88*	*U*	1.17	J	0.98	J
Chloromethane	74-87-3	ug/m3		0.91	J	1.47		0.91	J	0.95	J	*2.07*	*U*	*1.03*	*U*	*2.07*	*U*
Cis-1,2-Dichloroethene	156-59-2	ug/m3		*1.98*	*U*	*1.98*	*U*	*1.98*	*U*	*1.98*	*U*	*3.96*	*U*	515	D	369	D
Cis-1,3-Dichloropropene	10061-01-5	ug/m3		*2.27*	*U*	*2.27*	*U*	*2.27*	*U*	*2.27*	*U*	*4.54*	*U*	*2.27*	*U*	*4.54*	*U*
Cyclohexane	110-82-7	ug/m3		*1.72*	*U*	*1.72*	*U*	*1.72*	*U*	*1.72*	*U*	*3.44*	*U*	*1.72*	*U*	*3.44*	*U*
Dichlorodifluoromethane	75-71-8	ug/m3		1.14	J	1.14	J	2.08	J	1.53	J	2.08	J	1.19	J	2.27	J
Dichloromethane	75-09-2	ug/m3		4.52		4.52		9.73		4.52		3.82		8.34		6.6	
Ethylbenzene	100-41-4	ug/m3		*2.17*	*U*	*2.17*	*U*	0.39	J	*2.17*	*U*	*4.34*	*U*	*2.17*	*U*	1.3	J
Freon 113	76-13-1	ug/m3		*3.83*	*U*	*3.83*	*U*	*3.83*	*U*	*3.83*	*U*	*7.66*	*U*	*3.83*	*U*	*7.66*	*U*
Hexachlorobutadiene	87-68-3	ug/m3		*5.33*	*U*	*5.33*	*U*	*5.33*	*U*	*5.33*	*U*	*10.7*	*U*	*5.33*	*U*	*10.7*	*U*
m,p-Xylene	179601-23-1	ug/m3		*4.34*	*U*	*4.34*	*U*	1.3	J	*4.34*	*U*	*8.69*	*U*	1.04	J	5.65	J
Methyl Methacrylate	80-62-6	ug/m3		*2.05*	*U*	*2.05*	*U*	*2.05*	*U*	*2.05*	*U*	*4.09*	*U*	*2.05*	*U*	*4.09*	*U*
Methyl T-Butyl Ether (MTBE)	1634-04-4	ug/m3		*1.8*	*U*	*1.8*	*U*	*1.8*	*U*	*1.8*	*U*	*3.61*	*U*	*1.8*	*U*	*3.61*	*U*
Naphthalene	91-20-3	ug/m3		*2.62*	*U*	*2.62*	*U*	*2.62*	*U*	*2.62*	*U*	*5.24*	*U*	*2.62*	*U*	*5.24*	*U*
N-Heptane	142-82-5	ug/m3		*2.05*	*U*	*2.05*	*U*	0.57	J	*2.05*	*U*	*4.1*	*U*	*2.05*	*U*	*4.1*	*U*
N-Hexane	110-54-3	ug/m3		3.24		3.1		6.34		2.22		3.42	J	5.29		4.93	
O-Xylene	95-47-6	ug/m3		*2.17*	*U*	*2.17*	*U*	0.48	J	*2.17*	*U*	*4.34*	*U*	*2.17*	*U*	2.52	J
P-Bromofluorobenzene	460-00-4	ug/m3		10.2		10.3		10.3		10.3		10.3		10.6		11.6	
Styrene	100-42-5	ug/m3		*2.13*	*U*	*2.13*	*U*	*2.13*	*U*	*2.13*	*U*	*4.26*	*U*	*2.13*	*U*	*4.26*	*U*
Tert-Butyl Alcohol	75-65-0	ug/m3		*1.52*	*U*	*1.52*	*U*	*1.52*	*U*	*1.52*	*U*	*3.03*	*U*	*1.52*	*U*	*3.03*	*U*
Tetrachloroethene	127-18-4	ug/m3		2.92		2.64		1.15		*0.2*	*U*	1,559	E	27,802	D	3,051	D
Tetrahydrofuran	109-99-9	ug/m3		*1.47*	*U*	*1.47*	*U*	*1.47*	*U*	*1.47*	*U*	*2.95*	*U*	*1.47*	*U*	*2.95*	*U*
Toluene	108-88-3	ug/m3		3.77		4.9		9.8		2.07		5.28		8.67		5.65	
Trans-1,2-Dichloroethene	156-60-5	ug/m3		*1.98*	*U*	*1.98*	*U*	*1.98*	*U*	*1.98*	*U*	*3.96*	*U*	4.76		44.4	JD
Trans-1,3-Dichloropropene	10061-02-6	ug/m3		*2.27*	*U*	*2.27*	*U*	*2.27*	*U*	*2.27*	*U*	*4.54*	*U*	*2.27*	*U*	*4.54*	*U*
Trichloroethylene	79-01-6	ug/m3		*0.16*	*U*	*0.16*	*U*	*0.16*	*U*	*0.16*	*U*	10.2		2,095	ED	271	D
Trichlorofluoromethane	75-69-4	ug/m3		1.12	J	1.12	J	1.24	J	1.12	J	1.24	J	1.07	J	*5.62*	*U*
Vinyl Bromide	593-60-2	ug/m3		*2.19*	*U*	*2.19*	*U*	*2.19*	*U*	*2.19*	*U*	*4.37*	*U*	*2.19*	*U*	*4.37*	*U*
Vinyl Chloride	75-01-4	ug/m3		*0.08*	*U*	*0.08*	*U*	*0.08*	*U*	*0.08*	*U*	*0.15*	*U*	*0.08*	*U*	*0.15*	*U*

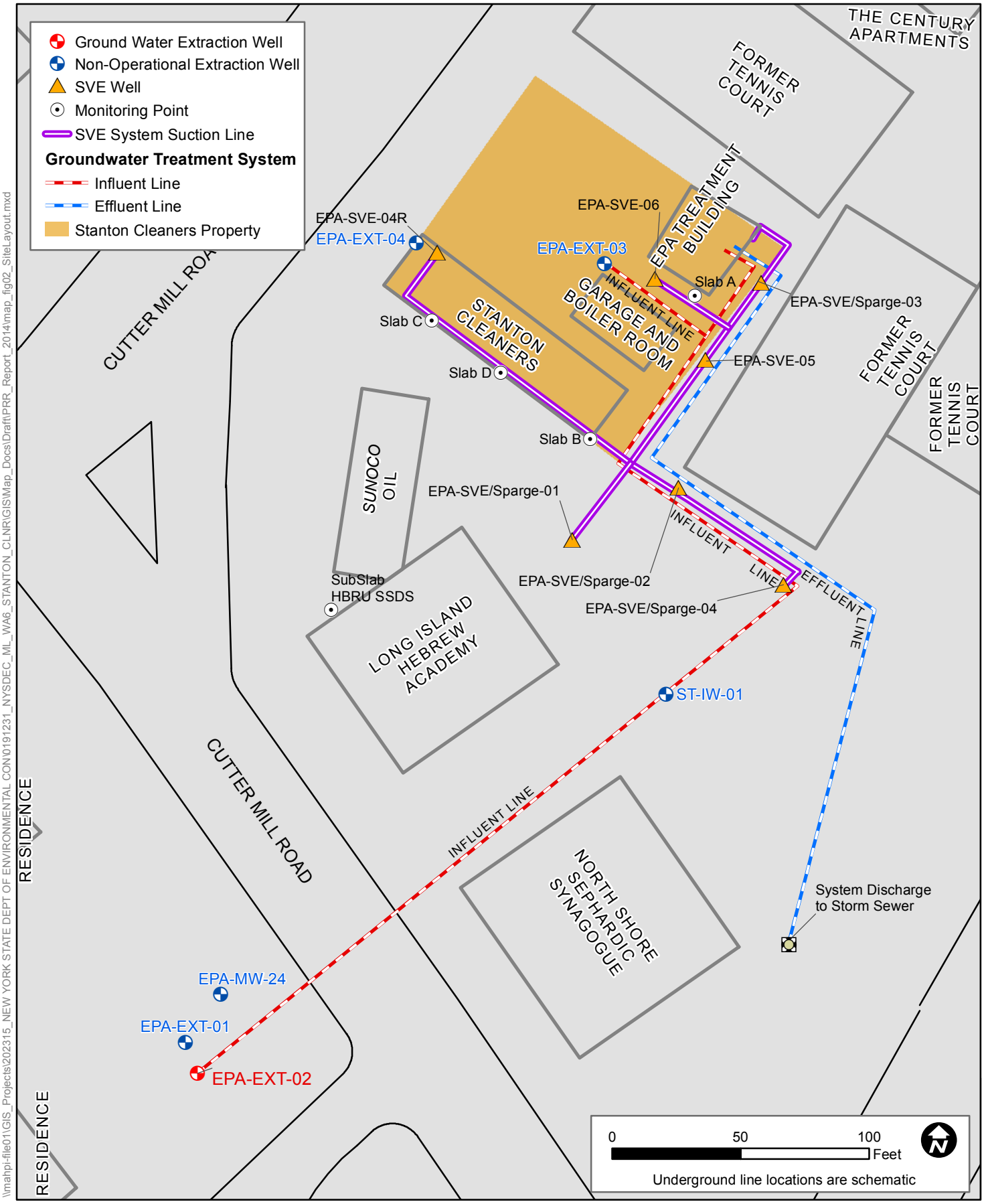
Table 3
March 2019 SVI Sampling Summary
Stanton Cleaners
110 Cuttermill Road, Great Neck,NY

Notes:

B	Contamination indicated in the blank sample.
D	Compound identified at a secondary dilution factor.
E	The analyte's concentration exceeds the calibrated range of the instrument.
J	Result is detected, but below the reporting detection limit, so result is estimated.
Q	The LCS did not meet the control limits requirements.
U	Result is not detected, so reporting detection limit is shown.
Q	Qualifier

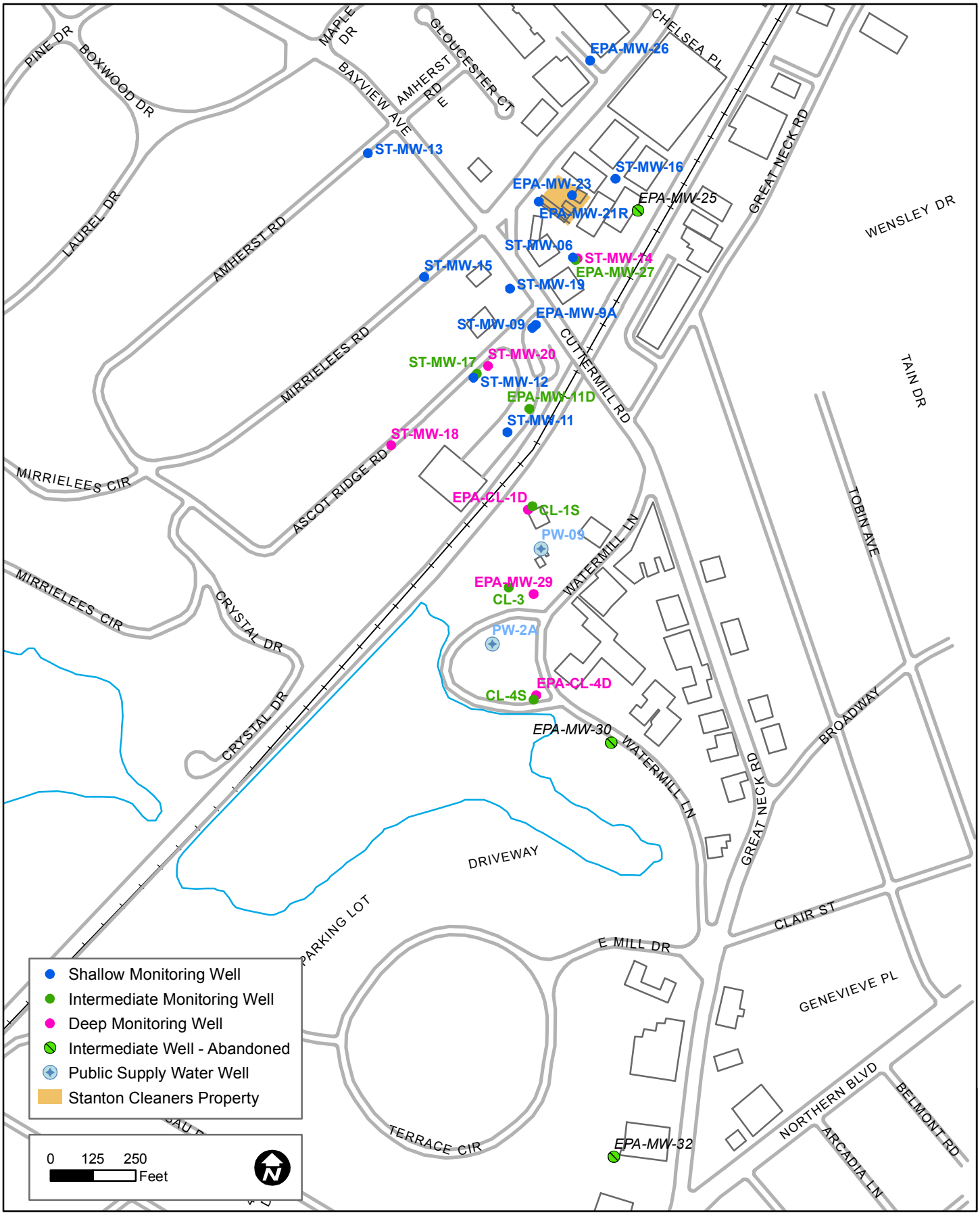
Results presented in the above table are pending validation.

FIGURES



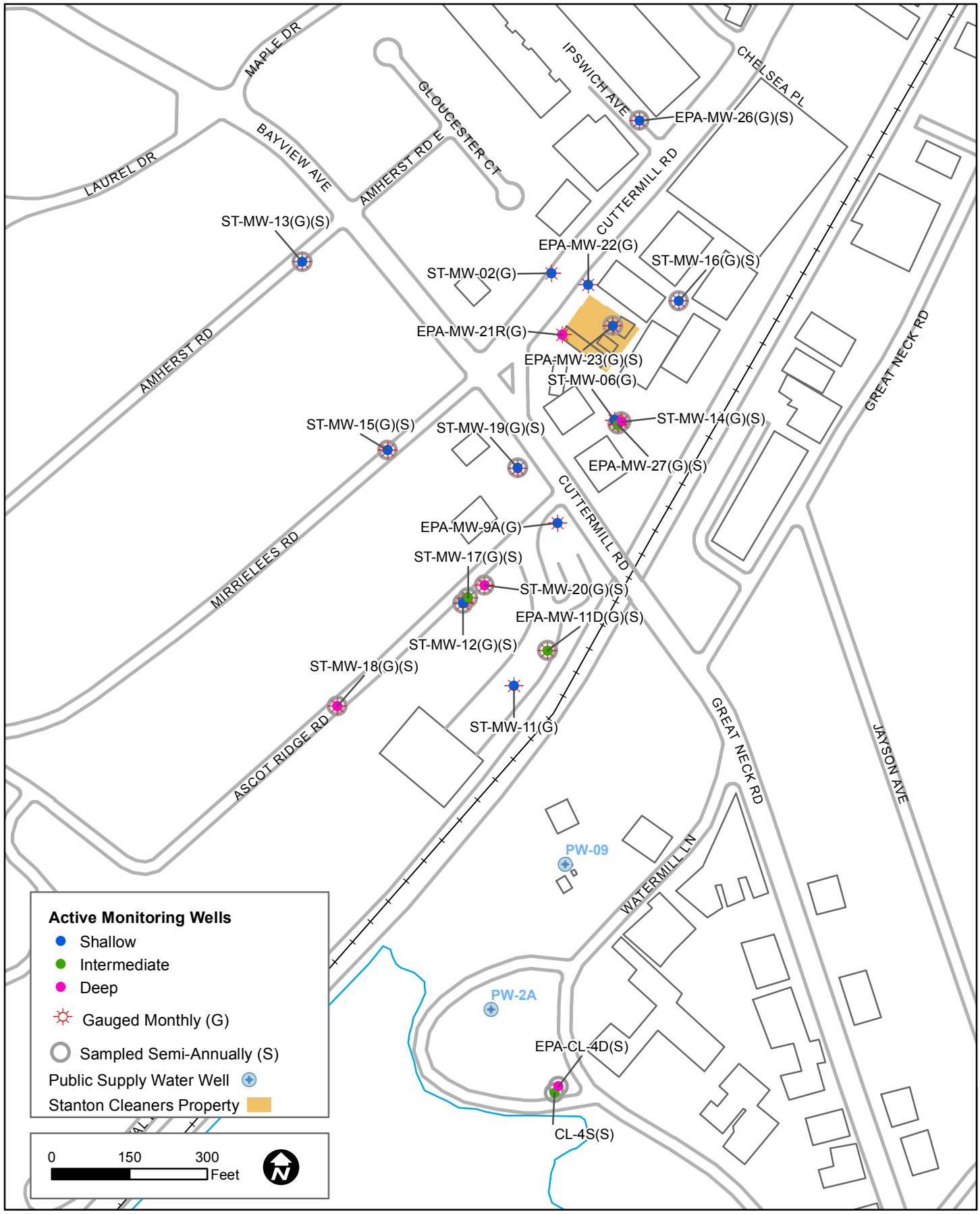
SVE and GWE&T System Well Layout
Former Stanton Cleaners
NYSDEC Site # 130072
Great Neck-North Hempstead, New York

Figure 1



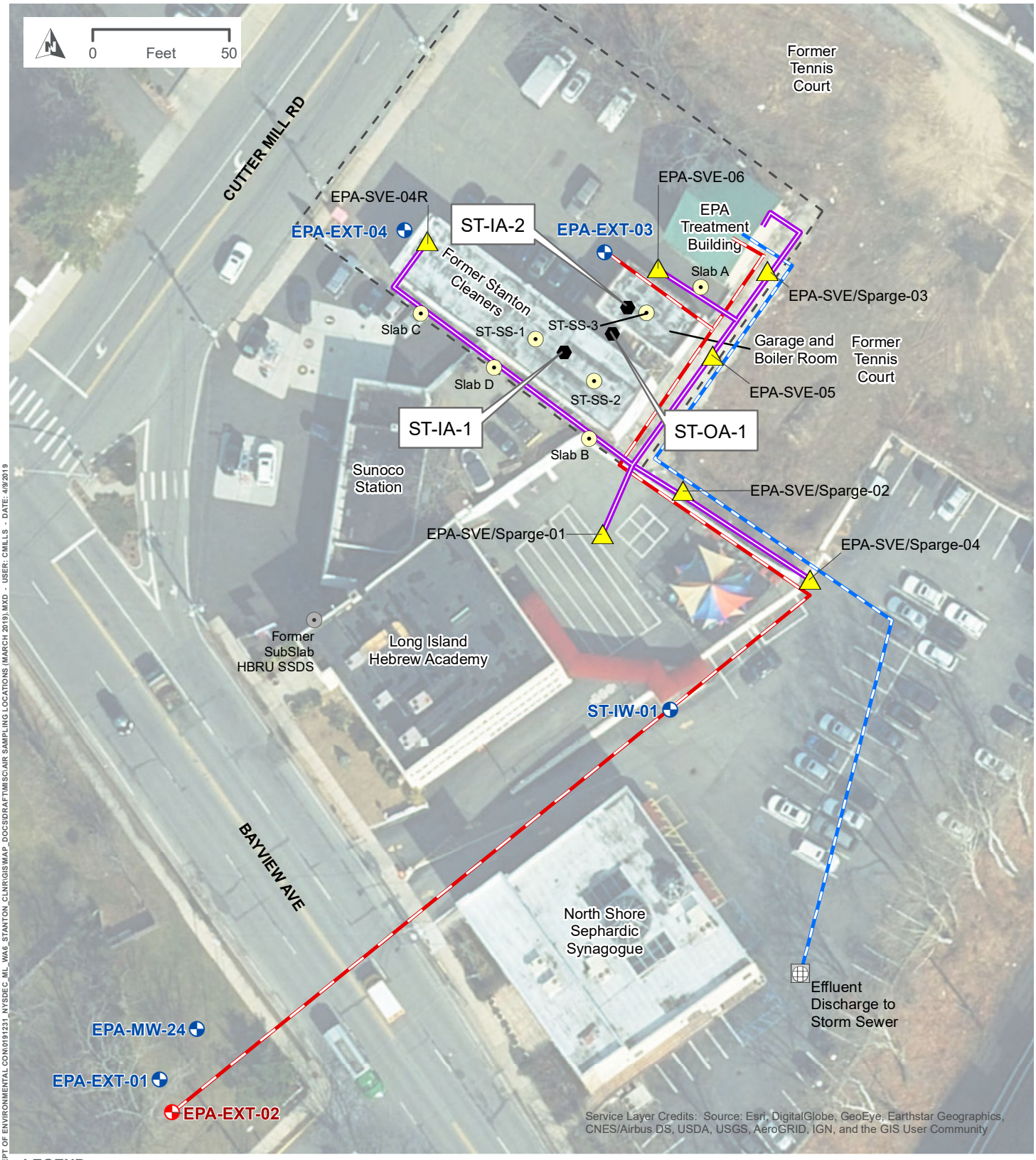
Monitoring Well Network
Stanton Cleaners
NYSDEC Site # 130072
Great Neck-North Hempstead, New York

Figure 2



Well Monitoring Schedule
Stanton Cleaners
NYSDEC Site # 130072
Great Neck-North Hempstead, New York

Figure 3



LEGEND

- Stanton Cleaners Property (Approximate)
- Air Sample Location
- Existing Sub-Slab Monitoring Point
- Former Monitoring Point
- Ground Water Extraction Well
- Non-Operational Extraction Well
- SVE Well
- Existing SVE System Suction Line
- Groundwater Treatment Influent Line
- Groundwater Treatment Effluent Line
- Effluent Discharge

AIR SAMPLING LOCATIONS

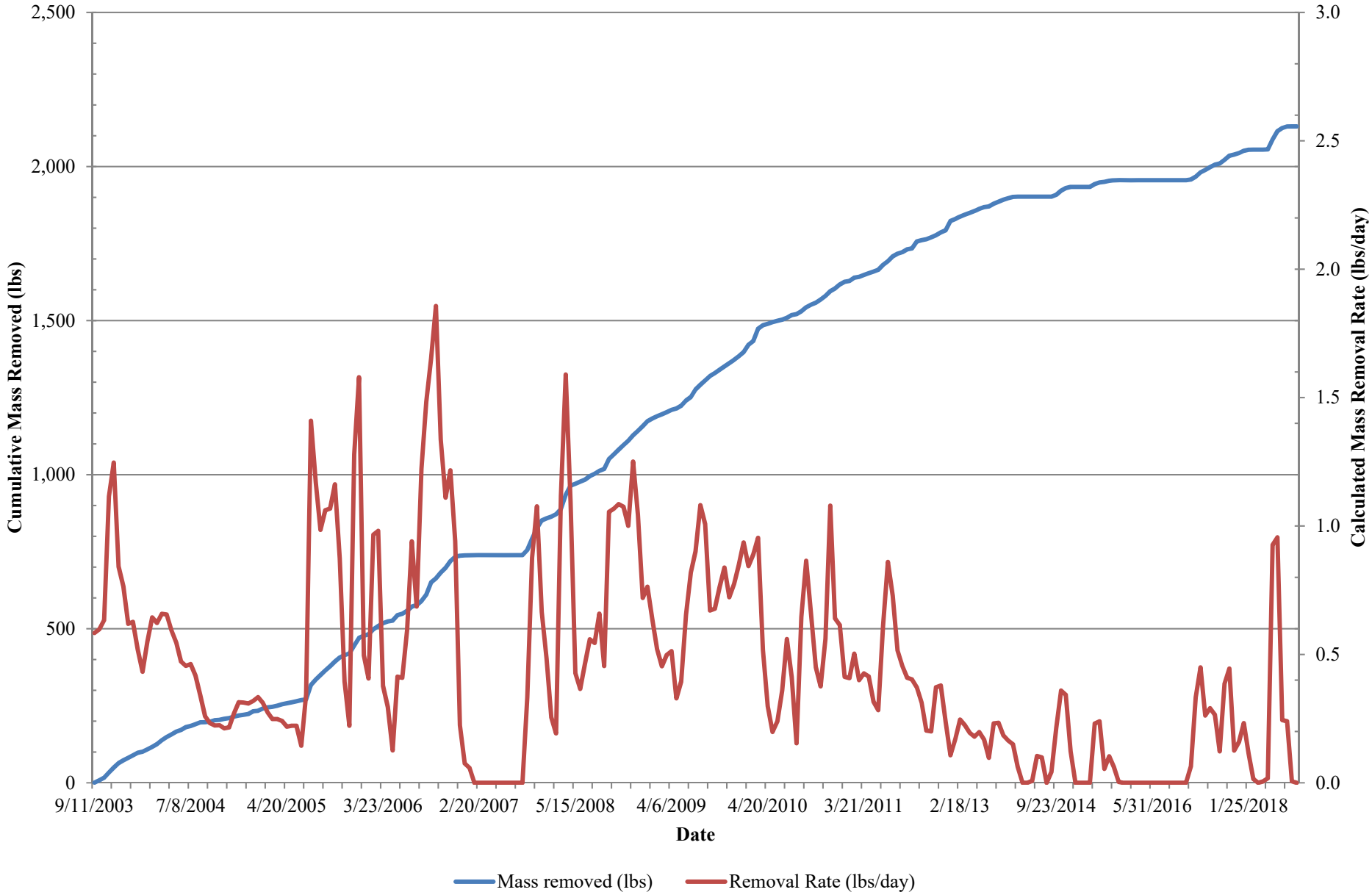
FORMER STANTON CLEANERS NYSDEC SITE #130072

FIGURE 4

PATH: \\MAHPI-FILE01\GIS_PROJECTS\202315_NEW YORK STATE DEPT OF ENVIRONMENTAL CON\0191231_NYSDEC_ML_WA6_STANTON_CLN\RGIS\MAP_DOCS\DRAFT\MISC\AIR SAMPLING LOCATIONS (MARCH 2019).MXD - USER: CMILLS - DATE: 4/9/2019

