Quarterly Operation and Maintenance Report – 1Q2019

Stanton Cleaners

NYSDEC Site No: 130072

110 Cuttermill Road, Great Neck, New York

Work Assignment # D007625-06

February 5, 2020

Prepared for:

New York State Department of Environmental Conservation

625 Broadway

Albany, New York 12233

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

ACRONYMS AND ABBREVIATIONS

AS	Air Sparge
ASP	Analytical Services Protocol
bgs	below ground surface
CAP	Contractor's Application for Payment
cfm	cubic feet per minute
COC	contaminant of concern
DUSR	data usability summary report
DVS	Data Validation Services
EC	emerging contaminant
ECL	Environmental Conservation Law
EFF	effluent
GAC	Granular Activated Carbon
gpm	gallons per minute
GWE&T	Groundwater Extraction and Treatment
GWQS	Groundwater Quality Standard
HC	Hampton Clarke
HDR	Henningson, Durham & Richardson Architecture and Engineering, P.C.
INF	influent
LIHA	Long Island Hebrew Academy
lbs	pounds
LEL	lower explosive limit
LGAC	liquid phase granular activated carbon
µg/L	micrograms per liter
µg/m^3	micrograms per cubic meter
MDL	minimum detection limit
ND	non-detect
ng/L	nanograms per liter
NPL	National Priorities List
NYCRR	New York Codes of Rules and Regulations
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
O&M	Operations and Maintenance
PCE	tetrachloroethene
PES	Preferred Environmental Services
PFC	perfluorinated compounds
PFOA	perfuorooctanoic acid
PFOS	perfluorooctane sulfonic acid
PID	photo-ionization detector

ACRONYMS AND ABBREVIATIONS (CONT.)

PRR	Periodic Review Report
RAO	Remedial Action Objective
ROD	Record of Decision
RSO	Remedial System Optimization
SCG	Standards, Criteria, and Guidance
SCO	Soil Cleanup Objective
SPDES	State Pollutant Discharge Elimination System
SSDS	sub-slab depressurization system
SVE	Soil Vapor Extraction
SVI	Soil Vapor Intrusion
TA	Test America
TCL	Target Compound List
TICs	Tentatively Identified Compounds
TOGS	Technical and Operational Guidance Series
UGA	Upper Glacial Aquifer
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
UST	Underground Storage Tank
VOC	Volatile Organic Compounds
WA	Work Assignment
WAGNN	Water Authority of Great Neck North

1.0 INTRODUCTION

As part of on-going remediation system operations and maintenance (O&M) and monitoring at the Stanton Cleaners groundwater contamination site located in Great Neck, New York (NYSDEC Site#130072), the New York State Department of Environmental Conservation (NYSDEC) has assigned site management tasks to Henningson, Durham & Richardson Architecture and Engineering, P.C. (HDR) under Standby Engineering Contract D007625. The site is currently listed on the New York State Registry of Inactive Hazardous Waste Sites as a Class 4. This designation is for properly closed sites but requires continued management until remedial objectives are achieved. From 2001 to 2012, the United States Environmental Protection Agency (USEPA) oversaw the O&M and site management, with the NYSDEC resuming responsibility in 2012.

The on-going site management was assigned to HDR (D007625-06) in August 2012. This work assignment (WA) includes the following tasks:

- Task 1 – Project Scoping
- Task 2 – Site Management Plan
- Task 3 – O&M
- Task 4 – Monitoring and Reporting
- Task 5 – Periodic Review
- Task 6 – Remedial System Optimization (RSO)

This quarterly O&M Report (Task 4) summarizes the O&M and monitoring activities completed during the first quarter of 2019 (January through March 2019). This report provides a description of the work performed throughout the reporting period and includes all relevant data and performance monitoring documentation.

2.0 BACKGROUND

2.1 Site Location and Current Use

The site's physical address is 110 Cutter Mill Road in Great Neck, New York. The property is approximately ¼ acre in size and includes a vacant two-story building (formerly the Stanton Cleaners building), a one-story boiler/storage building, and the two-story groundwater extraction and treatment (GWE&T)/soil vapor extraction (SVE) system building. The site is bordered to the north and east by empty lots (former indoor tennis facility), to the south by a Sunoco gasoline fueling station and the Long Island Hebrew Academy (LIHA), and to the west by Cutter Mill Road. The surrounding area is largely urbanized and consists of various mixed uses with residential areas on side streets and commercial buildings along the main roadways. The entire area is serviced by public water and sewer with Water Authority of Great Neck North (WAGNN) as the primary water supplier. A United States Geological Survey (USGS) 7.5-minute map showing the site's location is provided on Figure 1.

As mentioned above, the Stanton Cleaners building is currently vacant. During a 2014 inspection, the NYSDEC verified that the facility terminated the use of a fourth generation tetrachloroethene (PCE) dry cleaning machine and surrendered their Air Facility Registration. In February 2017, the dry cleaning machinery was removed from the property and operations were moved to another location.

Three WAGNN public water supply wells are located approximately 1,000 feet west (downgradient) of the site. Two of these wells are approximately 145 feet deep and the third well is 434 feet deep. The two 145-foot deep wells, designated as PW-2A (N-12796) and PW-9 (N-4388), are screened within a deeper portion of the Upper Glacial Aquifer (UGA). The third 434-foot deep well, designated as PW-11, is within the Lloyd Aquifer and not believed to be impacted by the site. In October 2015, well PW-11 was taken out of service and replaced by well PW-11A in April 2017.

The WAGNN supply well treatment system is currently in operation and influent (INF) volatile organic compound (VOC) concentrations are treated to below federal and state drinking water standards. WAGNN analytical data provided to the NYSDEC indicates that PCE concentrations in raw water samples collected from PW-2A (down gradient of Stanton Cleaners site) periodically exceed its respective NYSDEC Groundwater Quality Standard (GWQS) of 5 micrograms per liter (µg/L).

2.1 Site Geology

Long Island's geology is composed of a sequence of unconsolidated glacial, lacustrine, deltaic, and marine deposits of clay, silt, and gravel that range in age from the Upper Cretaceous to Pleistocene epochs. These deposits overlay a Precambrian to Paleozoic crystalline bedrock. In Nassau County, where the site is located, the unconsolidated deposit thickness is approximately 500 feet.

Underlying the site, the UGA is subdivided into shallow, intermediate, and deep zones. For on-going site management, this naming convention is maintained such that all data collected is consistent with the *April*

2004 Final Hydrogeologic Investigation Report- Operable Unit 1 and *Final Capture Zone Analysis Report*. The shallow UGA consists of orange brown, poorly to well graded outwash sands and till of generally high permeability. The intermediate zone, at the water table's vicinity (depth between 50 to 60 feet below ground surface (bgs)), consists of a light grey to white fine grained micaceous silty sand and clay. The intermediate zone then transitions with depth into the North Shore confining unit, which separates the shallow-intermediate and deep zones. The confining unit consists of fine grained deposits and is described as light brown clay, light gray clayey silts, and silty clay. The finer grained materials are likely marine or post-glacial lake deposits which, in some areas of the site, overlie the deeper UGA. The deep UGA zone is generally a thin deposit of outwash sands and gravels that represent possible infilling of low lying areas during an interglacial stage.

Previous site investigations have shown that only the UGA has been impacted and groundwater PCE concentrations have declined significantly over time. The site groundwater levels are impacted by the pumping stress associated with the WAGNN pumping wells, with the most pronounced impacts in the UGA intermediate and deep zones.

2.2 Remedial History

Improper handling and disposal of spent dry cleaning solvents, including PCE, has resulted in hazardous substance releases at the site. As a result, PCE migrated from the underlying subsurface soils to surrounding indoor air and groundwater environments, producing significant threats to human health. Site remedial activities began in 1983 and are briefly summarized below.

- 1983 – Approximately 20 cubic yards of PCE-contaminated soil was removed from behind the Stanton Cleaners property
- 1986 – The NYSDEC funded construction of an air stripper treatment system for the WAGNN water supply wells.
- 1989 - A GWE&T system was installed by the potentially responsible party (PRP). The system performed poorly and was abandoned shortly thereafter.
- 1993 – The site was listed on the New York State Registry of Inactive Hazardous Waste Sites as a Class 2.
- 1998 – A new air stripper treatment system for the site-impacted WAGNN water supply wells was installed.
- 1998/1999 – USEPA assistance was requested; the site was proposed for addition to the National 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 dual GWE&T/SVE system on the property to address and contain the on-site contamination source. Additionally, the USEPA installed a sub-slab depressurization system (SSDS) on the LIHA.

- 2002 – Two 250-gallon PCE and one 500-gallon oil underground storage tanks (UST) 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 and did not identify 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 air sparge (AS) system and began operations in March. Additionally, the USEPA removed the LIHA SSDS prior to the NYSDEC assuming O&M in November.
- 2013 – The USEPA conducted the second five-year review in December.
- 2014 – Due to an air compressor oil leak, the AS system was shut down. The AS component of the groundwater system was removed from service such that the remaining remedial system consists of GWE&T and SVE. In February, snow and ice on the roof collapsed the gutter system, pulling the electrical service drop from the building. As a result, extensive downtime occurred due the electrical system damage and subsequent repairs.
- 2015 – In July, USEPA representatives met with NYSDEC representatives to review remedial action objective (RAO) progress and discuss site management program plans.
- 2016 – Significant downtime to the SVE system (approximately 10 months) occurred due to needed repairs for the blower. Repairs were delayed for administrative reasons during the Amendment 1 approval process.
- 2017 – The NYSDEC completed an RSO investigation from November 2016 through February 2017 to evaluate subsurface soil and the local aquifer in the vicinity of EPA-EXT-02. Additionally, the Stanton Cleaners building was vacated, with all associated equipment and operations removed from the site.

2.3 Site Cleanup Objectives

The site cleanup objective is, to the extent feasible, restore the impacted media to pre-disposal conditions. Closure criterion will be determined by the NYSDEC based on the future monitoring data. The Standards, Criteria, and Guidance (SCGs) currently used for the various sample media are summarized below.

- Soil – NYSDEC Environmental Conservation Law (*ECL*) *6 New York Code of Rules and Regulations (NYCRR) Part 375-6: Remedial Program Soil Cleanup Objectives (SCOs)*
- Groundwater - NYSDEC *Technical and Operational Guidance Series (TOGS) 1.1.1. Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations*.
- Soil Vapor - New York State Department of Health (NYSDOH) *Final Guidance for Evaluating Soil Vapor Intrusion (SVI) in the State of New York.*

3.0 OPERATIONS AND MAINTENANCE PROGRAM

The on-going O&M program at the Stanton Cleaners site includes the following:

- Monthly operational checks of the GWE&T and SVE systems;
- Monthly water level monitoring;
- Monthly influent (INF)/effluent (EFF) sampling of the GWE&T system;
- Quarterly INF/EFF sampling of the SVE system; Annual, or as needed, granular activated carbon (GAC) change outs on the GWE&T and SVE systems; and
- Annual State Pollutant Discharge Elimination System (SPDES) sampling of the GWE&T system EFF.

This report is a summary of all first quarter 2019 activities (January through March). Daily reports summarizing the activities completed for that day are in Appendix A.

3.1 Groundwater Extraction and Treatment System Operations and Maintenance

Currently EPA-EXT-02, located at the corner of Cutter Mill and Ascot Roads, is the only operational extraction well. Four additional extraction wells (EPA-EXT-01, EPA-EXT-03, EPA-EXT-04R, and ST-IW-01) are not operational and were formerly included in the groundwater monitoring well network. The locations of the five extractions wells are shown on Figure 2.

The GWE&T system was not operational through the first quarter of 2019; samples were not collected and sample collection data tables are not included in this quarterly report. Performance monitoring logs including the monthly O&M reports and Lookout® operational data is provided in Appendix B and C, respectively.

3.1.1 Groundwater Extraction and Treatment System Influent/Effluent Sampling

Sampling of the GWE&T system INF and EFF is performed monthly to monitor plant efficiency and determine whether liquid GAC (LGAC) breakthrough has occurred. Since the GWE&T system remained offline for the entire first quarter of 2019, monthly influent and effluent samples were not collected. A graph showing the GWE&T system influent PCE concentrations from 2003 through the first quarter of 2019 is provided on Figure 3.

3.1.2 Groundwater Extraction and Treatment System Annual SPDES Sampling

Sampling of the GWE&T system EFF is performed annually to verify that discharge parameters do not exceed the SPDES permit equivalency. During this quarter, a sample was not collected from the effluent port.

3.2 Soil Vapor Extraction System Operations and Maintenance

Air monitoring of the SVE system is performed on a monthly basis. In accordance with the *2012 O&M Manual*, monthly SVE system performance monitoring includes the collection of the following parameters: VOCs, carbon monoxide, oxygen, lower explosive limit (LEL), hydrogen sulfide, air velocity in cubic feet per minute (cfm), temperature, relative humidity, dew point, and vacuum pressure. Air monitoring is performed at the following locations:

- SVE wells: EPA-SVE-1 (shallow), EPA-SVE-1 (medium), EPA-SVE-2 (shallow), EPA-SVE-2 (medium), EPA-SVE-3A, EPA-SVE-3B, and SS-A
- SVE-Influent, SVE-1 Combined, SVE-2 Combined: Sampling ports on SVE influent lines, prior to blower and vapor phase carbon
- Post-Blower Pre-Carbon: Prior to vapor phase carbon treatment, post blower
- Post-VGAC – Post vapor phase treated effluent (quarterly as needed to evaluate carbon breakthrough)

Since the SVE system remained offline for the entire first quarter of 2019, VOC and PCE mass removal calculations were not prepared and graphs showing the cumulative PCE mass removed over the past year and since September 2003 are not updated in this quarterly report. Monthly performance monitoring logs including both the AS and SVE systems can be found in Appendix D and E, respectively.

Quarterly, 1-liter SUMMA canister influent and effluent samples are collected. During this quarter, samples were not collected by Preferred Environmental Services from the influent and effluent ports.

4.0 MONITORING PROGRAM

The on-going Monitoring program at the Stanton Cleaners site includes the following:

- Quarterly O&M reports;
- Semi-annual groundwater sampling; and
- Annual SVI sampling at the LIHA (previously this was performed on a semi-annual basis)

4.1 Plume Perimeter Monitoring

Groundwater level measurements are obtained from both onsite and offsite wells once a month in order to evaluate capture zones(s) around groundwater extractions well EPA-EXT-02. The monitoring well network and well monitoring schedule are provided as Figures 6 and 7, respectively.

Water level measurements were collected during the first quarter 2019 monthly O&M visits at 17 of the18 on and off-site monitoring wells (one was not accessible). The location and number of monitoring wells was previously determined by the USEPA based on the 2014 *Final Capture Zone Analysis Report*. Groundwater level measurements for this quarter are provided in Appendix F. During the February 2017 RSO aquifer test, it was found that the entire site falls within the capture zones of the public water supply wells, which strongly influence flow.

4.2 Groundwater Sampling

Routine semi-annual groundwater samples were not collected during this quarter. The next routine semi-annual groundwater sampling event is scheduled for the third quarter of 2019.

In February 2019, upon NYSDEC request, groundwater samples were collected from three public supply wells (PW-2A, PW-9 and PW-11A) by HDR's subconsultant, Preferred Environmental Services of North Merrick, New York (PES) and submitted to the NYSDEC contract laboratory, TestAmerica of West Sacramento, California (TA) for the analysis of perfluorinated compounds (PFCs) and 1,4-Dioxane by USEPA Methods modified 537 and 8270D SIM, respectively. A summary of the emerging contaminant (EC) analytical results is provided on Table 3. DVS' data usability summary report (DUSR) is provided in Appendix J.

Various PFCs, including perfluorooctanoic acid (PFOA) and/or perfluorooctane sulfonic acid (PFOS), were detected in only one of the three wells (PW-9) sampled and analyzed for PFCs. The summed concentration of PFOA and PFOS ranged in a total concentration from not detected to 9.2 nanograms per liter (ng/L) (PW-9). The sum of PFOA and PFOS did not exceed the EPA Health Advisory Lifetime guidance value of 70 ng/L in any of the samples collected. The NYSDEC guidance value of 10 ng/L for PFOA and/or PFOS was not exceeded in any of the sampled wells.

1,4-Dioxane was detected in two of the three monitoring wells at concentrations ranging from 0.35 (PW-2A) to 0.8 µg/L (PW-11A). The USEPA guidance value of 0.35 µg/l was exceeded at PW-11A.

4.3 Indoor Air Quality Sampling

Long Island Hebrew Academy Property

On March 13-14, 2019, three indoor air samples (two basement; one first floor), and one outdoor air sample were collected from the LIHA building using 6-liter Summa® canisters, equipped with 24-hour flow controllers, and submitted to Chemtech of Mountainside, New Jersey (Chemtech) for the analysis of VOCs by USEPA Method TO-15. Due to equipment malfunctions on the March 13, 2019 Summa® cans/regulators, which lead to a short sample collection time, LIHA-IA2 was re-collected on March 27, 2019. Additionally, a single duplicate sample was collected in tandem with the March 27, 2019 LIHA-IA2 location utilizing a laboratory supplied splitter. Laboratory deliverables were in accordance with NYSDEC Analytical Services Protocol (ASP) Category B and subjected to data validation by HDR's independent contract validator, Data Validation Services of North Creek, New York (DVS). A copy of the LIHA indoor air sampling questionnaire and DVS' data usability summary report (DUSR) are provided in Appendix H and I, respectively.

As indicated by the laboratory analytical results from the samples collected on March 13, 2019, site contaminants of concern (COCs) are below threshold action levels as described by the NYSDOH soil vapor/indoor air decision matrices A, B, and C (May 2017 amendment). It is noted, however, that during the resample of LIHA-IA2 on March 27, 2019, PCE was detected in the sample and duplicate sample at concentrations of 3.93 and 4.41 micrograms per cubic meter (µg/m^3), respectively, which exceed its respective concentration range 2 threshold of less than 3 to 10 µg/m^3. The compound carbon tetrachloride was detected in all of the indoor (and outdoor air) samples (with the exception of the IA2 duplicate sample) at concentrations which exceed its respective concentration range 2 threshold of 0.2 to less than 1 µg/m^3. The compound dichloromethane was detected in all of the indoor (and outdoor air) samples at concentrations which exceed its respective concentration range 3 threshold of 0.2 to less than 1 µg/m^3. It should be noted that dichloromethane was detected at location IA1 during the 1Q 2018 and 4Q 2018 sampling events. This suggests that the compound may be representative of the use of chemicals within the LIHA building. A summary of the LIHA air sampling analytical results is provided on Table 4.

Stanton Cleaners Property

From March 5 through 6, 2019, HDR conducted air sampling activities within the main Stanton Cleaners and adjacent boiler room buildings to determine if residual impacted vapor was present beneath the concrete slabs and assess the potential for indoor air impacts via vapor intrusion. HDR's activities included the

installation of one sub-slab vapor point within the vacant boiler room building and subsequent SVI sampling of both site buildings.

As proposed in the February 2019 Workplan and on March 5, 2019, HDR personnel installed one permanent sub-slab vapor point (ST-SS3) within the Stanton Cleaners boiler room building. The point was installed through the building's concrete slab via a one-inch hole, drilled utilizing a hammer drill. The 1-inch hole was backfilled with sand to the concrete slab's lower depth and a ¼-inch NPT brass coupler with an 8-inch nipple and plug was installed within the slab. Volatile organic compound (VOC)-free permagum and quick set cement was used to seal the sub-slab point in place and complete the surface installation.

Following the installation of ST-SS3, all site sub-slab vapor points were helium leak tested in accordance with NYSDOH methodology to ensure that each location was capturing sub-slab vapors, rather than short circuiting ambient indoor air from the surface. Additionally, it should be noted that the soil vapor extraction (SVE) system has been down since late November 2018 due to mechanical failures. Therefore, potential remediation system interference with the collection of sub-slab vapor samples is not expected.

In the vacant Stanton Cleaners building, sub-slab samples were collected from two existing points (ST-SS1 and ST-SS2), previously installed as part of the 2017 Remedial System Optimization (RSO) activities (Task 6). In the vacant boiler room building, a single sub-slab sample was collected from the recently installed point (ST-SS3). Concurrent with the sub-slab samples, one site representative outdoor air sample (ST-OA1) and two indoor air samples, one from each building (ST-IA1 from the Stanton Cleaners building; ST-IA2 from the boiler room building) was collected. Additionally, a single duplicate sample was collected in tandem with the ST-IA1 location utilizing a laboratory supplied splitter. The NYSDEC Structure Sampling Questionnaire and Building Inventory forms for both buildings can be found in Appendix H. All samples were collected using 6-liter Summa® canisters, equipped with 24-hour flow controllers, and submitted to Chemtech of Mountainside, New Jersey (Chemtech) for the analysis of VOCs by USEPA Method TO-15. Laboratory deliverables were in accordance with NYSDEC Analytical Services Protocol (ASP) Category B and subjected to data validation by HDR's independent contract validator, Data Validation Services of North Creek, New York (DVS). A copy of the DVS' data usability summary report (DUSR) is provided in Appendix I.

SVI analytical results within the Stanton Cleaners and adjacent boiler room buildings indicate elevated concentrations of the site contaminants of concern (COCs) tetrachloroethene (PCE), trichloroethene (TCE), and/or cis-1,2- dichloroethene (c12-DCE) in the sub-slab vapor points only. The concentration ranges for these compounds in the sub-slab points include the following:

- PCE - 1,559 micrograms per cubic meter (µg/m3) (ST-SS-1) to 27,802 µg/m3 (ST-SS-2).
- TCE – 10.2 µg/m3 (ST-SS-1) to 1,988 µg/m3 (ST-SS-2).

- c12-DCE – 369 µg/m3 (ST-SS-3) and 515 µg/m3 (ST-SS-2). c12-DCE was not detected at the laboratory minimum detection limit (MDL) in the sample collected from ST-SS-1.

A comparison of the above VOCs to Matrices A and B of the October 2006 New York State Department of Health (NYSDOH) SVI Guidance (amended May 2017) indicates that all sub-slab detections, with exception to the TCE concentration in ST-SS-1, require mitigation. A summary of the Stanton Cleaners SVI analytical results can be found in Table 5.

4.4 Water Authority of Great Neck North Public Supply Well Monitoring

On a periodic basis, WAGNN personnel collect raw and treated water samples from each of its public supply wells (PW-2A, PW-6, PW-9, and PW-11A) and submits for the analysis of various compounds, including site specific chlorinated VOCs. It should be noted that PW-11 was permanently removed from service on October 19, 2016 and abandoned in March 2017. A new location, PW-11A, was installed during that time and began operation in April 2017.

In the analytical data provided by WAGNN for this quarter, the highest PCE concentration in any pre-treatment sample occurred on March 20, 2019 in PW-2A at a concentration of 8.7 µg/L. All post-treatment samples were non-detect (ND) for PCE. A graph showing the contaminants of concern (COCs) concentrations in the WAGNN wells over time can be found on Figure 8.

5.0 MAINTENANCE ISSUES AND RECOMMENDED SOLUTIONS

Based on the site visits and data collected during this period HDR has identified the following maintenance issues and our recommendations relative to those findings.

- SVE and GWTS remain offline.
- Condition of the protective bollard has worsened.
- Lockbox containing key was vandalized. SVE piping, sampling ports, etc. were vandalized. Shed was open; padlock missing and the broken weed trimmer was missing. Items were repaired/replaced by Preferred, with the exception of the weed trimmer.
- The Fernco connection of SS-D was disconnected, likely from the piping being distorted by tree growth along the side of the building. It was reconnected, but the tree may have to be removed.

Unless otherwise noted HDR has requested approval to proceed with our recommendations as outlined above and future quarterly reports will document how the maintenance issues were addressed.

5.1 Downtime Summary

During this quarterly monitoring period, the GWE&T and SVE system components were not operating for the reasons cited below.

- Delta met with PSE&G to identify service voltage issues on 1/17/2019; faulty transformer outside of the building was repaired.
- Delta removed SVE blower and ceiling-mounted heater on 1/17/2019; needs repair/replacement. Pump was left offline until the building has a working heater to avoid GWTS pipe freezing.
- Contact wires on the pump in recovery well RW-2 were burnt out, due to imbalanced voltage.
- Leaking section of influent GWTS piping needs to be replaced. Delta to obtain new Y-strainer and associated fittings.

6.0 FUTURE ACTIVITIES

Upcoming maintenance and monitoring activities at the site includes the following:

- Routine monthly O&M activities will continue.
- Influent and effluent sampling of the SVE system is planned for the second quarter of 2019.

7.0 PROGRESS TOWARD CLEANUP OBJECTIVES

As a result of both GWE&T and SVE system being offline during the first quarter of 2019, a total of 0.0 and 0.0 lbs. of VOCs have been removed in liquid and vapor phases, respectively. The total cost incurred in association with operation of these remedial system operations and subsequent site monitoring during this past quarter was $70,535.65 (see quarterly cost summary below). During this quarter, the cost of both liquid and vapor phase VOC removal could not be calculated. Note that the cost per VOC pound removed is based on spending associated with WA D007625-06 Tasks 1 (Project Scoping), 2 (Site Management Plan), 3 (O&M), 4 (Monitoring and Reporting), and 5 (Periodic Review). Costs associated with Task 6 (RSO) are not included. Specific cost details can be found on HDR's Contractor's Application for Payments (CAPs) for this period.

Progress continues toward achieving the site cleanup objectives. An overall bulk reduction in the groundwater contaminant concentration has been achieved, but groundwater concentrations still exceed applicable goals. The SVE system continues to remove VOCs in the vapor phase, as determined by PID readings and flow measurements. Operation of the SVE system should continue until the cost per pound of VOC removed exceeds that which is determined efficient, or if asymptotic conditions have been reached.