GRAPHS

Graph 1
SVE System Mass Removal - 2003-2018
Stanton Cleaners, NYSDEC Site # 130072
110 Cuttermill Road, Great Neck, NY



Graph 2
SVE System Mass Removal - 2014-2018
Stanton Cleaners, NYSDEC Site # 130072
110 Cuttermill Road, Great Neck, NY

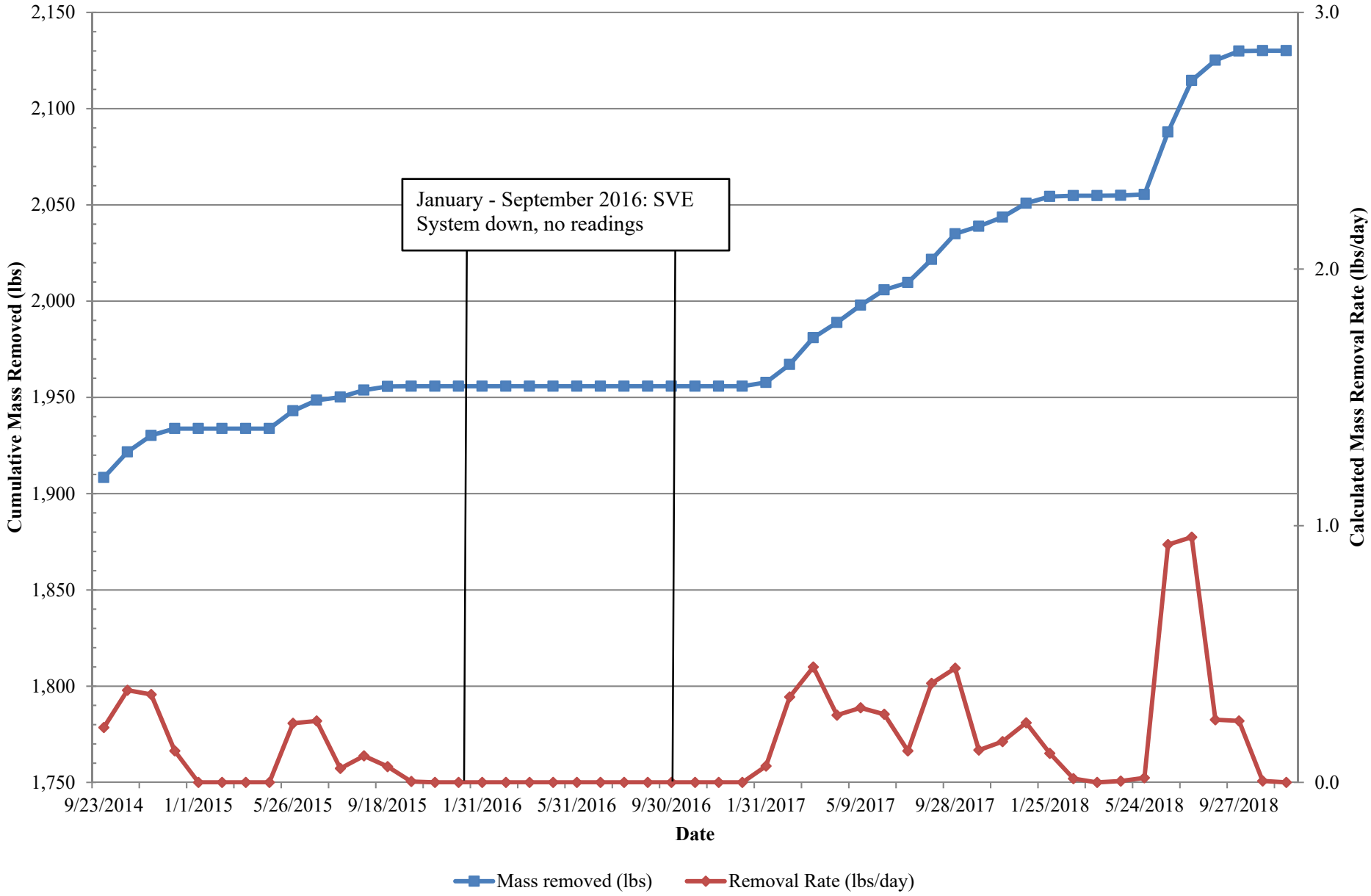


Figure 3
GWE&T System Influent PCE Concentrations - 2003-2018
Stanton Cleaners, NYSDEC Site # 130072
110 Cuttermill Road, Great Neck, NY

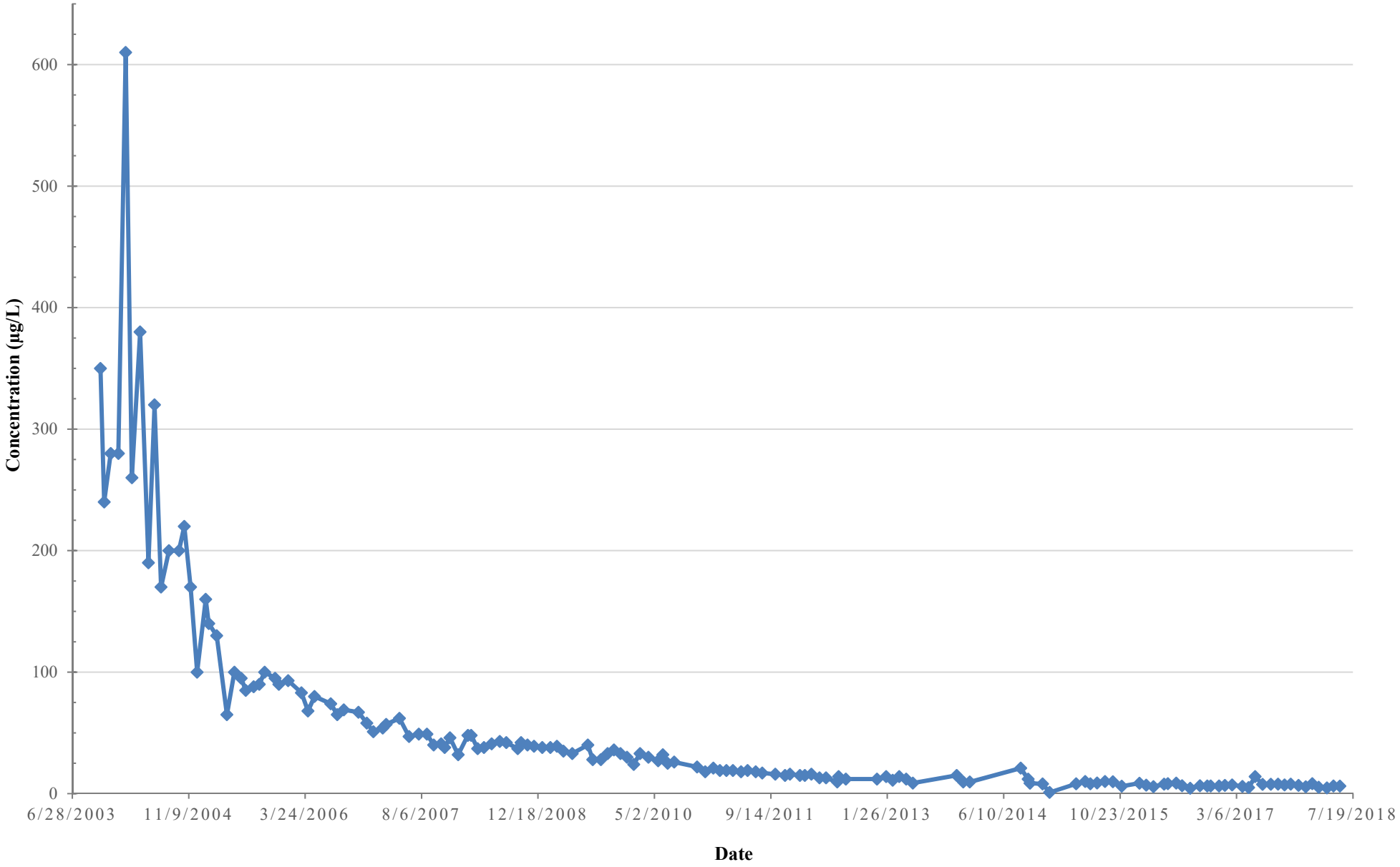
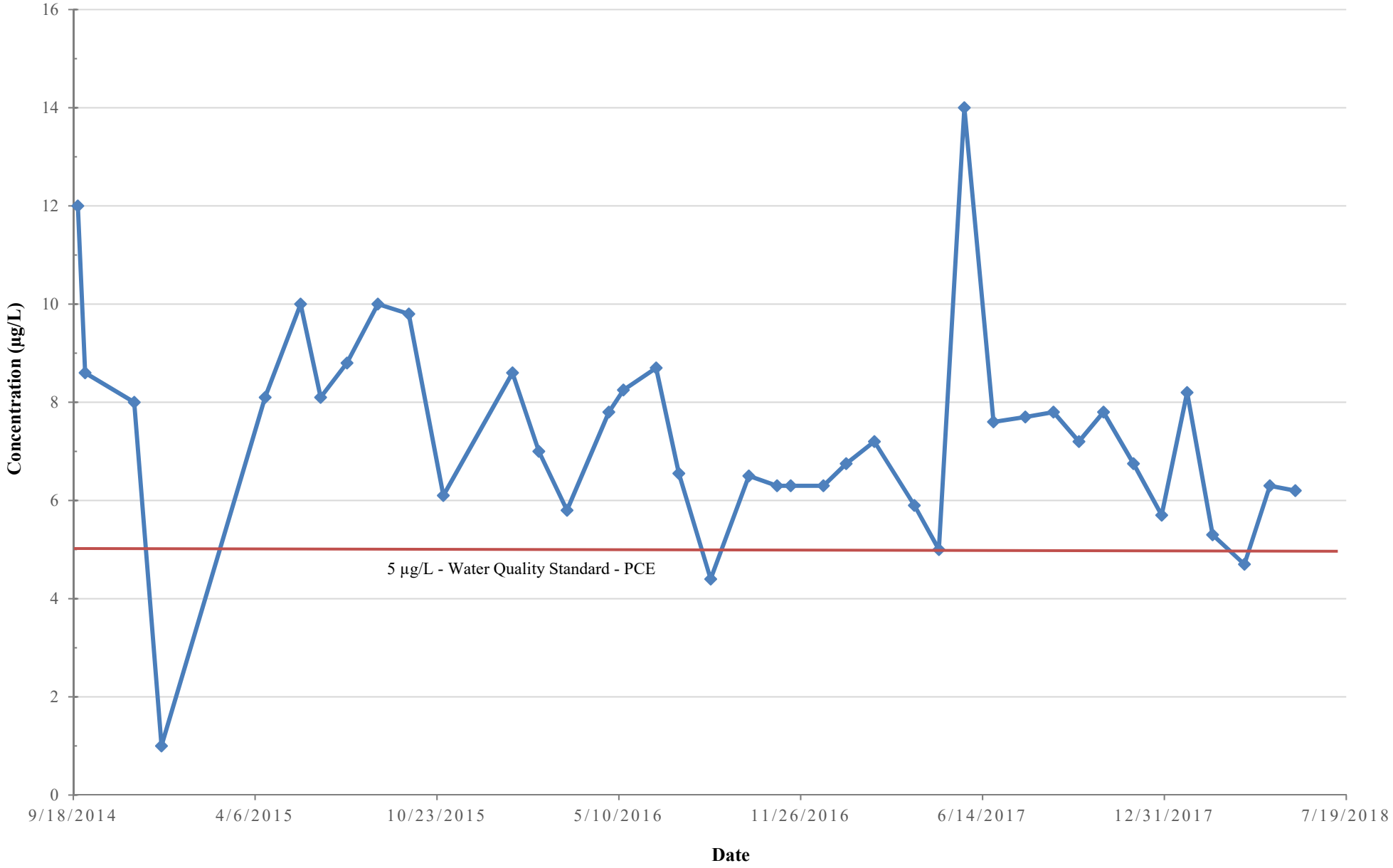
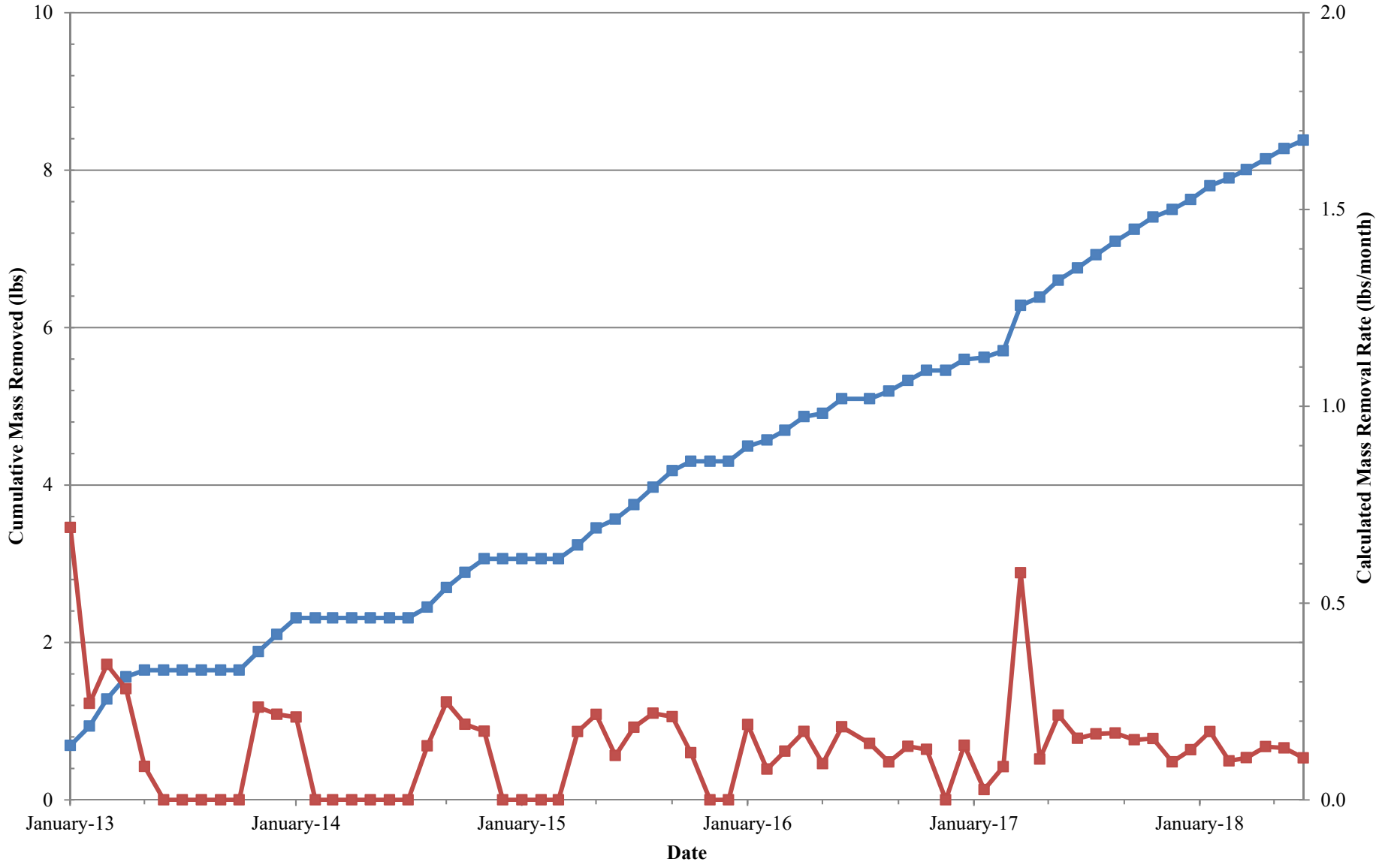


Figure 4
GWE&T System Influent PCE Concentrations - 2014-2018
Stanton Cleaners, NYSDEC Site # 130072
110 Cuttermill Road, Great Neck, NY



Graph 5
GWE&T System Mass Removal - 2013-2018
Stanton Cleaners, NYSDEC Site # 130072
110 Cuttermill Road, Great Neck, NY



Graph 6
GWE&T System Cumulative Flow and INF PCE Conc. - 2013-2018
Stanton Cleaners, NYSDEC Site # 130072
110 Cuttermill Road, Great Neck, NY

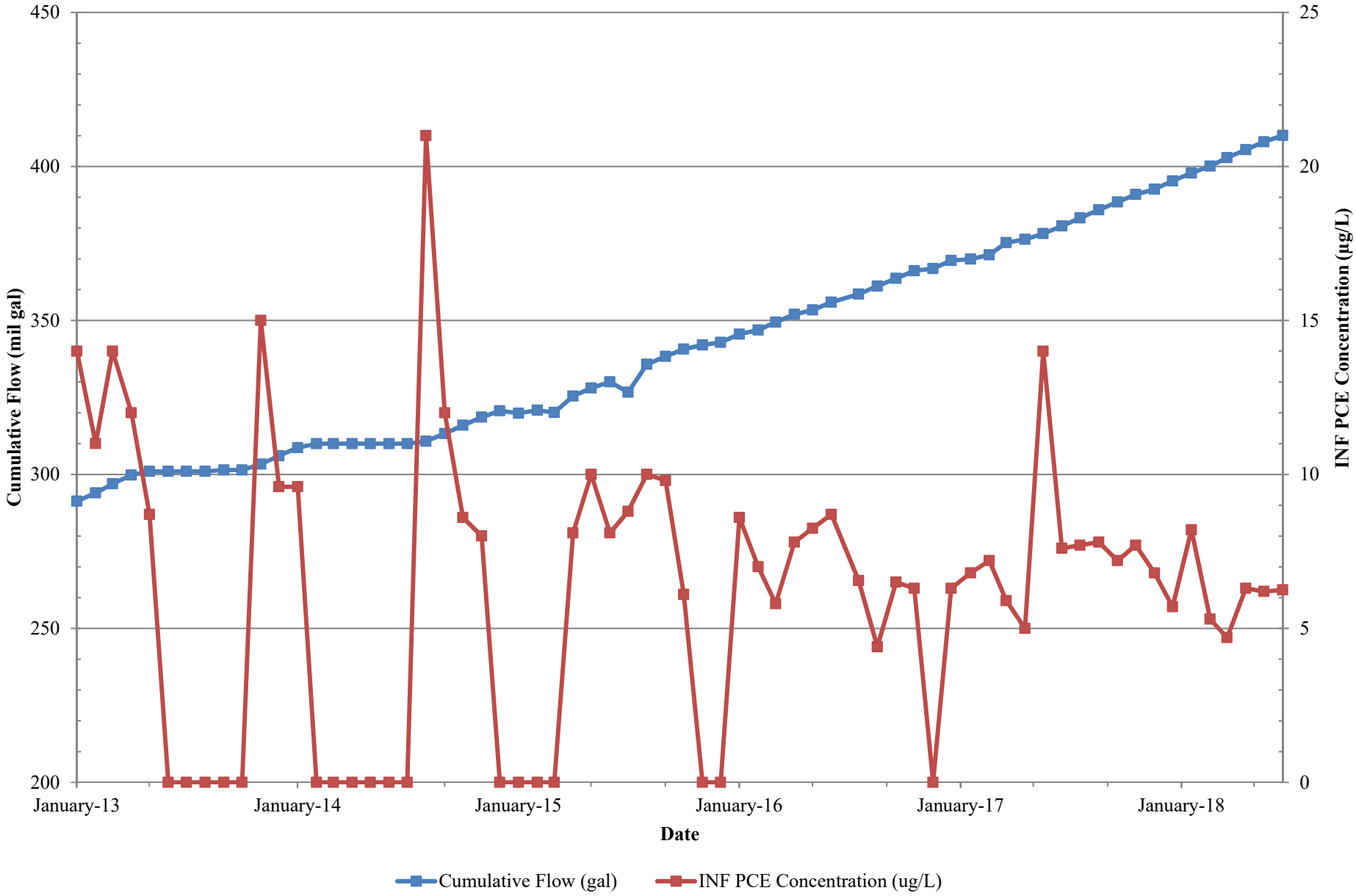
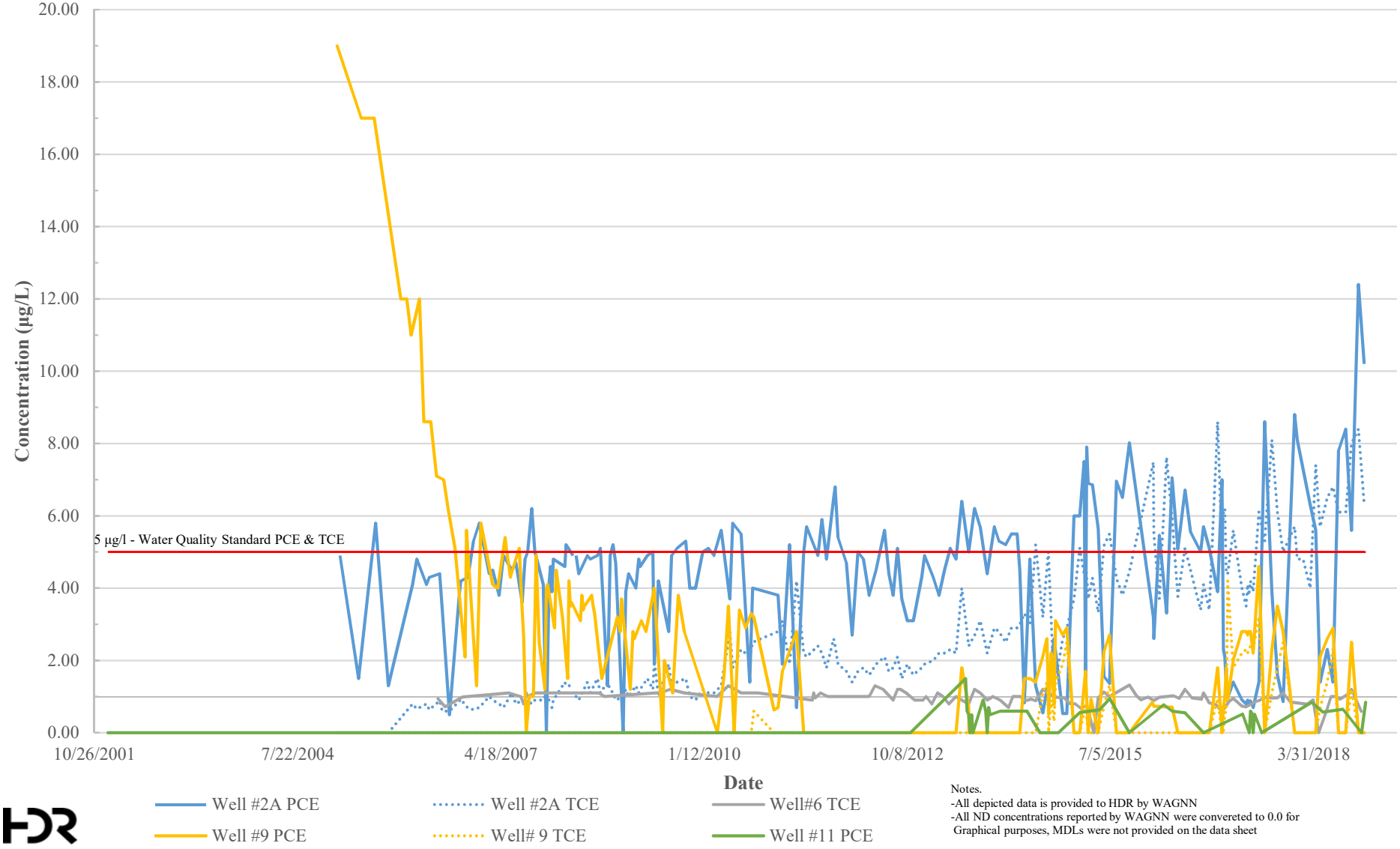
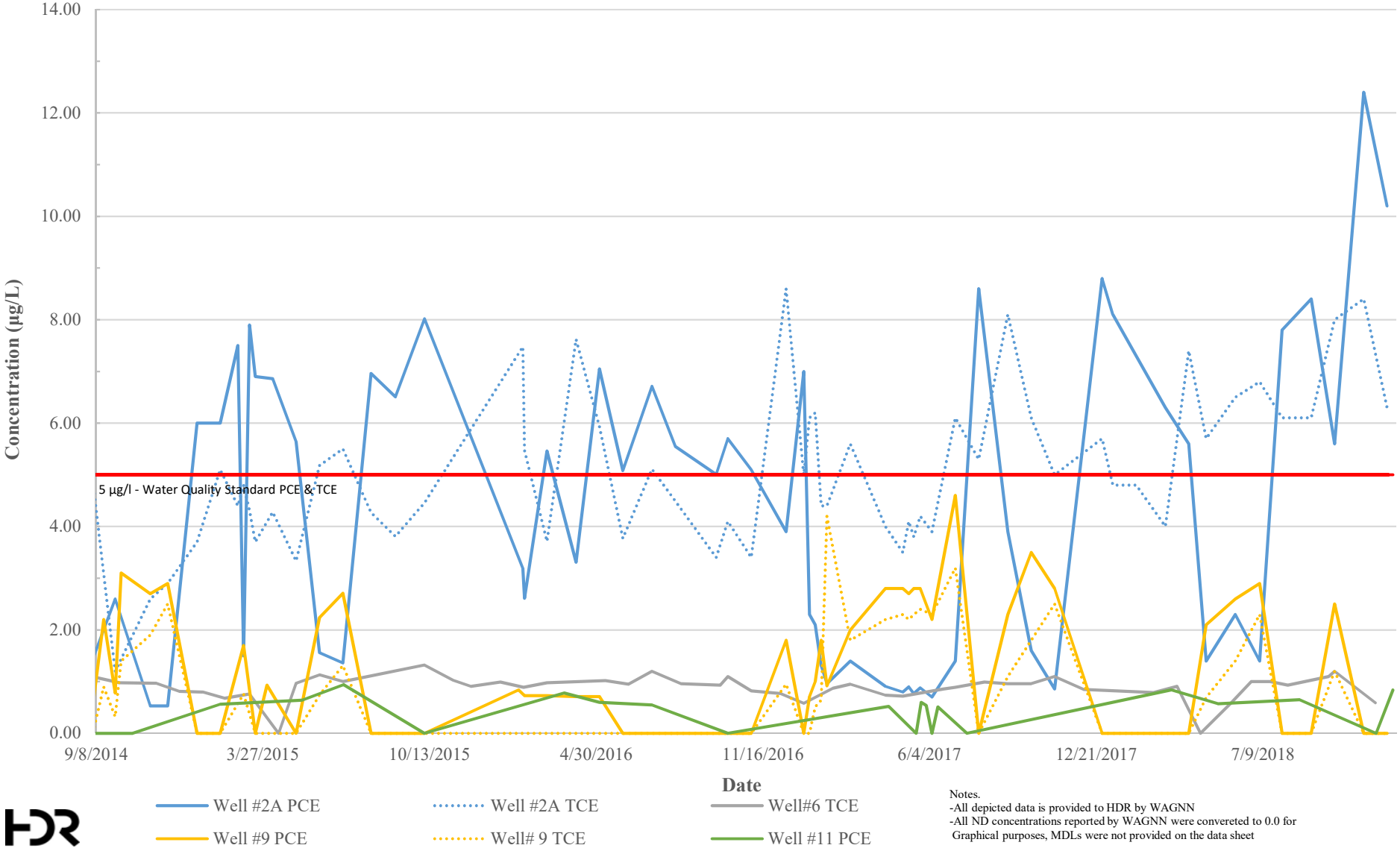


Figure 7
WAGNN Wells - Raw Water PCE and TCE Concentrations 2002-2018
Stanton Cleaners, NYSDEC Site # 130072
110 Cuttermill Road, Great Neck, NY



Notes.
-All depicted data is provided to HDR by WAGNN
-All ND concentrations reported by WAGNN were convereted to 0.0 for Graphical purposes, MDLs were not provided on the data sheet

Figure 8
WAGNN Wells - Raw Water PCE and TCE Concentrations 2014-2018
Stanton Cleaners, NYSDEC Site # 130072
110 Cuttermill Road, Great Neck, NY



Notes.
-All depicted data is provided to HDR by WAGNN
-All ND concentrations reported by WAGNN were convereted to 0.0 for Graphical purposes, MDLs were not provided on the data sheet

ATTACHMENT 1

Remedial Site History

Remedial Site History

Stanton Cleaners – 110 Cuttermill Road, Great Neck, NY

1983 – Approximately 20 cubic yards of PCE-contaminated soil was removed from behind the Stanton Cleaners property

1989 - The original site operator installed a groundwater extraction and treatment system behind the Stanton Cleaners property to treat groundwater contamination. This system is no longer operational.

1993 – The site was listed on the New York State Registry of Inactive Hazardous Waste Sites as a Class 2.

1998 – The NYSDEC funded construction of an air stripper treatment system for the WAGNN water supply wells

1998/1999 – USEPA assistance was requested, the site was proposed for addition to the Nation Priorities List (NPL), a Record of Decision (ROD) was finalized. The site was formally added to the NPL in May 1999.

2001 – The USEPA completed the installation of the GWE&T/SVE system on the property to address and contain the on-site contamination source. Additionally, the USEPA installed an SSDS on the LIHA.

2002 – Two 250-gallon underground PCE storage tanks and one 500-gallon heating oil storage tank were removed.

2008 – The USEPA conducted the first five-year site review. The review concluded that the remedy was in place and functioning as intended. The review did not identify any significant issues requiring attention.

2011 – The site was reclassified from a Class 2 to a Class 4 Inactive Hazardous Waste site.

2012 – The USEPA completed the installation of a groundwater AS system and began operations in March. Additionally, the USEPA removed the LIHA SSDS prior to the NYSDEC assuming remedial system O&M in November.

2013 – The USEPA conducted the second five-year review in December.

2014 – Due to an oil leak in the air compressor, the AS system was shut down. The AS component of the groundwater system was removed from service such that the remaining site remedial system consists of GWE&T and SVE.

2015 – In July, USEPA representatives met with NYSDEC representatives to review remedial action objective (RAO) progress and discuss site management program plans.

2017 – The NYSDEC completed an RSO investigation from November 2016 through February 2017 to evaluate subsurface soil and the local EPA-EXT-02 aquifer. Additionally, the Stanton Cleaners building was vacated, with all associated equipment and operations removed from the site.

ATTACHMENT 2

Tables/Figures from the August 2017 RSO Technical Memorandum

Tables

Soil Gas Sampling Results
Volatile Organic Compounds
November 2016

CLIENT ID:	ST-OA1-20161118		ST-SG-1S-20161117		ST-SG-2S-20161117		ST-SG-2D-20161117		ST-SG-3S-20161118		ST-SG-3D-20161118	
SAMPLE DEPTH:	N/A		10'		15'		50'		15'		50'	
LAB ID:	H5752-02		H5752-01		H5752-04		H5752-03		H5752-05		H5752-07	
COLLECTION DATE:	11/18/2016		11/17/2016		11/17/2016		11/17/2016		11/18/2016		11/18/2016	
SAMPLE MATRIX:	Air		Air		Air		Air		Air		Air	
SAMPLE UNITS:	µg/m³		µg/m³		µg/m³		µg/m³		µg/m³		µg/m³	
Constituent	Results	Qualifiers	Results	Qualifiers	Results	Qualifiers	Results	Qualifiers	Results	Qualifiers	Results	Qualifiers
1,1,1-Trichloroethane	0.22		0.33		ND	U	ND	U	ND	U	ND	U
1,1,2,2-Tetrachloroethane	ND	U	1.1	J	ND	U	ND	U	ND	U	ND	U
1,1,2-Trichloroethane	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,1,2-Trichlorotrifluoroethane	ND	U	0.92	J	ND	U	ND	U	ND	U	ND	U
1,1-Dichloroethane	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,1-Dichloroethene	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2,4-Trichlorobenzene	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2,4-Trimethylbenzene	1.77	J	13.3		6.88	J	9.34	J	3.79		2.41	J
1,2-Dibromoethane	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dichlorobenzene	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dichloroethane	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dichloropropane	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,3,5-Trimethylbenzene	0.64	J	5.41		ND	U	ND	U	2.26	J	0.93	J
1,3-Butadiene	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,3-Dichlorobenzene	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,4-Dichlorobenzene	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,4-Dioxane	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
2,2,4-Trimethylpentane	0.89	J	11.7		20.1	J	17.8	J	4.2		7.01	
2-Butanone	0.91	J	16.8		245		1002	D	55.4	JD	132	D
2-Chlorotoluene	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
4-Ethyltoluene	ND	U	5.41		ND	U	ND	U	2.16	J	0.93	J
4-Methyl-2-Pentanone	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Acetone	12.8		1235	D	1686	D	8789	D	641	D	1401	D
Allyl Chloride	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Benzene	0.73	J	3.83		7.03	J	5.75	J	1.79		3	
Bromodichloromethane	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Bromoethene	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Bromoform	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Bromomethane	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Carbon Disulfide	0.31	J	0.69	J	13.7	J	ND	U	1.56		4.05	
Carbon Tetrachloride	0.69		0.44		ND	U	ND	U	0.31		0.44	
Chlorobenzene	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Chloroethane	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Chloroform	ND	U	0.78	J	5.37	J	ND	U	ND	U	1.32	J
Chloromethane	1.3		0.7	J	ND	U	ND	U	0.91	J	0.83	J
cis-1,2-Dichloroethene	ND	U	ND	U	515		17.4	J	0.95	J	ND	U
cis-1,3-Dichloropropene	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Cyclohexane	ND	U	2.99		ND	U	ND	U	3.79		1.79	
Dibromochloromethane	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Dichlorodifluoromethane	0.89	J	0.69	J	ND	U	ND	U	1.24	J	0.99	J
Dichlorotetrafluoroethane	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Ethyl Benzene	0.52	J	7.38		6.08	J	6.08	J	6.08		4.78	
Heptane	0.57	J	6.97		16.8	J	23		4.51		9.02	
Hexachloro-1,3-Butadiene	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Hexane	2.82		7.4		45.1		ND	U	ND	U	ND	U
m/p-Xylene	1.56	J	22.2		20.8	J	18.2	J	18.2		11.7	
Methyl Methacrylate	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Methyl tert-Butyl Ether	1.8		ND	U	ND	U	ND	U	ND	U	ND	U
Methylene Chloride	19.1		2.26		ND	U	ND	U	17.4		10.8	
Naphthalene	ND	U	1.15	J	ND	U	ND	U	ND	U	ND	U
o-Xylene	0.61	J	9.12		7.38	J	7.82	J	7.38		5.21	
Styrene	ND	U	3.07		ND	U	ND	U	1.23	J	1.19	J
t-1,3-Dichloropropene	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
tert-Butyl alcohol	ND	U	34.9		47.9		153		12.7		43	
Tetrachloroethene	67.8		68.5		15596	D	112		881	D	195	D
Tetrahydrofuran	ND	U	3.24		ND	U	ND	U	ND	U	ND	U
Toluene	2.03		54.3		44.8		44.1		11.7		20	
trans-1,2-Dichloroethene	ND	U	ND	U	11.1	J	ND	U	ND	U	ND	U
Trichloroethene	0.7		0.64		1021	D	8.06		4.73		1.83	
Trichlorofluoromethane	1.74	J	1.85	J	ND	U	ND	U	1.24	J	1.57	J
Vinyl Chloride	0.1		ND	U	ND	U	ND	U	ND	U	ND	U

Qualifiers

U - The compound was not detected at the indicated concentration.
N (Organics) - Presumptive Evidence of a Compound
J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.
B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.
P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.
* (Organics) - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.
E (Organics) - Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.
Q - Indicates LCS control criteria did not meet requirements.
NR - Not analyzed

Soil Gas Sampling Results
Volatile Organic Compounds
November 2016

CLIENT ID:	DUP6-20161118 (Dupe of ST-SG-3D)		ST-SG-4S-20161118		ST-SG-4D-20161118		ST-SG-5S-20161121		ST-SG-5D-20161121	
SAMPLE DEPTH:	50'		15'		50'		15'		50'	
LAB ID:	H5752-06		H5752-09		H5752-08		H5752-11		H5752-10	
COLLECTION DATE:	11/18/2016		11/18/2016		11/18/2016		11/21/2016		11/21/2016	
SAMPLE MATRIX:	Air		Air		Air		Air		Air	
SAMPLE UNITS:	µg/m³		µg/m³		µg/m³		µg/m³		µg/m³	
Constituent	Results	Qualifiers	Results	Qualifiers	Results	Qualifiers	Results	Qualifiers	Results	Qualifiers
1,1,1-Trichloroethane	ND	U	0.38		ND	U	ND	U	ND	U
1,1,2,2-Tetrachloroethane	ND	U	ND	U	ND	U	ND	U	ND	U
1,1,2-Trichloroethane	ND	U	ND	U	ND	U	ND	U	ND	U
1,1,2-Trichlorotrifluoroethane	ND	U	1	J	ND	U	ND	U	ND	U
1,1-Dichloroethane	ND	U	ND	U	ND	U	ND	U	ND	U
1,1-Dichloroethene	ND	U	ND	U	ND	U	ND	U	ND	U
1,2,4-Trichlorobenzene	ND	U	ND	U	ND	U	ND	U	ND	U
1,2,4-Trimethylbenzene	1.08	J	20.6		26.1		ND	U	ND	U
1,2-Dibromoethane	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dichlorobenzene	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dichloroethane	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dichloropropane	ND	U	ND	U	ND	U	ND	U	ND	U
1,3,5-Trimethylbenzene	ND	U	8.85		9.83		ND	U	ND	U
1,3-Butadiene	ND	U	ND	U	ND	U	ND	U	ND	U
1,3-Dichlorobenzene	ND	U	ND	U	ND	U	ND	U	ND	U
1,4-Dichlorobenzene	ND	U	ND	U	ND	U	ND	U	ND	U
1,4-Dioxane	ND	U	ND	U	ND	U	ND	U	ND	U
2,2,4-Trimethylpentane	6.07		10.7		13.1		4.67	J	30.8	
2-Butanone	125	D	55.4	JD	61.4	D	5.9	J	230	
2-Chlorotoluene	ND	U	ND	U	ND	U	ND	U	ND	U
4-Ethyltoluene	ND	U	9.83		11.3		ND	U	ND	U
4-Methyl-2-Pentanone	ND	U	ND	U	ND	U	ND	U	ND	U
Acetone	1330	D	665	D	1425	D	308		14252	D
Allyl Chloride	ND	U	ND	U	ND	U	ND	U	ND	U
Benzene	2.78		4.15		4.47		ND	U	5.43	J
Bromodichloromethane	ND	U	ND	U	ND	U	ND	U	ND	U
Bromoethene	ND	U	ND	U	ND	U	ND	U	ND	U
Bromoform	ND	U	ND	U	ND	U	ND	U	ND	U
Bromomethane	ND	U	ND	U	ND	U	ND	U	ND	U
Carbon Disulfide	3.11		6.85		17.1		3.11	J	ND	U
Carbon Tetrachloride	0.44		0.69		0.38		ND	U	ND	U
Chlorobenzene	ND	U	ND	U	ND	U	ND	U	ND	U
Chloroethane	ND	U	ND	U	ND	U	ND	U	ND	U
Chloroform	0.54	J	0.83	J	1.03	J	40		27.8	
Chloromethane	0.83	J	0.66	J	0.87	J	ND	U	ND	U
cis-1,2-Dichloroethene	ND	U	ND	U	ND	U	19.4	J	ND	U
cis-1,3-Dichloropropene	ND	U	ND	U	ND	U	ND	U	ND	U
Cyclohexane	1.69	J	2.93		3.79		ND	U	ND	U
Dibromochloromethane	ND	U	ND	U	ND	U	ND	U	ND	U
Dichlorodifluoromethane	0.99	J	0.69	J	1.19	J	ND	U	ND	U
Dichlorotetrafluoroethane	ND	U	ND	U	ND	U	ND	U	ND	U
Ethyl Benzene	2.74		7.82		9.12		ND	U	5.65	J
Heptane	7.79		9.84		9.43		ND	U	ND	U
Hexachloro-1,3-Butadiene	ND	U	ND	U	ND	U	ND	U	ND	U
Hexane	ND	U	ND	U	ND	U	3.88	J	ND	U
m/p-Xylene	7.38		23		26.5		ND	U	15.2	J
Methyl Methacrylate	ND	U	ND	U	ND	U	ND	U	ND	U
Methyl tert-Butyl Ether	ND	U	ND	U	ND	U	ND	U	ND	U
Methylene Chloride	8.34		1.7	J	5.21		6.6	J	ND	U
Naphthalene	ND	U	1.05	J	4.04		ND	U	ND	U
o-Xylene	3.74		9.99		11.3		ND	U	6.08	J
Styrene	0.98	J	5.11		6.39		ND	U	ND	U
t-1,3-Dichloropropene	ND	U	ND	U	ND	U	ND	U	ND	U
tert-Butyl alcohol	37.3		15.8		32.7		ND	U	40.3	
Tetrachloroethene	103	D	198	D	65.1		6238	D	44.8	
Tetrahydrofuran	ND	U	ND	U	3.83		ND	U	ND	U
Toluene	16.6		36.9		41.4		10.2	J	43.7	
trans-1,2-Dichloroethene	ND	U	ND	U	ND	U	ND	U	ND	U
Trichloroethene	0.97		2.04		1.99		51.1		2.69	
Trichlorofluoromethane	1.46	J	1.91	J	1.57	J	ND	U	10.1	J
Vinyl Chloride	ND	U	ND	U	ND	U	ND	U	ND	U

Qualifiers

U - The compound was not detected at the indicated concentration.
N (Organics) - Presumptive Evidence of a Compound
J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.
B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.
P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.
* (Organics) - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.
E (Organics) - Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.
Q - Indicates LCS control criteria did not meet requirements.
NR - Not analyzed

Soil Vapor Intrusion Sampling Results
Volatile Organic Compounds
November 2016

CLIENT ID:	ST-0A1-20161116		ST-IA1-20161116		ST-SS1-20161116		ST-SS2-20161116		ST-SS3-20161116 (Dupe of ST-SS1)	
LAB ID:	H5735-02		H5735-03		H5735-06		H5735-04		H5735-05	
COLLECTION DATE:	11/16/2016		11/16/2016		11/16/2016		11/16/2016		11/16/2016	
SAMPLE MATRIX:	Air		Air		Air		Air		Air	
SAMPLE UNITS:	µg/m^3		µg/m^3		µg/m^3		µg/m^3		µg/m^3	
Constituent	Results	Qualifiers	Results	Qualifiers	Results	Qualifiers	Results	Qualifiers	Results	Qualifiers
1,1,1-Trichloroethane	ND	U	ND	U	ND	U	ND	U	ND	U
1,1,2,2-Tetrachloroethane	ND	U	ND	U	ND	U	ND	U	ND	U
1,1,2-Trichloroethane	ND	U	ND	U	ND	U	ND	U	ND	U
1,1,2-Trichlorotrifluoroethane	ND	U	ND	U	ND	U	ND	U	ND	U
1,1-Dichloroethane	ND	U	ND	U	ND	U	ND	U	ND	U
1,1-Dichloroethene	ND	U	ND	U	ND	U	ND	U	ND	U
1,2,4-Trichlorobenzene	ND	U	ND	U	ND	U	ND	U	ND	U
1,2,4-Trimethylbenzene	0.59	J	ND	U	ND	U	ND	U	ND	U
1,2-Dibromoethane	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dichlorobenzene	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dichloroethane	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dichloropropane	ND	U	ND	U	ND	U	ND	U	ND	U
1,3,5-Trimethylbenzene	ND	U	ND	U	ND	U	ND	U	ND	U
1,3-Butadiene	ND	U	ND	U	ND	U	ND	U	ND	U
1,3-Dichlorobenzene	ND	U	ND	U	ND	U	ND	U	ND	U
1,4-Dichlorobenzene	ND	U	ND	U	ND	U	ND	U	ND	U
1,4-Dioxane	ND	U	ND	U	ND	U	ND	U	ND	U
2,2,4-Trimethylpentane	0.61	J	ND	U	ND	U	ND	U	ND	U
2-Butanone	1.24	J	ND	U	ND	U	ND	U	ND	U
2-Chlorotoluene	ND	U	ND	U	ND	U	ND	U	ND	U
4-Ethyltoluene	ND	U	ND	U	ND	U	ND	U	ND	U
4-Methyl-2-Pentanone	ND	U	ND	U	ND	U	ND	U	ND	U
Acetone	9.98		ND	U	ND	U	ND	U	ND	U
Allyl Chloride	ND	U	ND	U	ND	U	ND	U	ND	U
Benzene	0.77	J	ND	U	ND	U	ND	U	ND	U
Bromodichloromethane	ND	U	ND	U	ND	U	ND	U	ND	U
Bromoethene	ND	U	ND	U	ND	U	ND	U	ND	U
Bromoform	ND	U	ND	U	ND	U	ND	U	ND	U
Bromomethane	ND	U	ND	U	ND	U	ND	U	ND	U
Carbon Disulfide	ND	U	ND	U	ND	U	ND	U	ND	U
Carbon Tetrachloride	0.5		ND	U	ND	U	ND	U	ND	U
Chlorobenzene	ND	U	ND	U	ND	U	ND	U	ND	U
Chloroethane	ND	U	ND	U	ND	U	ND	U	ND	U
Chloroform	ND	U	ND	U	ND	U	ND	U	ND	U
Chloromethane	1.14		ND	U	ND	U	ND	U	ND	U
cis-1,2-Dichloroethene	ND	U	ND	U	11101		ND	U	7136	
cis-1,3-Dichloropropene	ND	UJ	ND	UJ	ND	UJ	ND	UJ	ND	UJ
Cyclohexane	ND	U	ND	U	ND	U	ND	U	ND	U
Dibromochloromethane	ND	U	ND	U	ND	U	ND	U	ND	U
Dichlorodifluoromethane	1.68	J	3.96	J	ND	U	ND	UJ	ND	U
Dichlorotetrafluoroethane	ND	U	ND	U	ND	U	ND	U	ND	U
Ethyl Benzene	0.96	J	ND	U	ND	U	ND	U	ND	U
Heptane	0.57	J	ND	U	ND	U	ND	U	ND	U
Hexachloro-1,3-Butadiene	ND	U	ND	U	ND	U	ND	U	ND	U
Hexane	ND	U	ND	U	ND	U	ND	U	ND	U
m/p-Xylene	3.04	J	ND	U	ND	U	ND	U	ND	U
Methyl Methacrylate	ND	U	ND	U	ND	U	ND	U	ND	U
Methyl tert-Butyl Ether	ND	U	ND	U	ND	U	ND	U	ND	U
Methylene Chloride	1.81		ND	U	ND	U	ND	U	ND	U
Naphthalene	ND	U	ND	U	ND	U	ND	U	ND	U
o-Xylene	0.83	J	ND	U	ND	U	ND	U	ND	U
Styrene	ND	U	ND	U	ND	U	ND	U	ND	U
t-1,3-Dichloropropene	ND	UJ	ND	UJ	ND	UJ	ND	UJ	ND	UJ
tert-Butyl alcohol	ND	U	ND	U	ND	U	ND	U	ND	U
Tetrachloroethene	85.4	D	1152	D	845614	EJ	9493	D	566907	EJ
Tetrahydrofuran	ND	U	ND	U	ND	U	ND	U	ND	U
Toluene	3.05		5.28	J	ND	U	ND	U	ND	U
trans-1,2-Dichloroethene	ND	U	ND	U	ND	U	ND	U	ND	U
Trichloroethene	ND	U	2.69		56429		60.2		35469	
Trichlorofluoromethane	1.57	J	ND	U	ND	U	ND	U	ND	U
Vinyl Chloride	ND	U	ND	U	ND	U	ND	U	ND	U

Qualifiers

U - The compound was not detected at the indicated concentration.
N (Organics) - Presumptive Evidence of a Compound
J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.
B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.
P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.
* (Organics) - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.
E (Organics) - Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.
Q - Indicates LCS control criteria did not meet requirements.
NR - Not analyzed

Soil Sampling Results
Volatile Organic Compounds
January - February, 2017

				Sample Location	ST-SB-1		ST-SB-1		ST-SB-1		ST-SB-1		ST-SB-1		ST-SB-2		ST-SB-2	
				Sample ID	ST-SB-1-5-20170110		ST-SB-1-10-20170110		ST-SB-1-20-20170110		ST-SB-1-30-20170110		ST-SB-1-40-20170110		ST-SB-2-5-20170110		ST-SB-2-10-20170110	
				Sample Interval	5'		10'		20'		30'		40'		5'		10'	
				Sample Date	1/10/2017		1/10/2017		1/10/2017		1/10/2017		1/10/2017		1/10/2017		1/10/2017	
Constituent	**NYSDEC Part 375 URUSCO**	**NYSDEC Part 375 PGWSCO**	**NYSDEC Part 375 CUSCO**	**NYSDEC Part 375 IUSCO**														
1,1,1-Trichloroethane	0.68	0.68	500	1000	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,1,2-Trichloroethane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,1-Dichloroethane	0.27	0.27	240	480	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,1-Dichloroethene	0.33	0.33	500	1000	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2,3-Trichlorobenzene	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2,4-Trichlorobenzene	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dibromoethane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dichlorobenzene	1.1	1.1	500	1000	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dichloroethane	0.02	0.02	500	1000	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dichloropropane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,3-Dichlorobenzene	2.4	2.4	280	560	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,4-Dichlorobenzene	1.8	1.8	130	250	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,4-Dioxane	0.1	0.1	130	250	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
2-Butanone	0.12	0.12	500	1000	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
2-Hexanone	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
4-Methyl-2-pentanone	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Acetone	0.05	0.05	500	1000	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Benzene	0.06	0.06	44	89	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Bromochloromethane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Bromodichloromethane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Bromoform	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Bromomethane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Carbon disulfide	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Carbon tetrachloride	0.76	0.76	22	44	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Chlorobenzene	1.1	1.1	500	1000	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Chloroethane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Chloroform	0.37	0.37	350	700	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Chloromethane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
cis-1,2-Dichloroethene	0.25	0.25	500	1000	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
cis-1,3-Dichloropropene	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Cyclohexane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Dibromochloromethane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Dichlorodifluoromethane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Ethylbenzene	1	1	390	780	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Isopropylbenzene	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
m&p-Xylenes	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Methyl Acetate	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Methylcyclohexane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Methylene chloride	0.05	0.05	500	1000	ND	U	ND	U	ND	U	ND	U	ND	U	0.0046		ND	U
Methyl-t-butyl ether	0.93	0.93	500	1000	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
o-Xylene	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Styrene	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Tetrachloroethene	1.3	1.3	200	400	ND	U	0.0022		ND	U	ND	U	ND	U	ND	U	ND	U
Toluene	0.7	0.7	500	1000	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
trans-1,2-Dichloroethene	0.19	0.19	500	1000	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
trans-1,3-Dichloropropene	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Trichloroethene	0.47	0.47	200	400	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Trichlorofluoromethane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Vinyl chloride	0.02	0.02	13	27	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Xylenes (Total)	0.26	1.6	500	1000	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U

Units - mg/kg
Qualifiers - NA - Not applicable / analyzed
ND - Not detected
U - Compound was analyzed but not detected
R - Rejected
B – Also detected in associated method blank
J – Estimated value; ND – Not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses

Criteria – Soil/Sed – NYSDEC Part 375 URUSCO - Unrestricted Use Soil Cleanup Objectives
NYSDEC Part 375 CUSCOs - Commercial Use Soil Cleanup Objectives
NYSDEC Part 375 IUSCOs - Industrial Use Soil Cleanup Objectives
NYSDEC Part 375 PGWSCOs - Protection of Groundwater Soil Cleanup Objectives

Bold : Exceedence of Unrestricted Use criteria
Italic : Exceedance of Protection of Groundwater criteria
Underline : Exceedence of Commercial Use criteria
Shaded : Exceedence of Industrial Use criteria