Quarterly Cost Summary							
PERIOD	COST ($)	Total VOCS Measured at SVE (lbs.)	Total VOCs Measured at GWE&TS (lbs.)	Quarterly Sum ($)		Total VOCs Removed (lbs.)	Cost per Pound
1/1/2019-2/2/2019	$ 12,932.18						
2/3/2019 - 3/2/2019	$ 41,219.88						
3/3/2019 - 3/31/2019	$ 16,383.59	0	0	$ 70,535.65		0.0	--

Table 3
Emerging Contaminant Sampling of Monitoring Wells
Stanton Cleaners - NYSDEC Site# 130072
110 Cuttermill Rd., Great Neck, NY

				Sample ID:	PW-2A-20190207		PW-9-20190207		DUP PW-9-20190207-1		PW-11A-20190207	
				Sample Location:	PW-2A		PW-9		PW-9		PW-11A	
				Sample Date:	2/7/2019		2/7/2019		2/7/2019		2/7/2019	
Analyte	**CAS Number**	**Units**	**USEPA Guidance**	**NYSDEC Guidance**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
PFCs												
2-(N-methyl perfluorooctanesulfonamido) acetic acid	2355-31-9	ng/l	NS	NS	*1.0*	*U*	*2.0*	*U*	*2.0*	*U*	*2.0*	*U*
N-Ethyl-N-((heptadecafluorooctyl)sulphonyl) glycine	2991-50-6	ng/l	NS	NS	*1.0*	*U*	*2.0*	*U*	*2.0*	*U*	*2.0*	*U*
Perfluorobutanesulfonic Acid	375-73-5	ng/l	NS	NS	*1.0*	*U*	*2.0*	*U*	*2.0*	*U*	*2.0*	*U*
Perfluorobutyric Acid (PFBA)	375-22-4	ng/l	NS	NS	*1.0*	*U*	*2.0*	*U*	*2.0*	*U*	*2.0*	*U*
Perfluorodecane Sulfonic Acid	335-77-3	ng/l	NS	NS	*1.0*	*U*	*2.0*	*U*	*2.0*	*U*	*2.0*	*U*
Perfluorodecanoic Acid (PFDA)	335-76-2	ng/l	NS	NS	*1.0*	*U*	*2.0*	*U*	*2.0*	*U*	*2.0*	*U*
Perfluorododecanoic Acid (PFDoA)	307-55-1	ng/l	NS	NS	*1.0*	*U*	*2.0*	*U*	*2.0*	*U*	*2.0*	*U*
Perfluoroheptane Sulfonate (PFHpS)	375-92-8	ng/l	NS	NS	*1.0*	*U*	*2.0*	*U*	*2.0*	*U*	*2.0*	*U*
Perfluoroheptanoic Acid (PFHpA)	375-85-9	ng/l	NS	NS	*1.0*	*U*	*2.0*	*U*	2.5		*2.0*	*U*
Perfluorohexanesulfonic Acid (PFHxS)	355-46-4	ng/l	NS	NS	*1.0*	*UJ*	2.5	J-	2.5	J-	*2.0*	*UJ*
Perfluorohexanoic Acid (PFHxA)	307-24-4	ng/l	NS	NS	*1.0*	*U*	*2.5*		*3.0*		*2.0*	*U*
Perfluorononanoic Acid (PFNA)	375-95-1	ng/l	NS	NS	*1.0*	*U*	*2.0*	*U*	*2.0*	*U*	*2.0*	*U*
Perfluorooctane Sulfonamide (FOSA)	754-91-6	ng/l	NS	NS	*1.0*	*UJ*	*2.0*	*UJ*	*2.0*	*UJ*	*2.0*	*UJ*
Perfluoropentanoic Acid (PFPeA)	2706-90-3	ng/l	NS	NS	*1.0*	*U*	2.4		3.1		*2.0*	*U*
Perfluorotetradecanoic Acid (PFTeA)	376-06-7	ng/l	NS	NS	*1.0*	*U*	*2.0*	*U*	*2.0*	*U*	*2.0*	*U*
Perfluorotridcanoic Acid (PFTriA)	72629-94-8	ng/l	NS	NS	*1.0*	*U*	*2.0*	*U*	*2.0*	*U*	*2.0*	*U*
Perfluoroundecanoic Acid (PFUnA)	2058-94-8	ng/l	NS	NS	*1.0*	*U*	*2.0*	*U*	*2.0*	*U*	*2.0*	*U*
SODIUM 1H,1H,2H,2H-PERFLUORODECANE SULFONATE (8:2)	39108-34-4	ng/l	NS	NS	*1.0*	*U*	*2.0*	*U*	*2.0*	*U*	*2.0*	*U*
SODIUM 1H,1H,2H,2H-PERFLUOROOCTANE SULFONATE (6:2)	27619-97-2	ng/l	NS	NS	*1.0*	*U*	*2.0*	*U*	*2.0*	*U*	*2.0*	*U*
Perfluorooctane Sulfonic Acid (PFOS)	1763-23-1	ng/l	NS	10	*1.0*	*U*	2.8		2.4		*2.0*	*U*
Perfluorooctanoic acid (PFOA)	335-67-1	ng/l	NS	10	*1.0*	*U*	6.4		6.1		*2.0*	*U*
Sum of PFOA and PFOS		ng/l	70	NS	NA		9.2		8.5		NA	
1,4-Dioxane												
1,4-Dioxane	123-91-1	ug/l	0.35	1	0.35		*0.036*	*U*	*0.034*	*U*	*0.8*	

Table 3
Emerging Contaminant Sampling of Monitoring Wells
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
5	: not detected
Bold	: the concentration exceeds NYSDEC guidance
Italic	: the concentration exceeds EPA guidance
Bold/It.	: the concentration exceeds NYSDEC and USEPA guidance

NYSDEC 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

EPA Guidance recommends a 70 ppt drinking water concentration for the combined concentrations of PFOA and PFOS
https://www.epa.gov/sites/production/files/2016-06/documents/drinkingwaterhealthadvisories_pfoa_pfos_updated_5.31.16.pdf

Table 4
Summary of LIHA Indoor Air Sampling Analytical Results
Stanton Cleaners - NYSDEC Site# 130072
110 Cuttermill Road, Great Neck, NY

					Sample ID	**L1HA-IA1-20190314**		**L1HA-IA2-20190313**		**L1HA-IA3-20190314**		**L1HA-OA1-20190314**		**LIHA-IA2-20190328**		**LIHA-IA2-DUP-20190328**	
					Sample Location	**LIHA-IA1**		**LIHA-IA2**		**LIHA-IA3**		**LIHA-OA**		**LIHA-IA2**		**LIHA-IA2**	
					Date	**3/14/2019**		**3/13/2019**		**3/14/2019**		**3/14/2019**		**3/28/2019**		**3/28/2019**	
Analyte	**CAS Number**	**NYSDOH Decision Matrices A, B, C**															
		Indoor Air Concentration				**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
1,1,1-Trichloroethane (111-TCA)	71-55-6	<3	3 to <10	10 and above		*0.16*	*U*	*0.16*	*U*	*0.16*	*U*	*0.16*	*U*	*0.16*	*U*	*0.16*	*U*
1,1,2,2-Tetrachloroethane	79-34-5	-	-	-		*3.43*	*U*	*3.43*	*U*	*3.43*	*U*	*3.43*	*U*	*0.21*	*U*	*0.21*	*U*
1,1,2-Trichloroethane	79-00-5	-	-	-		*2.73*	*U*	*2.73*	*U*	*2.73*	*U*	*2.73*	*U*	*2.73*	*U*	*2.73*	*U*
1,1-Dichloroethane	75-34-3	-	-	-		*2.02*	*U*	*2.02*	*U*	*2.02*	*U*	*2.02*	*U*	*2.02*	*U*	*2.02*	*U*
1,1-Dichloroethene (11-DCE)	75-35-4	<0.2	0.2 to <1	1 and above		*1.98*	*U*	*1.98*	*U*	*1.98*	*U*	*1.98*	*U*	*1.98*	*U*	*1.98*	*U*
1,2,4-Trichlorobenzene	120-82-1	-	-	-		*3.71*	*U*	*3.71*	*U*	*3.71*	*U*	*3.71*	*U*	*3.71*	*U*	*3.71*	*U*
1,2,4-Trimethylbenzene	95-63-6	-	-	-		0.74	J	0.69	J	0.64	J	*2.46*	*U*	*2.46*	*U*	*2.46*	*U*
1,2-Dibromoethane (Ethylene dibromide)	106-93-4	-	-	-		*3.84*	*U*	*3.84*	*U*	*3.84*	*U*	*3.84*	*U*	*3.84*	*U*	*3.84*	*U*
1,2-Dichlorobenzene	95-50-1	-	-	-		*3.01*	*U*	*3.01*	*U*	*3.01*	*U*	*3.01*	*U*	*3.01*	*U*	*3.01*	*U*
1,2-Dichloroethane	107-06-2	-	-	-		*2.02*	*U*	*2.02*	*U*	*2.02*	*U*	*2.02*	*U*	*2.02*	*U*	*2.02*	*U*
1,2-Dichloropropane	78-87-5	-	-	-		*2.31*	*U*	*2.31*	*U*	*2.31*	*U*	*2.31*	*U*	*2.31*	*U*	*2.31*	*U*
1,2-Dichlorotetrafluoroethane	76-14-2	-	-	-		*3.49*	*U*	*3.49*	*U*	*3.49*	*U*	*3.49*	*U*	*3.49*	*U*	*3.49*	*U*
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	-	-	-		*2.46*	*U*	*2.46*	*U*	*2.46*	*U*	*2.46*	*U*	*2.46*	*U*	*2.46*	*U*
1,3-Butadiene	106-99-0	-	-	-		*1.11*	*U*	*1.11*	*U*	*1.11*	*U*	*1.11*	*U*	*1.11*	*U*	*1.11*	*U*
1,3-Dichlorobenzene	541-73-1	-	-	-		*3.01*	*U*	*3.01*	*U*	*3.01*	*U*	*3.01*	*U*	*3.01*	*U*	*3.01*	*U*
1,4-Dichlorobenzene	106-46-7	-	-	-		*3.01*	*U*	*3.01*	*U*	*3.01*	*U*	*3.01*	*U*	*3.01*	*U*	*3.01*	*U*
1,4-Dioxane	123-91-1	-	-	-		*1.8*	*U*	*1.8*	*U*	*1.8*	*U*	*1.8*	*U*	*1.8*	*U*	*1.8*	*U*
2,2,4-Trimethylpentane	540-84-1	-	-	-		*2.34*	*U*	*2.34*	*U*	*2.34*	*U*	*2.34*	*U*	0.56	J	0.56	J
2-Butanone (MEK)	78-93-3	-	-	-		1.18	J	1.06	J	1.5		1.53		1.98		0.71	J
2-Chlorotoluene	95-49-8	-	-	-		*2.59*	*U*	*2.59*	*U*	*2.59*	*U*	*2.59*	*U*	*2.59*	*U*	*2.59*	*U*
4-Ethyltoluene	622-96-8	-	-	-		*2.46*	*U*	*2.46*	*U*	*2.46*	*U*	*2.46*	*U*	*2.46*	*U*	*2.46*	*U*
4-Methyl-2-Pentanone	108-10-1	-	-	-		*2.05*	*U*	*2.05*	*U*	*2.05*	*U*	*2.05*	*U*	*2.05*	*U*	*2.05*	*U*
Acetone	67-64-1	-	-	-		10.4	J-	22.1	J-	29.5	J-	6.18	J-	22.3		20.9	
Allyl Chloride (3-Chloropropene)	107-05-1	-	-	-		*1.57*	*U*	*1.57*	*U*	*1.57*	*U*	*1.57*	*U*	*1.57*	*U*	*1.57*	*U*
Benzene	71-43-2	-	-	-		0.8	J	0.77	J	0.67	J	0.8	J	0.64	J	0.64	J
Bromodichloromethane	75-27-4	-	-	-		*3.35*	*U*	*3.35*	*U*	*3.35*	*U*	*3.35*	*U*	*3.35*	*U*	*3.35*	*U*
Bromoform	75-25-2	-	-	-		*5.17*	*U*	*5.17*	*U*	*5.17*	*U*	*5.17*	*U*	*5.17*	*U*	*5.17*	*U*
Bromomethane	74-83-9	-	-	-		*1.94*	*U*	*1.94*	*U*	*1.94*	*U*	*1.94*	*U*	*1.94*	*U*	*1.94*	*U*
Carbon Disulfide	75-15-0	-	-	-		*1.56*	*U*	*1.56*	*U*	*1.56*	*U*	*1.56*	*U*	*1.56*	*U*	*1.56*	*U*
Carbon Tetrachloride	56-23-5	<0.2	0.2 to <1	1 and above		**0.5**		**0.44**		**0.44**		**0.44**		**0.44**		*0.19*	*U*
Chlorobenzene	108-90-7	-	-	-		*2.3*	*U*	*2.3*	*U*	*2.3*	*U*	*2.3*	*U*	*2.3*	*U*	*2.3*	*U*
Chlorodibromomethane	124-48-1	-	-	-		*4.26*	*U*	*4.26*	*U*	*4.26*	*U*	*4.26*	*U*	*4.26*	*U*	*4.26*	*U*
Chloroethane	75-00-3	-	-	-		*1.32*	*U*	*1.32*	*U*	*1.32*	*U*	*1.32*	*U*	*1.32*	*U*	*1.32*	*U*
Chloroform	67-66-3	-	-	-		*2.44*	*U*	*2.44*	*U*	*2.44*	*U*	*2.44*	*U*	*2.44*	*U*	*2.44*	*U*
Chloromethane	74-87-3	-	-	-		1.16		1.16		1.34		1.05		0.99	J	0.95	J
Cis-1,2-Dichloroethene (c12-DCE)	156-59-2	<0.2	0.2 to <1	1 and above		*1.98*	*U*	*1.98*	*U*	*1.98*	*U*	*1.98*	*U*	*1.98*	*U*	*1.98*	*U*
Cis-1,3-Dichloropropene	10061-01-5	-	-	-		*2.27*	*U*	*2.27*	*U*	*2.27*	*U*	*2.27*	*U*	*2.27*	*U*	*2.27*	*U*
Cyclohexane	110-82-7	-	-	-		*1.72*	*U*	*1.72*	*U*	*1.72*	*U*	*1.72*	*U*	*1.72*	*U*	*1.72*	*U*
Dichlorodifluoromethane	75-71-8	-	-	-		2.32	J	2.23	J	2.67		2.72		3.07		2.67	

Table 4
Summary of LIHA Indoor Air Sampling Analytical Results
Stanton Cleaners - NYSDEC Site# 130072
110 Cuttermill Road, Great Neck, NY

					Sample ID	**L1HA-IA1-20190314**		**L1HA-IA2-20190313**		**L1HA-IA3-20190314**		**L1HA-OA1-20190314**		**LIHA-IA2-20190328**		**LIHA-IA2-DUP-20190328**	
					Sample Location	**LIHA-IA1**		**LIHA-IA2**		**LIHA-IA3**		**LIHA-OA**		**LIHA-IA2**		**LIHA-IA2**	
					Date	**3/14/2019**		**3/13/2019**		**3/14/2019**		**3/14/2019**		**3/28/2019**		**3/28/2019**	
Analyte	**CAS Number**	**NYSDOH Decision Matrices A, B, C Indoor Air Concentration**				**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
Dichloromethane	75-09-2	<3	3 to <10	10 and above		**6.25**		**3.82**		***35.8***		***10.8***		***30.6***	***J***	***18.1***	***J***
Ethylbenzene	100-41-4	-	-	-		*2.17*	*U*	*2.17*	*U*	*2.17*	*U*	*2.17*	*U*	*2.17*	*U*	*2.17*	*U*
Freon 113	76-13-1	-	-	-		*3.83*	*U*	*3.83*	*U*	*3.83*	*U*	*3.83*	*U*	0.54	J	0.54	J
Hexachlorobutadiene	87-68-3	-	-	-		*5.33*	*U*	*5.33*	*U*	*5.33*	*U*	*5.33*	*U*	*5.33*	*U*	*5.33*	*U*
m,p-Xylene	179601-23-1	-	-	-		0.91	J	0.83	J	0.83	J	0.83	J	*4.34*	*U*	*4.34*	*U*
Methyl Methacrylate	80-62-6	-	-	-		*2.05*	*U*	*2.05*	*U*	*2.05*	*U*	*2.05*	*U*	*2.05*	*U*	*2.05*	*U*
Methyl T-Butyl Ether (MTBE)	1634-04-4	-	-	-		*1.8*	*U*	*1.8*	*U*	*1.8*	*U*	*1.8*	*U*	*1.8*	*U*	*1.8*	*U*
Naphthalene	91-20-3	-	-	-		*2.62*	*U*	*2.62*	*U*	*2.62*	*U*	*2.62*	*U*	*2.62*	*U*	*2.62*	*U*
N-Heptane	142-82-5	-	-	-		0.57	J	0.57	J	1.35	J	*2.05*	*U*	0.53	J	*2.05*	*U*
N-Hexane	110-54-3	-	-	-		3.88		2.29		9.87		3.28		12.7	J	7.4	J
O-Xylene	95-47-6	-	-	-		*2.17*	*U*	*2.17*	*U*	*2.17*	*U*	*2.17*	*U*	*2.17*	*U*	*2.17*	*U*
Styrene	100-42-5	-	-	-		*2.13*	*U*	*2.13*	*U*	*2.13*	*U*	*2.13*	*U*	*2.13*	*U*	*2.13*	*U*
Tert-Butyl Alcohol	75-65-0	-	-	-		*1.52*	*U*	24.2		*1.52*	*U*	*1.52*	*U*	*1.52*	*U*	*1.52*	*U*
Tetrachloroethene (PCE)	127-18-4	<3	3 to <10	10 and above		0.88		1.76		0.81		0.54		**3.93**		**4.41**	
Tetrahydrofuran	109-99-9	-	-	-		*1.47*	*U*	*1.47*	*U*	*1.47*	*U*	*1.47*	*U*	*1.47*	*U*	*1.47*	*U*
Toluene	108-88-3	-	-	-		53.5		17		33.9		43.7		46.7		35.8	
Trans-1,2-Dichloroethene	156-60-5	-	-	-		*1.98*	*U*	*1.98*	*U*	*1.98*	*U*	*1.98*	*U*	*1.98*	*U*	*1.98*	*U*
Trans-1,3-Dichloropropene	10061-02-6	-	-	-		*2.27*	*U*	*2.27*	*U*	*2.27*	*U*	*2.27*	*U*	*2.27*	*U*	*2.27*	*U*
Trichloroethylene (TCE)	79-01-6	<0.2	0.2 to <1	1 and above		*0.16*	*U*	*0.16*	*U*	*0.16*	*U*	*0.16*	*U*	*0.16*	*U*	*0.16*	*U*
Trichlorofluoromethane	75-69-4	-	-	-		1.4	J	1.29	J	1.46	J	1.4	J	1.24	J	1.24	J
Vinyl Chloride	75-01-4	<0.2	-	0.2 and above		*0.08*	*U*	*0.08*	*U*	*0.08*	*U*	*0.08*	*U*	*0.08*	*U*	*0.08*	*U*

Notes:
All sample results and NYSDOH guidance values are reported in µg/m3
All sample analytical results are compared to October 2006 and May 2017 NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York, Matrices A, B, and C
Outdoor air sample results from OA-1 are not compared to the NYSDOH Decision Matrices
µg/m3: : micrograms per cubic meter
NYSDOH: : New York State Department of Health
Q : Qualifier
J : indicates an estimated value, (-) biased low
D : indicates the sample was diluted
B : Indicates the analyte was detected in the blank and the sample
U : indicates the compound was not detected at the indicated MDL
MDL : minimum detection limit
Shaded : the result was not detected but the MDL exceeds at least one concentration range of the decision matrix
Bold : the result was detected within concentration range 2 of the decision matrix
Bold/Italic : the results exceeds concentration range 3 of the decision matrix

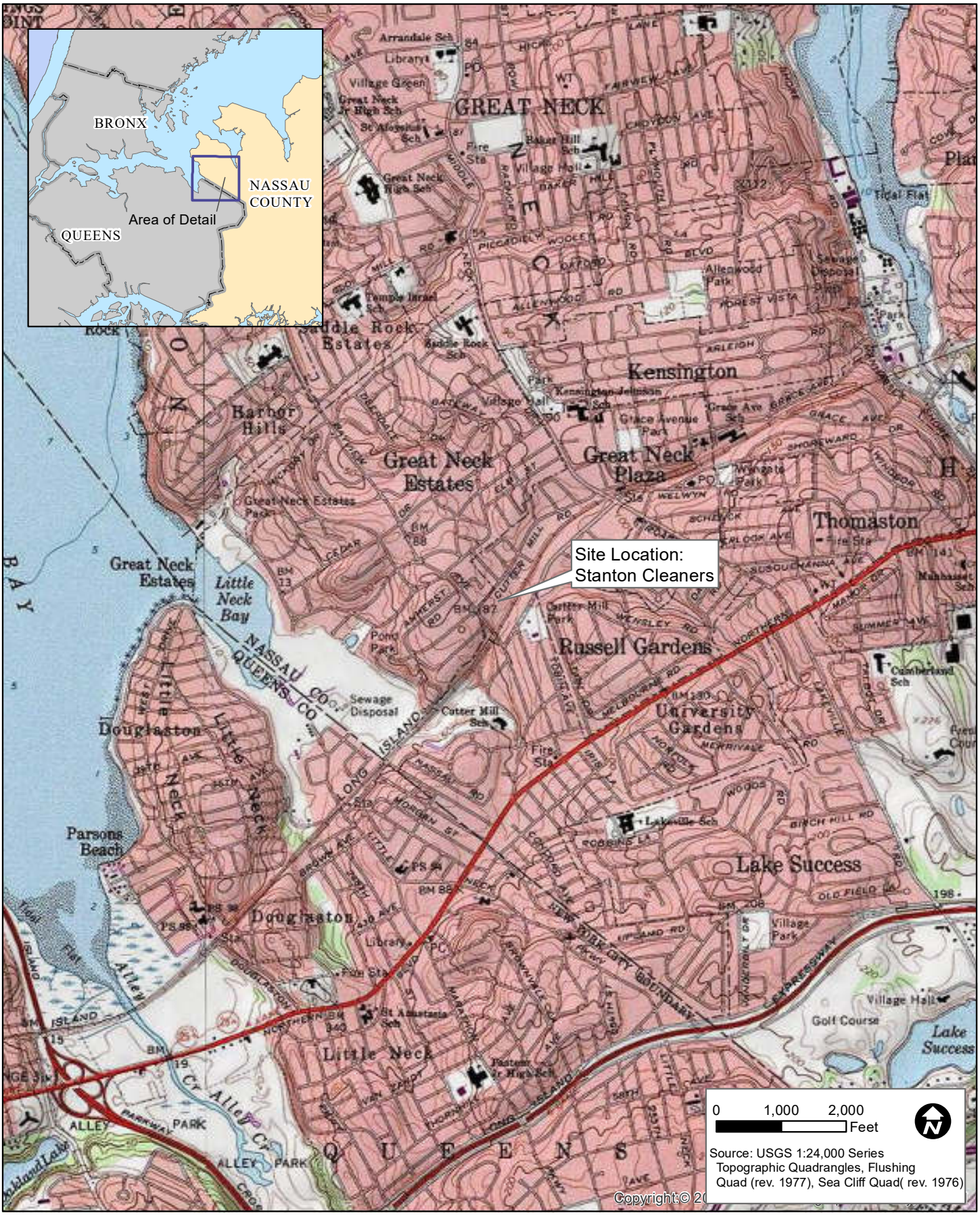
Table 5
Summary of Stanton Indoor Air Sampling Analytical Results
Stanton Cleaners - NYSDEC Site# 130072
110 Cuttermill Road, Great Neck, NY

					Sample ID	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	
					Sample Location	ST-IA-1		ST-IA-1		ST-IA-2		ST-OA-1		ST-SS-1		ST-SS-2		ST-SS-3	
					Date	3/6/2019		3/6/2019		3/6/2019		3/6/2019		3/6/2019		3/6/2019		3/6/2019	
	CAS	NYSDOH Decision Matrices A, B, C																	
Analyte	Number	Indoor Air Concentration				Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1-Trichloroethane (111-TCA)	71-55-6	<3	3 to <10	10 and above		*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	-	-	-		*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	-	-	-		*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	-	-	-		*2.02*	*U*	*2.02*	*U*	*2.02*	*U*	*2.02*	*U*	*4.05*	*U*	*2.02*	*U*	*4.05*	*U*
1,1-Dichloroethene (11-DCE)	75-35-4	<0.2	0.2 to <1	1 and above		*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	-	-	-		*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	-	-	-		*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	-	-	-		*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	-	-	-		*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	-	-	-		*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	-	-	-		*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	-	-	-		*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	-	-	-		*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	-	-	-		*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	-	-	-		*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	-	-	-		*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	-	-	-		*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	-	-	-		0.51	J	0.61	J	1.07	J	*2.34*	*U*	*4.67*	*U*	*2.34*	*U*	*4.67*	*U*
2-Butanone (MEK)	78-93-3	-	-	-		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	-	-	-		*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	-	-	-		*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	-	-	-		*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	-	-	-		6.89	B	7.36	B	5.94	B	10.7	B	4.28	J-	*1.19*	*U*	14	J-
Allyl Chloride (3-Chloropropene)	107-05-1	-	-	-		*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	-	-	-		0.89	J	0.89	J	1.05	J	0.73	J	*3.19*	*U*	1.34	J	4.79	
Bromodichloromethane	75-27-4	-	-	-		*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	-	-	-		*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	-	-	-		*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	-	-	-		*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	<0.2	0.2 to <1	1 and above		*0.19*	*U*	*0.19*	*U*	*0.19*	*U*	*0.19*	*U*	*0.38*	*U*	0.19		*0.38*	*U*
Chlorobenzene	108-90-7	-	-	-		*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	-	-	-		*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	-	-	-		*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	-	-	-		*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	-	-	-		0.91	J	1.47		0.91	J	0.95	J	*2.07*	*U*	*1.03*	*U*	*2.07*	*U*
Cis-1,2-Dichloroethene (c12-DCE)	156-59-2	<0.2	0.2 to <1	1 and above		*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	-	-	-		*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	-	-	-		*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	-	-	-		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	<3	3 to <10	10 and above		**4.52**		**4.52**		**9.73**		**4.52**		**3.82**		**8.34**		**6.6**	
Ethylbenzene	100-41-4	-	-	-		*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	-	-	-		*3.83*	*U*	*3.83*	*U*	*3.83*	*U*	*3.83*	*U*	*7.66*	*U*	*3.83*	*U*	*7.66*	*U*