Soil Sampling Results
Volatile Organic Compounds
January - February, 2017

				Sample Location	ST-SB-2		ST-SB-2		ST-SB-2		ST-SB-3		ST-SB-3		ST-SB-3		ST-SB-3	
				Sample ID	ST-SB-2-20-20170110		ST-SB-2-30-20170110		ST-SB-2-40-20170110		ST-SB-3-5-20170110		ST-SB-3-10-20170110		ST-SB-3-20-20170110		ST-SB-3-30-20170110	
				Sample Interval	20'		30'		40'		5'		10'		20'		30'	
				Sample Date	1/10/2017		1/10/2017		1/10/2017		1/10/2017		1/10/2017		1/10/2017		1/10/2017	
Constituent	**NYSDEC Part 375 URUSCO**	**NYSDEC Part 375 PGWSCO**	**NYSDEC Part 375 CUSCO**	**NYSDEC Part 375 IUSCO**														
1,1,1-Trichloroethane	0.68	0.68	500	1000	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,1,2-Trichloroethane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,1-Dichloroethane	0.27	0.27	240	480	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,1-Dichloroethene	0.33	0.33	500	1000	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2,3-Trichlorobenzene	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2,4-Trichlorobenzene	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dibromoethane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dichlorobenzene	1.1	1.1	500	1000	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dichloroethane	0.02	0.02	500	1000	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dichloropropane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,3-Dichlorobenzene	2.4	2.4	280	560	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,4-Dichlorobenzene	1.8	1.8	130	250	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,4-Dioxane	0.1	0.1	130	250	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
2-Butanone	0.12	0.12	500	1000	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
2-Hexanone	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
4-Methyl-2-pentanone	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Acetone	0.05	0.05	500	1000	***0.086***		ND	U	ND	U	ND	U	***0.14***		ND	U	ND	U
Benzene	0.06	0.06	44	89	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Bromochloromethane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Bromodichloromethane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Bromoform	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Bromomethane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Carbon disulfide	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Carbon tetrachloride	0.76	0.76	22	44	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Chlorobenzene	1.1	1.1	500	1000	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Chloroethane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Chloroform	0.37	0.37	350	700	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Chloromethane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
cis-1,2-Dichloroethene	0.25	0.25	500	1000	ND	U	ND	U	ND	U	ND	U	0.0033		ND	U	ND	U
cis-1,3-Dichloropropene	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Cyclohexane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Dibromochloromethane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Dichlorodifluoromethane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Ethylbenzene	1	1	390	780	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Isopropylbenzene	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
m&p-Xylenes	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Methyl Acetate	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Methylcyclohexane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Methylene chloride	0.05	0.05	500	1000	ND	U	ND	U	ND	U	ND	U	0.0043		ND	U	ND	U
Methyl-t-butyl ether	0.93	0.93	500	1000	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
o-Xylene	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Styrene	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Tetrachloroethene	1.3	1.3	200	400	ND	U	ND	U	ND	U	ND	U	0.0073		ND	U	ND	U
Toluene	0.7	0.7	500	1000	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
trans-1,2-Dichloroethene	0.19	0.19	500	1000	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
trans-1,3-Dichloropropene	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Trichloroethene	0.47	0.47	200	400	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Trichlorofluoromethane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Vinyl chloride	0.02	0.02	13	27	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Xylenes (Total)	0.26	1.6	500	1000	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U

Units - mg/kg
Qualifiers - NA - Not applicable / analyzed
ND - Not detected
U - Compound was analyzed but not detected
R - Rejected
B – Also detected in associated method blank
J – Estimated value; ND – Not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses

Criteria – Soil/Sed – NYSDEC Part 375 URUSCO - Unrestricted Use Soil Cleanup Objectives
NYSDEC Part 375 CUSCOs - Commercial Use Soil Cleanup Objectives
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Bold : Exceedence of Unrestricted Use criteria
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Soil Sampling Results
Volatile Organic Compounds
January - February, 2017

				Sample Location	ST-SB-3		GWB-4		GWB-5		GWB-5		GWB-5		ST-SB-1		ST-SB-3	
				Sample ID	ST-SB-3-40-20170110		GWB-4-45-20170126		GWB-5-27-20170131		GWB-5-45-20170131		GWB-5-123-20170201		DUPE-1-20170110		DUPE2-20170110	
				Sample Interval	40'		45'		27'		45'		123'		10'		10'	
				Sample Date	1/10/2017		1/26/2017		1/31/2017		1/31/2017		2/1/2017		1/10/2017		1/10/2017	
Constituent	**NYSDEC Part 375 URUSCO**	**NYSDEC Part 375 PGWSCO**	**NYSDEC Part 375 CUSCO**	**NYSDEC Part 375 IUSCO**														
1,1,1-Trichloroethane	0.68	0.68	500	1000	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,1,2-Trichloroethane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,1-Dichloroethane	0.27	0.27	240	480	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,1-Dichloroethene	0.33	0.33	500	1000	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2,3-Trichlorobenzene	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2,4-Trichlorobenzene	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dibromoethane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dichlorobenzene	1.1	1.1	500	1000	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dichloroethane	0.02	0.02	500	1000	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dichloropropane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,3-Dichlorobenzene	2.4	2.4	280	560	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,4-Dichlorobenzene	1.8	1.8	130	250	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,4-Dioxane	0.1	0.1	130	250	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
2-Butanone	0.12	0.12	500	1000	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
2-Hexanone	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
4-Methyl-2-pentanone	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Acetone	0.05	0.05	500	1000	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	***0.14***	
Benzene	0.06	0.06	44	89	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Bromochloromethane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Bromodichloromethane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Bromoform	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Bromomethane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Carbon disulfide	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Carbon tetrachloride	0.76	0.76	22	44	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Chlorobenzene	1.1	1.1	500	1000	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Chloroethane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Chloroform	0.37	0.37	350	700	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Chloromethane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
cis-1,2-Dichloroethene	0.25	0.25	500	1000	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	0.011	
cis-1,3-Dichloropropene	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Cyclohexane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Dibromochloromethane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Dichlorodifluoromethane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Ethylbenzene	1	1	390	780	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Isopropylbenzene	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
m&p-Xylenes	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Methyl Acetate	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Methylcyclohexane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Methylene chloride	0.05	0.05	500	1000	ND	U	ND	U	ND	U	ND	U	0.006		ND	U	0.0029	
Methyl-t-butyl ether	0.93	0.93	500	1000	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
o-Xylene	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Styrene	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Tetrachloroethene	1.3	1.3	200	400	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	0.021	
Toluene	0.7	0.7	500	1000	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
trans-1,2-Dichloroethene	0.19	0.19	500	1000	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
trans-1,3-Dichloropropene	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Trichloroethene	0.47	0.47	200	400	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Trichlorofluoromethane	NA	NA	NA	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Vinyl chloride	0.02	0.02	13	27	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Xylenes (Total)	0.26	1.6	500	1000	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U

Units - mg/kg
Qualifiers - NA - Not applicable / analyzed
ND - Not detected
U - Compound was analyzed but not detected
R - Rejected
B – Also detected in associated method blank
J – Estimated value; ND – Not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses

Criteria – Soil/Sed – NYSDEC Part 375 URUSCO - Unrestricted Use Soil Cleanup Objectives
NYSDEC Part 375 CUSCOs - Commercial Use Soil Cleanup Objectives
NYSDEC Part 375 IUSCOs - Industrial Use Soil Cleanup Objectives
NYSDEC Part 375 PGWSCOs - Protection of Groundwater Soil Cleanup Objectives

Bold : Exceedence of Unrestricted Use criteria
Italic : Exceedance of Protection of Groundwater criteria
Underline : Exceedence of Commercial Use criteria
Shaded : Exceedence of Industrial Use criteria

Groundwater Sampling Results
Volatile Organic Compounds
January - February, 2017

Sample Location		GWB-1		GWB-1		GWB-1		GWB-1		GWB-1		GWB-2		GWB-2		GWB-2	
Sample Name		GWB-1-100-20170119		GWB-1-120-20170119		GWB-1-140-20170119		GWB-1-160-20170120		GWB-1-180-20170120		GWB-2-90-20170124		GWB-2-110-20170124		GWB-2-130-20170124	
Sample Date		1/19/2017		1/19/2017		1/19/2017		1/20/2017		1/20/2017		1/24/2017		1/24/2017		1/24/2017	
Constituent	Criteria																
1,1,1-Trichloroethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,1,2,2-Tetrachloroethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,1,2-Trichloro-1,2,2-trifluoroethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,1,2-Trichloroethane	1	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,1-Dichloroethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,1-Dichloroethene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2,3-Trichlorobenzene	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2,4-Trichlorobenzene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dibromo-3-chloropropane	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dibromoethane	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dichlorobenzene	3	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dichloroethane	0.6	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dichloropropane	1	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,3-Dichlorobenzene	3	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,4-Dichlorobenzene	3	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,4-Dioxane	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
2-Butanone	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
2-Hexanone	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
4-Methyl-2-pentanone	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Acetone	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Benzene	1	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Bromochloromethane	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Bromodichloromethane	NA	ND	U	2.5		1.9		ND	U	2.3		ND	U	2.4		2	
Bromoform	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Bromomethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Carbon disulfide	60	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Carbon tetrachloride	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Chlorobenzene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Chloroethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Chloroform	7	1.1		**15**		**10**		ND	U	**21**		ND	U	**17**		**9.7**	
Chloromethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
cis-1,2-Dichloroethene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
cis-1,3-Dichloropropene	cis+trans =0.4	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Cyclohexane	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Dibromochloromethane	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Dichlorodifluoromethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Ethylbenzene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Isopropylbenzene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
m&p-Xylenes	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Methyl Acetate	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Methylcyclohexane	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Methylene chloride	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Methyl-t-butyl ether	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
o-Xylene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Styrene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Tetrachloroethene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	1.3	
Toluene	5	ND	U	ND	U	2.4		ND	U	ND	U	4.5		ND	U	ND	U
trans-1,2-Dichloroethene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
trans-1,3-Dichloropropene	cis+trans =0.4	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Trichloroethene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Trichlorofluoromethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Vinyl chloride	2	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Xylenes (Total)	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U

Units - ug/l
Bold/highlighted cell – Exceedance of 6 NYCRR Part 703 Class GA Water Quality Standards and Classifications.

Qualifiers -
NA - Criteria not available
R - Rejected; ND – Not detected
J - Approximate value. Result is less than RL but greater than or equal to the MDL.
U - Compound analyzed for but no detected.
UT - Result is a tentatively identified compound (TIC) and an

Groundwater Sampling Results
Volatile Organic Compounds
January - February, 2017

Sample Location		GWB-2		GWB-2		GWB-2		GWB-3		GWB-3		GWB-3		GWB-4		GWB-4	
Sample Name		GWB-2-150-20170125		GWB-2-170-20170125		GWB-2-180-20170126		GWB-3-70-20170112		GWB-3-90-20170112		GWB-3-130-20170117		GWB-4-70-20170127		GWB-4-90-20170127	
Sample Date		1/25/2017		1/25/2017		1/26/2017		1/12/2017		1/12/2017		1/17/2017		1/27/2017		1/27/2017	
Constituent	Criteria																
1,1,1-Trichloroethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,1,2,2-Tetrachloroethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,1,2-Trichloro-1,2,2-trifluoroethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,1,2-Trichloroethane	1	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,1-Dichloroethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,1-Dichloroethene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2,3-Trichlorobenzene	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2,4-Trichlorobenzene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dibromo-3-chloropropane	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dibromoethane	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dichlorobenzene	3	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dichloroethane	0.6	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dichloropropane	1	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,3-Dichlorobenzene	3	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,4-Dichlorobenzene	3	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,4-Dioxane	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
2-Butanone	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
2-Hexanone	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
4-Methyl-2-pentanone	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Acetone	NA	ND	U	ND	U	ND	U	ND	U	ND	U	11		ND	U	ND	U
Benzene	1	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Bromochloromethane	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Bromodichloromethane	NA	2.7		ND	U	ND	U	3.9		1.5		ND	U	ND	U	ND	U
Bromoform	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Bromomethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Carbon disulfide	60	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Carbon tetrachloride	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Chlorobenzene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Chloroethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Chloroform	7	**17**		**8.1**		**18**		**37**		**7.7**		ND	U	2.3		ND	U
Chloromethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
cis-1,2-Dichloroethene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
cis-1,3-Dichloropropene	cis+trans =0.4	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Cyclohexane	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Dibromochloromethane	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Dichlorodifluoromethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Ethylbenzene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Isopropylbenzene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
m&p-Xylenes	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Methyl Acetate	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Methylcyclohexane	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Methylene chloride	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Methyl-t-butyl ether	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
o-Xylene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Styrene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Tetrachloroethene	5	ND	U	2.5		2.8		3		ND	U	ND	U	ND	U	ND	U
Toluene	5	ND	U	ND	U	ND	U	2.6		1.3		2.4		ND	U	ND	U
trans-1,2-Dichloroethene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
trans-1,3-Dichloropropene	cis+trans =0.4	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Trichloroethene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Trichlorofluoromethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Vinyl chloride	2	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Xylenes (Total)	NA	ND	U		U		U	ND	U	ND	U	ND	U	ND	U	ND	U

Units - ug/l
Bold/highlighted cell – Exceedance of 6 NYCRR Part 703 Class GA Water Quality Standards and Classifications.

Qualifiers -
NA - Criteria not available
R - Rejected; ND – Not detected
J - Approximate value. Result is less than RL but greater than or equal to the MDL.
U - Compound analyzed for but no detected.
UT - Result is a tentatively identified compound (TIC) and an

Groundwater Sampling Results
Volatile Organic Compounds
January - February, 2017

Sample Location		GWB-4		GWB-4		GWB-4		GWB-4		GWB-5		GWB-5		GWB-5	
Sample Name		GWB-4-110-20170127		GWB-4-130-20170130		GWB-4-150-20170130		GWB-4-160-20170130		GWB-5-70-20170131		GWB-5-90-20170131		GWB-5-110-20170201	
Sample Date		1/27/2017		1/30/2017		1/30/2017		1/30/2017		1/31/2017		1/31/2017		2/1/2017	
Constituent	Criteria														
1,1,1-Trichloroethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,1,2,2-Tetrachloroethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,1,2-Trichloro-1,2,2-trifluoroethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,1,2-Trichloroethane	1	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,1-Dichloroethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,1-Dichloroethene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2,3-Trichlorobenzene	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2,4-Trichlorobenzene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dibromo-3-chloropropane	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dibromoethane	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dichlorobenzene	3	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dichloroethane	0.6	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dichloropropane	1	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,3-Dichlorobenzene	3	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,4-Dichlorobenzene	3	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,4-Dioxane	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
2-Butanone	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
2-Hexanone	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
4-Methyl-2-pentanone	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Acetone	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Benzene	1	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Bromochloromethane	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Bromodichloromethane	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Bromoform	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Bromomethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Carbon disulfide	60	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Carbon tetrachloride	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Chlorobenzene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Chloroethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Chloroform	7	5.5		**7.1**		5.7		6.6		2.2		ND	U	ND	U
Chloromethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
cis-1,2-Dichloroethene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
cis-1,3-Dichloropropene	cis+trans =0.4	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Cyclohexane	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Dibromochloromethane	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Dichlorodifluoromethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Ethylbenzene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Isopropylbenzene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
m&p-Xylenes	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Methyl Acetate	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Methylcyclohexane	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Methylene chloride	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Methyl-t-butyl ether	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
o-Xylene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Styrene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Tetrachloroethene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Toluene	5	ND	U	ND	U	ND	U	ND	U	4.8		3.6		2.3	
trans-1,2-Dichloroethene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
trans-1,3-Dichloropropene	cis+trans =0.4	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Trichloroethene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Trichlorofluoromethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Vinyl chloride	2	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Xylenes (Total)	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U

Units - ug/l
Bold/highlighted cell – Exceedance of 6 NYCRR Part 703 Class GA Water Quality Standards and Classifications.

Qualifiers -
NA - Criteria not available
R - Rejected; ND – Not detected
J - Approximate value. Result is less than RL but greater than or equal to the MDL.
U - Compound analyzed for but no detected.
UT - Result is a tentatively identified compound (TIC) and an

Groundwater Sampling Results
Volatile Organic Compounds
January - February, 2017

Sample Location		GWB-5		GWB-5		GWB-5		ST-SB-3		GWB-4		GWB-2		GWB-5	
Sample Name		GWB-5-130-20170201		GWB-5-150-20170201		GWB-5-160-20170202		RB-1-20170110		DUPE1 (70')		RB-2		DUPE2-20170201 (130')	
Sample Date		2/1/2017		2/1/2017		2/2/2017		1/10/2017		1/27/2017		1/26/2017		2/1/2017	
Constituent	Criteria														
1,1,1-Trichloroethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,1,2,2-Tetrachloroethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,1,2-Trichloro-1,2,2-trifluoroethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,1,2-Trichloroethane	1	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,1-Dichloroethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,1-Dichloroethene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2,3-Trichlorobenzene	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2,4-Trichlorobenzene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dibromo-3-chloropropane	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dibromoethane	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dichlorobenzene	3	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dichloroethane	0.6	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,2-Dichloropropane	1	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,3-Dichlorobenzene	3	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,4-Dichlorobenzene	3	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1,4-Dioxane	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
2-Butanone	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
2-Hexanone	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
4-Methyl-2-pentanone	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Acetone	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Benzene	1	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Bromochloromethane	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Bromodichloromethane	NA	ND	U	3.4		ND	U	ND	U	ND	U	ND	U	ND	U
Bromoform	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Bromomethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Carbon disulfide	60	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Carbon tetrachloride	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Chlorobenzene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Chloroethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Chloroform	7	ND	U	**19**		ND	U	ND	U	2.1		ND	U	ND	U
Chloromethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
cis-1,2-Dichloroethene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
cis-1,3-Dichloropropene	cis+trans =0.4	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Cyclohexane	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Dibromochloromethane	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Dichlorodifluoromethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Ethylbenzene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Isopropylbenzene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
m&p-Xylenes	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Methyl Acetate	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Methylcyclohexane	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Methylene chloride	5	ND	U	ND	U	ND	U	ND	U	ND	U	2.4		ND	U
Methyl-t-butyl ether	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
o-Xylene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Styrene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Tetrachloroethene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Toluene	5	2.7		2.6		2.1		ND	U	ND	U	ND	U	3.3	
trans-1,2-Dichloroethene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
trans-1,3-Dichloropropene	cis+trans =0.4	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Trichloroethene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Trichlorofluoromethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Vinyl chloride	2	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Xylenes (Total)	NA	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U

Units - ug/l
Bold/highlighted cell – Exceedance of 6 NYCRR Part 703 Class GA Water Quality Standards and Classifications.

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Well ID	Distance from EXT-02	EXT-02 Reactivation (2-7-2017)					EXT-02 Deactivation (2-15-2017)					EXT-02 Reactivation (2-20-2017)				
		Groundwater Elevation				Drawdown	Groundwater Elevation				Recovery	Groundwater Elevation				Drawdown
		EXT-02 OFF		EXT-02 ON			EXT-02 ON		EXT-02 OFF			EXT-02 OFF		EXT-02 ON		
		Date/Time	Water Level	Date/Time	Water Level	ΔWL	Date/Time	Water Level	Date/Time	Water Level	ΔWL	Date/Time	Water Level	Date/Time	Water Level	ΔWT
	Feet	mm/dd/yyyy	ft msl	mm/dd/yyyy	ft msl	Feet	mm/dd/yyyy	ft msl	mm/dd/yyyy	ft msl	Feet	mm/dd/yyyy	ft msl	mm/dd/yyyy	ft msl	Feet
ST-MW-19	53	2/7/2017 11:40:00	17.557	2/7/2017 11:50:00	16.62	0.937	2/15/2017 13:30:00	15.859	2/15/2017 13:50:00	16.843	0.984	2/20/2017 09:50:00	17.737	2/20/2017 10:00:00	16.883	0.854
ST-MW-20	188	2/7/2017 11:33:27	12.767	2/7/2017 11:43:27	12.743	0.024	2/15/2017 13:33:00	11.332	2/15/2017 13:53:00	11.506	0.174	2/20/2017 09:53:00	12.315	2/20/2017 10:03:00	11.587	0.728
ST-MW-17	222	2/7/2017 11:38:00	16.655	2/7/2017 11:48:00	16.521	0.134	2/15/2017 13:38:00	15.893	2/15/2017 13:48:00	16.048	0.155	2/20/2017 09:48:00	16.798	2/20/2017 09:58:00	16.604	0.194
ST-MW-12	237	2/7/2017 11:41:06	16.657	2/7/2017 11:51:00	16.606	0.051	2/15/2017 13:31:00	15.987	2/15/2017 13:41:00	16.003	0.016	2/20/2017 09:51:00	16.848	2/20/2017 10:01:00	16.768	0.08
ST-MW-14	240	2/7/2017 11:34:02	13.874	2/7/2017 11:44:00	13.849	0.025	2/15/2017 13:34:00	12.554	2/15/2017 13:44:00	12.634	0.08	2/20/2017 09:54:00	13.879	2/20/2017 10:04:00	13.318	0.561
EPA-MW-27	231	2/7/2017 11:39:00	18.115	2/7/2017 11:49:00	17.982	0.133	2/15/2017 13:29:00	17.482	2/15/2017 13:49:00	17.652	0.17	2/20/2017 09:49:00	18.233	2/20/2017 09:59:00	18.119	0.114
ST-MW-15	272	2/7/2017 11:36:21	17.132	2/7/2017 11:46:00	17.092	0.04	2/15/2017 13:36:00	16.685	2/15/2017 13:46:00	16.754	0.069	2/20/2017 09:46:21	17.444	2/20/2017 09:56:00	17.42	0.024
ST-MW-13	617	2/7/2017 11:34:00	17.914	2/7/2017 11:44:00	17.916	-0.002	2/15/2017 13:34:00	17.72	2/15/2017 13:44:00	17.72	0	2/20/2017 09:54:00	17.939	2/20/2017 10:04:00	17.944	-0.005
EPA-MW-26	757	2/7/2017 11:38:00	19.293	2/7/2017 11:48:00	19.293	0	2/15/2017 13:38:00	19.033	2/15/2017 13:48:00	19.021	-0.012	2/20/2017 09:48:00	20.005	2/20/2017 09:58:00	19.991	0.014
ST-MW-16	483	2/7/2017 11:45:00	20.317	2/7/2017 11:55:00	20.322	-0.005	2/15/2017 13:35:00	20.386	2/15/2017 13:45:00	20.377	-0.009	2/20/2017 09:55:00	20.32	2/20/2017 10:05:00	20.326	-0.006
EPA-MW-23	372	2/7/2017 11:37:00	18.791	2/7/2017 11:47:00	18.765	0.026	2/15/2017 13:37:00	18.486	2/15/2017 13:47:00	18.528	0.042	2/20/2017 09:47:00	18.926	2/20/2017 09:57:00	18.909	0.017
EPA-CL-1S	596	2/7/2017 11:33:28	16	2/7/2017 11:43:28	15.996	0.004	2/15/2017 13:33:28	15.506	2/15/2017 13:43:28	15.539	0.033	2/20/2017 09:53:28	16.099	2/20/2017 10:03:28	15.804	0.295
EPA-CL-1D	587	2/7/2017 11:37:56	2.332	2/7/2017 11:47:56	2.305	0.027	2/15/2017 13:37:56	1.199	2/15/2017 13:47:56	1.273	0.074	2/20/2017 09:47:56	-0.608	2/20/2017 09:57:56	-1.914	1.306
EXT-02	0	2/7/2017 11:40:14	16.92	2/7/2017 11:42:14	9.858	7.062	2/15/2017 13:37:14	8.786	2/15/2017 13:38:14	15.286	6.5	2/20/2017 09:54:14	17.023	2/20/2017 09:56:00	9.938	7.085
Notes:		- EXT-02 On at: 2/7/2017 11:41:14					- EXT-02 Off at: 2/15/2017 13:38:14 - ST-MW-20 is rising along the recovery curve of the production wells, and not EXT-02.					- EXT-02 On at: 2/20/2017 9:55:14 - Drawdown rates are affected by the activation of a second production well approximately 20 minutes before the reactivation of EXT-02 - Only wells that have similar drawdown levels to the prevous EXT-02 re/de- activation cycles are representative of EXT-02 influence.				