Table 5
Summary of Stanton Indoor Air Sampling Analytical Results
Stanton Cleaners - NYSDEC Site# 130072
110 Cuttermill Road, Great Neck, NY

					Sample ID	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	
					Sample Location	ST-IA-1		ST-IA-1		ST-IA-2		ST-OA-1		ST-SS-1		ST-SS-2		ST-SS-3	
					Date	3/6/2019		3/6/2019		3/6/2019		3/6/2019		3/6/2019		3/6/2019		3/6/2019	
	CAS	NYSDOH Decision Matrices A, B, C																	
Analyte	Number	Indoor Air Concentration				Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Hexachlorobutadiene	87-68-3	-	-	-		*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	-	-	-		*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	-	-	-		*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	-	-	-		*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	-	-	-		*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	-	-	-		*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	-	-	-		3.24		3.1		6.34		2.22		3.42	J	5.29		4.93	
O-Xylene	95-47-6	-	-	-		*2.17*	*U*	*2.17*	*U*	0.48	J	*2.17*	*U*	*4.34*	*U*	*2.17*	*U*	2.52	J
Styrene	100-42-5	-	-	-		*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	-	-	-		*1.52*	*U*	*1.52*	*U*	*1.52*	*U*	*1.52*	*U*	*3.03*	*U*	*1.52*	*U*	*3.03*	*U*
Tetrachloroethene (PCE)	127-18-4	<3	3 to <10	10 and above		2.92		2.64		1.15		*0.2*	*U*	***1559***	***D***	***27802***	***D***	***3051***	***D***
Tetrahydrofuran	109-99-9	-	-	-		*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	-	-	-		3.77		4.9		9.8		2.07		5.28		8.67		5.65	
Trans-1,2-Dichloroethene	156-60-5	-	-	-		*1.98*	*U*	*1.98*	*U*	*1.98*	*U*	*1.98*	*U*	*3.96*	*U*	4.76		31.7	
Trans-1,3-Dichloropropene	10061-02-6	-	-	-		*2.27*	*U*	*2.27*	*U*	*2.27*	*U*	*2.27*	*U*	*4.54*	*U*	*2.27*	*U*	*4.54*	*U*
Trichloroethylene (TCE)	79-01-6	<0.2	0.2 to <1	1 and above		*0.16*	*U*	*0.16*	*U*	*0.16*	*U*	*0.16*	*U*	***10.2***		***1988***	***D***	***271***	***D***
Trichlorofluoromethane	75-69-4	-	-	-		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	-	-	-		*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	<0.2	-	0.2 and above		*0.08*	*U*	*0.08*	*U*	*0.08*	*U*	*0.08*	*U*	*0.15*	*U*	*0.08*	*U*	*0.15*	*U*

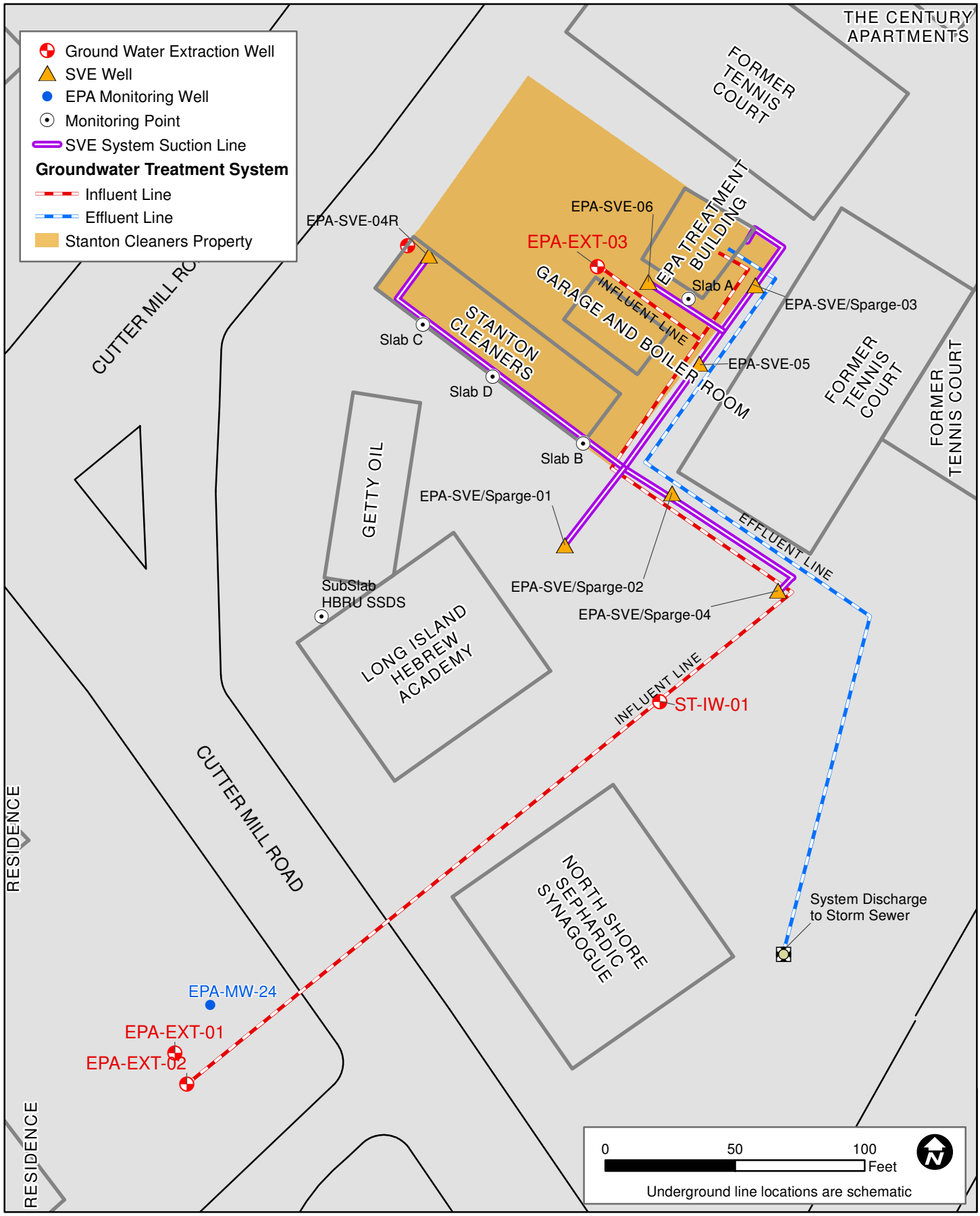
Notes:
All sample results and NYSDOH guidance values are reported in µg/m3
All sample analytical results are compared to October 2006 and May 2017 NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York, Matrices A, B, and C
Outdoor air sample results from OA-1 are not compared to the NYSDOH Decision Matrices
µg/m3: : micrograms per cubic meter
NYSDOH: : New York State Department of Health
Q : Qualifier
J : indicates an estimated value, (-) biased low
D : indicates the sample was diluted
B : Indicates the analyte was detected in the blank and the sample
U : indicates the compound was not detected at the indicated MDL
MDL : minimum detection limit
Shaded : the result was not detected but the MDL exceeds at least one concentration range of the decision matrix
Bold : the result was detected within concentration range 2 of the decision matrix
Bold/Italic : the results exceeds concentration range 3 of the decision matrix



Site Location
Stanton Cleaners
NYSDEC Site # 130072
Great Neck-North Hempstead, New York

Figure 1

March 29 2019

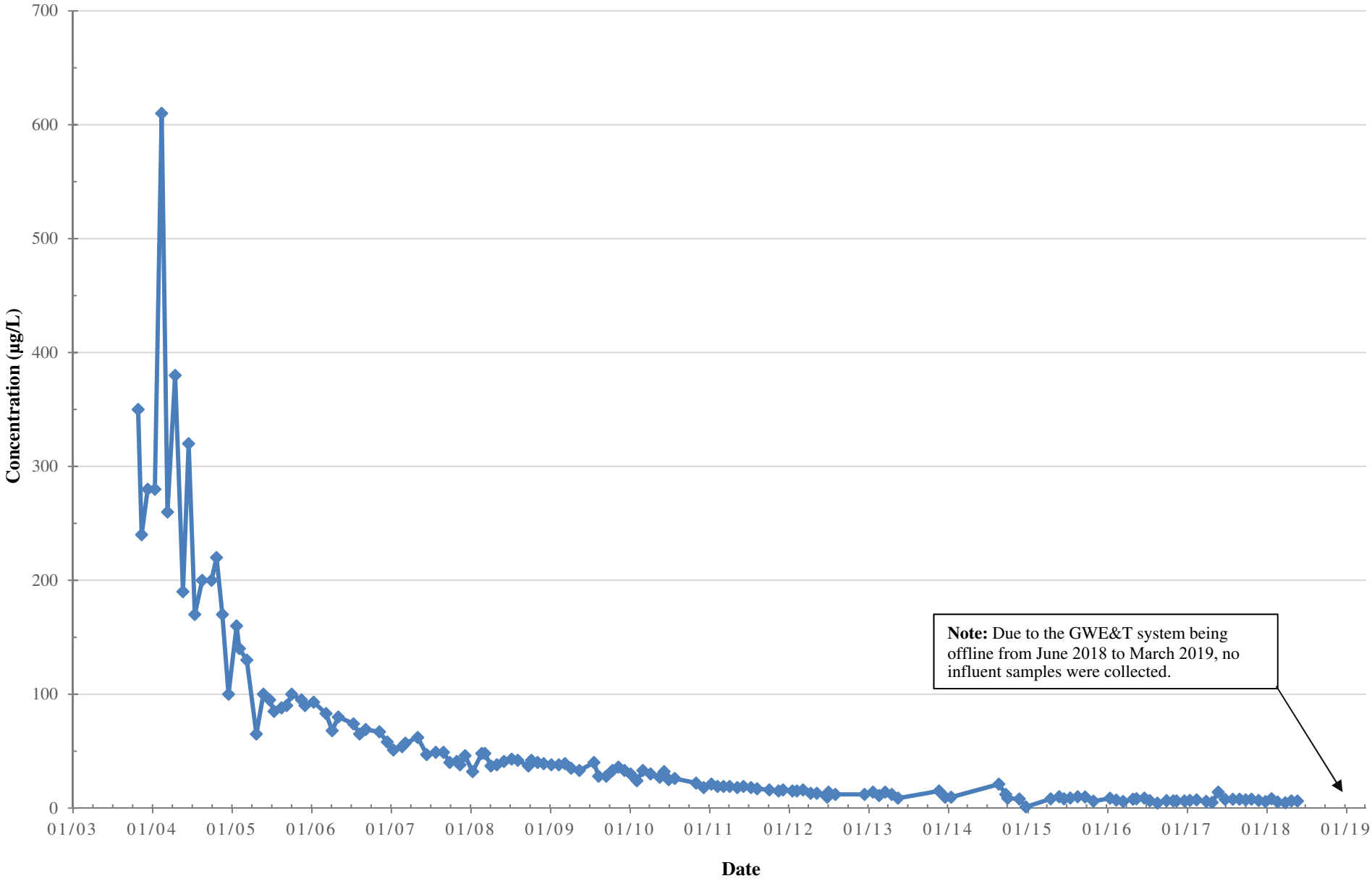


Site Layout
Stanton Cleaners
NYSDEC Site # 130072
Great Neck-North Hempstead, New York

Figure 2

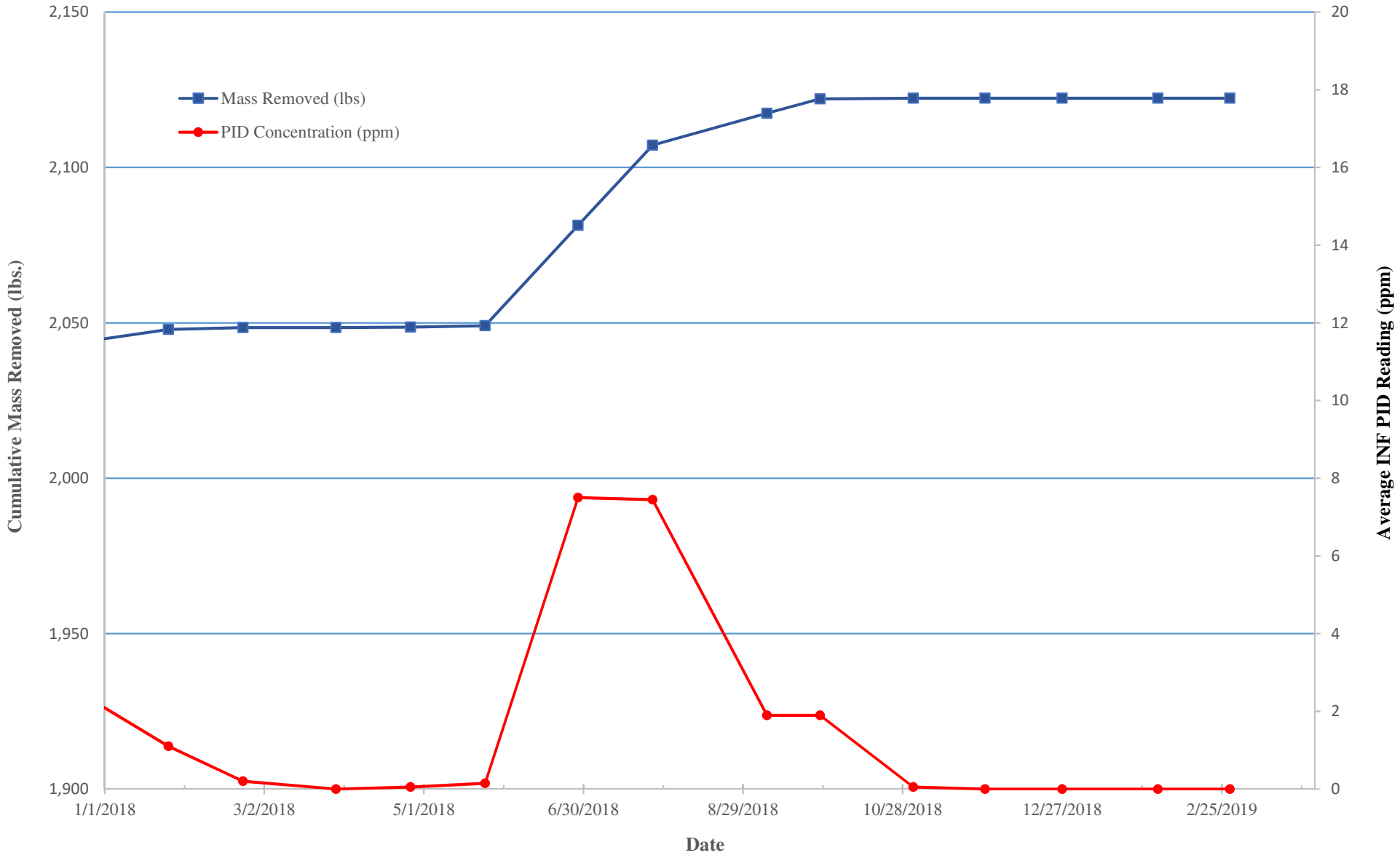
March 29, 2019

Figure 3
GWE&T System Influent PCE Concentrations - 2003-2019
Stanton Cleaners
110 Cuttermill Road, Great Neck, NY



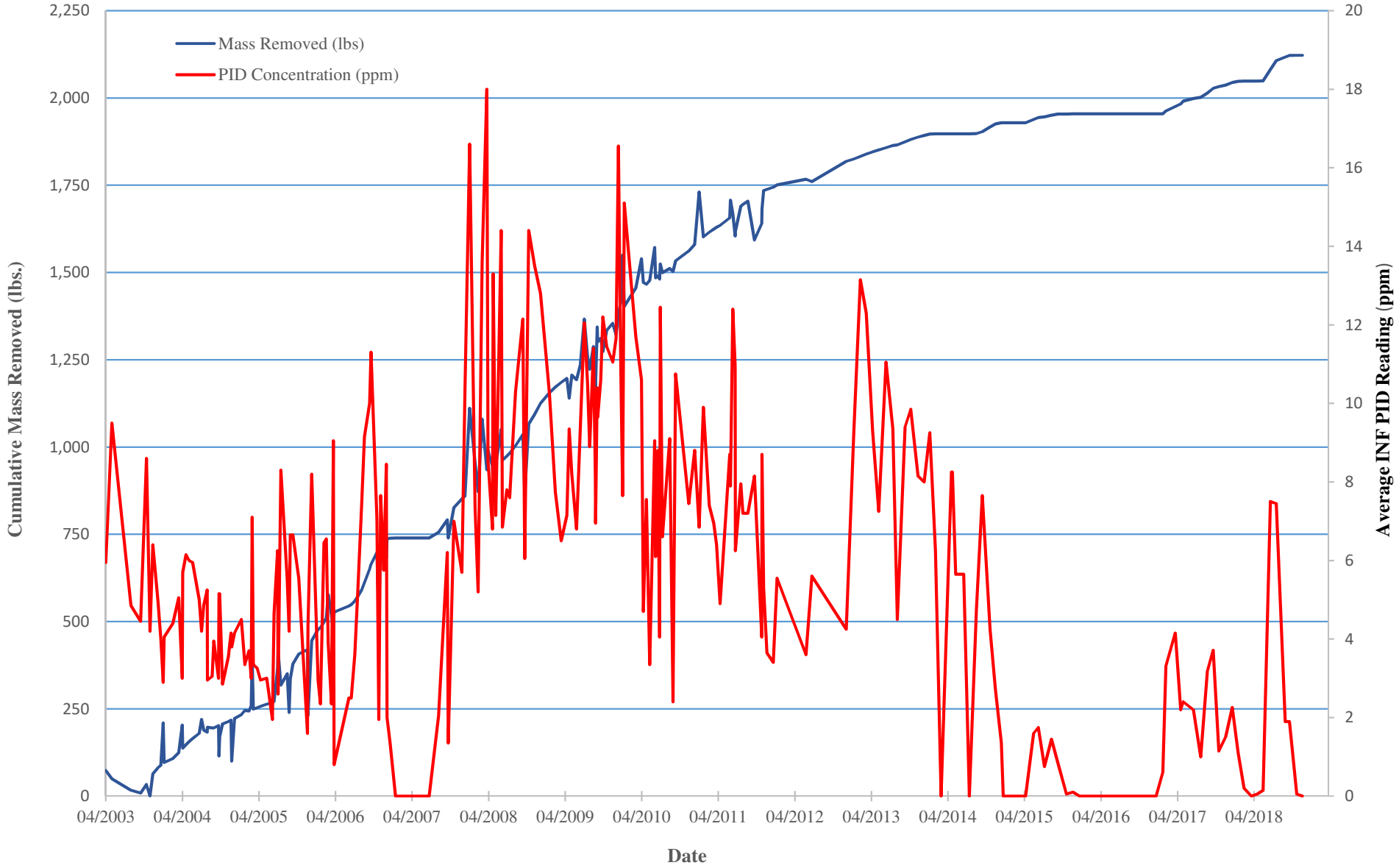
NYSDEC Site No: 130072
Standby Contract: D007625-06

Figure 4
SVE System Annual Cumulative PCE Mass Removal
Stanton Cleaners
110 Cuttermill Road, Great Neck, NY

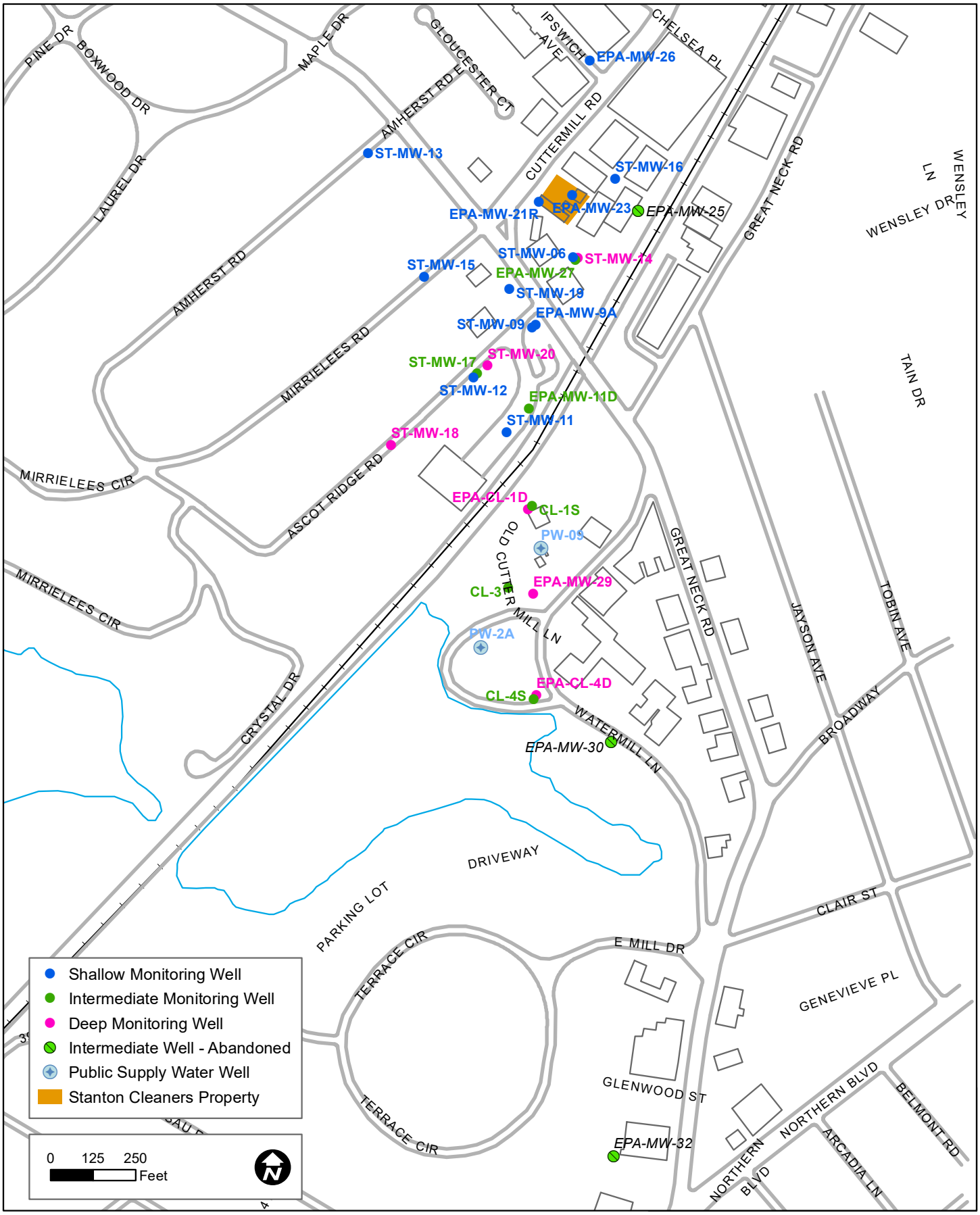


NYSDEC Site No: 130072
Standby Contract: D007625-06

Figure 5
SVE System Cumulative PCE Mass Removal
Stanton Cleaners
110 Cuttermill Road, Great Neck, NY



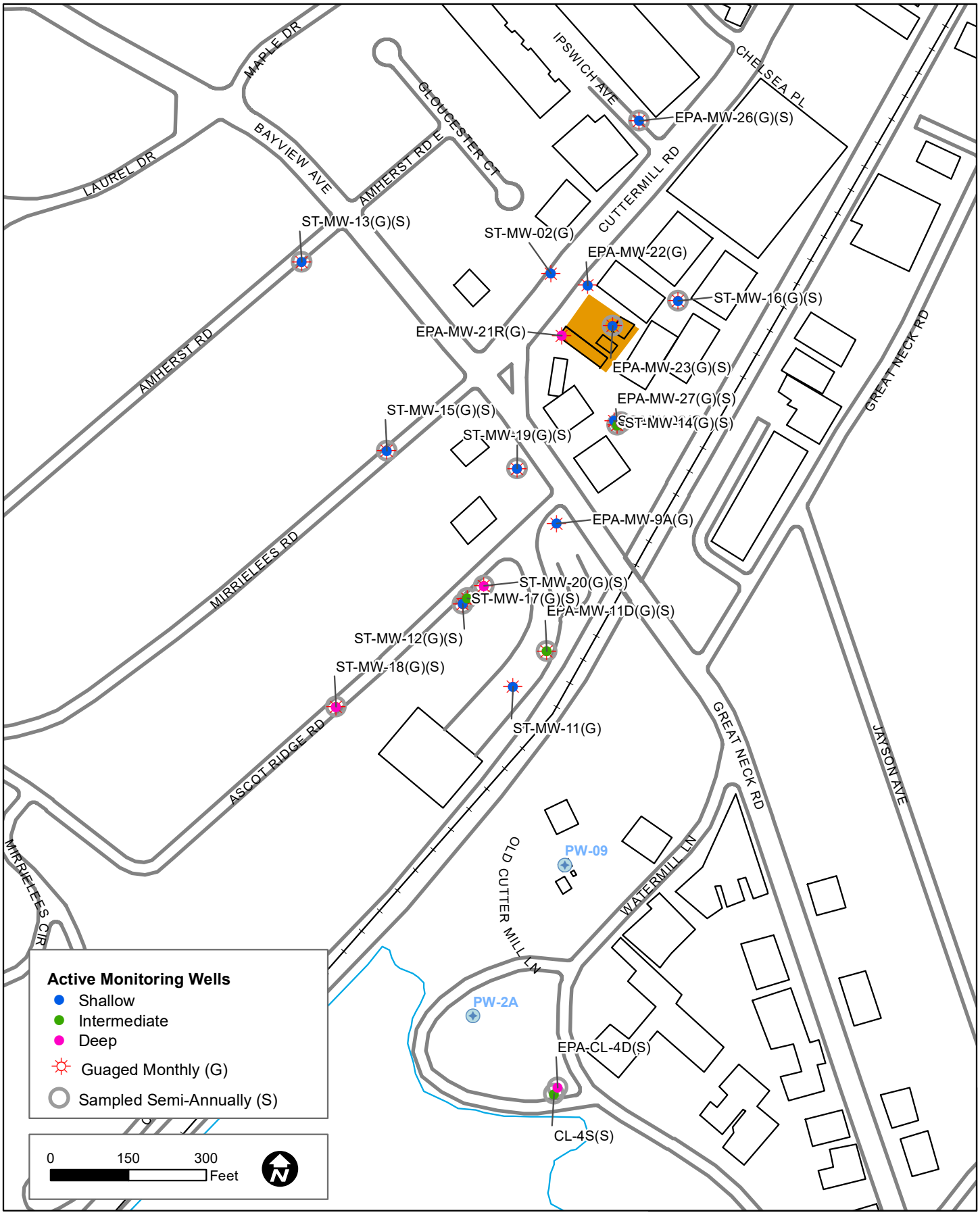
NYSDEC Site No: 130072
Standby Contract: D007625-06



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

Figure 6

March 29, 2019

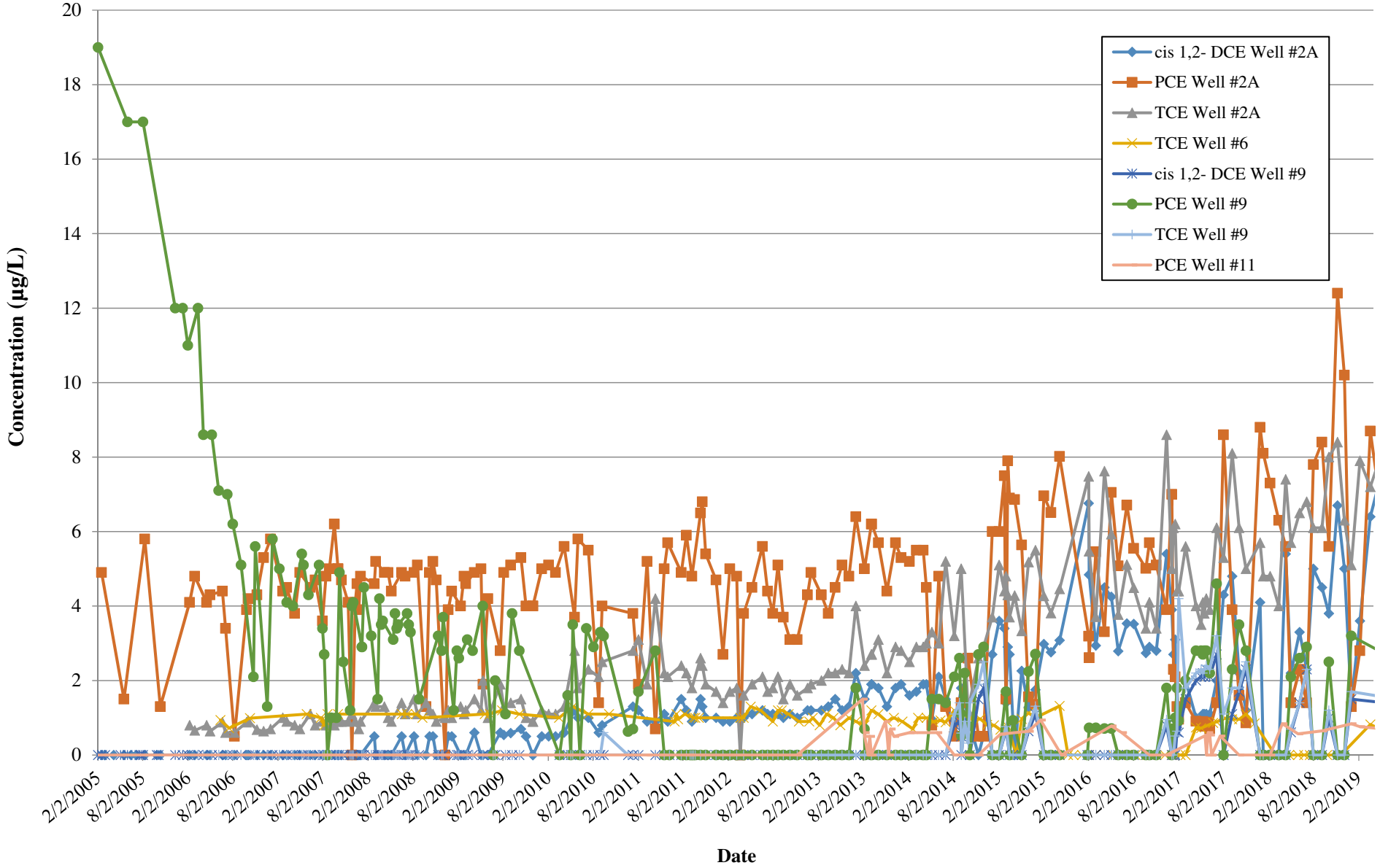


Well Monitoring Schedule
Stanton Cleaners
NYSDEC Site # 130072
Great Neck-North Hempstead, New York

Figure 7

March 29, 2019

Figure 8
Contaminants of Concern in WAGNN Wells
Stanton Cleaners
110 Cuttermill Road, Great Neck, NY



NYSDEC Site No: 130072
Standby Contract: D007625-06

Appendix A

Daily O&M Reports

Project: Stanton Cleaners - Site Management
Contractors: HDR and Preferred Environmental Services

HDR Job No:
Site No:
HDR Project Manager: Michael Lehtinen

HDR
16 Corporate Woods Blvd
Albany, NY 12211
Telephone: 518.937.9500

DAILY REPORT

Day:	S	M	T	W	TH	F	S

Date: 17-Jan-19
REPORT No.
PAGE No. 1

PREPARED BY: Matthew Hartman TITLE: Site Rep.

WEATHER	Bright Sun	Partly Cloudy	Overcast	Rain	Clear
TEMP	To 32	32-50	50-70	70-85	85 and up
WIND	Light	Moderate	High		
HUMIDITY	Dry	Moderate	Humid		
WIND DIR	NE	NW	SE	SW	
	N	S	E	W	

AVERAGE FIELD FORCE

Name of Contractor	Title	Hours Worked	Remarks
Matthew Hartman	Technician	11:48 - 13:00	Preferred

VISITORS

Name	Time (From - To)	Representing	Remarks
Tom King	12:20 - 13:00	Delta Well & Pump	Troubleshooting
Brian	12:20 - 13:00	Delta Well & Pump	Troubleshooting

EQUIPMENT AT THE SITE

I = Idle W = Working

1. Camera - W			

OPERATION & MAINTENANCE ACTIVITIES

HDR/Preferred Site Representative: Matthew Hartman -Preferred

11:48 - Preferred (MH) on-site. SVE and GWTS both remain offline

12:20 - Tom King and Brian (Delta Well & Pump) on-site. Begin troubleshooting activities.

12:25 - Began inspection and troubleshooting of electrical systems

- Troubleshooting of the SVE Blower found that the blower's motor is burnt out, which was likely caused by imbalanced voltage The SVE blower motor and compressor were disassembled and taken back to Delta's shop pending repairs.

- Troubleshooting of the pump in recovery well RW-2 (EXT-02) found that the contact wires on the starter were burnt out, which was likely caused by imbalanced voltage

- Troubleshooting of the ceiling-mounted heating unit found that the motor for the heating unit fan was burnt out, which was likely caused by imbalanced voltage. The ceiling-mounted heating unit was disassembled and taken back to Delta's shop pending repairs.

- Troubleshooting of the electrical wiring in the MCP found evidence of imbalanced voltage. PSE&G (the electrical service provider) was contacted. PSE&G personnel mobilized to the site and confirmed that imbalanced voltage was being supplied to the building due to a faulty transformer outside the building. This transformer was subsequently repaired, and balanced voltage was measured entering the building.

- A leaking section of influent GWTS piping was inspected by Delta and was determined to need replacing. Delta will need to acquire a new Y-Strainer and associated fittings, as no existing parts on-site are in suitable condition to be used as replacements.

- The GWTS lines were not charged during the course of troubleshooting activities, and even though the contact wires on the starter were replaced, the pump was left offline until the ceiling-mounted heating unit can be repaired to avoid the potential for freezing/bursting of the GWTS piping.

13:00 - Troubleshooting complete. Treatment building secured. All parties off-site.

[x] - Designates report is continued on additional pages

HDR/Preferred Site Representative: **Daniel Prisco-Buxbaum (Preferred)** Project Manager: **M. Lehtinen**

Project: Stanton Cleaners - Site Management
Contractors: HDR and Preferred Environmental Services

HDR Job No:
Site No:
HDR Project Manager: Michael Lehtinen

HDR
16 Corporate Woods Blvd
Albany, NY 12211
Telephone: 518.937.9500

DAILY REPORT

Day:	S	M	T	W	TH	F	S

Date: 1-Feb-19
REPORT No.
PAGE No. 1

PREPARED BY: Edward Combs TITLE: Site Rep.

WEATHER	Bright Sun	Partly Cloudy	Overcast	Rain	Clear
TEMP	To 32	32-50	50-70	70-85	85 and up
WIND	Light	Moderate	High		
HUMIDITY	Dry	Moderate	Humid		
WIND DIR	NE	NW	SE	SW	
	N	S	E	W	

AVERAGE FIELD FORCE

Name of Contractor	Title	Hours Worked	Remarks
Edward Combs	Technician	9:45 - 13:45	Preferred

VISITORS

Name	Time (From - To)	Representing	Remarks

EQUIPMENT AT THE SITE

I = Idle W = Working

1. Camera - W	3. 300-ft Solinst - W	5. Tedlar Bag + Tubing - W	
2. Five Gas Meter - W	4. Diaphragm Sampling Pump - W		

OPERATION & MAINTENANCE ACTIVITIES

HDR/Preferred Site Representative: Edward Combs - Preferred

9:45 - Preferred (EC) on-site. SVE and GWTS remain offline.
10:00 - Collected system readings (noting systems remain offline); collected readings from SVE well headspaces and sample ports with 5-gas meter.
11:30 - Performed monitoring well gauging under Task 4.
13:15 - General Housekeeping performed under Task 3, and photos taken of property for potential future drilling.
13:45 - Treatment building secured. Preferred (EC) off-site.

[x] - Designates report is continued on additional pages

HDR/Preferred Site Representative: **Daniel Prisco-Buxbaum (Preferred)** Project Manager: **M. Lehtinen**

STANTON CLEANERS AREA GROUNDWATER CONTAMINATION SITE
Soil-Vapor Extraction and Pump and Treat System
Monthly O&M Data Log

Date: 2/1/2019

Data from Computer Display Screen:

Pump	Flow	Valve open
RW-2	166** GPM	100%

Total Gallons Treated:	428,985,359*	
Discharge Rate:	293 GPM*	
Discharge Conductivity:	0.07*	
Discharge pH:	5.6*	
SVE Air Flow Rate:	59 CFM*	(0 CFM at meter)

Visual Digital Readouts from Catwalk:

Discharge pH:	3.24**
Discharge Temp:	5ºC**
Discharge Conductivity:	0.4**

Flow meter reading:

Flow Rate:	0 GPM**
Total gallons: 4,583,000 gallons**	meter display in 100 of gallons

Effluent flow meter reading:

Flow Rate:	0 GPH**
Total gallons:	5,772,403.7 **

Weather:
26ºF Partly Cloudy, Moderate Humidity, light west wind

Notes:
* Meter Malfunctioning
** GWTS offline
GPM- Gallons Per Minute

STANTON CLEANERS AREA GROUNDWATER CONTAMINATION SITE
Air Sparge System
O&M Data Log

Date: 2/1/2019

Readings at Well	
Near Well Head Bladder	N/A*

Treatment Room Readings	
SCFM	N/A* PSI
psi-1	N/A* PSI
psi-2	N/A* PSI
psi-3	N/A* PSI
P_1	16 PSI
P_2	N/A* PSI
P_3	N/A* PSI

System Readings	
Temp.	N/A* ºF
EN-37-1	N/A* bar
K/O Tank	N/A* PSI

Notes:
***Air readings could not be collected due to the Air Sparge System being offline.**

*Air Sparge System offline
SCFM- Standard Cubic Feet per Minute
psi- pounds per square inch

Locations:
Near Well Head- psi gauge at corner of New Stanton Cleaners Building
Bladder- psi gauge at well head
SCFM- gauge in treatment room (first gauge when looking at wall from left to right)
psi-1 - 2nd gauge attached to line on wall when looking left to right
psi-2 - 3rd gauge
psi-3- 4th gauge
P_1- influent relief valve
P_2- adjacent to catwalk
P_3- on top of carbon tank
Temp.- from compressor screen display
EN-37-1- gauge on compressor
K/O Tank- gauge on knockout tank

STANTON CLEANERS AREA GROUNDWATEF
CONTAMINATION SITE
Soil-Vapor Extraction and Pump and Treat System
Monthly Air Monitoring Log

Date: 2/1/2019
Project #

		FID	MultiRAE PGM-6228					VelociCalc Plus				
	Pipe ID	VOC	VOC	CO	Oxygen	LEL	H2S	Temp.	Vac. Pre.	%RH	Dew pt.	Flow
SVE-Influent	5.709	N/A	0.0*	0.0*	20.9*	0.0*	0.0*	NR	NR	NR	NR	NR
Post- Blower Pre-Carbon**	5.706	N/A	0.0*	0.0*	20.9*	0.0*	0.0*	NR	NR	NR	NR	NR
EPA-SVE-1 (shallow)	1.913	N/A	0.1*	0.0*	20.9*	0.0*	0.0*	NR	NR	NR	NR	NR
EPA-SVE-1 (medium)	1.913	N/A	0.0*	0.0*	20.9*	0.0*	0.0*	NR	NR	NR	NR	NR
EPA-SVE-2 (shallow)	1.913	N/A	0.0*	0.0*	20.9*	0.0*	0.0*	NR	NR	NR	NR	NR
EPA-SVE-2 (medium)	1.913	N/A	0.3*	0.0*	20.9*	0.0*	0.0*	NR	NR	NR	NR	NR
SS-A	1.913	N/A	0.0*	0.0*	20.9*	0.0*	0.0*	NR	NR	NR	NR	NR
SVE-3A	1.913	N/A	0.0*	0.0*	20.9*	0.0*	0.0*	NR	NR	NR	NR	NR
SVE-3B	1.913	N/A	0.0*	0.0*	20.9*	0.0*	0.0*	NR	NR	NR	NR	NR
SVE-1 Combined	1.913	N/A	0.0*	0.0*	20.9*	0.0*	0.0*	NR	NR	NR	NR	NR
SVE-2 Combined	1.913	N/A	0.8*	0.0*	20.9*	0.0*	0.0*	NR	NR	NR	NR	NR
Background		N/A	0.0*	0.0*	20.9*	0.0*	0.0*	NR	NR	NR	NR	NR

Notes:
MultiRAE PGM-6228 (5-gas meter) readings taken with SVE Offline
No VelociCalc Plus readings taken as SVE remains offline

Equipment calibrated by: **Edward Combs**
Air readings collected by: **Edward Combs**

Notes:
***Indicates Reading was Collected while the SVE System was Offline**
****SVE-Effluent relabeled as "Post-Blower Pre-Carbon" Sampling Location**
*****Maxed out reading on meter**
NR- Indicates No Reading Was Collected
FID: Flame Ionization Detector
VOC: Volatile Organic Compounds (in parts per million)
CO: Carbon Monoxide
LEL: Lower Explosive Limit
H2S: Hydrogen Sulfide
Temperature: Measured in Degrees Fahrenheit
Vacuum Pressure: measured in inches of water (in/H2O)
%RH: relative humidity
Dew Pt.: dew point in degrees Fahrenheit
Flow: measured in cubic feet per minute (CFM)

AS: Air Stripper
SVE: Soil Vapor Extraction System

	Prior to 10/3/05	After 10/3/05
SVE 1	shallow on	shallow and medium on
SVE 2	shallow on	shallow on
SVE 3	shallow on	shallow on
SVE 4	off	off
EPA-SVE-04R/SSB(A)	on	on
SS-A	on	on
SS-B(B)	on	off
SS-B(C)	on	on
L1	on	off
L2	on	off

Comments:
New SVE well EPA-EXT-04 online since 11/4/04
LIHA sub-slab system was removed by the EPA from service in the Fall of 2012.
N/A- Not Available

Stanton Cleaners – January 2019 O&M (2/1/19) – Additional Air Monitoring

- Collect headspace readings directly on the SVE wells with associated piping valves closed

Well ID	VOC	CO	Oxygen	LEL	H_2S
EPA-SVE-Sparge 1	0.0	0	20.9	0	0
EPA-SVE-Sparge 2	0.0	0	20.9	0	0
EPA-SVE-Sparge 3	Could Not Locate				
EPA-SVE-Sparge 4	0.0	0	20.9	0	0
EPA-SVE-4R	Steel Vault Cover Welded Shut				
EPA-SVE-5	0.0	0	20.9	0	0
EPA-SVE-6	Could Not Locate				

- Collect headspace readings on Sub-Slab Ports

Well ID	DTW (ft)	Total Depth (ft)	VOC	CO	Oxygen	LEL	H_2S
SS-A	10.15	16.30	0.0	0	20.9	0	0
SS-B	Could Not Measure		0.0	0	20.9	0	0
SS-C	N/A	2.8	0.0	0	20.9	0	0
SS-D *	Could Not Measure		0.0	0	20.9	0	0

*The Fernco connection of SS-D was found to be disconnected again, likely from the piping being distorted by tree growth along the side of the building. This was reconnected, although this tree may have to be removed.

STANTON CLEANERS AREA GROUNDWATER CONTAMINATION SITE

Air Sparge System Monitoring Log

Date: 2/1/2019

	MultiRAE Plus PGM-50				
	VOC	**CO**	**Oxygen**	**LEL**	**H2S**
EPA-EXT-04	N/A	N/A	N/A	N/A	N/A
EPA-MW-21R	N/A	N/A	N/A	N/A	N/A
ST-MW-19	N/A	N/A	N/A	N/A	N/A
Background	N/A	N/A	N/A	N/A	N/A

VOC: Volatile Organic Compounds (in ppm)
CO: Carbon Monoxide
LEL: Lower Explosive Limit
ppm: parts per million
All PID readings taken at well heads.

	HORIBA						
	pH	**Conduc.**	**Turb.**	**DO**	**Temp.**	**Sal.**	**ORP**
Effluent	N/A	N/A	N/A	N/A	N/A	N/A	N/A
EPA-MW-21R	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ST-MW-19	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Influent	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:
***Air readings could not be collected due to the SVE Blower being offline.**

TEMP. - Temperature measured in degrees Fahrenheit.
COND. - Conductivity measured in milliSiemens per centimeter (mS/cm).
TURB. - Turbidity measure in nephelometric turbidity units (NTU).
DO - Dissolved Oxygen measured in milligrams per liter (mg/L).
SALINITY - Salinity in percentage.
ORP- Oxidation Reduction Potential

WATER LEVEL DATA SUMMARY

PROJECT: Stanton Cleaners
LOCATION: Great Neck, NY
CLIENT: HDR
SURVEY DATUM: ft msl
MEASURING DEVICE: Solinst Water Level Indicator

JOB NUMBER:
DATE: 2/1/2019
MEASURED BY: EC

WELL NUMBER	MEASURING POINT		Time	DEPTH TO WATER (FT)	ELEVATION OF WATER (FT)	COMMENTS
	Description	Elevation (FT)				
EPA-MW-11D	ft BTOC	74.63	12:31	50.68	23.95	4" well in p-lot by med sports bldg.
EPA-MW-21-R	ft BTOC	84.13	12:56	63.81	20.32	Getty Gas Station well
EPA-MW-22	ft BTOC	82.20	_____	____	N/A	Under clothing bin- SC p-lot
EPA-MW-23	ft BTOC	82.83	13:10	62.00	20.83	In front of treatment bldg.
EPA-MW-27	ft BTOC	69.32	12:42	49.01	20.31	LIHA PL
ST-MW-06	ft BTOC	69.83	13:15	43.38	26.45	LIHA PL 4"
ST-MW-09A	ft BTOC	78.13	12:38	60.94	17.19	P-lot across from triangle park
ST-MW-11	ft BTOC	75.25	12:28	57.19	18.06	p-lot by entrance to med sports bldg.
ST-MW-12	ft BTOC	87.20	12:10	68.53	18.67	In front of apartment bldg.
ST-MW-14	ft BTOC	69.73	12:45	53.79	15.94	LIHA PL
ST-MW-16	ft BTOC	75.78	13:05	52.32	23.46	Other side treatment bldg. near fence
ST-MW-17	ft BTOC	86.53	12:15	68.02	18.51	In front of apartment bldg.
ST-MW-19	ft BTOC	82.50	12:23	62.95	19.55	Triangle park well
ST-MW-20	ft BTOC	84.53	12:18	69.59	14.94	Near apartment bldg.
EPA-MW-26	ft BTOC	78.37	11:42	57.07	N/A	Ipswich Ave.
ST-MW-15	ft BTOC	90.13	11:57	70.88	N/A	Mirreless Rd
ST-MW-13	ft BTOC	130.95	11:52	83.98	46.97	Amherst Rd
ST-MW-18	ft BTOC	84.40	12:05	70.03	14.37	Ascot Ridge (past apt bldg)

Notes:

PHOTOGRAPHIC LOG
Date: 2-1-19
HDR Job No.
Stanton Cleaners Site

PHOTO	DATE	TIME	DESCRIPTION	COMMENTS
Picture DSCF3456	2/1/2019	11:24	The Fernco connection near the SS-D port was found to be disconnected again. This is likely a result of tree growth along the exterior wall of the building distorting the piping.	
Picture DSCF3462	2/1/2019	12:55	Routine monitoring well gauging was performed under Task 4.	

Photos

2/1/2019

Picture DSCF3456

The Fernco connection near the SS-D port was found to be disconnected again. This is likely a result of tree growth along the exterior wall of the building distorting the piping.

Picture DSCF3462

Routine monitoring well gauging was performed under Task 4.

PROPERTY PHOTOGRAPHIC LOG
Date: 2-1-19
HDR Job No.
Stanton Cleaners Site

PHOTO	DATE	TIME	DESCRIPTION	COMMENTS
Picture DSCF3463	2/1/2019	13:26	View facing southeast of empty lot behind Stanton Cleaners and Treatment Building	
Picture DSCF3466	2/1/2019	13:26	View facing south of empty lot behind Stanton Cleaners and Treatment Building	
Picture DSCF3471	2/1/2019	13:28	View from south corner of empty lot behind Stanton Cleaners and Treatment Building	
Picture DSCF3481	2/1/2019	14:28	View of the southern portion of the sloped area of the property, where the former Stanton Cleaners building is located.	
Picture DSCF3470	2/1/2019	14:28	Additional view of the southern portion of the sloped area of the property, where the former Stanton Cleaners building is located.	
Picture DSCF3472	2/1/2019	13:28	Additional view from south corner, facing north toward adjacent property	
Picture DSCF3490	2/1/2019	13:30	View from north side of property, near ST-MW-16, facing south.	
Picture DSCF3495	2/1/2019	13:31	View from northwest property line, along Cutter Mill Road, showing clearing to the north of the Treatment Building	

Photos

2/1/2019

Picture DSCF3463

View facing southeast of empty lot behind Stanton Cleaners and Treatment Building

Picture DSCF3466

View facing south of empty lot behind Stanton Cleaners and Treatment Building

Photos

2/1/2019

Picture DSCF3471

View from south corner of empty lot behind Stanton Cleaners and Treatment Building

Picture DSCF3472

Additional view from south corner, facing north toward adjacent property

Photos

2/1/2019

Picture DSCF3481

View of the southern portion of the sloped area of the property, where the former Stanton Cleaners building is located.

Picture DSCF3470

Additional view of the southern portion of the sloped area of the property, where the former Stanton Cleaners building is located.

Photos

2/1/2019

Picture DSCF3490

View from north side of property, near ST-MW-16, facing south.

Picture DSCF3495

View from northwest property line, along Cutter Mill Road, showing clearing to the north of the Treatment Building

Project: Stanton Cleaners - Site Management
Contractors: HDR and Preferred Environmental Services

HDR Job No:
Site No:
HDR Project Manager: Michael Lehtinen

HDR
16 Corporate Woods Blvd
Albany, NY 12211
Telephone: 518.937.9500

DAILY REPORT

Day:	S	M	T	W	TH	F	S

Date: 28-Feb-19
REPORT No.
PAGE No. 1

PREPARED BY: Edward Combs TITLE: Site Rep.

WEATHER	Bright Sun	Partly Cloudy	Overcast	Rain	Clear
TEMP	To 32	32-50	50-70	70-85	85 and up
WIND	Light	Moderate	High		
HUMIDITY	Dry	Moderate	Humid		
WIND DIR	NE	NW	SE	SW	
	N	S	E	W	

AVERAGE FIELD FORCE

Name of Contractor	Title	Hours Worked	Remarks
Edward Combs	Technician	9:30 - 14:30	Preferred

VISITORS

Name	Time (From - To)	Representing	Remarks

EQUIPMENT AT THE SITE

I = Idle W = Working

1. Camera - W	3. 300-ft Solinst - W	5. Tedlar Bag + Tubing - W	
2. Five Gas Meter - W	4. Diaphragm Sampling Pump - W		

OPERATION & MAINTENANCE ACTIVITIES

HDR/Preferred Site Representative: Edward Combs - Preferred

9:45 - Preferred (EC) on-site. SVE and GWTS remain offline.
9:50 - Initial site inspection noted that the condition of the protective bollards associated with the exterior vapor-phase carbon unit had worsened.
10:00 - Collected system readings (noting systems remain offline); collected readings from SVE well headspaces and sample ports with 5-gas meter.
11:30 - Performed monitoring well gauging under Task 4.
13:15 - General Housekeeping performed under Task 3, and photos taken of property for potential future drilling.
13:45 - Treatment building secured. Preferred (EC) off-site.