EXT-02 Information

EXT-02 (OFF) Static Water Level	17.6*	ft msl
EXT-02 (OFF) Public Wells Operating	16.6*	ft msl
EXT-02 Pumping Drawdown	~ 7	ft
EXT-02 Pumping Rate	60	gpm
Specific Capacity (Sc)	8.57	gal/min/ft
EXT-02 Top of Screen	83	ft bgs
Available Drawdown**	2.16	ft
Maximum Rate	78.5	gpm

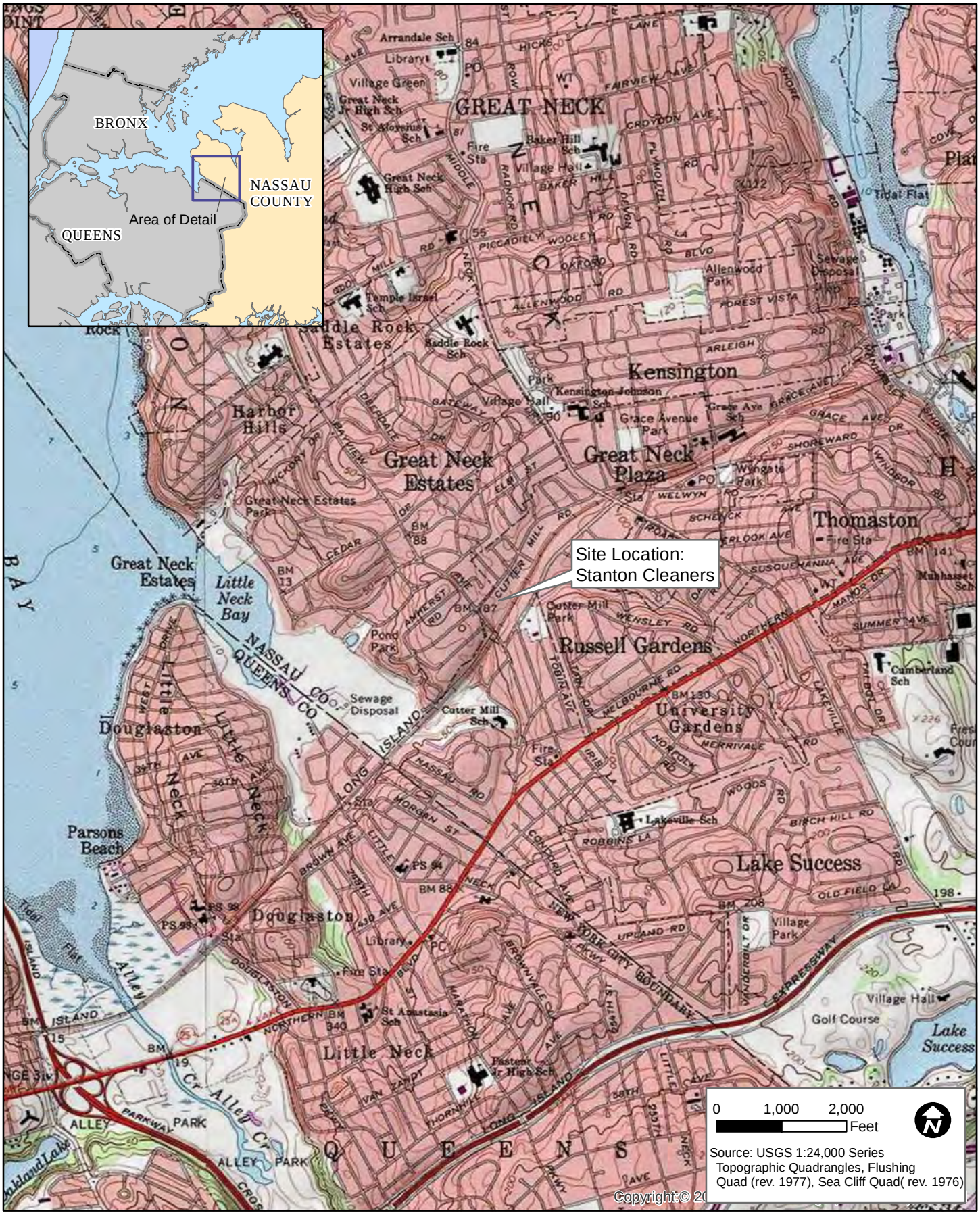
*: Value is approximate

**Available drawdown based on SWL. Includes 10 ft margin of safety to account for variations in public well pumping

ft msl: feet above mean sea level

gpm: gallons per minute

Figures



SITE LOCATION

STANTON CLEANERS (NYSDEC SITE # 130072)

FIGURE 1

REMEDIAL SYSTEM OPTIZIMATION SAMPLING LOCATIONS

STANTON CLEANERS (NYSDEC SITE # 130072)

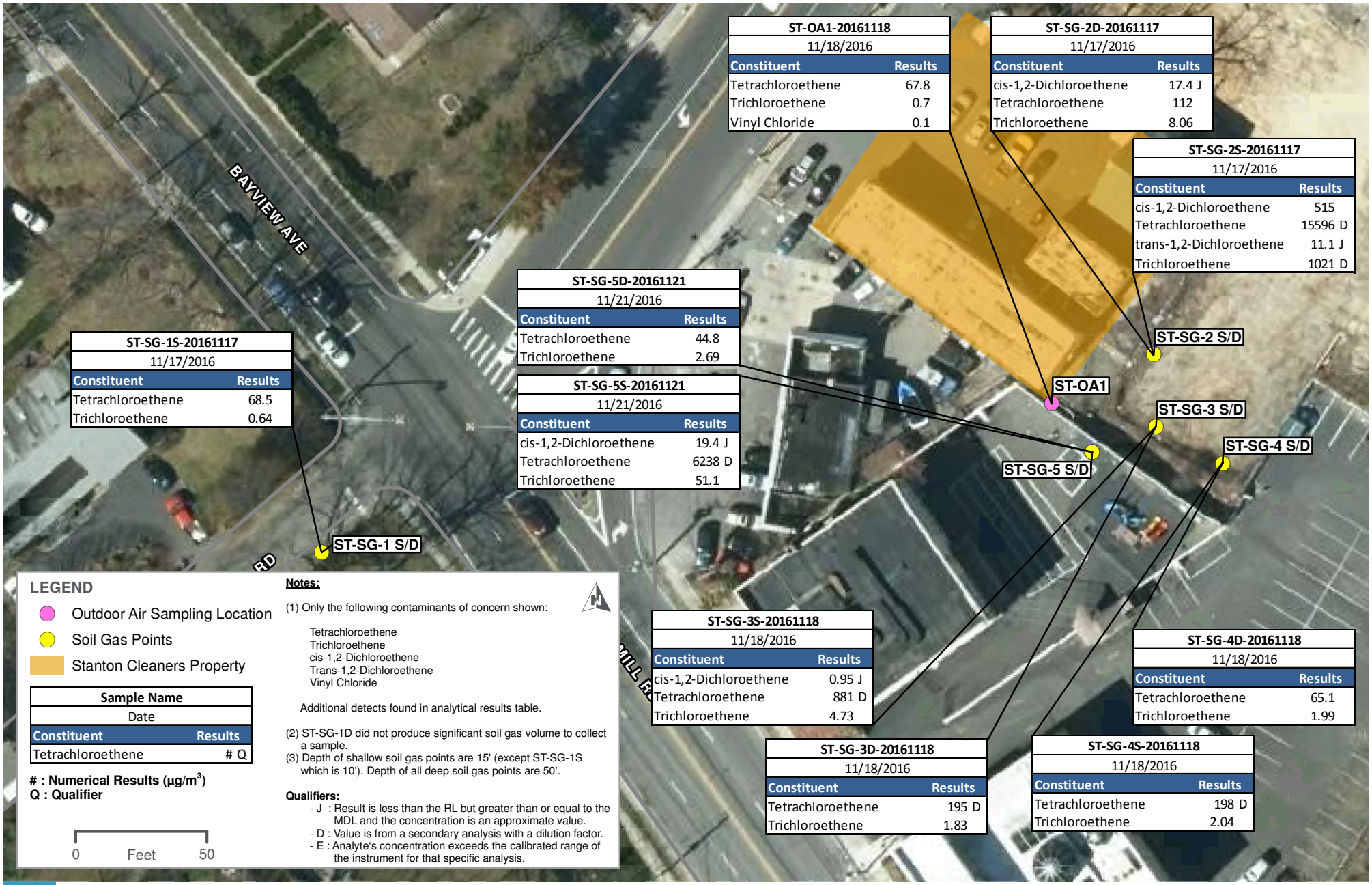
FIGURE 2

AQUIFER TESTING TRANSDUCER LOCATIONS

STANTON CLEANERS (NYSDEC SITE # 130072)

FIGURE 3

PATH: Z:\D007625 NYSDEC STANDBY CONTRACT\WORK ASSIGNMENT FOLDERS\WA#6 STANTON CLEANERS SM\GIS.E\RSO\AQUIFER_TESTING_LOCATIONS20170327.MXD - USER: JUSTARR - DATE: 3/27/2017

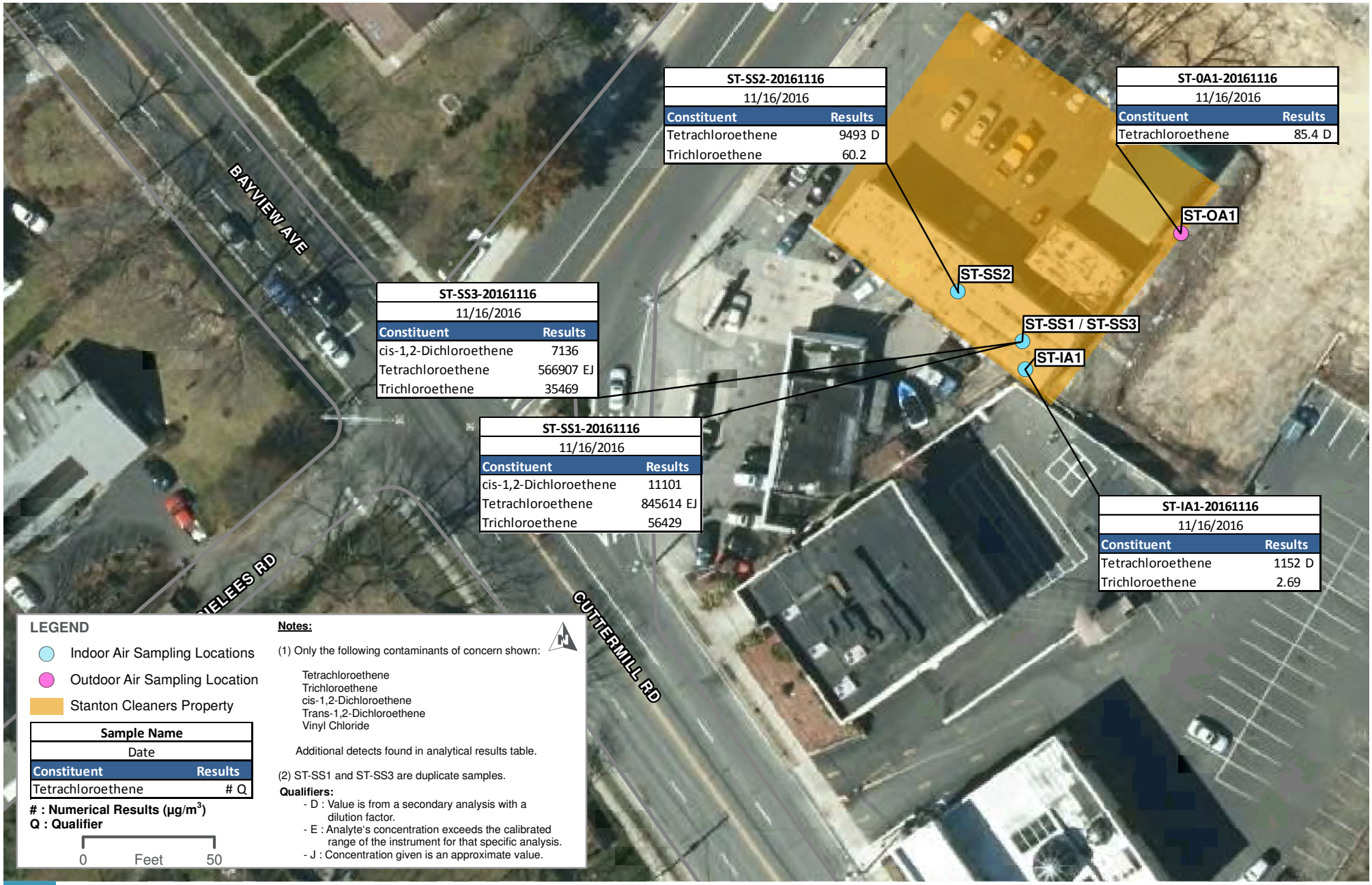


SOIL GAS ANALYTICAL RESULTS - NOVEMBER 2016

STANTON CLEANERS (NYSDEC SITE #130072)

FIGURE 4

PATH: Z:\D007625 NYSDEC STANDBY CONTRACT\WORK ASSIGNMENT FOLDERS\WA#6 STANTON CLEANERS SM\GIS.E\SOIL GAS RESULTS\SOIL_GAS_RESULTS_20161212.MXD - USER: JUSTARR - DATE: 3/23/2017



SOIL VAPOR INTRUSION ANALYTICAL RESULTS - NOVEMBER 2016

STANTON CLEANERS (NYSDEC SITE #130072)

FIGURE 5

PATH: Z:\D007625 NYSDEC STANDBY CONTRACT\WORK ASSIGNMENT FOLDERS\WA#6 STANTON CLEANERS SM\GIS.EI\SOIL GAS RESULTS\SVI_RESULTS_20161212.MXD - USER: JUSTARR - DATE: 3/23/2017

GWB-1	
1/19/2017 - 1/20/2017	
Constituent	**Results**
100'	
Chloroform	1.1
120'	
Bromodichloromethane	2.5
Chloroform	**15**
140'	
Bromodichloromethane	1.9
Chloroform	**10**
Toluene	2.4
160'	
ND	
180'	
Bromodichloromethane	2.3
Chloroform	**21**

GWB-2	
1/24/2017 - 1/26/2017	
Constituent	**Results**
90'	
Toluene	4.5
110'	
Bromodichloromethane	2.4
Chloroform	**17**
130'	
Bromodichloromethane	2
Chloroform	**9.7**
Tetrachloroethene	1.3
150'	
Bromodichloromethane	2.7
Chloroform	**17**
170'	
Chloroform	**8.1**
Tetrachloroethene	2.5
180'	
Chloroform	**18**
Tetrachloroethene	2.8

ST-SB-3	
1/10/2017	
Constituent	**Results**
5'	
ND	
10'	
Acetone	**0.14**
cis-1,2-Dichloroethene	0.0033
Methylene chloride	0.0043
Tetrachloroethene	0.0073
20'	
ND	
30'	
ND	
40'	
ND	

ST-SB-1	
1/10/2017	
Constituent	**Results**
5'	
ND	
10'	
Tetrachloroethene	0.0022
20'	
ND	
30'	
ND	
40'	
ND	

GWB-3	
1/12/2017 - 1/17/2017	
Constituent	**Results**
70'	
Bromodichloromethane	3.9
Chloroform	**37**
Tetrachloroethene	3
Toluene	2.6
90'	
Bromodichloromethane	1.5
Chloroform	**7.7**
Toluene	1.3
130'	
Acetone	11
Toluene	2.4

ST-SB-2	
1/10/2017	
Constituent	**Results**
5'	
Methylene chloride	0.0046
10'	
ND	
20'	
Acetone	**0.086**
30'	
ND	
40'	
ND	

GWB-4	
1/27/2017 - 1/30/2017	
Constituent	**Results**
70'	
Chloroform	2.3
90'	
ND	
110'	
Chloroform	5.5
130'	
Chloroform	**7.1**
150'	
Chloroform	5.7
160'	
Chloroform	6.6

GWB-4	
1/26/2017	
Constituent	**Results**
45'	
ND	

GWB-5	
1/31/2017 - 2/2/2017	
Constituent	**Results**
70'	
Chloroform	2.2
Toluene	4.8
90'	
Toluene	3.6
110'	
Toluene	2.3
130'	
Toluene	2.7
150'	
Bromodichloromethane	3.4
Chloroform	**19**
Toluene	2.6
160'	
Toluene	2.1

GWB-5	
1/31/2017 - 2/1/2017	
Constituent	**Results**
27'	
ND	
45'	
ND	
123'	
Methylene chloride	0.006

AMHERST RD E
AMHERST RD
BAYVIEW AVE
CUTTERMILL RD
MIRRIELEES RD
GREAT NECK RD
GWB-1
GWB-2
GWB-3
GWB-4
GWB-5
ST-SB-1
ST-SB-2
ST-SB-3

LEGEND

- Groundwater Borings
- Soil Borings
- Stanton Cleaners Property

0 Feet 200

Groundwater Sample Results

Sample Location	
Sampling Date	
Constituent	**Results**
Depth (ft)	
Tetrachloroethene	# Q

 # : Numerical Results (µg/L)
Q : Qualifier

Soil Sample Results

Sample Location	
Sampling Date	
Constituent	**Results**
Depth (ft)	
Tetrachloroethene	# Q

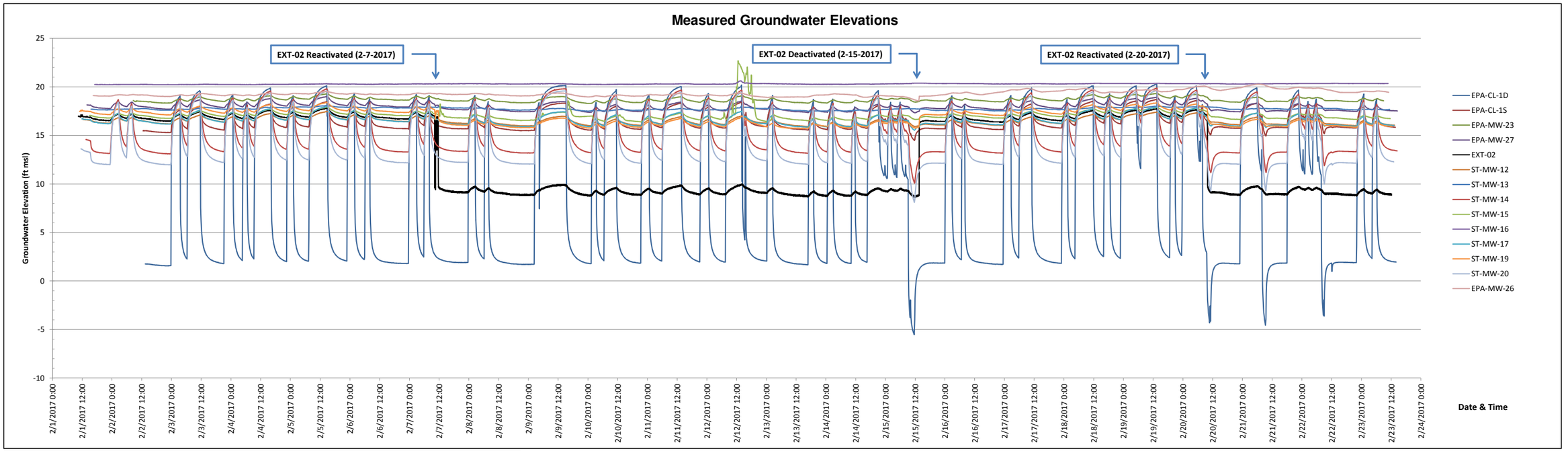
 # : Numerical Results (mg/kg)
Q : Qualifier

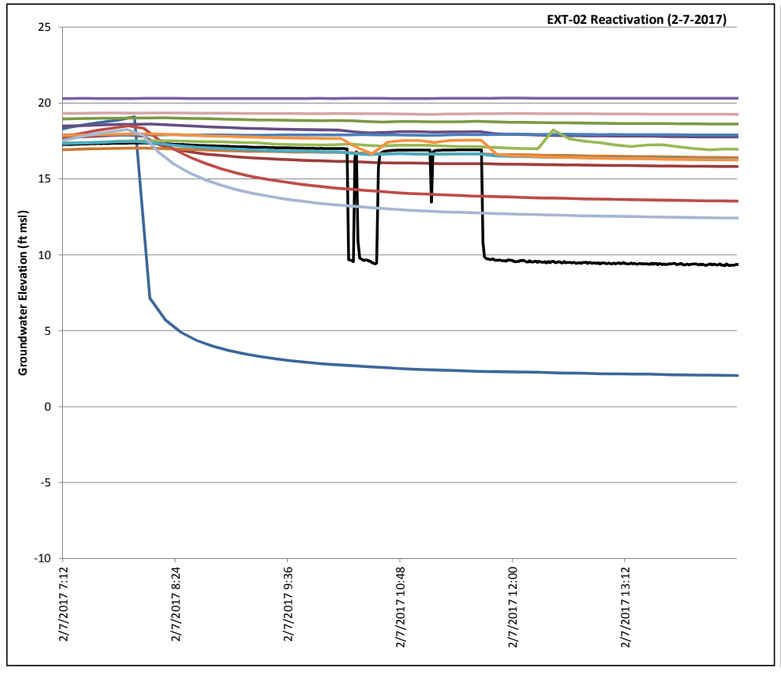
Notes:
(1) ND : No Detections
(2) Laboratory submissions of soil samples collected at groundwater boring locations occurred due to positive PID measurements during field screening.
(3) The depth of the North Shore Confining Unit defined the completion depth of each groundwater boring.
(4) No laboratory qualifiers were given for results shown.
(5) GWB-3 110' and 150' did not produce the necessary volume for sample collection.

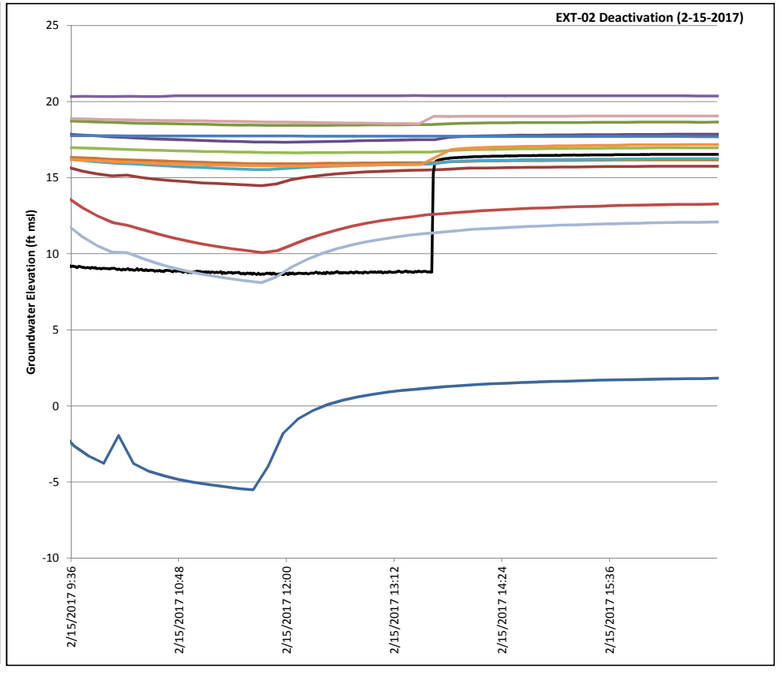
DISCRETE SOIL & GROUNDWATER SAMPLING RESULTS

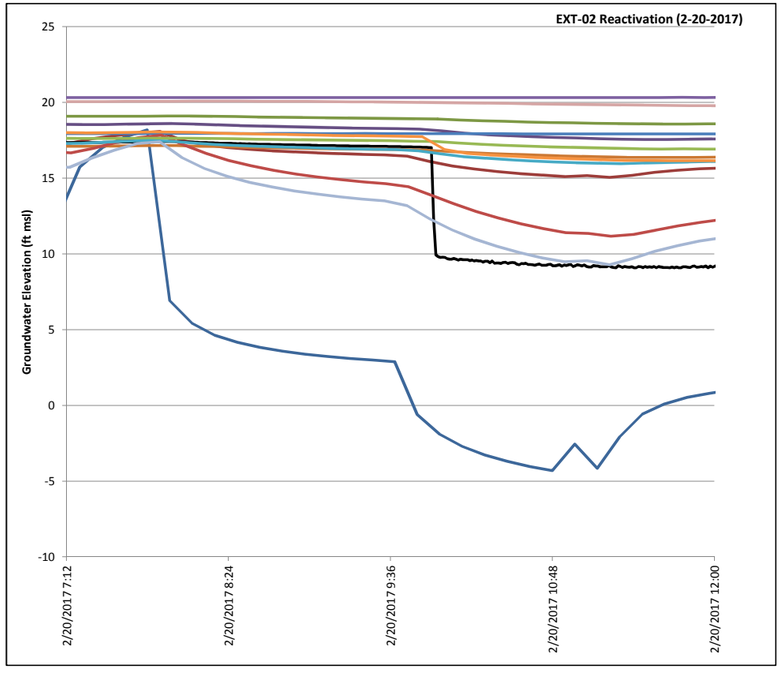
STANTON CLEANERS (NYSDEC SITE #130072)