[x] - Designates report is continued on additional pages

HDR/Preferred Site Representative: **Daniel Prisco-Buxbaum (Preferred)** Project Manager: **M. Lehtinen**

STANTON CLEANERS AREA GROUNDWATER CONTAMINATION SITE
Soil-Vapor Extraction and Pump and Treat System
Monthly O&M Data Log

Date: 2/28/2019

Data from Computer Display Screen:

Pump	Flow	Valve open
RW-2	166** GPM	100%

Total Gallons Treated:	435,133,531*	
Discharge Rate:	293 GPM*	
Discharge Conductivity:	0.07*	
Discharge pH:	5.6*	
SVE Air Flow Rate:	40 CFM*	(0 CFM at meter)

Visual Digital Readouts from Catwalk:

Discharge pH:	3.64**
Discharge Temp:	9ºC**
Discharge Conductivity:	0.5**

Flow meter reading:

Flow Rate:	0 GPM**
Total gallons: 4,583,000 gallons**	meter display in 100 of gallons

Effluent flow meter reading:

Flow Rate:	0 GPH**
Total gallons:	5,772,403.7 **

Weather:
32ºF Partly Cloudy, Moderate Humidity, light north wind

Notes:
* Meter Malfunctioning
** GWTS offline
GPM- Gallons Per Minute

STANTON CLEANERS AREA GROUNDWATER CONTAMINATION SITE
Air Sparge System
O&M Data Log

Date: 2/28/2019

Readings at Well	
Near Well Head Bladder	N/A*

Treatment Room Readings	
SCFM	N/A* PSI
psi-1	N/A* PSI
psi-2	N/A* PSI
psi-3	N/A* PSI
P_1	16 PSI
P_2	N/A* PSI
P_3	N/A* PSI

System Readings	
Temp.	N/A* ºF
EN-37-1	N/A* bar
K/O Tank	N/A* PSI

Notes:
***Air readings could not be collected due to the Air Sparge System being offline.**

*Air Sparge System offline
SCFM- Standard Cubic Feet per Minute
psi- pounds per square inch

Locations:
Near Well Head- psi gauge at corner of New Stanton Cleaners Building
Bladder- psi gauge at well head
SCFM- gauge in treatment room (first gauge when looking at wall from left to right)
psi-1 - 2nd gauge attached to line on wall when looking left to right
psi-2 - 3rd gauge
psi-3- 4th gauge
P_1- influent relief valve
P_2- adjacent to catwalk
P_3- on top of carbon tank
Temp.- from compressor screen display
EN-37-1- gauge on compressor
K/O Tank- gauge on knockout tank

STANTON CLEANERS AREA GROUNDWATEF
CONTAMINATION SITE
Soil-Vapor Extraction and Pump and Treat System
Monthly Air Monitoring Log

Date: 2/28/2019
Project #

		FID	MultiRAE PGM-6228					VelociCalc Plus				
	Pipe ID	VOC	VOC	CO	Oxygen	LEL	H2S	Temp.	Vac. Pre.	%RH	Dew pt.	Flow
SVE-Influent	5.709	N/A	0.0*	0.0*	20.9*	0.0*	0.0*	NR	NR	NR	NR	NR
Post- Blower Pre-Carbon**	5.706	N/A	2.3*	0.0*	20.9*	0.0*	0.0*	NR	NR	NR	NR	NR
EPA-SVE-1 (shallow)	1.913	N/A	0.0*	0.0*	20.9*	0.0*	0.0*	NR	NR	NR	NR	NR
EPA-SVE-1 (medium)	1.913	N/A	0.0*	0.0*	20.9*	0.0*	0.0*	NR	NR	NR	NR	NR
EPA-SVE-2 (shallow)	1.913	N/A	0.0*	0.0*	20.9*	0.0*	0.0*	NR	NR	NR	NR	NR
EPA-SVE-2 (medium)	1.913	N/A	0.0*	0.0*	20.9*	0.0*	0.0*	NR	NR	NR	NR	NR
SS-A	1.913	N/A	1.4*	0.0*	20.9*	0.0*	0.0*	NR	NR	NR	NR	NR
SVE-3A	1.913	N/A	0.2*	0.0*	20.9*	0.0*	0.0*	NR	NR	NR	NR	NR
SVE-3B	1.913	N/A	0.0*	0.0*	20.9*	0.0*	0.0*	NR	NR	NR	NR	NR
SVE-1 Combined	1.913	N/A	0.0*	0.0*	20.9*	0.0*	0.0*	NR	NR	NR	NR	NR
SVE-2 Combined	1.913	N/A	0.3*	0.0*	20.9*	0.0*	0.0*	NR	NR	NR	NR	NR
Background		N/A	0.0*	0.0*	20.9*	0.0*	0.0*	NR	NR	NR	NR	NR

Notes:
MultiRAE PGM-6228 (5-gas meter) readings taken with SVE Offline
No VelociCalc Plus readings taken as SVE remains offline

Equipment calibrated by: **Edward Combs**
Air readings collected by: **Edward Combs**

Notes:
***Indicates Reading was Collected while the SVE System was Offline**
****SVE-Effluent relabeled as "Post-Blower Pre-Carbon" Sampling Location**
*****Maxed out reading on meter**
NR- Indicates No Reading Was Collected
FID: Flame Ionization Detector
VOC: Volatile Organic Compounds (in parts per million)
CO: Carbon Monoxide
LEL: Lower Explosive Limit
H2S: Hydrogen Sulfide
Temperature: Measured in Degrees Fahrenheit
Vacuum Pressure: measured in inches of water (in/H2O)
%RH: relative humidity
Dew Pt.: dew point in degrees Fahrenheit
Flow: measured in cubic feet per minute (CFM)

AS: Air Stripper
SVE: Soil Vapor Extraction System

	Prior to 10/3/05	After 10/3/05
SVE 1	shallow on	shallow and medium on
SVE 2	shallow on	shallow on
SVE 3	shallow on	shallow on
SVE 4	off	off
EPA-SVE-04R/SSB(A)	on	on
SS-A	on	on
SS-B(B)	on	off
SS-B(C)	on	on
L1	on	off
L2	on	off

Comments:
New SVE well EPA-EXT-04 online since 11/4/04
LIHA sub-slab system was removed by the EPA from service in the Fall of 2012.
N/A- Not Available

STANTON CLEANERS AREA GROUNDWATER CONTAMINATION SITE

Air Sparge System Monitoring Log

Date: 2/28/2019

	MultiRAE Plus PGM-50				
	VOC	**CO**	**Oxygen**	**LEL**	**H2S**
EPA-EXT-04	N/A	N/A	N/A	N/A	N/A
EPA-MW-21R	N/A	N/A	N/A	N/A	N/A
ST-MW-19	N/A	N/A	N/A	N/A	N/A
Background	N/A	N/A	N/A	N/A	N/A

VOC: Volatile Organic Compounds (in ppm)
CO: Carbon Monoxide
LEL: Lower Explosive Limit
ppm: parts per million
All PID readings taken at well heads.

	HORIBA						
	pH	**Conduc.**	**Turb.**	**DO**	**Temp.**	**Sal.**	**ORP**
Effluent	N/A	N/A	N/A	N/A	N/A	N/A	N/A
EPA-MW-21R	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ST-MW-19	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Influent	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:
***Air readings could not be collected due to the SVE Blower being offline.**

TEMP. - Temperature measured in degrees Fahrenheit.
COND. - Conductivity measured in milliSiemens per centimeter (mS/cm).
TURB. - Turbidity measure in nephelometric turbidity units (NTU).
DO - Dissolved Oxygen measured in milligrams per liter (mg/L).
SALINITY - Salinity in percentage.
ORP- Oxidation Reduction Potential

WATER LEVEL DATA SUMMARY

PROJECT: Stanton Cleaners
LOCATION: Great Neck, NY
CLIENT: HDR
SURVEY DATUM: ft msl
MEASURING DEVICE: Solinst Water Level Indicator

JOB NUMBER:
DATE: 2/28/2019
MEASURED BY: EC

WELL NUMBER	MEASURING POINT		Time	DEPTH TO WATER (FT)	ELEVATION OF WATER (FT)	COMMENTS
	Description	Elevation (FT)				
EPA-MW-11D	ft BTOC	74.63	12:29	53.60	21.03	4" well in p-lot by med sports bldg.
EPA-MW-21-R	ft BTOC	84.13	12:56	62.58	21.55	Getty Gas Station well
EPA-MW-22	ft BTOC	82.20	_____	____	N/A	Under clothing bin- SC p-lot
EPA-MW-23	ft BTOC	82.83	13:01	60.71	22.12	In front of treatment bldg.
EPA-MW-27	ft BTOC	69.32	12:50	47.31	22.01	LIHA PL
ST-MW-06	ft BTOC	69.83	12:42	43.63	26.20	LIHA PL 4"
ST-MW-09A	ft BTOC	78.13	12:39	58.94	19.19	P-lot across from triangle park
ST-MW-11	ft BTOC	75.25	12:24	54.68	20.57	p-lot by entrance to med sports bldg.
ST-MW-12	ft BTOC	87.20	12:08	66.68	20.52	In front of apartment bldg.
ST-MW-14	ft BTOC	69.73	12:47	47.11	22.62	LIHA PL
ST-MW-16	ft BTOC	75.78	13:09	51.93	23.85	Other side treatment bldg. near fence
ST-MW-17	ft BTOC	86.53	12:12	65.83	20.70	In front of apartment bldg.
ST-MW-19	ft BTOC	82.50	12:20	61.27	21.23	Triangle park well
ST-MW-20	ft BTOC	84.53	12:15	62.22	22.31	Near apartment bldg.
EPA-MW-26	ft BTOC	78.37	13:18	56.17	N/A	Ipswich Ave.
ST-MW-15	ft BTOC	90.13	13:25	69.33	N/A	Mirreless Rd
ST-MW-13	ft BTOC	130.95	11:50	82.96	47.99	Amherst Rd
ST-MW-18	ft BTOC	84.40	12:00	62.60	21.80	Ascot Ridge (past apt bldg)

Notes:

PHOTOGRAPHIC LOG
Date: 2-28-19
HDR Job No.
Stanton Cleaners Site

PHOTO	DATE	TIME	DESCRIPTION	COMMENTS
Picture DSCF3759	2/28/2019	14:15	Initial site inspection noted that the condition of the protective bollards associated with the exterior vapor-phase carbon unit had worsened.	
Picture DSCF3756	2/28/2019	11:50	Due to both the GWTS and SVE System being offline, a limited O&M event was completed. This O&M event included collecting instrument readings of the SVE wells headspace in addition to the SVE sample ports.	

Photos

2/28/2019

Picture DSCF3759

Initial site inspection noted that the condition of the protective bollards associated with the exterior vapor-phase carbon unit had worsened.

Picture DSCF3756

Due to both the GWTS and SVE System being offline, a limited O&M event was completed. This O&M event included collecting instrument readings of the SVE wells headspace in addition to the SVE sample ports.

Project: Stanton Cleaners - Site Management
Contractors: HDR and Preferred Environmental Services
HDR Job No:
Site No:
HDR Project Manager: Michael Lehtinen

HDR
16 Corporate Woods Blvd
Albany, NY 12211
Telephone: 518.937.9500

DAILY REPORT

Day:	S	M	T	W	TH	F	S

Date: 28-Mar-19
REPORT No.
PAGE No. 1

PREPARED BY: Edward Combs TITLE: Site Rep.

WEATHER	Bright Sun	Partly Cloudy	Overcast	Rain	Clear
TEMP	To 32	32-50	50-70	70-85	85 and up
WIND	Light	Moderate	High		
HUMIDITY	Dry	Moderate	Humid		
WIND DIR	NE	NW	SE	SW	
	N	S	E	W	

AVERAGE FIELD FORCE

Name of Contractor	Title	Hours Worked	Remarks
Edward Combs	Technician	9:45 - 14:30	Preferred

VISITORS

Name	Time (From - To)	Representing	Remarks

EQUIPMENT AT THE SITE

I = Idle W = Working

1. Camera - W	3. 300-ft Solinst - W	5. Tedlar Bag + Tubing - W	
2. Five Gas Meter - W	4. Diaphragm Sampling Pump - W		

OPERATION & MAINTENANCE ACTIVITIES

HDR/Preferred Site Representative: Edward Combs - Preferred

9:45 - Preferred (EC) on-site. Was unable to gain access to the treatment building due to the lockbock containing the key having been vandalized. SVE system and GWTS assumed to be offline.

9:50 - Initial site inspection noted multiple instances of vandalism to various SVE piping, sampling ports, etc. In addition, the shed in front of the treatment building was open (the padlock was missing) and the broken gas-powered weed trimmer was found to be missing. Tire tracks were visible in the field behind the treatment building.

10:00 - Checked status of air sampling SUMMA canisters in LIHA building, which were deployed the previous day.

10:30 - EC updated Justin King from HDR on the damage observed.

11:30 - Collected air sampling SUMMA canisters from LIHA building.

12:00 - Collected SVE well headspace and sample port readings with 5-gas meter (noting systems remain offline).

13:00 - Performed monitoring well gauging under Task 4.

13:15 - Purchased replacement padlock for shed and lockbox for treatment building, and replacement parts for SVE system repairs.

14:30 - Treatment building secured. Preferred (EC) off-site.

[x] - Designates report is continued on additional pages

HDR/Preferred Site Representative: **Daniel Prisco-Buxbaum (Preferred)** Project Manager: **M. Lehtinen**

STANTON CLEANERS AREA GROUNDWATER CONTAMINATION SITE
Soil-Vapor Extraction and Pump and Treat System
Monthly O&M Data Log

Date: 3/28/2019

Data from Computer Display Screen:

Pump	Flow	Valve open
RW-2	*** GPM	100%

Total Gallons Treated:	***
Discharge Rate:	***
Discharge Conductivity:	***
Discharge pH:	***
SVE Air Flow Rate:	***

Visual Digital Readouts from Catwalk:

Discharge pH:	***
Discharge Temp:	***
Discharge Conductivity:	***

Flow meter reading:

Flow Rate:	***
Total gallons: ***	

meter display in 100 of gallons

Effluent flow meter reading:

Flow Rate:	***
Total gallons:	***

Weather:
57ºF Partly Cloudy, Moderate Humidity, light west wind

Notes:
* Meter Malfunctioning
** GWTS offline
*** Was unable to access system due to vandalism of exterior lockbo›
GPM- Gallons Per Minute

STANTON CLEANERS AREA GROUNDWATER CONTAMINATION SITE
Air Sparge System
O&M Data Log

Date: 3/28/2019

Readings at Well	
Near Well Head Bladder	N/A*

Treatment Room Readings	
SCFM	N/A* PSI
psi-1	N/A* PSI
psi-2	N/A* PSI
psi-3	N/A* PSI
P_1	16 PSI
P_2	N/A* PSI
P_3	N/A* PSI

System Readings	
Temp.	N/A* ºF
EN-37-1	N/A* bar
K/O Tank	N/A* PSI

Notes:
***Air readings could not be collected due to the Air Sparge System being offline.**

*Air Sparge System offline
SCFM- Standard Cubic Feet per Minute
psi- pounds per square inch

Locations:
Near Well Head- psi gauge at corner of New Stanton Cleaners Building
Bladder- psi gauge at well head
SCFM- gauge in treatment room (first gauge when looking at wall from left to right)
psi-1 - 2nd gauge attached to line on wall when looking left to right
psi-2 - 3rd gauge
psi-3- 4th gauge
P_1- influent relief valve
P_2- adjacent to catwalk
P_3- on top of carbon tank
Temp.- from compressor screen display
EN-37-1- gauge on compressor
K/O Tank- gauge on knockout tank

STANTON CLEANERS AREA GROUNDWATEF
CONTAMINATION SITE
Soil-Vapor Extraction and Pump and Treat System
Monthly Air Monitoring Log

Date: 3/28/2019
Project #

		FID	MultiRAE PGM-6228					VelociCalc Plus				
	Pipe ID	VOC	VOC	CO	Oxygen	LEL	H2S	Temp.	Vac. Pre.	%RH	Dew pt.	Flow
SVE-Influent	**5.709**	N/A	**NR**	**NR**	**NR**	**NR**	**NR**	**NR**	**NR**	**NR**	**NR**	**NR**
Post- Blower Pre-Carbon**	**5.706**	N/A	**0.1***	**0.0***	**20.9***	**0.0***	**0.0***	**NR**	**NR**	**NR**	**NR**	**NR**
EPA-SVE-1 (shallow)	**1.913**	N/A	**0.0***	**0.0***	**20.9***	**0.0***	**0.0***	**NR**	**NR**	**NR**	**NR**	**NR**
EPA-SVE-1 (medium)	**1.913**	N/A	**0.0***	**0.0***	**20.9***	**0.0***	**0.0***	**NR**	**NR**	**NR**	**NR**	**NR**
EPA-SVE-2 (shallow)	**1.913**	N/A	**0.0***	**0.0***	**20.9***	**0.0***	**0.0***	**NR**	**NR**	**NR**	**NR**	**NR**
EPA-SVE-2 (medium)	**1.913**	N/A	**0.0***	**0.0***	**20.9***	**0.0***	**0.0***	**NR**	**NR**	**NR**	**NR**	**NR**
SS-A	**1.913**	N/A	**0.0***	**0.0***	**20.9***	**0.0***	**0.0***	**NR**	**NR**	**NR**	**NR**	**NR**
SVE-3A	**1.913**	N/A	**0.3***	**0.0***	**20.9***	**0.0***	**0.0***	**NR**	**NR**	**NR**	**NR**	**NR**
SVE-3B	**1.913**	N/A	**0.8***	**0.0***	**20.9***	**0.0***	**0.0***	**NR**	**NR**	**NR**	**NR**	**NR**
SVE-1 Combined	**1.913**	N/A	**0.0***	**0.0***	**20.9***	**0.0***	**0.0***	**NR**	**NR**	**NR**	**NR**	**NR**
SVE-2 Combined	**1.913**	N/A	**0.0***	**0.0***	**20.9***	**0.0***	**0.0***	**NR**	**NR**	**NR**	**NR**	**NR**
Background		N/A	**0.0***	**0.0***	**20.9***	**0.0***	**0.0***	**NR**	**NR**	**NR**	**NR**	**NR**

Notes:
MultiRAE PGM-6228 (5-gas meter) readings taken with SVE Offline
No VelociCalc Plus readings taken as SVE remains offline

Equipment calibrated by: **Edward Combs**
Air readings collected by: **Edward Combs**

Notes:
***Indicates Reading was Collected while the SVE System was Offline**
****SVE-Effluent relabeled as "Post-Blower Pre-Carbon" Sampling Location**
*****Maxed out reading on meter**
NR- Indicates No Reading Was Collected
FID: Flame Ionization Detector
VOC: Volatile Organic Compounds (in parts per million)
CO: Carbon Monoxide
LEL: Lower Explosive Limit
H2S: Hydrogen Sulfide
Temperature: Measured in Degrees Fahrenheit
Vacuum Pressure: measured in inches of water (in/H2O)
%RH: relative humidity
Dew Pt.: dew point in degrees Fahrenheit
Flow: measured in cubic feet per minute (CFM)

AS: Air Stripper
SVE: Soil Vapor Extraction System

	Prior to 10/3/05	**After 10/3/05**
SVE 1	shallow on	shallow and medium on
SVE 2	shallow on	shallow on
SVE 3	shallow on	shallow on
SVE 4	off	off
EPA-SVE-04R/SSB(A)	on	on
SS-A	on	on
SS-B(B)	on	off
SS-B(C)	on	on
L1	on	off
L2	on	off

Comments:
New SVE well EPA-EXT-04 online since 11/4/04
LIHA sub-slab system was removed by the EPA from service in the Fall of 2012.
N/A- Not Available

STANTON CLEANERS AREA GROUNDWATER CONTAMINATION SITE

Air Sparge System Monitoring Log

Date: 3/28/2019

	MultiRAE Plus PGM-50				
	VOC	**CO**	**Oxygen**	**LEL**	**H2S**
EPA-EXT-04	N/A	N/A	N/A	N/A	N/A
EPA-MW-21R	N/A	N/A	N/A	N/A	N/A
ST-MW-19	N/A	N/A	N/A	N/A	N/A
Background	N/A	N/A	N/A	N/A	N/A

VOC: Volatile Organic Compounds (in ppm)
CO: Carbon Monoxide
LEL: Lower Explosive Limit
ppm: parts per million
All PID readings taken at well heads.

	HORIBA						
	pH	**Conduc.**	**Turb.**	**DO**	**Temp.**	**Sal.**	**ORP**
Effluent	N/A	N/A	N/A	N/A	N/A	N/A	N/A
EPA-MW-21R	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ST-MW-19	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Influent	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:
***Air readings could not be collected due to the SVE Blower being offline.**

TEMP. - Temperature measured in degrees Fahrenheit.
COND. - Conductivity measured in milliSiemens per centimeter (mS/cm).
TURB. - Turbidity measure in nephelometric turbidity units (NTU).
DO - Dissolved Oxygen measured in milligrams per liter (mg/L).
SALINITY - Salinity in percentage.
ORP- Oxidation Reduction Potential

WATER LEVEL DATA SUMMARY

PROJECT: Stanton Cleaners
LOCATION: Great Neck, NY
CLIENT: HDR
SURVEY DATUM: ft msl
MEASURING DEVICE: Solinst Water Level Indicator

JOB NUMBER:
DATE: 3/28/2019
MEASURED BY: EC

WELL NUMBER	MEASURING POINT		Time	DEPTH TO WATER (FT)	ELEVATION OF WATER (FT)	COMMENTS
	Description	Elevation (FT)				
EPA-MW-11D	ft BTOC	74.63	13:27	52.65	21.98	4" well in p-lot by med sports bldg.
EPA-MW-21-R	ft BTOC	84.13	13:55	61.52	22.61	Getty Gas Station well
EPA-MW-22	ft BTOC	82.20	_____	____	N/A	Under clothing bin- SC p-lot
EPA-MW-23	ft BTOC	82.83	14:00	59.71	23.12	In front of treatment bldg.
EPA-MW-27	ft BTOC	69.32	13:51	46.29	23.03	LIHA PL
ST-MW-06	ft BTOC	69.83	13:53	42.68	27.15	LIHA PL 4"
ST-MW-09A	ft BTOC	78.13	13:20	57.86	20.27	P-lot across from triangle park
ST-MW-11	ft BTOC	75.25	13:24	53.66	21.59	p-lot by entrance to med sports bldg.
ST-MW-12	ft BTOC	87.20	13:40	65.55	21.65	In front of apartment bldg.
ST-MW-14	ft BTOC	69.73	13:50	46.40	23.33	LIHA PL
ST-MW-16	ft BTOC	75.78	13:00	51.12	24.66	Other side treatment bldg. near fence
ST-MW-17	ft BTOC	86.53	13:42	64.84	21.69	In front of apartment bldg.
ST-MW-19	ft BTOC	82.50	13:17	60.22	22.28	Triangle park well
ST-MW-20	ft BTOC	84.53	13:44	61.62	22.91	Near apartment bldg.
EPA-MW-26	ft BTOC	78.37	13:04	55.23	N/A	Ipswich Ave.
ST-MW-15	ft BTOC	90.13	13:14	68.43	N/A	Mirreless Rd
ST-MW-13	ft BTOC	130.95	13:10	81.80	49.15	Amherst Rd
ST-MW-18	ft BTOC	84.40	13:34	62.07	22.33	Ascot Ridge (past apt bldg)

Notes:

Stanton Cleaners –March 2019 O&M (3/28/19) – Additional SVE Monitoring

- Collect headspace readings directly on the SVE wells with associated piping valves closed

Well ID	VOC	CO	Oxygen	LEL	H_2S
EPA-SVE-Sparge 1	0.0	0	20.9	0	0
EPA-SVE-Sparge 2	0.0	0	20.9	0	0
EPA-SVE-Sparge 3	Could Not Locate				
EPA-SVE-Sparge 4	0.0	0	20.9	0	0
EPA-SVE-4R	Steel Vault Cover Welded Shut				
EPA-SVE-5	0.0	0	20.9	0	0
EPA-SVE-6	Could Not Locate				

- Collect headspace readings on Sub-Slab Ports

Well ID	DTW (ft)	Total Depth (ft)	VOC	CO	Oxygen	LEL	H_2S
SS-A	9.23	16.30	0.0	0	20.9	0	0
SS-B	Could Not Measure		0.0	0	20.9	0	0
SS-C	N/A	2.8	0.0	0	20.9	0	0
SS-D *	Could Not Measure		0.0	0	20.9	0	0

PHOTOGRAPHIC LOG
Date: 3-28-19
HDR Job No.
Stanton Cleaners Site

PHOTO	DATE	TIME	DESCRIPTION	COMMENTS
Picture DSCF4088	3/28/2019	10:46	Upon arrival to the site, it was noted that the lockbox containing the access key had been vandalized and would not open.	
Picture DSCF4078	3/28/2019	10:38	The shed in front of the treatment building was observed to be open, and the padlock which previously secured it was missing. The non-functioning gas-powered weed trimmer was noted to be missing.	

Photos

3/28/2019

Picture DSCF4088

Upon arrival to the site, it was noted that the lockbox containing the access key had been vandalized and would not open.

Picture DSCF4078
The shed in front of the treatment building was observed to be open, and the padlock which previously secured it was missing. The non-functioning gas-powered weed trimmer was noted to be missing.

PHOTOGRAPHIC LOG
Date: 3-28-19
HDR Job No.
Stanton Cleaners Site

PHOTO	DATE	TIME	DESCRIPTION	COMMENTS
Picture DSCF4089	3/28/2019	10:46	The SVE SS-A piping was observed to have been vandalized, with a penetration crack along the piping, and the sampling port having been removed.	
Picture DSCF4094	3/28/2019	10:47	Additional sections of piping were observed to have been vandalized as well, including a section of piping which has historically been "closed" via the ball valve in the photograph above.	