FIGURE 6





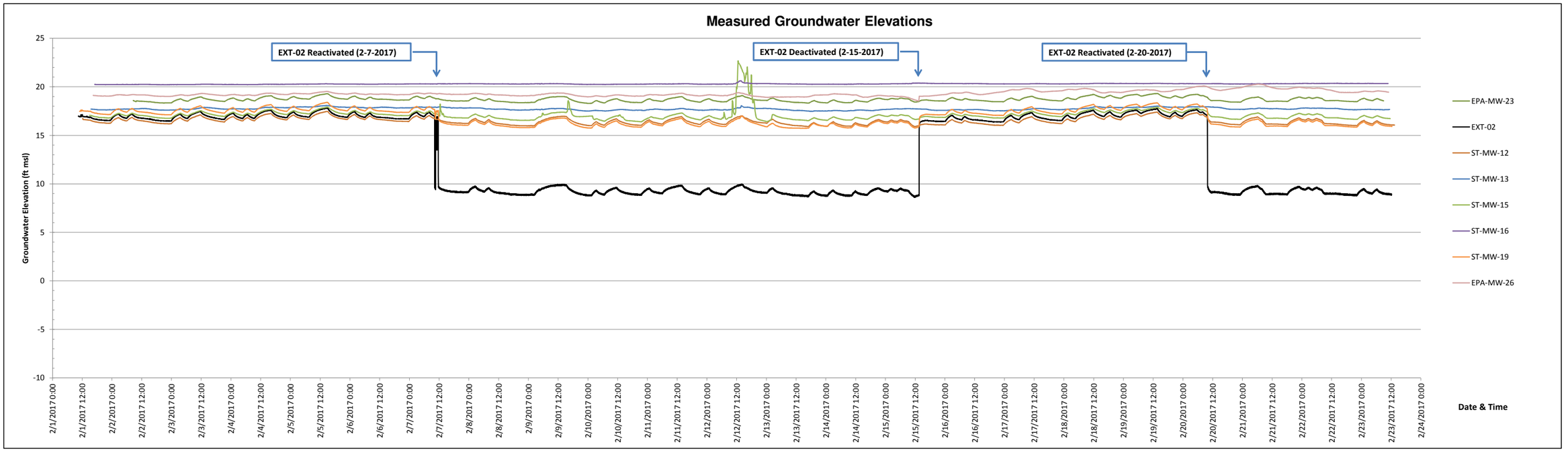


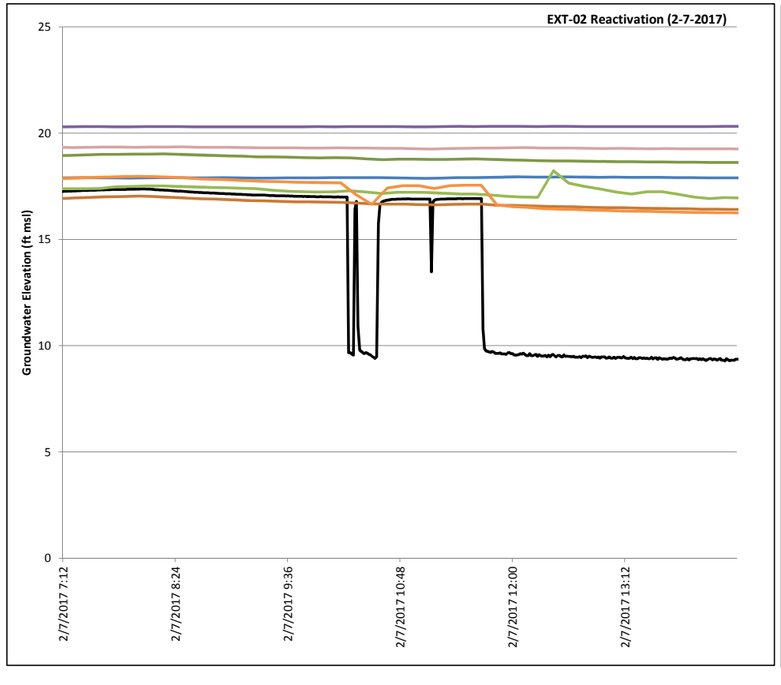


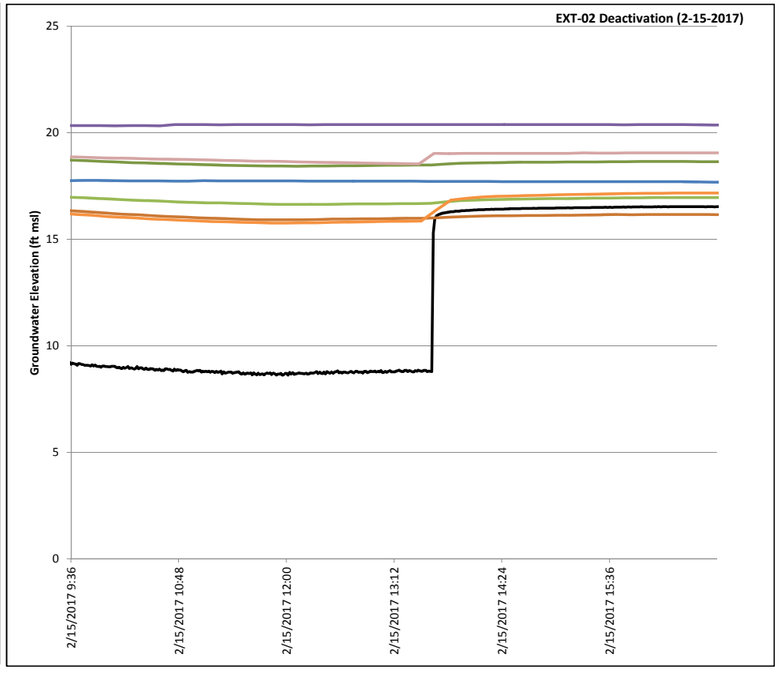
AQUIFER TESTING - FULL DATASET

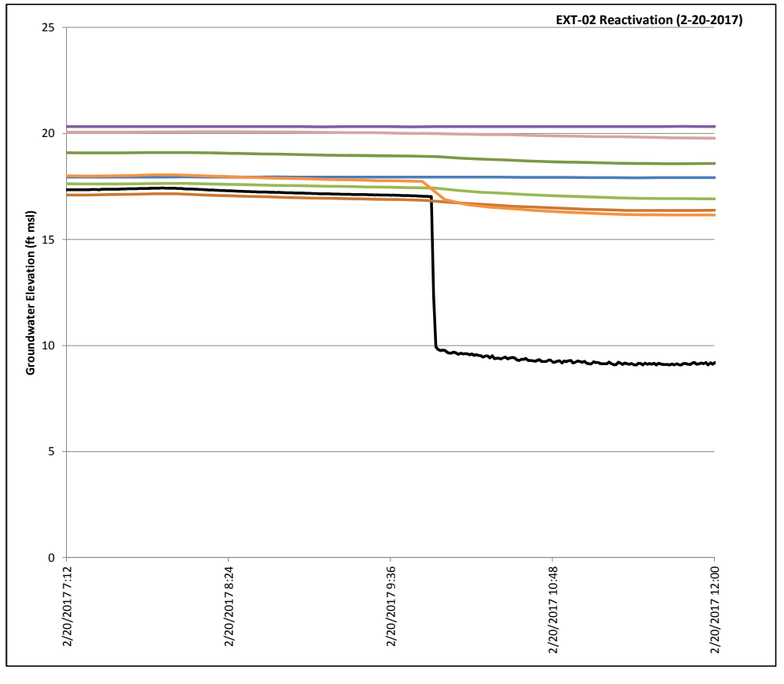
STANTON CLEANERS (NYSDEC SITE #130072)

FIGURE 7





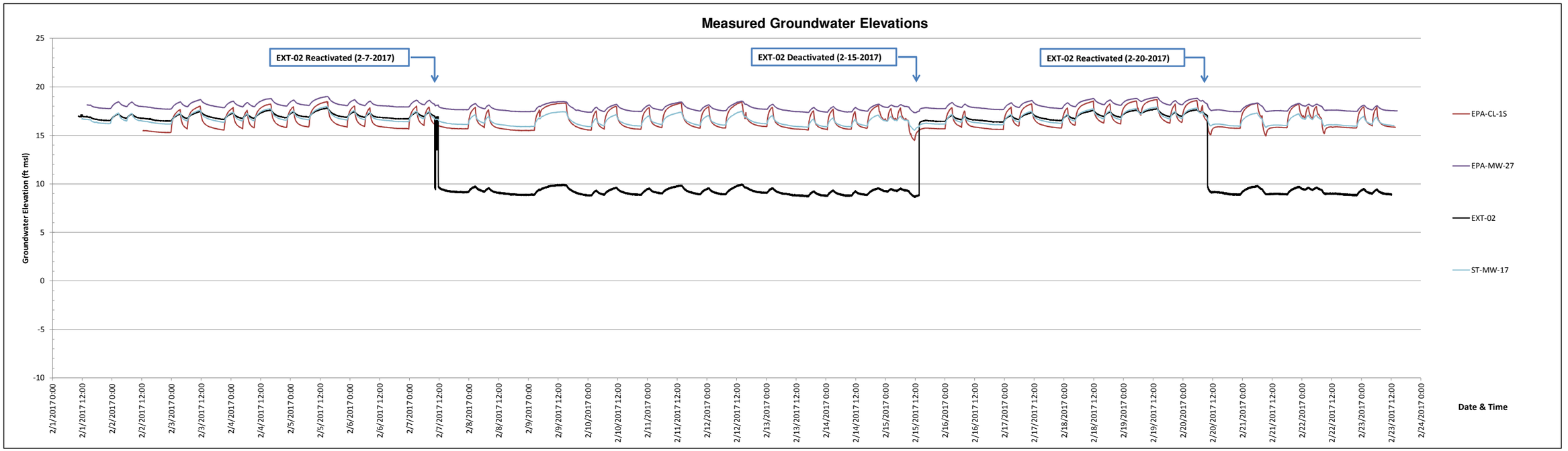


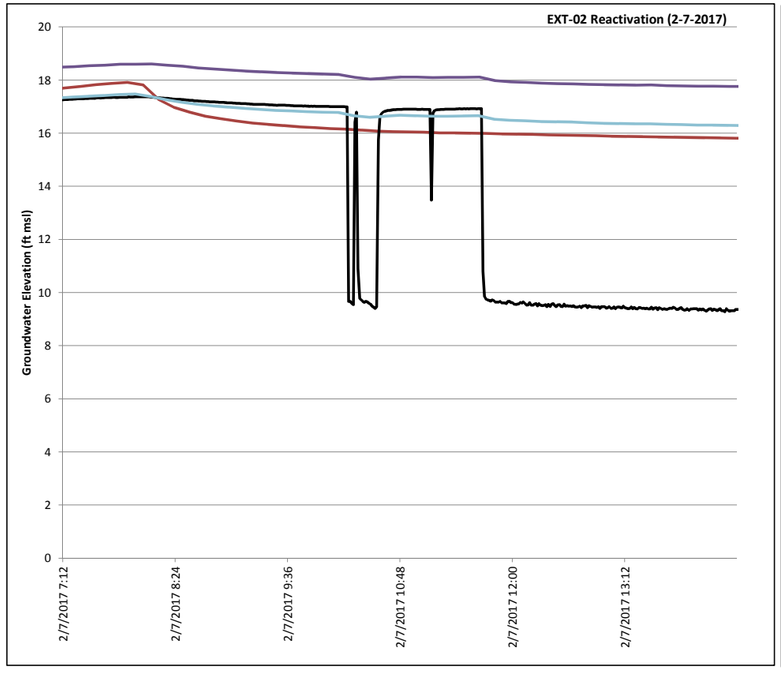


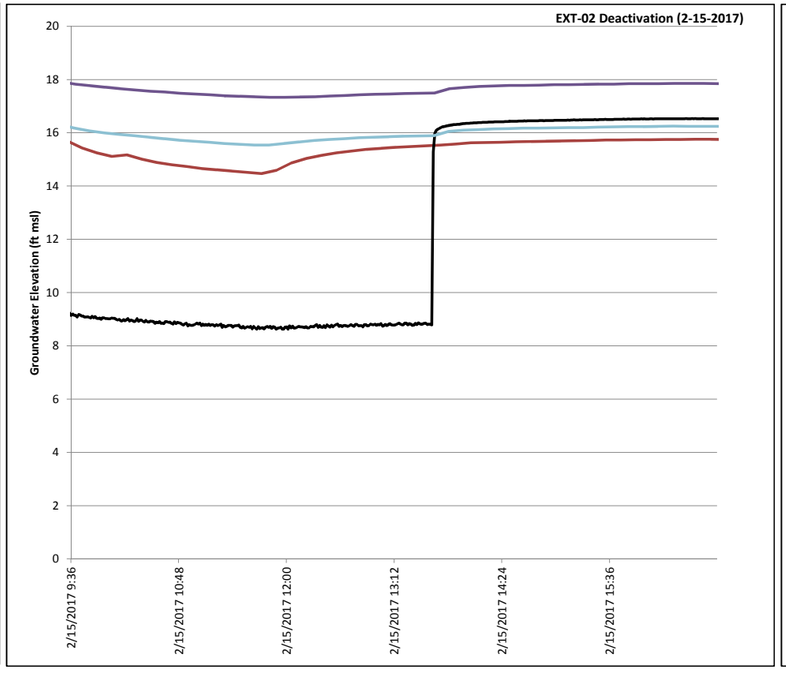
AQUIFER TESTING - SHALLOW WELLS

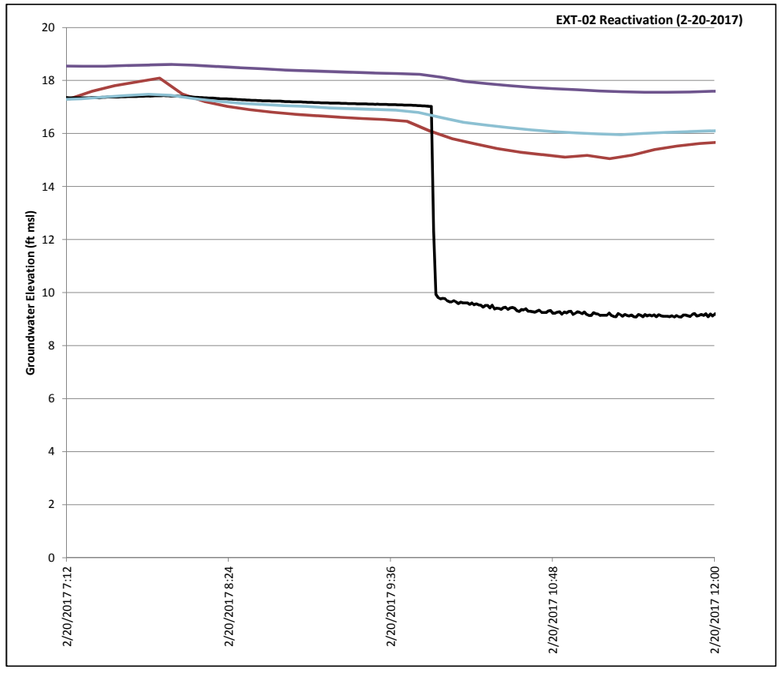
STANTON CLEANERS (NYSDEC SITE #130072)

FIGURE 8





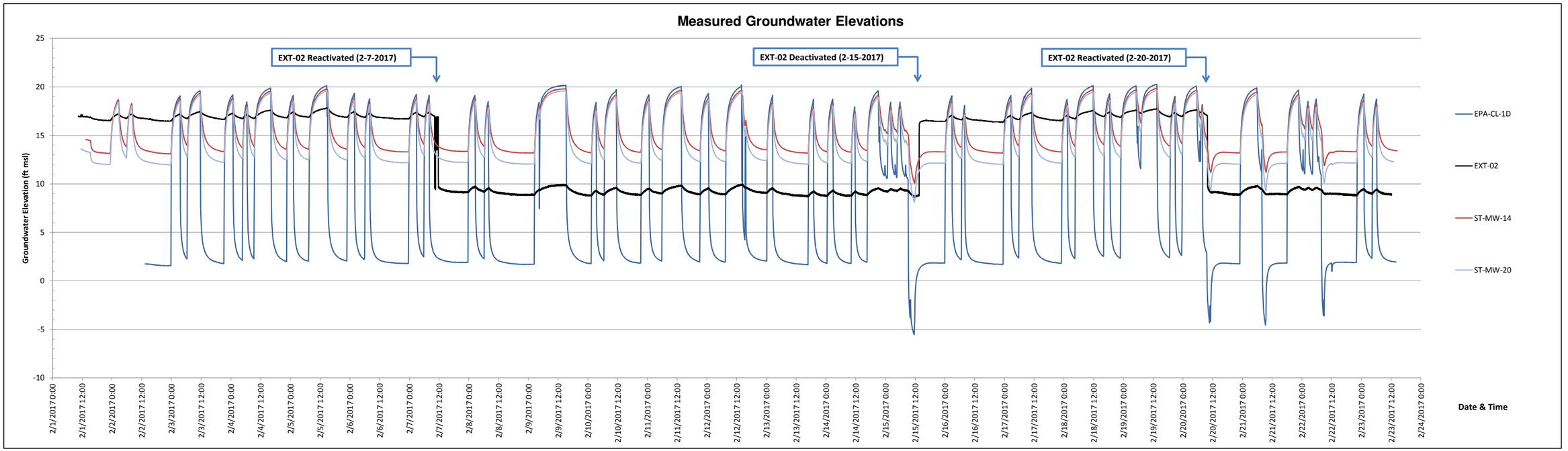


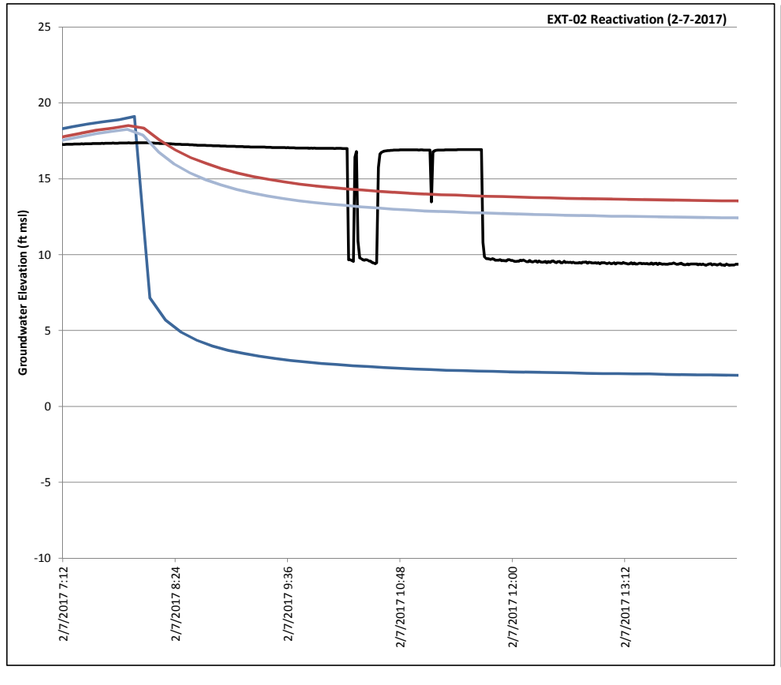


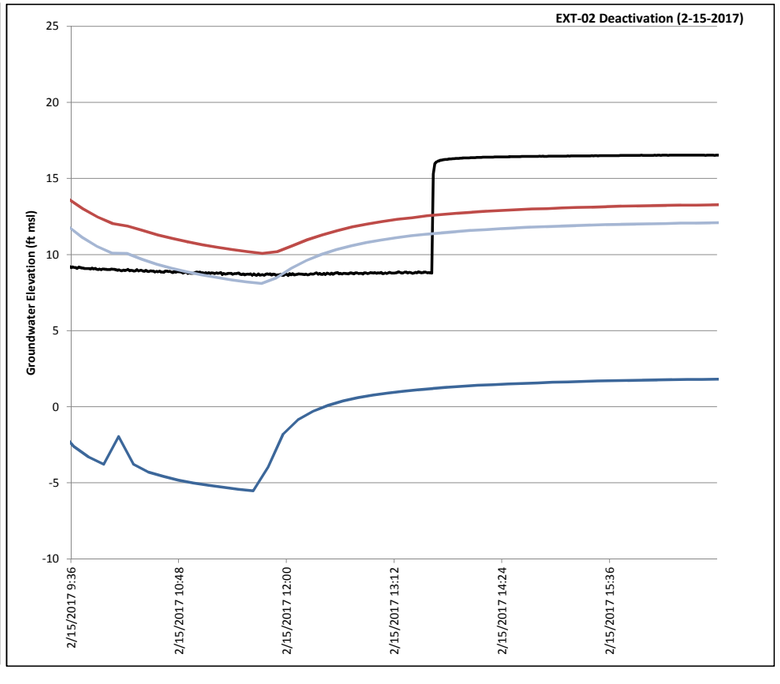
AQUIFER TESTING - INTERMEDIATE WELLS

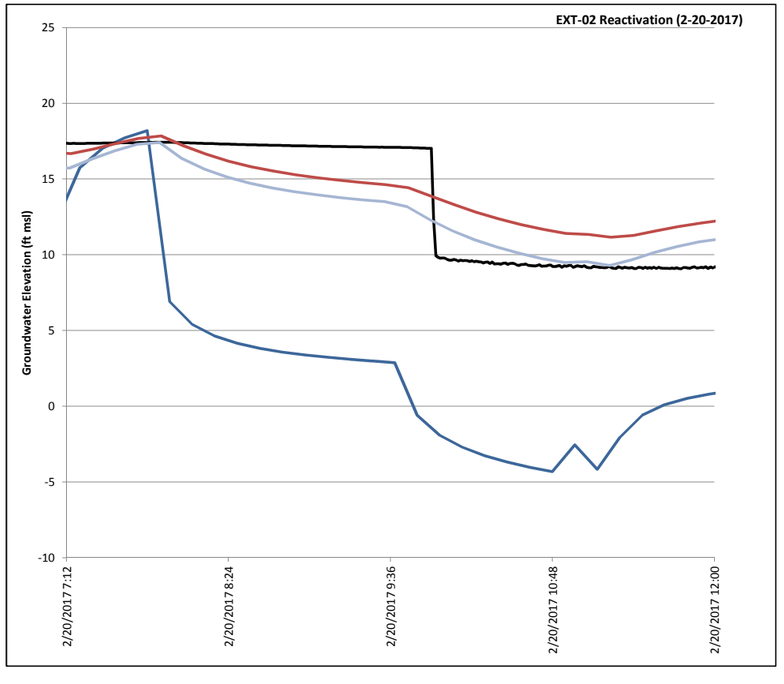
STANTON CLEANERS (NYSDEC SITE #130072)

FIGURE 9





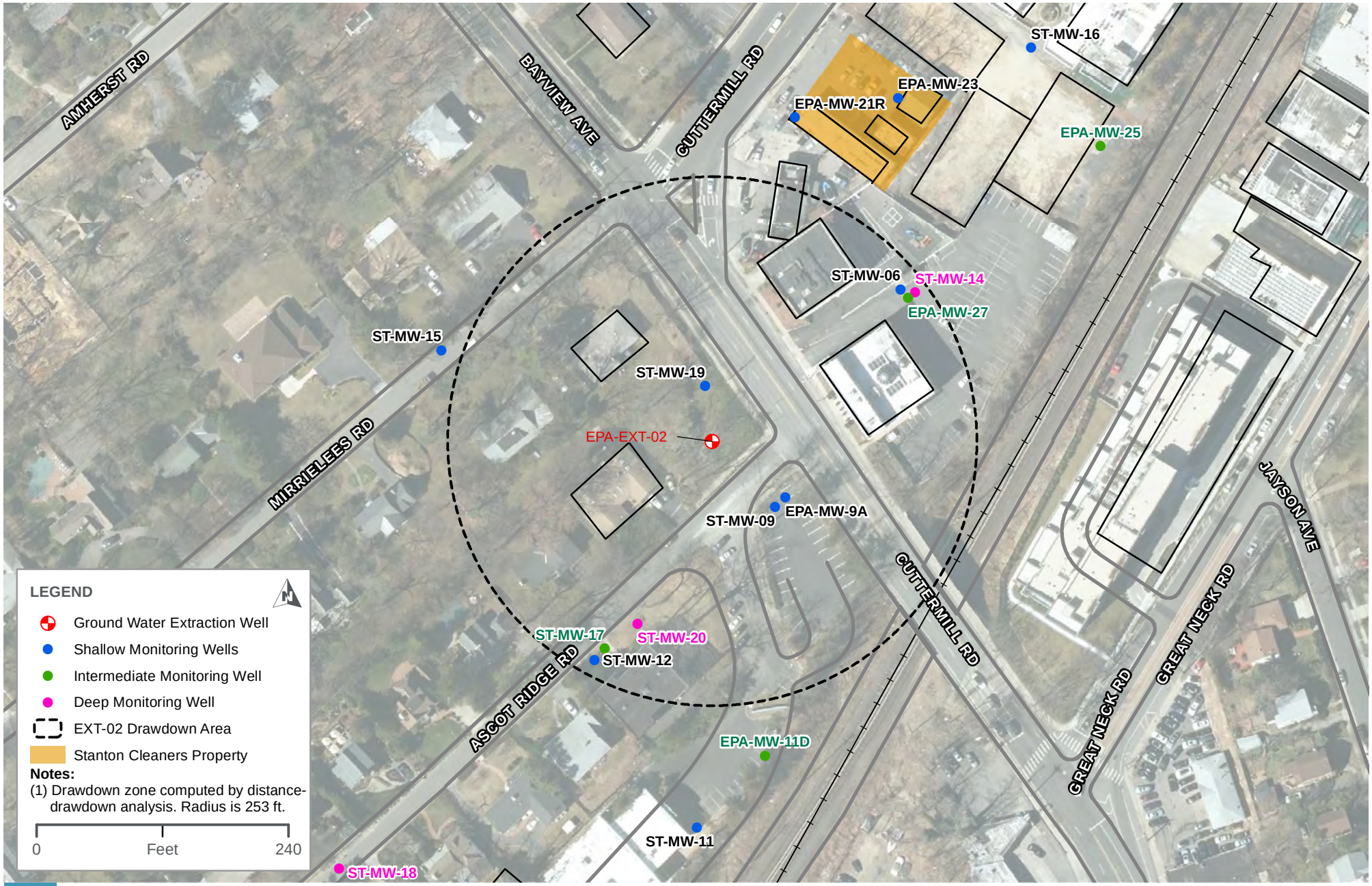




AQUIFER TESTING - DEEP WELLS

STANTON CLEANERS (NYSDEC SITE #130072)

FIGURE 10



APPROXIMATE AREA EXHIBITING POSITIVE DRAWDOWN FROM EXT-02

STANTON CLEANERS (NYSDEC SITE #130072)

FIGURE 11

PATH: Z:\D007625 NYSDEC STANDBY CONTRACT\WORK ASSIGNMENT FOLDERS\WA#6 STANTON CLEANERS SM\GIS.E\IRSO\AQUIFER_TEST_DRAWDOWNS_20170301.MXD - USER: JUSTARR - DATE: 4/17/2017

ATTACHMENT 3

SVE/GWE&T System Downtime Summary

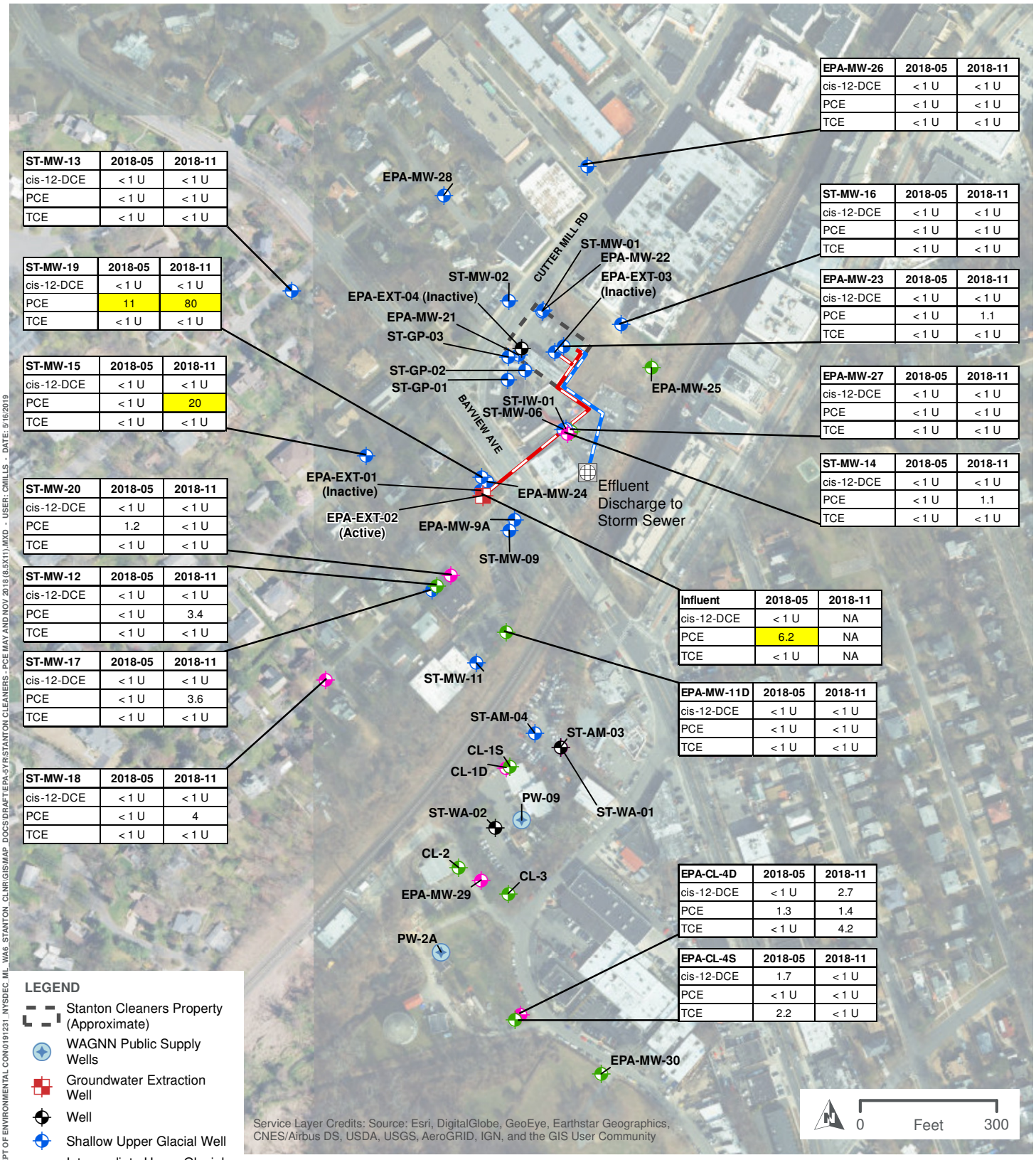
GWET and SVE System Downtime Summary
Stanton Cleaners
110 Cuttermill Road, Great Neck, NY

SVE System		
Occurance Date	**Restart Date**	**Description**
1/4/2016	9/30/2016	The blower seized and caused the SVE system to be shutdown. Administrative delays related to funding and performing repairs resulted in extended downtime.
11/1/2016	11/22/2016	System shut down due to on-going investigation activities related to the RSO.
11/28/2018	NA	The blower seized and caused the SVE system to be shutdown. Replacement/repair is pending
GWE&T System		
Occurance Date	**Restart Date**	**Description**
11/1/2016	11/22/2016	System shut down due to on-going investigation activities related to the RSO.
1/1/2017	2/20/2017	System shut down due to on-going investigation activities related to the RSO.
6/25/2018	3/29/2019	The GWE&T system was found to be off-line during the June O&M event. The pump in EXT-02 was then replaced in September 2018. Further troubleshooting lead to faulty equipment atop the exterior pole mounted transformers. After repair by the service provider, the GWE&T system was determined to be functional. However, the GWE&T system remained off during the winter of 2019 as the ceiling mounted heater burned out from the original voltage imbalance.