Photos

3/28/2019

Picture DSCF4089

The SVE SS-A piping was observed to have been vandalized, with a penetration crack along the piping, and the sampling port having been removed.

Picture DSCF4094

Additional sections of piping were observed to have been vandalized as well, including a section of piping which has historically been "closed" via the ball valve in the photograph above.

Appendix B

GWE&TS O&M Reports

STANTON CLEANERS AREA GROUNDWATER CONTAMINATION SITE
Soil-Vapor Extraction and Pump and Treat System
Monthly O&M Data Log

Date: 2/1/2019

Data from Computer Display Screen:

Pump	Flow	Valve open
RW-2	166** GPM	100%

Total Gallons Treated:	428,985,359*	
Discharge Rate:	293 GPM*	
Discharge Conductivity:	0.07*	
Discharge pH:	5.6*	
SVE Air Flow Rate:	59 CFM*	(0 CFM at meter)

Visual Digital Readouts from Catwalk:

Discharge pH:	3.24**
Discharge Temp:	5ºC**
Discharge Conductivity:	0.4**

Flow meter reading:

Flow Rate:	0 GPM**
Total gallons: 4,583,000 gallons**	meter display in 100 of gallons

Effluent flow meter reading:

Flow Rate:	0 GPH**
Total gallons:	5,772,403.7 **

Weather:
26ºF Partly Cloudy, Moderate Humidity, light west wind

Notes:
* Meter Malfunctioning
** GWTS offline
GPM- Gallons Per Minute

STANTON CLEANERS AREA GROUNDWATER CONTAMINATION SITE
Soil-Vapor Extraction and Pump and Treat System
Monthly O&M Data Log

Date: 2/28/2019

Data from Computer Display Screen:

Pump	Flow	Valve open
RW-2	166** GPM	100%

Total Gallons Treated:	435,133,531*	
Discharge Rate:	293 GPM*	
Discharge Conductivity:	0.07*	
Discharge pH:	5.6*	
SVE Air Flow Rate:	40 CFM*	(0 CFM at meter)

Visual Digital Readouts from Catwalk:

Discharge pH:	3.64**
Discharge Temp:	9ºC**
Discharge Conductivity:	0.5**

Flow meter reading:

Flow Rate:	0 GPM**
Total gallons: 4,583,000 gallons**	meter display in 100 of gallons

Effluent flow meter reading:

Flow Rate:	0 GPH**
Total gallons:	5,772,403.7 **

Weather:
32ºF Partly Cloudy, Moderate Humidity, light north wind

Notes:
* Meter Malfunctioning
** GWTS offline
GPM- Gallons Per Minute

STANTON CLEANERS AREA GROUNDWATER CONTAMINATION SITE
Soil-Vapor Extraction and Pump and Treat System
Monthly O&M Data Log

Date: 3/28/2019

Data from Computer Display Screen:

Pump	Flow	Valve open
RW-2	*** GPM	100%

Total Gallons Treated:	***
Discharge Rate:	***
Discharge Conductivity:	***
Discharge pH:	***
SVE Air Flow Rate:	***

Visual Digital Readouts from Catwalk:

Discharge pH:	***
Discharge Temp:	***
Discharge Conductivity:	***

Flow meter reading:

Flow Rate:	***
Total gallons: ***	

meter display in 100 of gallons

Effluent flow meter reading:

Flow Rate:	***
Total gallons:	***

Weather:
57ºF Partly Cloudy, Moderate Humidity, light west wind

Notes:
* Meter Malfunctioning
** GWTS offline
*** Was unable to access system due to vandalism of exterior lockbo›
GPM- Gallons Per Minute

Appendix C

Lookout Operational Data Logs

Stanton Cleaners Groundwater Contamination Site - January 2019 - Site Operational Data			
Time	Recovery Well 3 Flow (GPM)	Total Gallons Discharged	SVE Air Flow
1/1/2019 0:00	166	425713100.6	113
1/1/2019 4:00	166	425752420.5	107
1/1/2019 8:00	166	425791737.6	110
1/1/2019 12:00	166	425831057.5	107
1/1/2019 16:00	166	425870377.3	108
1/1/2019 20:00	166	425909700	110
1/2/2019 0:00	166	425949022.6	107
1/2/2019 4:00	166	425988348	112
1/2/2019 8:00	166	426027670.6	110
1/2/2019 12:00	166	426066996	108
1/2/2019 16:00	166	426106321.4	108
1/2/2019 20:00	166	426145646.8	113
1/3/2019 0:00	166	426184975	111
1/3/2019 4:00	166	426224300.4	110
1/3/2019 8:00	166	426263628.6	112
1/3/2019 12:00	166	426302959.5	111
1/3/2019 16:00	166	426342287.7	112
1/3/2019 20:00	166	426381618.6	110
1/4/2019 0:00	166	426420952.3	112
1/4/2019 4:00	166	426460283.2	108
1/4/2019 8:00	166	426499614.2	111
1/4/2019 12:00	166	426538945.1	111
1/4/2019 16:00	166	426578278.8	112
1/4/2019 20:00	166	426617609.7	111
1/5/2019 0:00	166	426656943.4	104
1/5/2019 4:00	166	426696277.1	109
1/5/2019 8:00	166	426735610.8	112
1/5/2019 12:00	166	426774947.3	110
1/5/2019 16:00	166	426814281	109
1/5/2019 20:00	166	426853617.5	106
1/6/2019 0:00	166	426892956.7	109
1/6/2019 4:00	166	426932293.2	112
1/6/2019 8:00	166	426971632.4	110
1/6/2019 12:00	166	427010974.4	110
1/6/2019 16:00	166	427050316.4	107
1/6/2019 20:00	166	427089658.4	110
1/7/2019 0:00	166	427129000.4	110
1/7/2019 4:00	166	427168345.2	110
1/7/2019 8:00	166	427207692.7	109
1/7/2019 12:00	166	427247040.2	111
1/7/2019 16:00	166	427286387.8	110

Stanton Cleaners Groundwater Contamination Site - January 2019 - Site Operational Data			
Time	Recovery Well 3 Flow (GPM)	Total Gallons Discharged	SVE Air Flow
1/7/2019 20:00	166	427325735.3	108
1/8/2019 0:00	166	427365085.6	111
1/8/2019 4:00	166	427404435.9	111
1/8/2019 8:00	166	427443786.2	110
1/8/2019 12:00	166	427483142	109
1/8/2019 16:00	166	427522495.1	107
1/8/2019 20:00	166	427561850.9	108
1/9/2019 0:00	166	427601206.8	110
1/9/2019 4:00	166	427640562.6	107
1/9/2019 8:00	166	427679921.2	111
1/9/2019 12:00	166	427719279.8	111
1/9/2019 16:00	166	427758638.4	110
1/9/2019 20:00	166	427797999.8	110
1/10/2019 0:00	166	427837361.1	111
1/10/2019 4:00	166	427876722.5	111
1/10/2019 8:00	166	427916086.6	112
1/10/2019 12:00	166	427955448	111
1/10/2019 16:00	166	427994812.1	111
1/10/2019 20:00	166	428034179	107
1/11/2019 0:00	166	428073543.2	111
1/11/2019 4:00	166	428112907.3	110
1/11/2019 8:00	166	428152274.2	57
1/11/2019 12:00	166	428191641.1	61
1/11/2019 16:00	166	428231008	60
1/11/2019 20:00	166	428270377.6	60
1/12/2019 0:00	166	428309744.5	60
1/12/2019 4:00	166	428349117	60
1/12/2019 8:00	166	428388486.6	56
1/12/2019 12:00	166	428427856.3	59
1/12/2019 16:00	166	428467228.7	61
1/12/2019 20:00	166	428506603.9	60
1/13/2019 0:00	166	428545979.1	58
1/13/2019 4:00	166	428585354.3	61
1/13/2019 8:00	166	428624732.3	62
1/13/2019 12:00	166	428664110.3	58
1/13/2019 16:00	166	428703488.2	57
1/13/2019 20:00	166	428742866.2	61
1/14/2019 0:00	166	428782244.2	62
1/14/2019 4:00	166	428821624.9	61
1/14/2019 8:00	166	428861005.6	59
1/14/2019 12:00	166	428900386.4	59

Stanton Cleaners Groundwater Contamination Site - January 2019 - Site Operational Data			
Time	Recovery Well 3 Flow (GPM)	Total Gallons Discharged	SVE Air Flow
1/14/2019 16:00	166	428939767.1	57
1/14/2019 20:00	166	428979147.8	56
1/15/2019 0:00	166	429018531.3	61
1/15/2019 4:00	166	429057914.8	61
1/15/2019 8:00	166	429097298.3	60
1/15/2019 12:00	166	429136681.8	59
1/15/2019 16:00	166	429176068.1	60
1/15/2019 20:00	166	429215451.6	60
1/16/2019 0:00	166	429254837.9	61
1/16/2019 4:00	166	429294224.1	54
1/16/2019 8:00	166	429333615.9	61
1/16/2019 12:00	166	429373005	61
1/16/2019 16:00	166	429412396.8	59
1/16/2019 20:00	166	429451785.8	58
1/17/2019 0:00	166	429491177.6	60
1/17/2019 4:00	166	429530572.2	61
1/17/2019 8:00	166	429569964	62
1/17/2019 12:00	166	429609358.5	61
1/17/2019 16:00	166	429648755.9	60
1/17/2019 20:00	166	429688150.4	60
1/18/2019 0:00	166	429727547.8	62
1/18/2019 4:00	166	429766945.1	62
1/18/2019 8:00	166	429806345.2	58
1/18/2019 12:00	166	429845742.5	57
1/18/2019 16:00	166	429885142.6	59
1/18/2019 20:00	166	429924540	59
1/19/2019 0:00	166	429963940.1	61
1/19/2019 4:00	166	430003340.2	60
1/19/2019 8:00	166	430042740.3	60
1/19/2019 12:00	166	430082140.4	57
1/19/2019 16:00	166	430121543.2	59
1/19/2019 20:00	166	430160946.1	60
1/20/2019 0:00	166	430200349	58
1/20/2019 4:00	166	430239754.6	61
1/20/2019 8:00	166	430279157.5	61
1/20/2019 12:00	166	430318563.1	58
1/20/2019 16:00	166	430357968.7	62
1/20/2019 20:00	166	430397377.1	57
1/21/2019 0:00	166	430436785.5	60
1/21/2019 4:00	166	430476193.9	61
1/21/2019 8:00	166	430515605.1	61

Stanton Cleaners Groundwater Contamination Site - January 2019 - Site Operational Data			
Time	Recovery Well 3 Flow (GPM)	Total Gallons Discharged	SVE Air Flow
1/21/2019 12:00	166	430555013.5	58
1/21/2019 16:00	166	430594424.7	59
1/21/2019 20:00	166	430633835.8	62
1/22/2019 0:00	166	430673249.8	62
1/22/2019 4:00	166	430712660.9	57
1/22/2019 8:00	166	430752077.6	61
1/22/2019 12:00	166	430791491.6	61
1/22/2019 16:00	166	430830908.3	59
1/22/2019 20:00	166	430870325	60
1/23/2019 0:00	166	430909744.4	59
1/23/2019 4:00	166	430949163.9	59
1/23/2019 8:00	166	430988586.1	57
1/23/2019 12:00	166	431028005.6	60
1/23/2019 16:00	166	431067427.8	57
1/23/2019 20:00	166	431106850.1	56
1/24/2019 0:00	166	431146275.1	59
1/24/2019 4:00	166	431185697.3	61
1/24/2019 8:00	166	431225122.3	59
1/24/2019 12:00	166	431264550.1	60
1/24/2019 16:00	166	431303977.8	59
1/24/2019 20:00	166	431343405.6	60
1/25/2019 0:00	166	431382833.4	62
1/25/2019 4:00	166	431422263.9	62
1/25/2019 8:00	166	431461694.4	60
1/25/2019 12:00	166	431501127.7	60
1/25/2019 16:00	166	431540561	36
1/25/2019 20:00	166	431579997.1	34
1/26/2019 0:00	166	431619433.2	40
1/26/2019 4:00	166	431658872	39
1/26/2019 8:00	166	431698310.8	40
1/26/2019 12:00	166	431737746.9	37
1/26/2019 16:00	166	431777185.7	40
1/26/2019 20:00	166	431816624.6	37
1/27/2019 0:00	166	431856066.2	38
1/27/2019 4:00	166	431895507.8	40
1/27/2019 8:00	166	431934949.4	40
1/27/2019 12:00	166	431974393.7	41
1/27/2019 16:00	166	432013835.3	38
1/27/2019 20:00	166	432053282.5	40
1/28/2019 0:00	166	432092726.8	41
1/28/2019 4:00	166	432132176.7	40

Stanton Cleaners Groundwater Contamination Site - January 2019 - Site Operational Data			
Time	Recovery Well 3 Flow (GPM)	Total Gallons Discharged	SVE Air Flow
1/28/2019 8:00	166	432171626.6	42
1/28/2019 12:00	166	432211073.8	40
1/28/2019 16:00	166	432250523.7	40
1/28/2019 20:00	166	432289973.6	41
1/29/2019 0:00	166	432329423.5	40
1/29/2019 4:00	166	432368873.4	41
1/29/2019 8:00	166	432408323.3	40
1/29/2019 12:00	166	432447778.7	39
1/29/2019 16:00	166	432487228.6	40
1/29/2019 20:00	166	432526681.3	41
1/30/2019 0:00	166	432566133.9	41
1/30/2019 4:00	166	432605589.4	40
1/30/2019 8:00	166	432645042	40
1/30/2019 12:00	166	432684497.5	37
1/30/2019 16:00	166	432723952.9	41
1/30/2019 20:00	166	432763411.1	37
1/31/2019 0:00	166	432802869.3	40
1/31/2019 4:00	166	432842330.3	41
1/31/2019 8:00	166	432881788.5	40
1/31/2019 12:00	166	432921249.4	36
1/31/2019 16:00	166	432960710.4	40
1/31/2019 20:00	166	433000171.4	40

Stanton Cleaners Groundwater Contamination Site - February 2019 - Site Operational Data			
Time	Recovery Well 3 Flow (GPM)	Total Gallons Discharged	SVE Air Flow
2/1/2019 0:00	166	433039635.1	40
2/1/2019 4:00	166	433079098.8	35
2/1/2019 8:00	166	433118562.6	40
2/1/2019 12:00	166	433158026.3	41
2/1/2019 16:00	166	433197492.8	37
2/1/2019 20:00	166	433236959.3	36
2/2/2019 0:00	166	433276428.6	40
2/2/2019 4:00	166	433315897.8	40
2/2/2019 8:00	166	433355367.1	40
2/2/2019 12:00	166	433394836.4	39
2/2/2019 16:00	166	433434308.4	36
2/2/2019 20:00	166	433473780.4	42
2/3/2019 0:00	166	433513252.5	37
2/3/2019 4:00	166	433552727.3	39
2/3/2019 8:00	166	433592202.1	36
2/3/2019 12:00	166	433631679.6	40
2/3/2019 16:00	166	433671154.4	40
2/3/2019 20:00	166	433710632	41
2/4/2019 0:00	166	433750112.3	40
2/4/2019 4:00	166	433789589.9	39
2/4/2019 8:00	166	433829070.2	40
2/4/2019 12:00	166	433868550.6	41
2/4/2019 16:00	166	433908030.9	39
2/4/2019 20:00	166	433947514	42
2/5/2019 0:00	166	433986997.1	40
2/5/2019 4:00	166	434026480.2	40
2/5/2019 8:00	166	434065963.3	36
2/5/2019 12:00	166	434105449.1	40
2/5/2019 16:00	166	434144935	40
2/5/2019 20:00	166	434184420.9	38
2/6/2019 0:00	166	434223906.7	37
2/6/2019 4:00	166	434263392.6	41
2/6/2019 8:00	166	434302884	40
2/6/2019 12:00	166	434342372.6	40
2/6/2019 16:00	166	434381864	36
2/6/2019 20:00	166	434421355.4	39
2/7/2019 0:00	166	434460846.8	37
2/7/2019 4:00	166	434500338.2	36
2/7/2019 8:00	166	434539829.6	41
2/7/2019 12:00	166	434579323.8	41
2/7/2019 16:00	166	434618818	40

Stanton Cleaners Groundwater Contamination Site - February 2019 - Site Operational Data			
Time	Recovery Well 3 Flow (GPM)	Total Gallons Discharged	SVE Air Flow
2/7/2019 20:00	166	434658312.1	40
2/8/2019 0:00	166	434697809.1	40
2/8/2019 4:00	166	434737303.2	36
2/8/2019 8:00	166	434776800.2	36
2/8/2019 12:00	166	434816294.3	40
2/8/2019 16:00	166	434855788.5	39
2/8/2019 20:00	166	434895285.4	39
2/9/2019 0:00	166	434934779.6	40
2/9/2019 4:00	166	434974276.5	40
2/9/2019 8:00	166	435013773.5	40
2/9/2019 12:00	166	435053270.4	40
2/9/2019 16:00	166	435092770.1	40
2/9/2019 20:00	166	435132267	37
2/10/2019 0:00	166	435171766.7	40
2/10/2019 4:00	166	435211266.4	35
2/10/2019 8:00	166	435250768.9	37
2/10/2019 12:00	166	435290268.6	40
2/10/2019 16:00	166	435329771.1	41
2/10/2019 20:00	166	435369273.5	41
2/11/2019 0:00	166	435408778.8	36
2/11/2019 4:00	166	435448284	41
2/11/2019 8:00	166	435487789.2	37
2/11/2019 12:00	166	435527300	37
2/11/2019 16:00	166	435566810.8	42
2/11/2019 20:00	166	435606321.5	37
2/12/2019 0:00	166	435645832.3	36
2/12/2019 4:00	166	435685345.8	40
2/12/2019 8:00	166	435724856.6	37
2/12/2019 12:00	166	435764370.1	40
2/12/2019 16:00	166	435803886.4	39
2/12/2019 20:00	166	435843400	37
2/13/2019 0:00	166	435882916.3	38
2/13/2019 4:00	166	435922432.6	41
2/13/2019 8:00	166	435961948.9	41
2/13/2019 12:00	166	436001467.9	38
2/13/2019 16:00	166	436040989.8	41
2/13/2019 20:00	166	436080511.6	40
2/14/2019 0:00	166	436120033.4	36
2/14/2019 4:00	166	436159558	40
2/14/2019 8:00	166	436199079.9	41
2/14/2019 12:00	166	436238604.5	38

Stanton Cleaners Groundwater Contamination Site - February 2019 - Site Operational Data			
Time	Recovery Well 3 Flow (GPM)	Total Gallons Discharged	SVE Air Flow
2/14/2019 16:00	166	436278131.8	39
2/14/2019 20:00	166	436317659.2	37
2/15/2019 0:00	166	436357186.6	37
2/15/2019 4:00	166	436396713.9	40
2/15/2019 8:00	166	436436241.3	41
2/15/2019 12:00	166	436475774.2	37
2/15/2019 16:00	166	436515304.3	40
2/15/2019 20:00	166	436554834.5	39
2/16/2019 0:00	166	436594364.6	40
2/16/2019 4:00	166	436633897.5	41
2/16/2019 8:00	166	436673427.6	41
2/16/2019 12:00	166	436712960.5	41
2/16/2019 16:00	166	436752493.4	40
2/16/2019 20:00	166	436792026.3	40
2/17/2019 0:00	166	436831559.2	38
2/17/2019 4:00	166	436871094.9	41
2/17/2019 8:00	166	436910630.6	40
2/17/2019 12:00	166	436950166.2	40
2/17/2019 16:00	166	436989701.9	36
2/17/2019 20:00	166	437029237.6	41
2/18/2019 0:00	166	437068773.2	39
2/18/2019 4:00	166	437108308.9	38
2/18/2019 8:00	166	437147844.6	39
2/18/2019 12:00	166	437187383	40
2/18/2019 16:00	166	437226918.7	38
2/18/2019 20:00	166	437266459.9	41
2/19/2019 0:00	166	437305998.3	40
2/19/2019 4:00	166	437345539.5	40
2/19/2019 8:00	166	437385080.7	39
2/19/2019 12:00	166	437424621.9	35
2/19/2019 16:00	166	437464163.1	35
2/19/2019 20:00	166	437503707.1	37
2/20/2019 0:00	166	437543251	38
2/20/2019 4:00	166	437582797.8	41
2/20/2019 8:00	166	437622344.5	38
2/20/2019 12:00	166	437661888.5	40
2/20/2019 16:00	166	437701438	39
2/20/2019 20:00	166	437740984.7	36
2/21/2019 0:00	166	437780531.4	39
2/21/2019 4:00	166	437820078.2	40
2/21/2019 8:00	166	437859624.9	40

Stanton Cleaners Groundwater Contamination Site - February 2019 - Site Operational Data			
Time	Recovery Well 3 Flow (GPM)	Total Gallons Discharged	SVE Air Flow
2/21/2019 12:00	166	437899171.6	41
2/21/2019 16:00	166	437938721.1	40
2/21/2019 20:00	166	437978270.6	39
2/22/2019 0:00	166	438017820.1	38
2/22/2019 4:00	166	438057375.2	41
2/22/2019 8:00	166	438096930.2	40
2/22/2019 12:00	166	438136485.2	40
2/22/2019 16:00	166	438176043	41
2/22/2019 20:00	166	438215598.1	36
2/23/2019 0:00	166	438255155.9	37
2/23/2019 4:00	166	438294716.4	40
2/23/2019 8:00	166	438334277	41
2/23/2019 12:00	166	438373837.6	42
2/23/2019 16:00	166	438413400.9	40
2/23/2019 20:00	166	438452964.2	40
2/24/2019 0:00	166	438492527.6	39
2/24/2019 4:00	166	438532090.9	37
2/24/2019 8:00	166	438571657	38
2/24/2019 12:00	166	438611220.3	40
2/24/2019 16:00	166	438650789.2	41
2/24/2019 20:00	166	438690355.3	39
2/25/2019 0:00	166	438729924.2	39
2/25/2019 4:00	166	438769493	40
2/25/2019 8:00	166	438809064.7	40
2/25/2019 12:00	166	438848633.5	40
2/25/2019 16:00	166	438888205.2	40
2/25/2019 20:00	166	438927776.8	36
2/26/2019 0:00	166	438967351.2	38
Time	Recovery Well 3 Flow (GPM)	Total Gallons Discharged	SVE Air Flow
2/1/2019 0:00	166	433039635.1	40
2/1/2019 4:00	166	433079098.8	35
2/1/2019 8:00	166	433118562.6	40
2/1/2019 12:00	166	433158026.3	41
2/1/2019 16:00	166	433197492.8	37
2/1/2019 20:00	166	433236959.3	36
2/2/2019 0:00	166	433276428.6	40
2/2/2019 4:00	166	433315897.8	40
2/2/2019 8:00	166	433355367.1	40
2/2/2019 12:00	166	433394836.4	39

Stanton Cleaners Groundwater Contamination Site - February 2019 - Site Operational Data			
Time	Recovery Well 3 Flow (GPM)	Total Gallons Discharged	SVE Air Flow
2/28/2019 8:00	166	439521456.4	39
2/28/2019 12:00	166	439561036.4	39
2/28/2019 16:00	166	439600619.1	40
2/28/2019 20:00	166	439640204.5	39

Stanton Cleaners Groundwater Contamination Site - March 2019 - Site Operational Data			
Time	Recovery Well 3 Flow (GPM)	Total Gallons Discharged	SVE Air Flow
3/1/2019 0:00	166	439679787.2	38
3/1/2019 4:00	166	439719372.7	39
3/1/2019 8:00	166	439758955.4	40
3/1/2019 12:00	166	439798540.8	40
3/1/2019 16:00	166	439838126.3	38
3/1/2019 20:00	166	439877711.8	41
3/2/2019 0:00	166	439917297.2	39
3/2/2019 4:00	166	439956885.5	38
3/2/2019 8:00	166	439996473.7	37
3/2/2019 12:00	166	440036061.9	39
3/2/2019 16:00	166	440075650.2	40
3/2/2019 20:00	166	440115241.2	41
3/3/2019 0:00	166	440154826.6	37
3/3/2019 4:00	166	440194417.6	39
3/3/2019 8:00	166	440234011.4	42
3/3/2019 12:00	166	440273602.4	39
3/3/2019 16:00	166	440313196.2	38
3/3/2019 20:00	166	440352789.9	36
3/4/2019 0:00	166	440392386.5	40
3/4/2019 4:00	166	440431980.2	38
3/4/2019 8:00	166	440471576.8	38
3/4/2019 12:00	166	440511173.3	40
3/4/2019 16:00	166	440550769.8	40
3/4/2019 20:00	166	440590366.4	40
3/5/2019 0:00	166	440629962.9	37
3/5/2019 4:00	166	440669559.4	39
3/5/2019 8:00	166	440709158.7	40
3/5/2019 12:00	166	440748758	36
3/5/2019 16:00	166	440788357.3	37
3/5/2019 20:00	166	440827956.6	40
3/6/2019 0:00	166	440867558.7	37
3/6/2019 4:00	166	440907160.8	38
3/6/2019 8:00	166	440946765.6	40
3/6/2019 12:00	166	440986367.7	37
3/6/2019 16:00	166	441025972.5	39
3/6/2019 20:00	166	441065577.3	40
3/7/2019 0:00	166	441105179.4	36
3/7/2019 4:00	166	441144784.2	38
3/7/2019 8:00	166	441184389.1	41
3/7/2019 12:00	166	441223993.9	40
3/7/2019 16:00	166	441263601.5	41