Note
Only downtime periods greater than 14 days are identified on this table.

ATTACHMENT 4

2018 Groundwater Sampling Summary Figures



EPA-MW-26	2018-05	2018-11
cis-12-DCE	< 1 U	< 1 U
PCE	< 1 U	< 1 U
TCE	< 1 U	< 1 U

ST-MW-13	2018-05	2018-11
cis-12-DCE	< 1 U	< 1 U
PCE	< 1 U	< 1 U
TCE	< 1 U	< 1 U

ST-MW-16	2018-05	2018-11
cis-12-DCE	< 1 U	< 1 U
PCE	< 1 U	< 1 U
TCE	< 1 U	< 1 U

ST-MW-19	2018-05	2018-11
cis-12-DCE	< 1 U	< 1 U
PCE	11	80
TCE	< 1 U	< 1 U

EPA-MW-23	2018-05	2018-11
cis-12-DCE	< 1 U	< 1 U
PCE	< 1 U	1.1
TCE	< 1 U	< 1 U

ST-MW-15	2018-05	2018-11
cis-12-DCE	< 1 U	< 1 U
PCE	< 1 U	20
TCE	< 1 U	< 1 U

EPA-MW-27	2018-05	2018-11
cis-12-DCE	< 1 U	< 1 U
PCE	< 1 U	< 1 U
TCE	< 1 U	< 1 U

ST-MW-14	2018-05	2018-11
cis-12-DCE	< 1 U	< 1 U
PCE	< 1 U	1.1
TCE	< 1 U	< 1 U

ST-MW-20	2018-05	2018-11
cis-12-DCE	< 1 U	< 1 U
PCE	1.2	< 1 U
TCE	< 1 U	< 1 U

Influent	2018-05	2018-11
cis-12-DCE	< 1 U	NA
PCE	6.2	NA
TCE	< 1 U	NA

ST-MW-12	2018-05	2018-11
cis-12-DCE	< 1 U	< 1 U
PCE	< 1 U	3.4
TCE	< 1 U	< 1 U

EPA-MW-11D	2018-05	2018-11
cis-12-DCE	< 1 U	< 1 U
PCE	< 1 U	< 1 U
TCE	< 1 U	< 1 U

ST-MW-17	2018-05	2018-11
cis-12-DCE	< 1 U	< 1 U
PCE	< 1 U	3.6
TCE	< 1 U	< 1 U

ST-MW-18	2018-05	2018-11
cis-12-DCE	< 1 U	< 1 U
PCE	< 1 U	4
TCE	< 1 U	< 1 U

EPA-CL-4D	2018-05	2018-11
cis-12-DCE	< 1 U	2.7
PCE	1.3	1.4
TCE	< 1 U	4.2

EPA-CL-4S	2018-05	2018-11
cis-12-DCE	1.7	< 1 U
PCE	< 1 U	< 1 U
TCE	2.2	< 1 U

LEGEND

- Stanton Cleaners Property (Approximate)
- WAGNN Public Supply Wells
- Groundwater Extraction Well
- Well
- Shallow Upper Glacial Well
- Intermediate Upper Glacial Well
- Deep Upper Glacial Well
- Groundwater Treatment Influent Line
- Groundwater Treatment Effluent Line
- Treated Effluent Discharge

Data Box

ST-MW-15	2018-05	2018-11
cis-12-DCE	< 1 U	< 1 U
PCE	< 1 U	20
TCE	< 1 U	< 1 U

Well ID

Event date

Analyte

Exceedance of GWQS highlighted in yellow.

Data Box Notes:

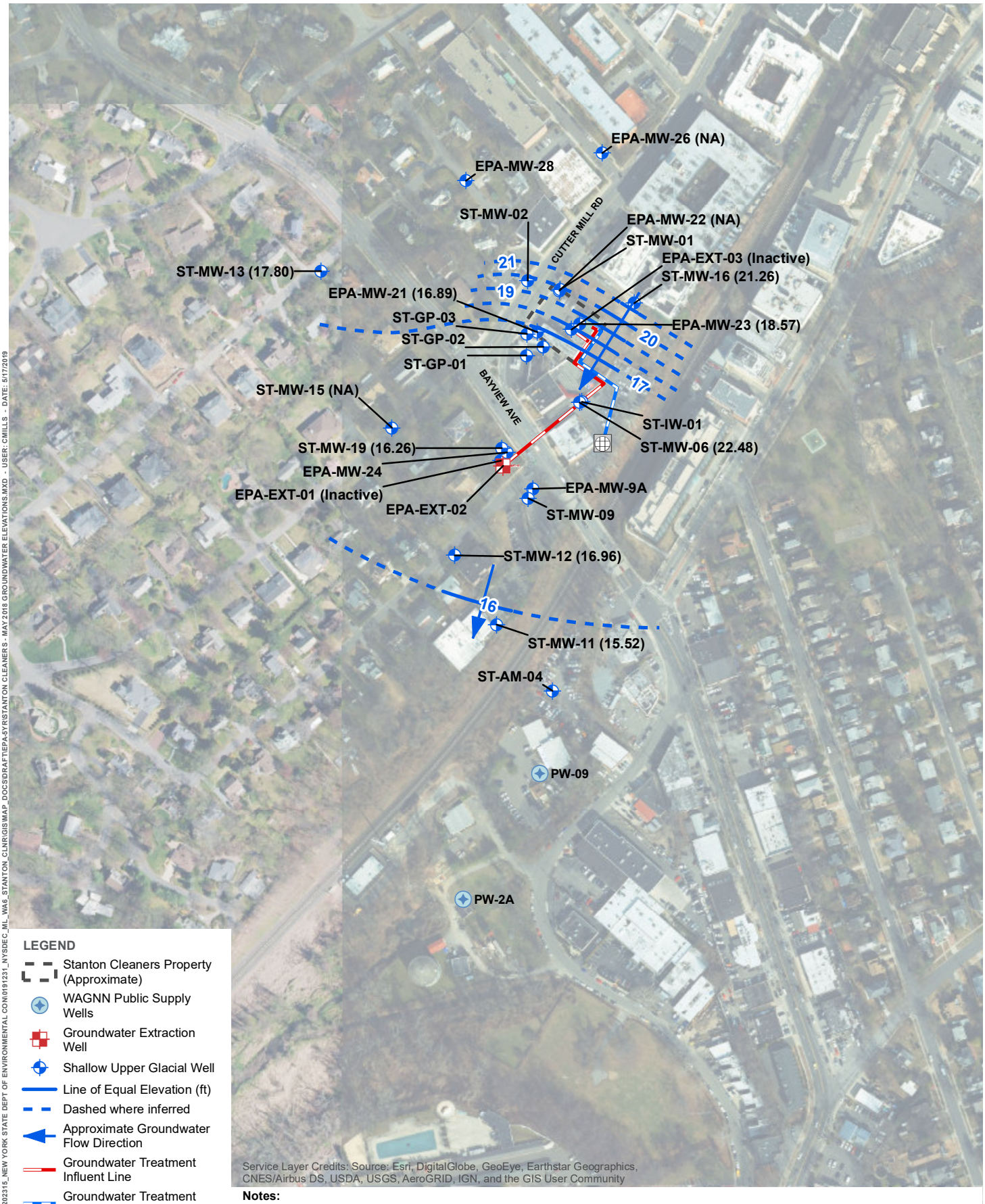
NA = Not applicable. (EPA-EXT-02 was offline Novmber 2018)
U = Not detected above the reporting limit (value shown after less than symbol)
cis-12-DCE = cis-1,2-dichloroethylene (GWQS = 5 ug/L)
PCE = Tetrachloroethylene (GWQS = 5 ug/L)
TCE = Trichloroethylene (GWQS = 5 ug/L)
GWQS = Groundwater Quality Standard (6 NYCRR Part 703.5, Table 1, Class GA)
*Only detected constituents are shown.

MAY AND NOVEMBER 2018 GROUNDWATER SAMPLE RESULTS DETECTED CONSTITUENTS

FORMER STANTON CLEANERS NYSDEC SITE #130072

FIGURE 1

PATH: \\MAHPI-FILE01\GIS_PROJECTS\202315_NEW YORK STATE DEPT OF ENVIRONMENTAL CON\0191231_NYSDEC_ML_WA6_STANTON_CLNR\GIS\MAP_DOCS\DRAFT\EPA-5YR\STANTON CLEANERS - PCE MAY AND NOV 2018 (8.5X11).MXD - USER: CMILLS - DATE: 5/16/2019



PATH: \\MAHPI-FILE01\GIS_PROJECTS\202315_NEW YORK STATE DEPT OF ENVIRONMENTAL CON\0191231_NYSDEC_ML_WA6_STANTON_CLN\RGIS\MAP_DOCS\DRAFT\EPA-SY\RISTANTON CLEANERS - MAY 2018 GROUNDWATER ELEVATIONS.MXD - USER: CMILLS - DATE: 6/17/2019

SHALLOW UPPER GLACIAL GROUNDWATER ELEVATIONS (MAY 2018)

FORMER STANTON CLEANERS NYSDEC SITE #130072

FIGURE 2

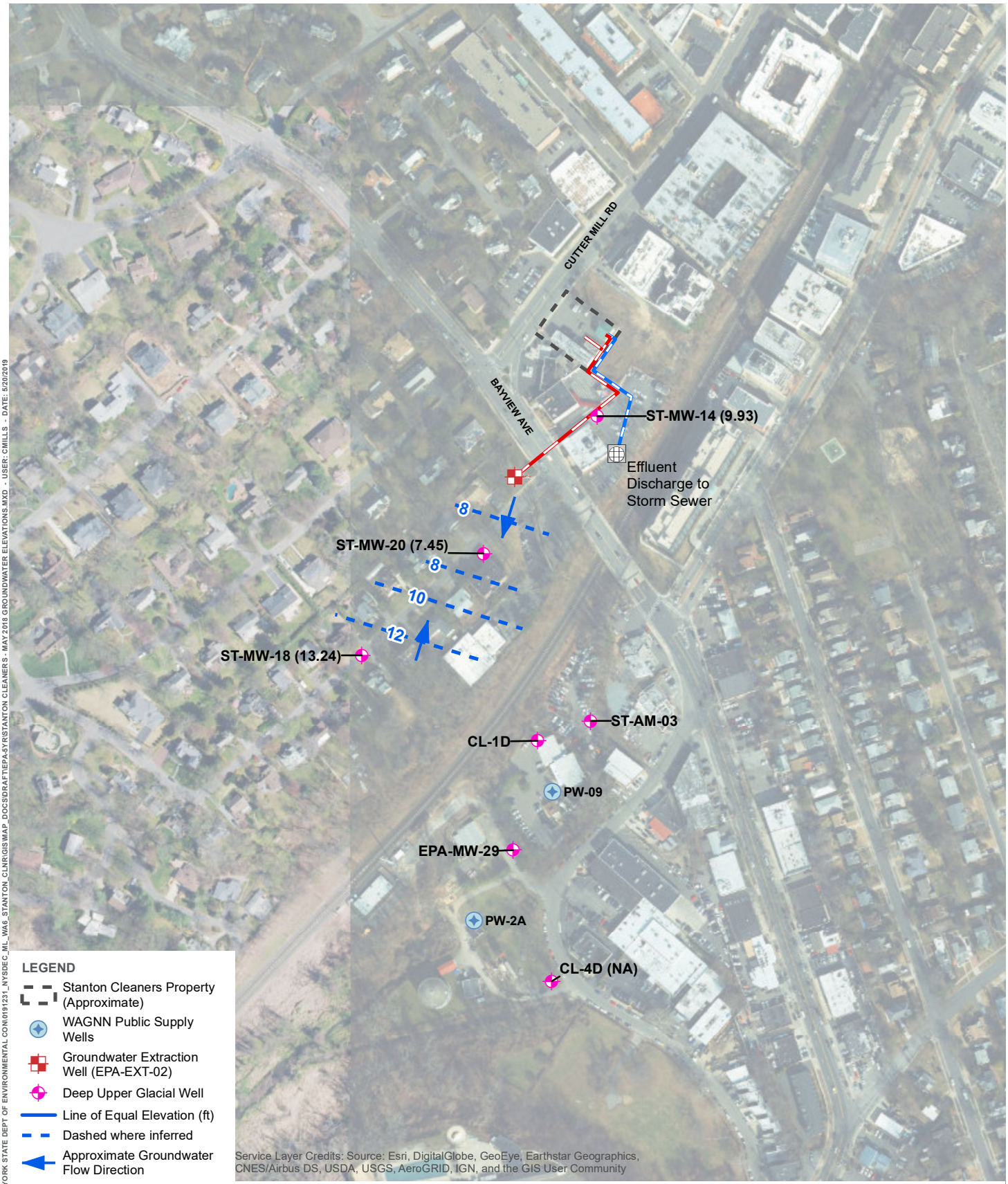
Notes:
NA = Data not available (well is part of gauging network but was not able to be gauged).
Not all wells shown are part of gauging network.
Elevations given in feet above mean sea level (NAVD88).

PATH: \\MAHPI-FILE01\GIS_PROJECTS\202315_NEW YORK STATE DEPT OF ENVIRONMENTAL CON\0191231_NYSDEC_ML_WA6_STANTON_CLN\RGIS\MAP_DOCS\DRAFT\EPA-5YR\STANTON CLEANERS - MAY 2018 GROUNDWATER ELEVATIONS.MXD - USER: CMILLS - DATE: 5/20/2019

INTERMEDIATE UPPER GLACIAL GROUNDWATER ELEVATIONS (MAY 2018)

FORMER STANTON CLEANERS NYSDEC SITE #130072

FIGURE 3



Notes:
NA = Data not available (well is part of gauging network but was not able to be gauged).
Not all wells shown are part of gauging network.
Elevations given in feet above mean sea level (NAVD88).
Contours are inferred for this depth due to limited geographic distribution of data and anomalous measurements.

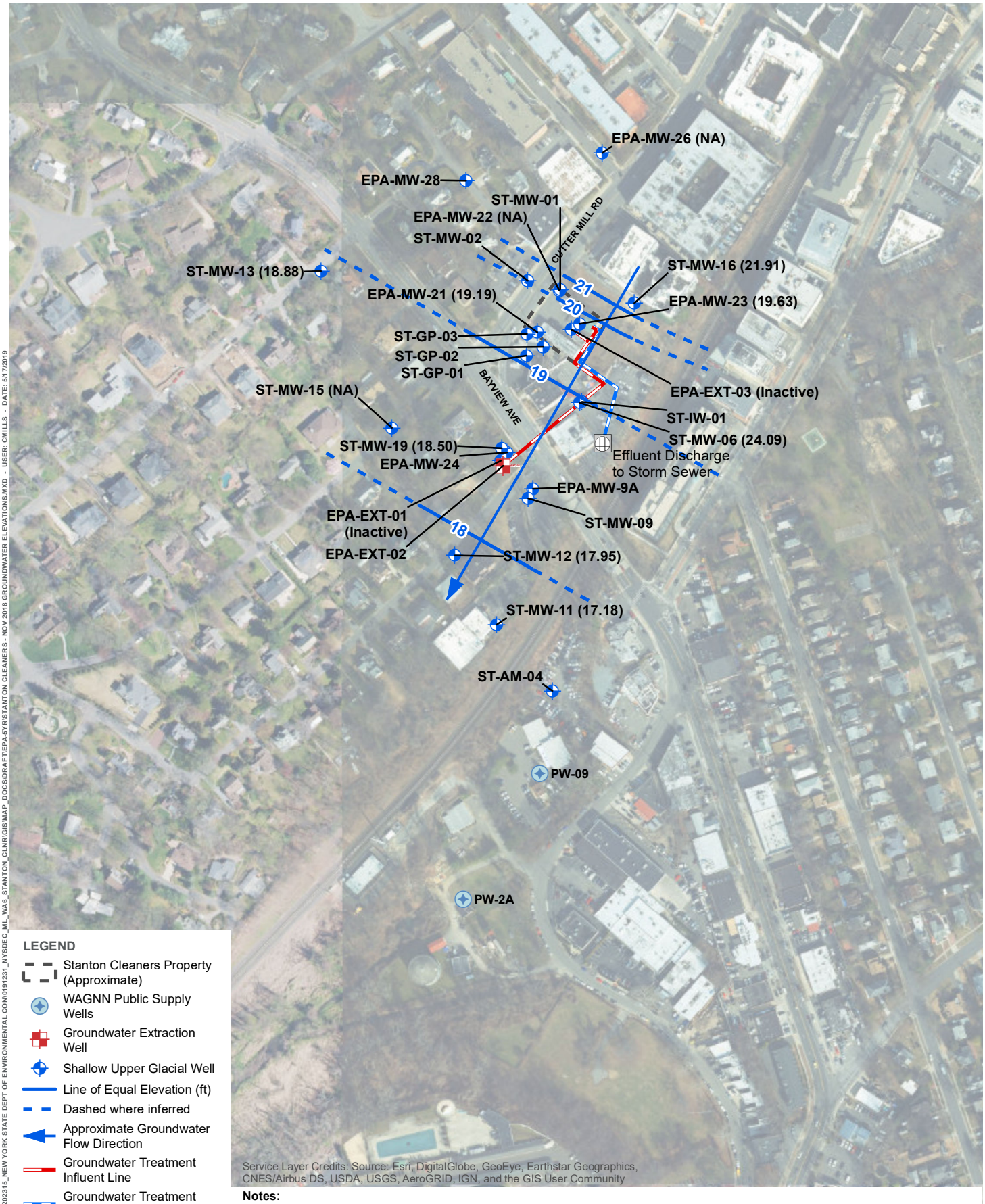
0 Feet 300

PATH: \\MAHPI-FILE01\GIS_PROJECTS\202315_NEW YORK STATE DEPT OF ENVIRONMENTAL CON\0191231_NYSDEC_ML_WA6_STANTON_CLN\RGIS\MAP_DOCS\DRAFT\EPA-5YR\STANTON CLEANERS - MAY 2018 GROUNDWATER ELEVATIONS.MXD - USER: CMILLS - DATE: 6/20/2019

DEEP UPPER GLACIAL GROUNDWATER ELEVATIONS (MAY 2018)

FORMER STANTON CLEANERS NYSDEC SITE #130072

FIGURE 4



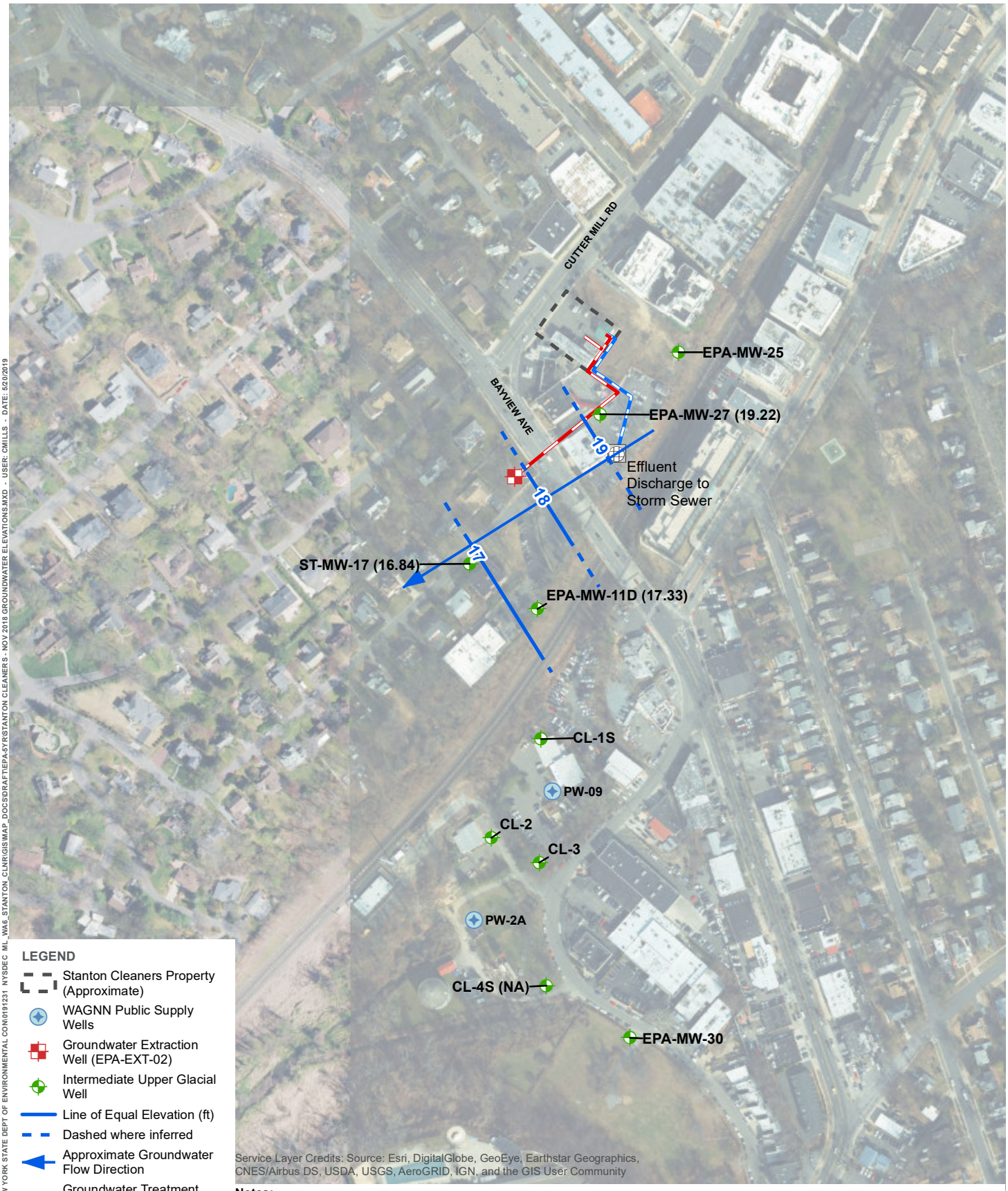
Notes:
NA = Data not available (well is part of gauging network but was not able to be gauged).
Not all wells shown are part of gauging network.

PATH: \\MAHPI-FILE01\GIS_PROJECTS\202315_NEW YORK STATE DEPT OF ENVIRONMENTAL CON\0191231_NYSDEC_ML_WA6_STANTON_CLN\RGIS\MAP_DOCS\DRAFT\EPA-5YR\STANTON CLEANERS - NOV 2018 GROUNDWATER ELEVATIONS.MXD - USER: CMILLS - DATE: 5/17/2019

SHALLOW UPPER GLACIAL GROUNDWATER ELEVATIONS (NOVEMBER 2018)

FORMER STANTON CLEANERS NYSDEC SITE #130072

FIGURE 5



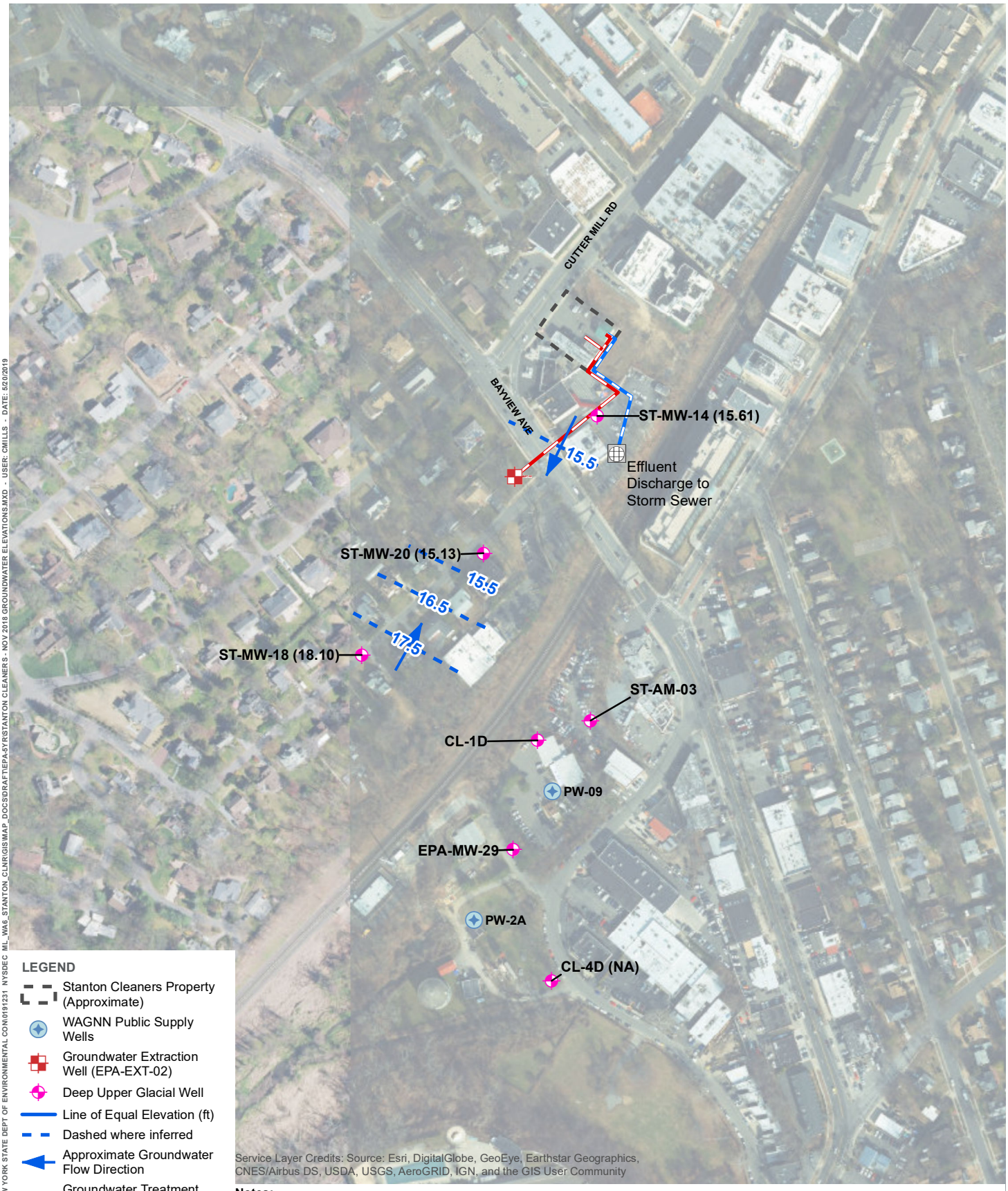
Notes:
NA = Data not available (well is part of gauging network but was not able to be gauged).
Not all wells shown are part of gauging network.
Elevations given in feet above mean sea level (NAVD88).

PATH: \\MAHPI-FILE01\GIS PROJECTS\202315 NEW YORK STATE DEPT OF ENVIRONMENTAL CON\0191231 NYSDEC ML_WA6_STANTON_CLN\RGIS\MAP_DOCS\DRAFT\EPA-SYR\STANTON CLEANERS - NOV 2018 GROUNDWATER ELEVATIONS.MXD - USER: CMILLS - DATE: 5/20/2019

INTERMEDIATE UPPER GLACIAL GROUNDWATER ELEVATIONS (NOVEMBER 2018)

FORMER STANTON CLEANERS NYSDEC SITE #130072

FIGURE 6



Notes:
NA = Data not available (well is part of gauging network but was not able to be gauged).
Not all wells shown are part of gauging network.
Elevations given in feet above mean sea level (NAVD88).
Contours are inferred for this depth due to limited geographic distribution of data and anomalous measurements.

0 Feet 300

PATH: \\MAHPI-FILE01\GIS PROJECTS\202315 NEW YORK STATE DEPT OF ENVIRONMENTAL CON\0191231 NYSDEC ML_WA6_STANTON_CLN\RI\GIS\MAP_DOCS\DRAFT\EPA-5YR\STANTON CLEANERS - NOV 2018 GROUNDWATER ELEVATIONS.MXD - USER: CMILLS - DATE: 5/20/2019

DEEP UPPER GLACIAL GROUNDWATER ELEVATIONS (NOVEMBER 2018)

FORMER STANTON CLEANERS NYSDEC SITE #130072

FIGURE 7

ATTACHMENT 5

Contractor SOW for Horizontal SVE Wells

SCOPE OF WORK

Horizontal Soil Vapor Extraction Well Installations
Site Name: Stanton Cleaners
Site Location: 110 Cuttermill Rd, Great Neck, New York
NYSDEC Site No: 130072

Henningson, Durham & Richardson Architecture and Engineering, P.C. (HDR), on behalf of the New York State Department of Environmental Conservation (NYSDEC), has prepared this scope of work (SOW) for the proposed installation of two horizontal soil vapor extraction (hSVE) wells at the Stanton Cleaners soil and groundwater contamination site located at 110 Cuttermill Road in Great Neck, New York (the site). This SOW has been prepared for the contractor's use and includes the following:

- Background
- General contractor provisions
- Drilling methods and procedures
- Proposed hSVE well constructions
- Costs

HDR anticipates that this work will be completed in a single mobilization during the spring of 2019. If selected contractor will be required to enter into and sign a Subcontract Agreement with HDR. Additionally included with this SOW are the following attachments:

Figure 1 – Proposed Horizontal SVE Well Location Map
Figure 2 – Horizontal SVE Well, Cross-Sectional View

Attachment 1 – Photo-graphic Site Log
Attachment 2 – Unit Price Schedule

Please remit your notice of interest and requested cost documentation (**Attachment 2**) to Justin King at Justin.King@hdrinc.com by 4 pm, April 8, 2019. If you have any comments, questions, or concerns, please do not hesitate to contact me at the provided email address or at (518) 937-9509.

Sincerely,

Justin King

Background

Three buildings occupy the approximately ¼ acre site: a two-story vacant building and the former dry cleaner, Stanton Cleaners; a vacant one-story boiler/storage building; and a two-story soil and groundwater remediation system building. The two proposed hSVE well locations are located on-site and underneath the vacant Stanton Cleaners and adjacent boiler room buildings. A map showing the general site layout and proposed hSVE well locations is provided as **Figure 1**.

Long Island's geology is composed of a sequence of unconsolidated glacial, lacustrine, deltaic, and marine deposits of clay, silt, and gravel ranging in age from Upper Cretaceous to Pleistocene. Historical site investigations indicate that shallow soil around the buildings (between 0 to 15 feet below ground surface (bgs)) primarily consist of fine to medium grained sand interspersed with silt, silty clay, and gravel. Soil types underlying the vacant Stanton Cleaners and adjacent boiler room buildings are currently unknown and may potentially consist of an equally unknown imported fill material. Site groundwater elevations are typically measured at depths between 45 to 75 feet bgs and are not anticipated to be encountered during this activity.

Historical subsurface investigations (SSIs) indicate that onsite soil and groundwater contamination is present due to the improper disposal of spent dry cleaning solvent from the former Stanton Cleaners dry cleaning operation. Contaminants of concern (COCs) detected in soil, groundwater, and soil vapor include the volatile organic compounds (VOCs), tetrachloroethylene (PCE) and trichloroethene (TCE). During the most recent SSI in January 2017, shallow on-site soils (samples collected at depth of 5 and 10 feet bgs) indicate minor to non-detect (ND) concentrations of PCE. Sub-slab vapor samples within the Stanton Cleaners building however, have shown elevated PCE concentrations ranging from 1,763 micrograms per cubic meter $\mu g/m^3$ (highest detection in September 2017, when the site was vacant) to 845,614 $\mu g/m^3$ (highest detection in September 2016, while the site was an active dry cleaner). PCE and/or TCE impacted soils and return wash water may be encountered during drilling activities.

General Provisions

The contractor shall provide and pay for materials, equipment, permits, and all incidentals required for the completion of the work as described below.

The contractor shall confine their operations and equipment to the area permitted by HDR and secure the work area at the end of each day. The contractor shall be responsible for all safety precautions and programs associated with their assigned tasks, including compliance with the HDR Program Health and Safety Plan (HASP). The contractor shall also keep the operational

area free from unreasonable accumulations of waste material and debris and, upon completion of the work, remove all waste and debris generated during the drilling.

Additional requirements of the selected contractor shall include but are not limited to:

- The selected contractor will be responsible for any required permits.
- Notify Dig Safely New York to identify public subsurface utilities in the area. The contractor will provide copies of all ticket submissions and confirmation receipts to HDR.
- All on-site personnel will be required to have initial Occupational Safety and Health Administration (OSHA) 40-hour hazardous waste operations and emergency response (HAWOPER) and up to date annual 8-hour refreshers. Training documents for each individual will be provided to HDR prior to mobilization. Personnel without the required training will not be permitted to perform work.
- Maintain and utilize a minimum of Level D personal protective equipment (PPE) during all work activities.
- Adhere to the drilling methods and procedures outlined in the subsequent section.
- Submit copies of driller's boring logs and daily reports to HDR documenting unit price items and quantities used during each day.

HDR will be responsible for the following:

- HDR will obtain access at the site and at the off-site entry locations and staging area.
- Act as liaison between the contractor, NYSDEC, and the current on an off-site owners.
- Perform particulate and VOC air monitoring activities in accordance with the HDR Community Air Monitoring Program (CAMP). If CAMP exceedances are detected, work will be stopped and corrective measures will be taken by the contractor to reduce air borne dust and/or VOCs.
- Contract a private utility markout firm to locate all on-site utilities within the anticipated horizontal bore path.
- Contract a separate firm to manage the disposal of all investigation derived waste (IDW). One lined 20-yard roll off and 55-gallon steel drums (with pallets) will be provided by the IDW firm for the selected contractor's use.

Drilling Methods and Procedures

It must be noted that the staging area/boring entry points are lower in elevation than the site itself. Based on existing elevation data for current remediation system wells and historical borings the

approximate on-site ground surface elevations between the Stanton Cleaners and boiler room buildings is 83 feet above mean sea level (amsl) and at the staging area/boring entry points is 74 feet amsl, resulting in an approximate 9-foot elevation difference. Separating the two properties is a slope encased in concrete.

Access between the site and off-site staging area is made via a stairway located on the concrete slope. Vehicular access to the off-site area is made via a driveway located north of the site. Due to its current use (parking lot) it is anticipated that the contractor will have limited access to the site. A photo-graphic log of the off-site staging area and concrete slope is provided in **Attachment 2**.

General drilling method and procedure requirements can be found below:

- The contractor will be required to provide their own water supply during drilling operations via water truck or trailer. A water source is not located at the work area.
- The contractor will be required to penetrate the concrete slope at two locations to a size adequate enough to perform the horizontal drilling and subsequent hSVE well installation.
- The contractor will be required to contain all drill cuttings and impacted mud at the work area, and utilize the appropriate equipment to convey such spoils to the HDR provided lined roll-off.
- The contractor is required to decontaminate all tooling in contact with subsurface soils between boring locations.
- The contractor is required to utilize walkover locating to confirm the depth and length of each hSVE well location. It should be noted that both proposed hSVE wells will be installed underneath building concrete slabs.
- The contractor is required to install tracer wire alongside each hSVE well so that it can be located underneath the buildings during any future SSI, building renovation, or similar disturbance.
- Utilize drill tooling of adequate size to properly install and seal 3-inch inner diameter (ID) pipe.
- Soil samples are not anticipated to be collected during the activity. Access to the drilling mud exiting the formation will be requested by HDR personnel if safe to do so. HDR will collect the drilling mud in an effort to classify subsurface soils and assess it for the visual, olfactory, and photo-ionic presence of contamination.
- The contractor will be required to develop each hSVE well to flush the screen and remove all drilling fluids.

Proposed hSVE Well Constructions

hSVE-01 (under Stanton Cleaners building)

- Target well depth of 5-feet bgs underneath the building (approx. 78 feet amsl) with a 2% slope downward from the south eastern building edge to the north western termination point (lowest elevation to be approximately 6-feet bgs). This will allow the downward drainage of condensate back to the formation rather than out the riser during SVE operations. (See **Figure 2** for cross-sectional view of example hSVE-01).
- Alternatively, if the elevation rise over the first 25 feet (within the slope and prior to the building) is too sharp to allow the the installation of the hSVE, the target well depth will be 7-feet bgs underneath the building (approx. 76 feet amsl) with a 2% slope downward from the south eastern building edge to the north western termination point (lowest elevation to be approximately 8-feet bgs). This will allow a borehole entry at 0° and maintain that elevation until underneath the target building. (See **Figure 2** for cross-sectional view of example hSVE-01).
- Approximately 50-feet of 3-inch ID, 0.10-slot screen – Schedule 80 PVC
- Approximately 30-feet of 3-inch ID riser – Schedule 80 PVC
- Well riser to be sealed in place with a neat non-shrink grout.
- Final 3-feet near the concrete slope to be supported in-hole by steel casing or plastic corrugated sono-tube.
- Leave a 2-foot well stub-out exiting the slope and finished with a locking j-plug. This will sufficient ample material to use during subsequent modifications and hook-ups to the existing SVE system by others.
- Final screen and riser lengths may be modified during the drilling activities based on field conditions.

hSVE-02 (under boiler building)

- Target well depth of 5-feet bgs underneath the building (approx. 78 feet amsl) with a 2% slope downward from the south eastern building edge to the north western termination point (lowest elevation to be approximately 5.5 feet bgs). This will allow the downward drainage of any condensate back to the formation rather than out the riser during SVE operations.
- Alternatively, if the elevation rise over the first 25 feet (within the slope and prior to the building) is too sharp to allow the the installation of the hSVE, the target well depth will be 7-feet bgs underneath the building (approx. 76 feet amsl) with a 2% slope downward from the south eastern building edge to the north western termination point (lowest

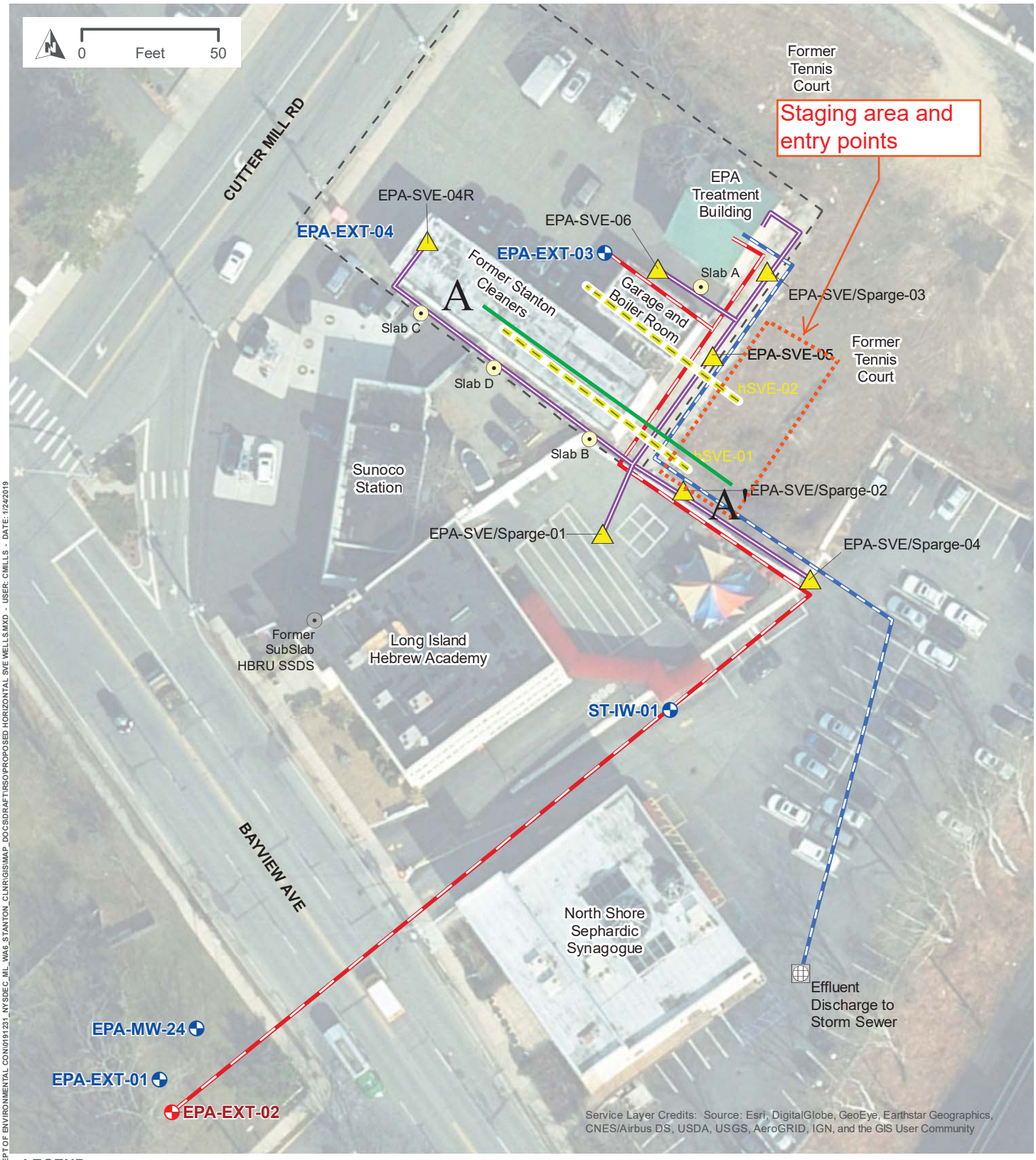
elevation to be approximately 7.5-feet bgs). This will allow a borehole entry at 0° and maintain that elevation until underneath the target building. (See **Figure 2** for cross-sectional view of example hSVE-01).

- Approximately 30-feet of 3-inch ID, 0.10-slot screen – Schedule 80 PVC
- Approximately 30-feet of 3-inch ID riser – Schedule 80 PVC
- Well riser to be sealed in place with a neat non-shrink grout
- Final 3-feet near the concrete slope to be supported in-hole by steel casing or plastic corrugated sono-tube.
- Leave a 2-foot well stub-out exiting the slope and finished with a locking j-plug. This will provide sufficient material to use during subsequent modifications and hook-ups to the existing SVE system by others.
- Final screen and riser lengths may be modified during drilling activities based on field conditions.

Costs

The cost for this project is based on the unit price schedule provided in **Attachment 2**. The estimated project costs are determined based on the provided unit costs and anticipated number of units to complete the project prior to initiation. The actual project costs will be determined based on the approved unit rates multiplied by the actual quantities necessary for the completion of the work as documented in daily reports and summarized on the project invoice. The unit prices include all manpower, equipment, and any fees and sales tax.

FIGURES



LEGEND

- Stanton Cleaners Property (Approximate)
- Ground Water Extraction Well
- Non-Operational Extraction Well
- SVE Well
- Existing SVE System Suction Line
- Proposed Horizontal SVE Well
- Groundwater Treatment Influent Line
- Groundwater Treatment Effluent Line
- Effluent Discharge

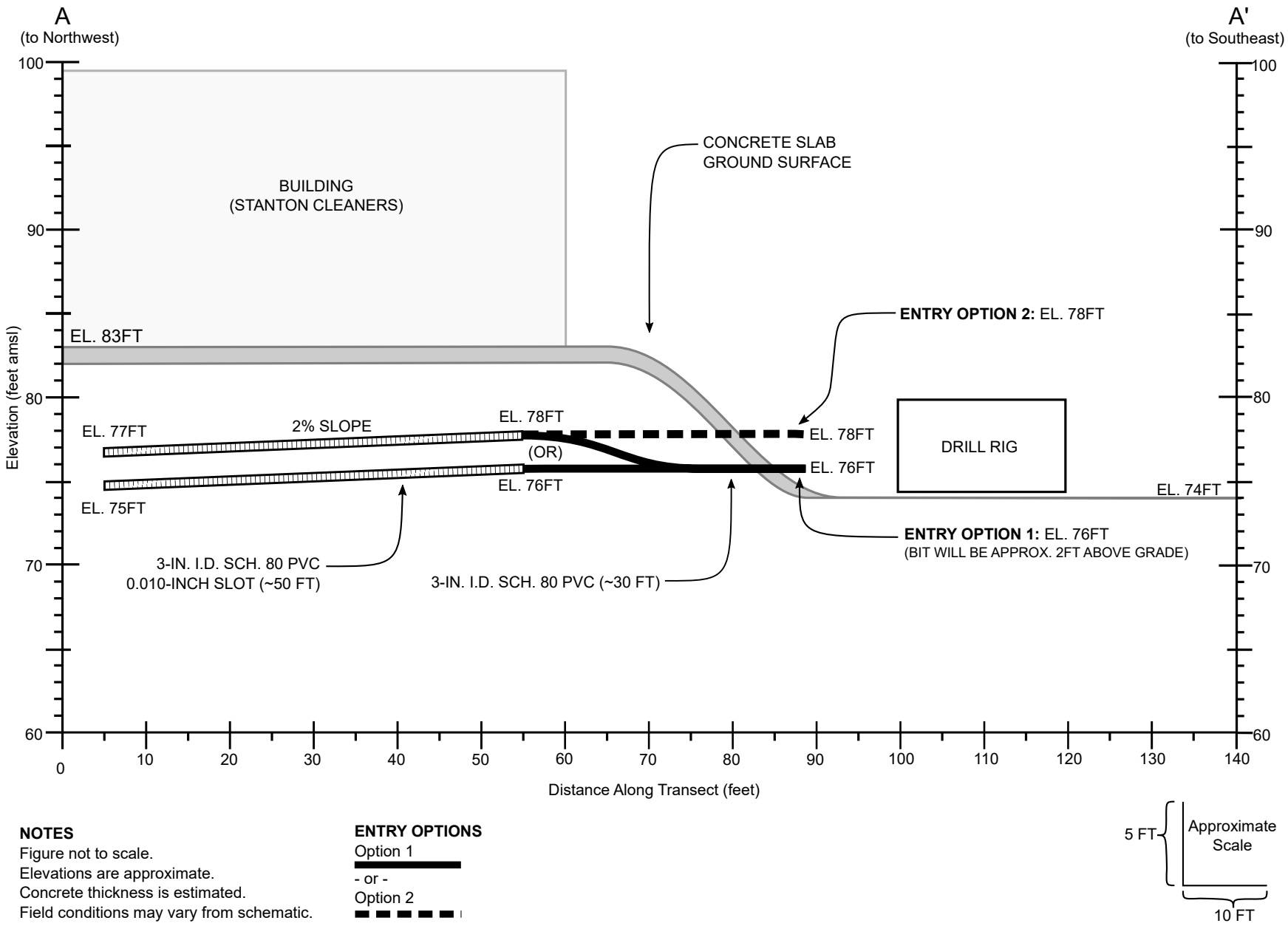
PATH: \\MAHPI-FILE01\GIS_PROJECTS\202316_NEW YORK STATE DEPT OF ENVIRONMENTAL CON\0191231_NYSDEC_ML_WA6_STANTON_CLN\RI\GIS\MAP_DOCS\DRAFT\RSO\PROPOSED HORIZONTAL SVE WELLS.MXD - USER: CMILLS - DATE: 1/24/2019

PROPOSED HORIZONTAL SVE WELL LOCATIONS

STANTON CLEANERS - NYSDEC SITE #130072

FIGURE 1

HORIZONTAL SVE WELL WORKPLAN



NOTES
Figure not to scale.
Elevations are approximate.
Concrete thickness is estimated.
Field conditions may vary from schematic.

ENTRY OPTIONS
Option 1
- or -
Option 2

hSVE-01 CROSS SECTIONAL VIEW

STANTON CLEANERS - NYSDEC SITE # 130003

FIGURE 2
STANTON CLEANERS HORIZONTAL DRILLING PLAN

ATTACHMENT 1

PHOTOGRAPHIC LOG

Client Name/Contract	Site Location:	Project No.
NYSDEC / D007625-06	Stanton Cleaners	10018218

Photo No.	Date:
1	11/28/18

Side view of the slope. Photo is taken from the side of the slope and adjacent to the Stanton. Remediation conveyance lines also visible.

Photo looking north east.

Photo No.	Date:
2	11/22/16

Description:

View of the concrete slope, Stanton Cleaners building (left),and boiler room building (right). Photo taken from bottom of off-site slope.

Photo is looking north west.

PHOTOGRAPHIC LOG

Client Name/Contract	Site Location:	Project No.
NYSDEC / D007625-06	Stanton Cleaners	10018218

Photo No.	Date:
3	11/14/16

Description:

View of staging area and work area against slope.

Photo is looking south.

Photo No.	Date:
4	2/1/19

Description:

View of staging area and work area against slope. At the top of the slope from left to right, Stanton Cleaners, Boiler building, Remediation system building.

Photo is looking north west.

ATTACHMENT 2

Contractor Bid Sheet for HDR

Scope: Horizontal SVE Well Installation **Date**

Project: Stanton Cleaners - NYSDEC Standby D007625 WA# 06

Firm:

Activities

Line No	Description	Unit Cost	Unit	Qty	Cost
1	Mob/Demob		LS	1	$ -
2	Horizontal Drilling w/ locator		per ft	160	$ -
3	3-inch ID Sch. 80 PVC Riser*		per ft	80	$ -
4	3-inch ID Sch. 80 PVC Screen*		per ft	100	$ -
5	Grout backfill riser		per ft	40	$ -
6	Protective casing		ea	2	$ -
7	Well Development		per hr	4	$ -
8	Decon pad construction		LS	1	$ -
9	Decon between borings		per hr	4	$ -
10	Spoils Management		per hr	5	$ -
11	Jackhammering (one man crew)		per hr	4	$ -
12	Concrete Cutting (one man crew)		per hr	4	$ -
				Total	**$ -**

Equipment

Line No	Description	Unit Cost	Unit	Qty	Cost
13	Grout Pump		per day	5	$ -
14	Steam Cleaner		per day	5	$ -
15	Water Tanker		per day	5	$ -
16	Generator		per day	5	$ -
17	Jackhammer		per day	5	$ -
18	Compressor		per day	5	$ -
19	Concrete Saw		per day	5	$ -
20	PPE (Level D)		per man/day	10	$ -
				Total	**$ -**

Total Estimate $ -

Notes:

Fill in costs

Assumes activity duration is 5 days.

Assumes soil conditions are silty sands.

Assumes the absence of large subsurface debris and building footings/foundations

*added 20-feet more than indicated in SOW to account for construction deviations due to field conditions