Stanton Cleaners Groundwater Contamination Site - March 2019 - Site Operational Data			
Time	Recovery Well 3 Flow (GPM)	Total Gallons Discharged	SVE Air Flow
3/7/2019 20:00	166	441303206.3	38
3/8/2019 0:00	166	441342811.2	38
3/8/2019 4:00	166	441382418.8	37
3/8/2019 8:00	166	441422026.4	35
3/8/2019 12:00	166	441461631.2	41
3/8/2019 16:00	166	441501241.6	39
3/8/2019 20:00	166	441540849.2	40
3/9/2019 0:00	166	441580459.5	39
3/9/2019 4:00	166	441620067.1	37
3/9/2019 8:00	166	441659677.5	39
3/9/2019 12:00	166	441699287.9	40
3/9/2019 16:00	166	441738898.2	40
3/9/2019 20:00	166	441778508.6	40
3/10/2019 0:00	166	441818121.7	39
3/10/2019 4:00	166	441847830.2	40
3/10/2019 8:00	166	441887440.6	38
3/10/2019 12:00	166	441927053.7	37
3/10/2019 16:00	166	441966666.8	37
3/10/2019 20:00	166	442006280	40
3/11/2019 0:00	166	442045895.9	39
3/11/2019 4:00	166	442085511.8	41
3/11/2019 8:00	166	442125127.7	39
3/11/2019 12:00	166	442164746.3	40
3/11/2019 16:00	166	442204365	39
3/11/2019 20:00	166	442243986.4	40
3/12/2019 0:00	166	442283607.9	41
3/12/2019 4:00	166	442323232.1	40
3/12/2019 8:00	166	442362856.3	41
3/12/2019 12:00	166	442402480.5	37
3/12/2019 16:00	166	442442104.7	40
3/12/2019 20:00	166	442481731.6	40
3/13/2019 0:00	166	442521361.4	39
3/13/2019 4:00	166	442560988.3	39
3/13/2019 8:00	166	442600615.3	40
3/13/2019 12:00	166	442640245	39
3/13/2019 16:00	166	442679874.8	40
3/13/2019 20:00	166	442719496.2	37
3/14/2019 0:00	166	442759109.3	41
3/14/2019 4:00	166	442798728	40
3/14/2019 8:00	166	442838327.3	38
3/14/2019 12:00	166	442877879.6	38

Stanton Cleaners Groundwater Contamination Site - March 2019 - Site Operational Data			
Time	Recovery Well 3 Flow (GPM)	Total Gallons Discharged	SVE Air Flow
3/14/2019 16:00	166	442917437.4	41
3/14/2019 20:00	166	442956975.8	37
3/15/2019 0:00	166	442996486.6	41
3/15/2019 4:00	166	443036011.2	39
3/15/2019 8:00	166	443075552.4	40
3/15/2019 12:00	166	443115090.8	40
3/15/2019 16:00	166	443154634.8	39
3/15/2019 20:00	166	443194203.6	38
3/16/2019 0:00	166	443233783.6	40
3/16/2019 4:00	166	443273366.3	36
3/16/2019 8:00	166	443312965.6	39
3/16/2019 12:00	166	443352575.9	40
3/16/2019 16:00	166	443392205.7	39
3/16/2019 20:00	166	443431843.7	39
3/17/2019 0:00	166	443471479	39
3/17/2019 4:00	166	443511119.8	40
3/17/2019 8:00	166	443550757.8	39
3/17/2019 12:00	166	443590395.8	40
3/17/2019 16:00	166	443630028.3	40
3/17/2019 20:00	166	443669660.8	39
3/18/2019 0:00	166	443709265.7	40
3/18/2019 4:00	166	443748870.5	34
3/18/2019 8:00	166	443788483.6	36
3/18/2019 12:00	166	443828085.7	41
3/18/2019 16:00	166	443867676.7	36
3/18/2019 20:00	166	443907262.2	41
3/19/2019 0:00	166	443946839.3	39
3/19/2019 4:00	166	443986413.7	38
3/19/2019 8:00	166	444025985.4	40
3/19/2019 12:00	166	444065554.2	37
3/19/2019 16:00	166	444105106.5	40
3/19/2019 20:00	166	444144639.4	40
3/20/2019 0:00	166	444184166.8	39
3/20/2019 4:00	166	444223674.8	40
3/20/2019 8:00	166	444263163.4	39
3/20/2019 12:00	166	444302641	41
3/20/2019 16:00	166	444342107.5	39
3/20/2019 20:00	166	444381565.7	40
3/21/2019 0:00	166	444421010	39
3/21/2019 4:00	166	444460446.1	35
3/21/2019 8:00	166	444499882.2	38

Stanton Cleaners Groundwater Contamination Site - March 2019 - Site Operational Data			
Time	Recovery Well 3 Flow (GPM)	Total Gallons Discharged	SVE Air Flow
3/21/2019 12:00	166	444539321	39
3/21/2019 16:00	166	444578751.5	38
3/21/2019 20:00	166	444618173.8	42
3/22/2019 0:00	166	444657587.7	38
3/22/2019 4:00	166	444696998.9	39
3/22/2019 8:00	166	444736401.7	38
3/22/2019 12:00	166	444775793.5	38
3/22/2019 16:00	166	444815188.1	36
3/22/2019 20:00	166	444854577.1	36
3/23/2019 0:00	166	444893941.3	41
3/23/2019 4:00	166	444933291.6	40
3/23/2019 8:00	166	444972619.7	38
3/23/2019 12:00	166	445011920.2	36
3/23/2019 16:00	166	445051215.2	39
3/23/2019 20:00	166	445090515.7	36
3/24/2019 0:00	166	445129877.1	36
3/24/2019 4:00	166	445169252.3	39
3/24/2019 8:00	166	445208624.7	39
3/24/2019 12:00	166	445247999.9	40
3/24/2019 16:00	166	445287350.2	39
3/24/2019 20:00	166	445326697.7	37
3/25/2019 0:00	166	445366053.6	39
3/25/2019 4:00	166	445405409.4	37
3/25/2019 8:00	166	445444729.3	35
3/25/2019 12:00	166	445484038.1	38
3/25/2019 16:00	166	445523349.6	36
3/25/2019 20:00	166	445562666.7	38
3/26/2019 0:00	166	445601975.5	38
3/26/2019 4:00	166	445641281.5	38
3/26/2019 8:00	166	445680582	36
3/26/2019 12:00	166	445719879.8	39
3/26/2019 16:00	166	445759180.3	39
3/26/2019 20:00	166	445798480.8	40
3/27/2019 0:00	166	445837781.3	36
3/27/2019 4:00	166	445877079	36
3/27/2019 8:00	166	445916379.5	38
3/27/2019 12:00	166	445955680	36
3/27/2019 16:00	166	445994977.7	39
3/27/2019 20:00	166	446034278.2	40
3/28/2019 0:00	166	446073578.7	38
3/28/2019 4:00	166	446112876.5	36

Stanton Cleaners Groundwater Contamination Site - March 2019 - Site Operational Data			
Time	Recovery Well 3 Flow (GPM)	Total Gallons Discharged	SVE Air Flow
3/28/2019 8:00	166	446152177	38
3/28/2019 12:00	166	446191477.5	37
3/28/2019 16:00	166	446230775.2	39
3/28/2019 20:00	166	446270075.7	36
3/29/2019 0:00	166	446309376.2	40
3/29/2019 4:00	166	446348673.9	39
3/29/2019 8:00	166	446387974.4	39
3/29/2019 12:00	166	446427274.9	41
3/29/2019 16:00	166	446466572.7	39
3/29/2019 20:00	166	446505873.2	37
3/30/2019 0:00	166	446545173.7	38
3/30/2019 4:00	85	446573986.8	38
3/30/2019 8:00	166	446599197.4	39
3/30/2019 12:00	166	446638497.9	39
3/30/2019 16:00	166	446677795.6	39
3/30/2019 20:00	166	446717096.1	39
3/31/2019 0:00	166	446756396.6	39
3/31/2019 4:00	166	446795694.4	36
3/31/2019 8:00	166	446834994.9	40
3/31/2019 12:00	166	446874295.4	39
3/31/2019 16:00	166	446913593.1	41
3/31/2019 20:00	166	446952893.6	39

Appendix D

AS System O&M Reports

STANTON CLEANERS AREA GROUNDWATER CONTAMINATION SITE
Air Sparge System
O&M Data Log

Date: 2/1/2019

Readings at Well	
Near Well Head Bladder	N/A*

Treatment Room Readings	
SCFM	N/A* PSI
psi-1	N/A* PSI
psi-2	N/A* PSI
psi-3	N/A* PSI
P_1	16 PSI
P_2	N/A* PSI
P_3	N/A* PSI

System Readings	
Temp.	N/A* ºF
EN-37-1	N/A* bar
K/O Tank	N/A* PSI

Notes:
***Air readings could not be collected due to the Air Sparge System being offline.**

*Air Sparge System offline
SCFM- Standard Cubic Feet per Minute
psi- pounds per square inch

Locations:
Near Well Head- psi gauge at corner of New Stanton Cleaners Building
Bladder- psi gauge at well head
SCFM- gauge in treatment room (first gauge when looking at wall from left to right)
psi-1 - 2nd gauge attached to line on wall when looking left to right
psi-2 - 3rd gauge
psi-3- 4th gauge
P_1- influent relief valve
P_2- adjacent to catwalk
P_3- on top of carbon tank
Temp.- from compressor screen display
EN-37-1- gauge on compressor
K/O Tank- gauge on knockout tank

STANTON CLEANERS AREA GROUNDWATER CONTAMINATION SITE
Air Sparge System
O&M Data Log

Date: 3/28/2019

Readings at Well	
Near Well Head Bladder	N/A*

Treatment Room Readings	
SCFM	N/A* PSI
psi-1	N/A* PSI
psi-2	N/A* PSI
psi-3	N/A* PSI
P_1	16 PSI
P_2	N/A* PSI
P_3	N/A* PSI

System Readings	
Temp.	N/A* ºF
EN-37-1	N/A* bar
K/O Tank	N/A* PSI

Notes:
***Air readings could not be collected due to the Air Sparge System being offline.**

*Air Sparge System offline
SCFM- Standard Cubic Feet per Minute
psi- pounds per square inch

Locations:
Near Well Head- psi gauge at corner of New Stanton Cleaners Building
Bladder- psi gauge at well head
SCFM- gauge in treatment room (first gauge when looking at wall from left to right)
psi-1 - 2nd gauge attached to line on wall when looking left to right
psi-2 - 3rd gauge
psi-3- 4th gauge
P_1- influent relief valve
P_2- adjacent to catwalk
P_3- on top of carbon tank
Temp.- from compressor screen display
EN-37-1- gauge on compressor
K/O Tank- gauge on knockout tank

Appendix E

SVE System O&M Reports

STANTON CLEANERS AREA GROUNDWATEF
CONTAMINATION SITE
Soil-Vapor Extraction and Pump and Treat System
Monthly Air Monitoring Log

Date: 2/1/2019
Project #

		FID	MultiRAE PGM-6228					VelociCalc Plus				
	Pipe ID	VOC	VOC	CO	Oxygen	LEL	H2S	Temp.	Vac. Pre.	%RH	Dew pt.	Flow
SVE-Influent	5.709	N/A	0.0*	0.0*	20.9*	0.0*	0.0*	NR	NR	NR	NR	NR
Post- Blower Pre-Carbon**	5.706	N/A	0.0*	0.0*	20.9*	0.0*	0.0*	NR	NR	NR	NR	NR
EPA-SVE-1 (shallow)	1.913	N/A	0.1*	0.0*	20.9*	0.0*	0.0*	NR	NR	NR	NR	NR
EPA-SVE-1 (medium)	1.913	N/A	0.0*	0.0*	20.9*	0.0*	0.0*	NR	NR	NR	NR	NR
EPA-SVE-2 (shallow)	1.913	N/A	0.0*	0.0*	20.9*	0.0*	0.0*	NR	NR	NR	NR	NR
EPA-SVE-2 (medium)	1.913	N/A	0.3*	0.0*	20.9*	0.0*	0.0*	NR	NR	NR	NR	NR
SS-A	1.913	N/A	0.0*	0.0*	20.9*	0.0*	0.0*	NR	NR	NR	NR	NR
SVE-3A	1.913	N/A	0.0*	0.0*	20.9*	0.0*	0.0*	NR	NR	NR	NR	NR
SVE-3B	1.913	N/A	0.0*	0.0*	20.9*	0.0*	0.0*	NR	NR	NR	NR	NR
SVE-1 Combined	1.913	N/A	0.0*	0.0*	20.9*	0.0*	0.0*	NR	NR	NR	NR	NR
SVE-2 Combined	1.913	N/A	0.8*	0.0*	20.9*	0.0*	0.0*	NR	NR	NR	NR	NR
Background		N/A	0.0*	0.0*	20.9*	0.0*	0.0*	NR	NR	NR	NR	NR

Notes:
MultiRAE PGM-6228 (5-gas meter) readings taken with SVE Offline
No VelociCalc Plus readings taken as SVE remains offline

Equipment calibrated by: **Edward Combs**
Air readings collected by: **Edward Combs**

Notes:
***Indicates Reading was Collected while the SVE System was Offline**
****SVE-Effluent relabeled as "Post-Blower Pre-Carbon" Sampling Location**
*****Maxed out reading on meter**
NR- Indicates No Reading Was Collected
FID: Flame Ionization Detector
VOC: Volatile Organic Compounds (in parts per million)
CO: Carbon Monoxide
LEL: Lower Explosive Limit
H2S: Hydrogen Sulfide
Temperature: Measured in Degrees Fahrenheit
Vacuum Pressure: measured in inches of water (in/H2O)
%RH: relative humidity
Dew Pt.: dew point in degrees Fahrenheit
Flow: measured in cubic feet per minute (CFM)

AS: Air Stripper
SVE: Soil Vapor Extraction System

	Prior to 10/3/05	After 10/3/05
SVE 1	shallow on	shallow and medium on
SVE 2	shallow on	shallow on
SVE 3	shallow on	shallow on
SVE 4	off	off
EPA-SVE-04R/SSB(A)	on	on
SS-A	on	on
SS-B(B)	on	off
SS-B(C)	on	on
L1	on	off
L2	on	off

Comments:
New SVE well EPA-EXT-04 online since 11/4/04
LIHA sub-slab system was removed by the EPA from service in the Fall of 2012.
N/A- Not Available

Stanton Cleaners – February 2019 O&M (2/28/19) – Additional SVE Monitoring

- Collect headspace readings directly on the SVE wells with associated piping valves closed

Well ID	VOC	CO	Oxygen	LEL	H_2S
EPA-SVE-Sparge 1	0.0	0	20.9	0	0
EPA-SVE-Sparge 2	0.0	0	20.9	0	0
EPA-SVE-Sparge 3	Could Not Locate				
EPA-SVE-Sparge 4	0.0	0	20.9	0	0
EPA-SVE-4R	Steel Vault Cover Welded Shut				
EPA-SVE-5	0.0	0	20.9	0	0
EPA-SVE-6	Could Not Locate				

- Collect headspace readings on Sub-Slab Ports

Well ID	DTW (ft)	Total Depth (ft)	VOC	CO	Oxygen	LEL	H_2S
SS-A	9.50	16.30	0.0	0	20.9	0	0
SS-B	Could Not Measure		0.0	0	20.9	0	0
SS-C	N/A	2.8	0.0	0	20.9	0	0
SS-D *	Could Not Measure		0.0	0	20.9	0	0

*The Fernco connection of SS-D was found to be disconnected again, likely from the piping being distorted by tree growth along the side of the building. This was reconnected, although this tree may have to be removed.

STANTON CLEANERS AREA GROUNDWATEF
CONTAMINATION SITE
Soil-Vapor Extraction and Pump and Treat System
Monthly Air Monitoring Log

Date: 3/28/2019
Project #

		FID	MultiRAE PGM-6228					VelociCalc Plus				
	Pipe ID	VOC	VOC	CO	Oxygen	LEL	H2S	Temp.	Vac. Pre.	%RH	Dew pt.	Flow
SVE-Influent	**5.709**	N/A	**NR**	**NR**	**NR**	**NR**	**NR**	**NR**	**NR**	**NR**	**NR**	**NR**
Post- Blower Pre-Carbon**	**5.706**	N/A	**0.1***	**0.0***	**20.9***	**0.0***	**0.0***	**NR**	**NR**	**NR**	**NR**	**NR**
EPA-SVE-1 (shallow)	**1.913**	N/A	**0.0***	**0.0***	**20.9***	**0.0***	**0.0***	**NR**	**NR**	**NR**	**NR**	**NR**
EPA-SVE-1 (medium)	**1.913**	N/A	**0.0***	**0.0***	**20.9***	**0.0***	**0.0***	**NR**	**NR**	**NR**	**NR**	**NR**
EPA-SVE-2 (shallow)	**1.913**	N/A	**0.0***	**0.0***	**20.9***	**0.0***	**0.0***	**NR**	**NR**	**NR**	**NR**	**NR**
EPA-SVE-2 (medium)	**1.913**	N/A	**0.0***	**0.0***	**20.9***	**0.0***	**0.0***	**NR**	**NR**	**NR**	**NR**	**NR**
SS-A	**1.913**	N/A	**0.0***	**0.0***	**20.9***	**0.0***	**0.0***	**NR**	**NR**	**NR**	**NR**	**NR**
SVE-3A	**1.913**	N/A	**0.3***	**0.0***	**20.9***	**0.0***	**0.0***	**NR**	**NR**	**NR**	**NR**	**NR**
SVE-3B	**1.913**	N/A	**0.8***	**0.0***	**20.9***	**0.0***	**0.0***	**NR**	**NR**	**NR**	**NR**	**NR**
SVE-1 Combined	**1.913**	N/A	**0.0***	**0.0***	**20.9***	**0.0***	**0.0***	**NR**	**NR**	**NR**	**NR**	**NR**
SVE-2 Combined	**1.913**	N/A	**0.0***	**0.0***	**20.9***	**0.0***	**0.0***	**NR**	**NR**	**NR**	**NR**	**NR**
Background		N/A	**0.0***	**0.0***	**20.9***	**0.0***	**0.0***	**NR**	**NR**	**NR**	**NR**	**NR**

Notes:
MultiRAE PGM-6228 (5-gas meter) readings taken with SVE Offline
No VelociCalc Plus readings taken as SVE remains offline

Equipment calibrated by: **Edward Combs**
Air readings collected by: **Edward Combs**

Notes:
***Indicates Reading was Collected while the SVE System was Offline**
****SVE-Effluent relabeled as "Post-Blower Pre-Carbon" Sampling Location**
*****Maxed out reading on meter**
NR- Indicates No Reading Was Collected
FID: Flame Ionization Detector
VOC: Volatile Organic Compounds (in parts per million)
CO: Carbon Monoxide
LEL: Lower Explosive Limit
H2S: Hydrogen Sulfide
Temperature: Measured in Degrees Fahrenheit
Vacuum Pressure: measured in inches of water (in/H2O)
%RH: relative humidity
Dew Pt.: dew point in degrees Fahrenheit
Flow: measured in cubic feet per minute (CFM)

AS: Air Stripper
SVE: Soil Vapor Extraction System

	Prior to 10/3/05	**After 10/3/05**
SVE 1	shallow on	shallow and medium on
SVE 2	shallow on	shallow on
SVE 3	shallow on	shallow on
SVE 4	off	off
EPA-SVE-04R/SSB(A)	on	on
SS-A	on	on
SS-B(B)	on	off
SS-B(C)	on	on
L1	on	off
L2	on	off

Comments:
New SVE well EPA-EXT-04 online since 11/4/04
LIHA sub-slab system was removed by the EPA from service in the Fall of 2012.
N/A- Not Available

Appendix F

Monthly Groundwater Level Measurements

WATER LEVEL DATA SUMMARY

PROJECT: Stanton Cleaners
LOCATION: Great Neck, NY
CLIENT: HDR
SURVEY DATUM: ft msl
MEASURING DEVICE: Solinst Water Level Indicator

JOB NUMBER:
DATE: 2/28/2019
MEASURED BY: EC

WELL NUMBER	MEASURING POINT		Time	DEPTH TO WATER (FT)	ELEVATION OF WATER (FT)	COMMENTS
	Description	Elevation (FT)				
EPA-MW-11D	ft BTOC	74.63	12:29	53.60	21.03	4" well in p-lot by med sports bldg.
EPA-MW-21-R	ft BTOC	84.13	12:56	62.58	21.55	Getty Gas Station well
EPA-MW-22	ft BTOC	82.20	_____	____	N/A	Under clothing bin- SC p-lot
EPA-MW-23	ft BTOC	82.83	13:01	60.71	22.12	In front of treatment bldg.
EPA-MW-27	ft BTOC	69.32	12:50	47.31	22.01	LIHA PL
ST-MW-06	ft BTOC	69.83	12:42	43.63	26.20	LIHA PL 4"
ST-MW-09A	ft BTOC	78.13	12:39	58.94	19.19	P-lot across from triangle park
ST-MW-11	ft BTOC	75.25	12:24	54.68	20.57	p-lot by entrance to med sports bldg.
ST-MW-12	ft BTOC	87.20	12:08	66.68	20.52	In front of apartment bldg.
ST-MW-14	ft BTOC	69.73	12:47	47.11	22.62	LIHA PL
ST-MW-16	ft BTOC	75.78	13:09	51.93	23.85	Other side treatment bldg. near fence
ST-MW-17	ft BTOC	86.53	12:12	65.83	20.70	In front of apartment bldg.
ST-MW-19	ft BTOC	82.50	12:20	61.27	21.23	Triangle park well
ST-MW-20	ft BTOC	84.53	12:15	62.22	22.31	Near apartment bldg.
EPA-MW-26	ft BTOC	78.37	13:18	56.17	N/A	Ipswich Ave.
ST-MW-15	ft BTOC	90.13	13:25	69.33	N/A	Mirreless Rd
ST-MW-13	ft BTOC	130.95	11:50	82.96	47.99	Amherst Rd
ST-MW-18	ft BTOC	84.40	12:00	62.60	21.80	Ascot Ridge (past apt bldg)

Notes:

WATER LEVEL DATA SUMMARY

PROJECT: Stanton Cleaners
LOCATION: Great Neck, NY
CLIENT: HDR
SURVEY DATUM: ft msl
MEASURING DEVICE: Solinst Water Level Indicator

JOB NUMBER:
DATE: 3/28/2019
MEASURED BY: EC

WELL NUMBER	MEASURING POINT		Time	DEPTH TO WATER (FT)	ELEVATION OF WATER (FT)	COMMENTS
	Description	Elevation (FT)				
EPA-MW-11D	ft BTOC	74.63	13:27	52.65	21.98	4" well in p-lot by med sports bldg.
EPA-MW-21-R	ft BTOC	84.13	13:55	61.52	22.61	Getty Gas Station well
EPA-MW-22	ft BTOC	82.20	_____	____	N/A	Under clothing bin- SC p-lot
EPA-MW-23	ft BTOC	82.83	14:00	59.71	23.12	In front of treatment bldg.
EPA-MW-27	ft BTOC	69.32	13:51	46.29	23.03	LIHA PL
ST-MW-06	ft BTOC	69.83	13:53	42.68	27.15	LIHA PL 4"
ST-MW-09A	ft BTOC	78.13	13:20	57.86	20.27	P-lot across from triangle park
ST-MW-11	ft BTOC	75.25	13:24	53.66	21.59	p-lot by entrance to med sports bldg.
ST-MW-12	ft BTOC	87.20	13:40	65.55	21.65	In front of apartment bldg.
ST-MW-14	ft BTOC	69.73	13:50	46.40	23.33	LIHA PL
ST-MW-16	ft BTOC	75.78	13:00	51.12	24.66	Other side treatment bldg. near fence
ST-MW-17	ft BTOC	86.53	13:42	64.84	21.69	In front of apartment bldg.
ST-MW-19	ft BTOC	82.50	13:17	60.22	22.28	Triangle park well
ST-MW-20	ft BTOC	84.53	13:44	61.62	22.91	Near apartment bldg.
EPA-MW-26	ft BTOC	78.37	13:04	55.23	N/A	Ipswich Ave.
ST-MW-15	ft BTOC	90.13	13:14	68.43	N/A	Mirreless Rd
ST-MW-13	ft BTOC	130.95	13:10	81.80	49.15	Amherst Rd
ST-MW-18	ft BTOC	84.40	13:34	62.07	22.33	Ascot Ridge (past apt bldg)

Notes:

Appendix H

LIHA Indoor Air Sampling Questionnaire

Structure Sampling Questionnaire and Building Inventory

New York State Department of Environmental Conservation

Site Name: Stanton Cleaners | Site Code: 130072 | Operable Unit:

Building Code: | Building Name: Long Island Hebrew Academy

Address: 122 Cutter Mill Road | Apt/Suite No: 3A

City: Great Neck | State: NY | Zip: 11021 | County: Nassau

Contact Information

Preparer's Name: Matthew Hartman | Phone No: 516-564-1100

Preparer's Affiliation: Preferred Environmental Services | Company Code:

Purpose of Investigation: Indoor Air Sampling | Date of Inspection: Mar 13, 2019

Contact Name: Sharyn Blaustein | Affiliation: TENANT

Phone No: 516-466-3656 | Alt. Phone No: rosel@LIHAGH.org | Email: morahsorae@LIHAGH.org

Number of Occupants (total): ~180 | Number of Children: ~160

☐ Occupant Interviewed? ☐ Owner Occupied? ☐ Owner Interviewed?

Owner Name (if different): North Shore Sephardic Synagogue | Owner Phone: 516-482-4228

Owner Mailing Address: 130 Cutter Mill Road, Great neck NY

Building Details

Bldg Type (Res/Com/Ind/Mixed): COMMERCIAL/MIXED | Bldg Size (S/M/L): MEDIUM

If Commercial or Industrial Facility, Select Operations: SCHOOL

If Residential Select Structure Type:

Number of Floors: 3 | Approx. Year Construction: 1960 | ☒ Building Insulated? | ☐ Attached Garage?

Describe Overall Building 'Tightness' and Airflows(e.g., results of smoke tests):

Building seems well sealed and insulated

Foundation Description

Foundation Type: BASEMENT | Foundation Depth (bgs): | Unit: FEET

Foundation Floor Material: POURED CONCRETE

Foundation Wall Material: POURED CONCRETE

Foundation Floor Thickness: | Foundation Wall Thickness: | Unit: INCHES

☐ Floor penetrations? Describe Floor Penetrations: NA

☐ Wall penetrations? Describe Wall Penetrations: NA

Basement is: FINISHED | Basement is: DRY | ☒ Sumps/Drains? | Water In Sump?: NO

Describe Foundation Condition (cracks, seepage, etc.) :

☐ Radon Mitigation System Installed? ☐ VOC Mitigation System Installed? ☐ Mitigation System On?

Heating/Cooling/Ventilation Systems

Heating System: FORCED AIR | Heat Fuel Type: GAS | ☒ Central A/C Present?

Vented Appliances

Water Heater Fuel Type: GAS | Clothes Dryer Fuel Type:

Water Htr Vent Location: | Dryer Vent Location:

Structure Sampling Questionnaire and Building Inventory

New York State Department of Environmental Conservation

PRODUCT INVENTORY

Building Name: Long Island Hebrew Academy Bldg Code: Date: Mar 13, 2019

Bldg Address: 122 Cutter Mill Road Apt/Suite No: 3A

Bldg City/State/Zip: Great Neck NY, 11021

Make and Model of PID: MiniRae 3000 Date of Calibration: Mar 13, 2019

Location	Product Name/Description	Size (oz)	Condition *	Chemical Ingredients	PID Reading	COC Y/N?
Maintenance (	ECP Clear View Glass Cleaner	1 Gal	U	Isopropyl Alcohol	0.0	☐
Maintenance (	DAP Acrylic Latex Caulk	10.1 fl oz	UO	Petroleum Distillates	0.0	☐
Maintenance (	Rust-oleum Painters Touch Pai	12 oz. (3)	U	Acetone, Xylene	0.0	☐
Maintenance (	Minwax Wood Finish	1 Gal	U	Aliphatic Hydrocarbons	0.0	☐
Maintenance (	ECP Heavy Duty Stripper	32 oz. (1)	UO	2-Butoxyethanol, 2-Aminoethanol	0.0	☐
Maintenance (	Hi-Valu Bleach	1 Gal	U	Sodium Hypochlorite	0.0	☐
Maintenance (	Windex Advanced Multi-Surfac	1.34 Gal	U	2-Hexoxyethanol, Isopropanolamine, Sodium Dodecylbenzene Sulfonate, Lauramine Oxide, Ammonium Hydroxide	0.0	☐
Maintenance (	Ridgeway's Crystal Clear		U	Isopropyl Alcohol, Ammonium Hydroxide, Dodecylbenzene Sulfonic Acid	**0.0**	☐
Maintenance (	NCL Trigger	1 qt.	U	Sodium Hypochlorite	0.0	☐
Maintenance (	Lysol Disinfectant Spray	19 oz.	U	Alkyl Dimethyl Benzyl Ammonium Saccharinate, Ethanol	0.0	☐
Maintenance (	Resolve Carpet Cleaner	22oz	U	Acrylic Acid, Sodium Salts, METHYLCHLOROISOTHIAZOLINONE, METHYLISOTHIAZOLINONE, SODIUM LAURYL	0.0	☐
Maintenance (	Citrus Engine Bright	17oz	U		0.0	☐
Maintenance (	East Coast Orange Citrus Clean	1 Gal	U	Nonionic Surfactant; CAS# 68647-72-3	0.0	☐
Maintenance (	Goo Gone	24 oz.	U		0.0	☐
						☐
						☐

* Describe the condition of the product containers as **Unopened (UO)**, **Used (U)**, or **Deteriorated (D)**

** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

Product Inventory Complete? Yes Were there any elevated PID readings taken on site? No ☐ Products with COC?

Structure Sampling Questionnaire and Building Inventory

New York State Department of Environmental Conservation

Site Name: Stanton Cleaners Site Code: 130072 Operable Unit:

Building Code: Building Name: Long Island Hebrew Academy

Address: 122 Cutter Mill Road Apt/Suite No: 3A

City: Great Neck State: NY Zip: 11021 County: Nassau

Factors Affecting Indoor Air Quailty

Frequency Basement/Lowest Level is Occupied?: FULL TIME Floor Material: LINOLEUM/VINYL

☒ Inhabited? ☒ HVAC System On? ☒ Bathroom Exhaust Fan? ☐ Kitchen Exhaust Fan?

Alternate Heat Source: NONE ☐ Is there smoking in the building?

☐ Air Fresheners? Description/Location of Air Freshener: N/A

☒ Cleaning Products Used Recently?: Description of Cleaning Products: Windex, Lysol

☐ Cosmetic Products Used Recently?: Description of Cosmetic Products: N/A

☐ New Carpet or Furniture? Location of New Carpet/Furniture: N/A

☐ Recent Dry Cleaning? Location of Recently Dry Cleaned Fabrics:

☐ Recent Painting/Staining? Location of New Painting: N/A

☐ Solvent or Chemical Odors? Describe Odors (if any): N/A

☐ Do Any Occupants Use Solvents At Work? If So, List Solvents Used:

☒ Recent Pesticide/Rodenticide? Description of Last Use: 1 every 3 months

Describe Any Household Activities (chemical use,/storage, unvented appliances, hobbies, etc.) That May Affect Indoor Air Quality:

Cleaning products used daily to clean floor.

☐ Any Prior Testing For Radon? If So, When?:

☐ Any Prior Testing For VOCs? If So, When?:

Sampling Conditions

Weather Conditions: SUNNY Outdoor Temperature: 42 °F

Current Building Use: SCHOOL Barometric Pressure: in(hg)

Product Inventory Complete? Yes ☒ Building Questionnaire Completed?

Structure Sampling Questionnaire and Building Inventory

New York State Department of Environmental Conservation

Building Code: _____ Address: 122 Cutter Mill Road 3A Great Neck , NY 11021

Sampling Information

Sampler Name(s): Matthew Hartman

Sampler Company Code: _____

Sample Collection Date: Mar 13, 2019

Date Samples Sent To Lab: _____

Sample Chain of Custody Number: _____

Outdoor Air Sample Location ID: _____

SUMMA Canister Information

Sample ID:	LIHA-IA1	LIHA-IA1-DUP	LIHA-IA2	LIHA-IA3	LIHA-OA1
Location Code:	Classroom 3A	Classroom 3A	Playroom	Classroom 23	Outside
Location Type:	BASEMENT	BASEMENT	BASEMENT	FIRST FLOOR	OUTDOOR
Canister ID:	10283	10258	10493	10598	10319
Regulator ID:	10560	10172	10626	10232	10537
Matrix:	Indoor Air	Indoor Air	Indoor Air	Indoor Air	Ambient Outd
Sampling Method:	SUMMA AIR SAMPLI	SUMMA AIR SA	SUMMA AIR SA	SUMMA AIR SA	SUMMA AIR SA

Sampling Area Info

Slab Thickness (inches):					
Sub-Slab Material:					
Sub-Slab Moisture:					
Seal Type:					
Seal Adequate?:	☐	☐	☐	☐	☐

Sample Times and Vacuum Readings

Sample Start Date/Time:	03/13/2019 11:	03/13/2019	03/13/2019	03/13/2019	03/13/2019
Vacuum Gauge Start:	-30	-30	-30	-30	-24
Sample End Date/Time:	03/14/2019 9:15	03/14/2019	03/13/2019	03/14/2019	03/14/2019
Vacuum Gauge End:	-7.5	0	-2.5	-7	-2
Sample Duration (hrs):	22.25	21.25	4.75	21.75	20.75
Vacuum Gauge Unit:	in(hg)	in(hg)	in(hg)	in(hg)	in(hg)

Sample QA/QC Readings

Vapor Port Purge:	☐	☐	☐	☐	☐
Purge PID Reading:					
Purge PID Unit:					
Tracer Test Pass:	☐	☐	☐	☐	☐

Sample start and end times should be entered using the following format: MM/DD/YYYY HH:MM

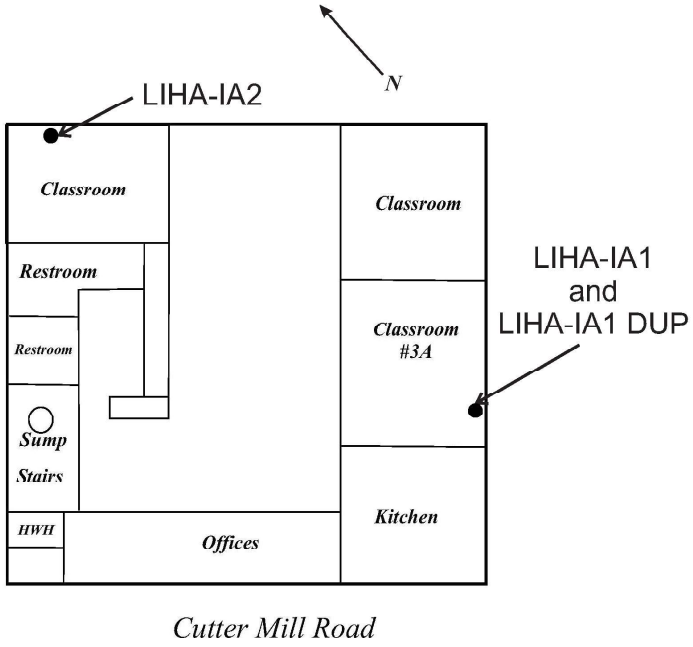
Structure Sampling Questionnaire and Building Inventory

New York State Department of Environmental Conservation

LOWEST BUILDING LEVEL LAYOUT SKETCH

Please click the box with the blue border below to upload a sketch of the lowest building level .
The sketch should be in a standard image format (.jpg, .png, .tiff)

Clear Image



Design Sketch

Design Sketch Guidelines and Recommended Symbology

- Identify and label the locations of all sub-slab, indoor air, and outdoor air samples on the layout sketch.
- Measure the distance of all sample locations from identifiable features, and include on the layout sketch.
- Identify room use (bedroom, living room, den, kitchen, etc.) on the layout sket
- Identify the locations of the following features on the layout sketch, using the appropriate symbols:

B or **F**	Boiler or Furnace	o	Other floor or wall penetrations (label appropriately)
HW	Hot Water Heater	**xxxxxxx**	Perimeter Drains (draw inside or outside outer walls as appropriate)
FP	Fireplaces	**######**	Areas of broken-up concrete
WS	Wood Stoves	● SS-1	Location & label of sub-slab samples
W/D	Washer / Dryer	● IA-1	Location & label of indoor air samples
S	Sumps	● OA-1	Location & label of outdoor air samples
@	Floor Drains	● PFET-1	Location and label of any pressure field test holes.

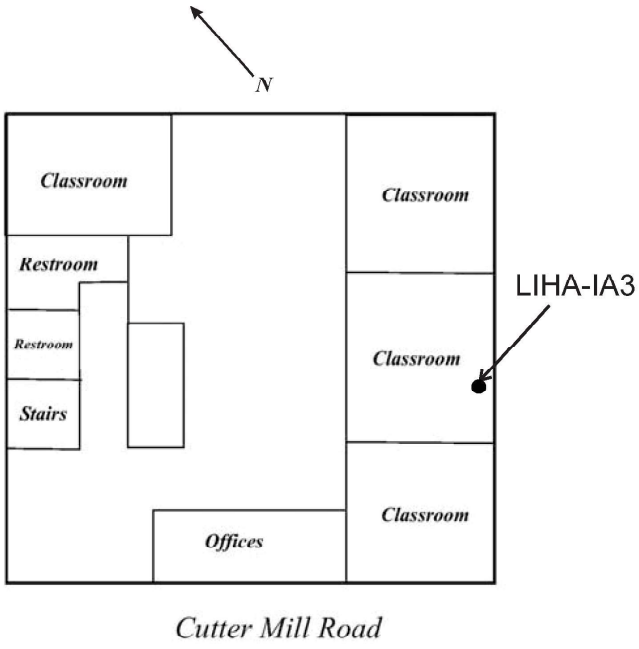
Structure Sampling Questionnaire and Building Inventory

New York State Department of Environmental Conservation

FIRST FLOOR BUILDING LAYOUT SKETCH

Please click the box with the blue border below to upload a sketch of the first floor of the building.
The sketch should be in a standard image format (.jpg, .png, .tiff)

Clear Image



Design Sketch

Design Sketch Guidelines and Recommended Symbology

- Identify and label the locations of all sub-slab, indoor air, and outdoor air samples on the layout sketch.
- Measure the distance of all sample locations from identifiable features, and include on the layout sketch.
- Identify room use (bedroom, living room, den, kitchen, etc.) on the layout sket
- Identify the locations of the following features on the layout sketch, using the appropriate symbols:

B or **F**	Boiler or Furnace	o	Other floor or wall penetrations (label appropriately)
HW	Hot Water Heater	**xxxxxxx**	Perimeter Drains (draw inside or outside outer walls as appropriate)
FP	Fireplaces	**######**	Areas of broken-up concrete
WS	Wood Stoves	● SS-1	Location & label of sub-slab samples
W/D	Washer / Dryer	● IA-1	Location & label of indoor air samples
S	Sumps	● OA-1	Location & label of outdoor air samples
@	Floor Drains	● PFET-1	Location and label of any pressure field test holes.

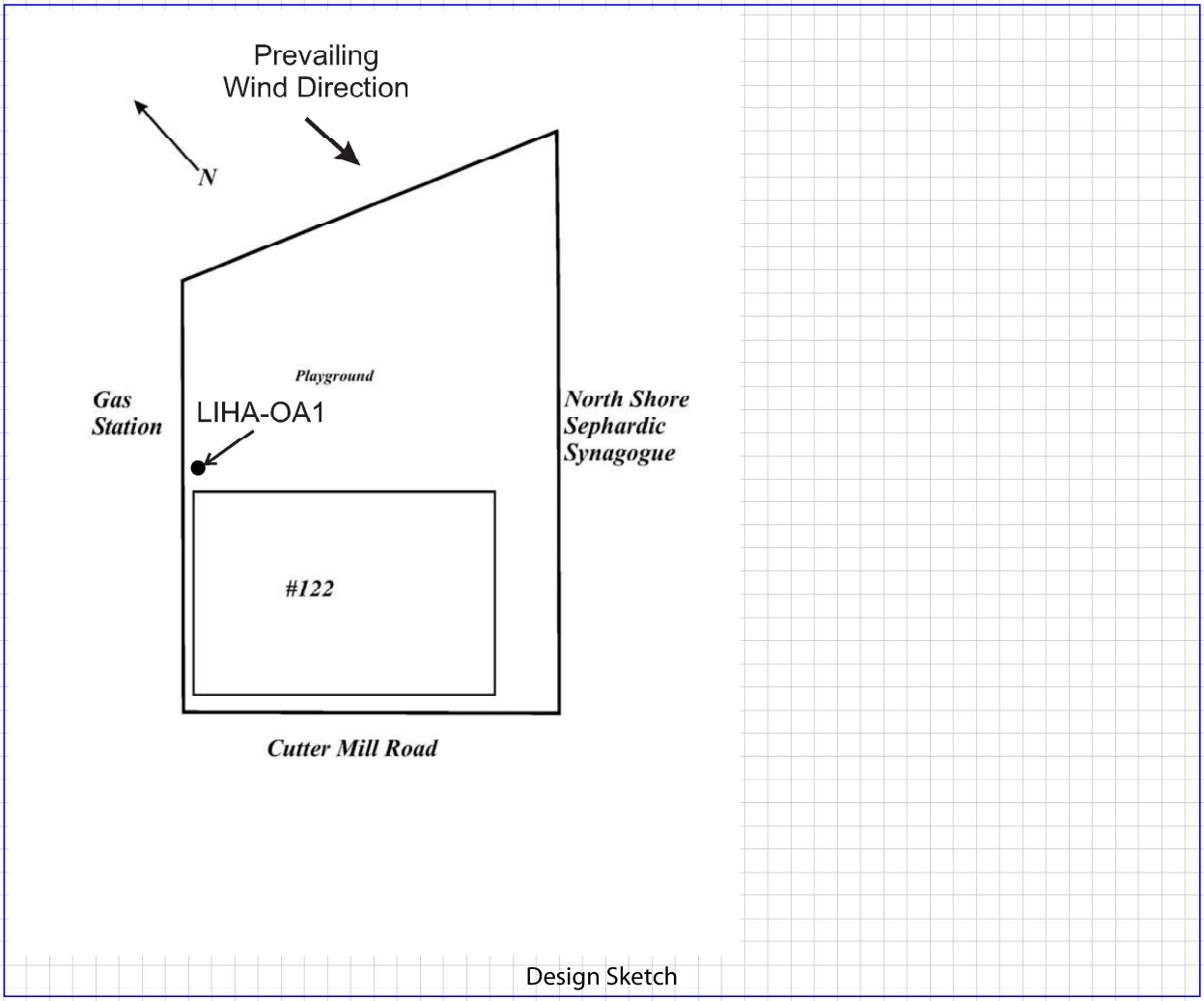
Structure Sampling Questionnaire and Building Inventory

New York State Department of Environmental Conservation

OUTDOOR PLOT LAYOUT SKETCH

Please click the box with the blue border below to upload a sketch of the outdoor plot of the building as well as the surrounding area. The sketch should be in a standard image format (.jpg, .png, .tiff)

Clear Image



Design Sketch

Design Sketch Guidelines and Recommended Symbology

- Identify and label the locations of all sub-slab, indoor air, and outdoor air samples on the layout sketch.
- Measure the distance of all sample locations from identifiable features, and include on the layout sketch.
- Identify room use (bedroom, living room, den, kitchen, etc.) on the layout sket
- Identify the locations of the following features on the layout sketch, using the appropriate symbols:

B or **F**	Boiler or Furnace	o	Other floor or wall penetrations (label appropriately)
HW	Hot Water Heater	**xxxxxxx**	Perimeter Drains (draw inside or outside outer walls as appropriate)
FP	Fireplaces	**######**	Areas of broken-up concrete
WS	Wood Stoves	● SS-1	Location & label of sub-slab samples
W/D	Washer / Dryer	● IA-1	Location & label of indoor air samples
S	Sumps	● OA-1	Location & label of outdoor air samples
@	Floor Drains	● PFET-1	Location and label of any pressure field test holes.

Structure Sampling Questionnaire and Building Inventory

New York State Department of Environmental Conservation

Site Name: Stanton Cleaners Site Code: 130072 Operable Unit: OU1

Building Code: Building Name: Boiler Room Building

Address: 110 Cutter Mill Road Apt/Suite No:

City: Great Neck State: NY Zip: 11021 County: Nassau

Contact Information

Preparer's Name: Justin King Phone No: (518) 526-4592

Preparer's Affiliation: HDR Company Code: HDR

Purpose of Investigation: Soil Vapor Intrusion Date of Inspection: Mar 5, 2019

Contact Name: Samuel Habibian Affiliation: OWNER

Phone No: (516) 776-1520 Alt. Phone No: Email: sam@samuelhampton.com

Number of Occupants (total): 0 Number of Children: 0

☐ Occupant Interviewed? ☐ Owner Occupied? ☐ Owner Interviewed?

Owner Name (if different): Owner Phone:

Owner Mailing Address:

Building Details

Bldg Type (Res/Com/Ind/Mixed): COMMERCIAL/MIXED Bldg Size (S/M/L): SMALL

If Commercial or Industrial Facility, Select Operations: VACANT

If Residential Select Structure Type:

Number of Floors: 1 Approx. Year Construction: 1950 ☐ Building Insulated? ☐ Attached Garage?

Describe Overall Building 'Tightness' and Airflows(e.g., results of smoke tests):

Boiler room building consists of block walls and a slab on grade. Building is vacant and not tightly sealed.

Foundation Description

Foundation Type: NO BASEMENT/SLAB Foundation Depth (bgs): Unit: FEET

Foundation Floor Material: POURED CONCRETE

Foundation Wall Material: CONCRETE BLOCK

Foundation Floor Thickness: 6

Foundation Wall Thickness:

Unit: INCHES

☒ Floor penetrations? Describe Floor Penetrations:

☒ Wall penetrations? Describe Wall Penetrations:

Basement is: Basement is: ☐ Sumps/Drains? Water In Sump?:

Describe Foundation Condition (cracks, seepage, etc.) : aged concrete slab

☐ Radon Mitigation System Installed? ☐ VOC Mitigation System Installed? ☐ Mitigation System On?

Heating/Cooling/Ventilation Systems

Heating System: Heat Fuel Type: ☐ Central A/C Present?

Vented Appliances

Water Heater Fuel Type: Clothes Dryer Fuel Type:

Water Htr Vent Location: Dryer Vent Location:

Structure Sampling Questionnaire and Building Inventory

New York State Department of Environmental Conservation

PRODUCT INVENTORY

Building Name: Boiler Room Building Bldg Code: _____ Date: Mar 7, 2019

Bldg Address: 110 Cutter Mill Road Apt/Suite No: _____

Bldg City/State/Zip: Great Neck NY, 11021

Make and Model of PID: _____ Date of Calibration: _____

Location	Product Name/Description	Size (oz)	Condition *	Chemical Ingredients	PID Reading	COC Y/N?
						☐
						☐
						☐
						☐
						☐
						☐
						☐
						☐
						☐
						☐
						☐
						☐
						☐
						☐
						☐
						☐

* Describe the condition of the product containers as **Unopened (UO)**, **Used (U)**, or **Deteriorated (D)**

** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

Product Inventory Complete? Yes Were there any elevated PID readings taken on site? No ☐ Products with COC?

Structure Sampling Questionnaire and Building Inventory

New York State Department of Environmental Conservation

Site Name: Stanton Cleaners Site Code: 130072 Operable Unit: OU1

Building Code: Building Name: Boiler Room Building

Address: 110 Cutter Mill Road Apt/Suite No:

City: Great Neck State: NY Zip: 11021 County: Nassau

Factors Affecting Indoor Air Quailty

Frequency Basement/Lowest Level is Occupied?: Floor Material: CEMENT

☐ Inhabited? ☐ HVAC System On? ☐ Bathroom Exhaust Fan? ☐ Kitchen Exhaust Fan?

Alternate Heat Source: NONE ☐ Is there smoking in the building?

☐ Air Fresheners? Description/Location of Air Freshener:

☐ Cleaning Products Used Recently?: Description of Cleaning Products:

☐ Cosmetic Products Used Recently?: Description of Cosmetic Products:

☐ New Carpet or Furniture? Location of New Carpet/Furniture:

☐ Recent Dry Cleaning? Location of Recently Dry Cleaned Fabrics:

☐ Recent Painting/Staining? Location of New Painting:

☐ Solvent or Chemical Odors? Describe Odors (if any):

☐ Do Any Occupants Use Solvents At Work? If So, List Solvents Used:

☐ Recent Pesticide/Rodenticide? Description of Last Use:

Describe Any Household Activities (chemical use,/storage, unvented appliances, hobbies, etc.) That May Affect Indoor Air Quality:

Boiler room building is vacant

☐ Any Prior Testing For Radon? If So, When?:

☐ Any Prior Testing For VOCs? If So, When?:

Sampling Conditions

Weather Conditions: SUNNY Outdoor Temperature: 25 °F

Current Building Use: VACANT Barometric Pressure: 30.04 in(hg)

Product Inventory Complete? Yes ☒ Building Questionnaire Completed?

Structure Sampling Questionnaire and Building Inventory

New York State Department of Environmental Conservation

Building Code: _____ Address: 110 Cutter Mill Road 3A Great Neck , NY 11021

Sampling Information

Sampler Name(s): Matt Papula

Sampler Company Code: HDR

Sample Collection Date: Mar 5, 2019

Date Samples Sent To Lab: Mar 6, 2019

Sample Chain of Custody Number: _____

Outdoor Air Sample Location ID: ST-OA-1

SUMMA Canister Information

Sample ID:	ST-SS-3	ST-IA-2	ST-OA-1		
Location Code:					
Location Type:	SUBSLAB	FIRST FLOOR	OUTDOOR		
Canister ID:	10443	10492	10155		
Regulator ID:	10772	10206	10176		
Matrix:	Subslab Soil Vap	Indoor Air	Ambient Outd		
Sampling Method:	SUMMA AIR SAMPLI	SUMMA AIR SA	SUMMA AIR SA		

Sampling Area Info

Slab Thickness (inches):	6"				
Sub-Slab Material:	DIRT				
Sub-Slab Moisture:	DRY				
Seal Type:	CLAY				
Seal Adequate?:	☒	☐	☐	☐	☐

Sample Times and Vacuum Readings

Sample Start Date/Time:	03/05/2018 12:0	03/05/2019 1	03/05/2019 1		
Vacuum Gauge Start:	-30	-30	-30		
Sample End Date/Time:	03/06/2019 12:0	03/05/2019 1	03/06/2019 1		
Vacuum Gauge End:	-3	-6.5	-6.5		
Sample Duration (hrs):	24	25.5	25.5		
Vacuum Gauge Unit:	in(hg)	in(hg)	in(hg)		

Sample QA/QC Readings

Vapor Port Purge:	☒	☐	☐	☐	☐
Purge PID Reading:					
Purge PID Unit:					
Tracer Test Pass:	☒	☐	☐	☐	☐

Sample start and end times should be entered using the following format: MM/DD/YYYY HH:MM

Structure Sampling Questionnaire and Building Inventory

New York State Department of Environmental Conservation

LOWEST BUILDING LEVEL LAYOUT SKETCH

Please click the box with the blue border below to upload a sketch of the lowest building level .
The sketch should be in a standard image format (.jpg, .png, .tiff)

Clear Image

Design Sketch

Design Sketch Guidelines and Recommended Symbology

- Identify and label the locations of all sub-slab, indoor air, and outdoor air samples on the layout sketch.
- Measure the distance of all sample locations from identifiable features, and include on the layout sketch.
- Identify room use (bedroom, living room, den, kitchen, etc.) on the layout sket
- Identify the locations of the following features on the layout sketch, using the appropriate symbols:

B or **F**	Boiler or Furnace	o	Other floor or wall penetrations (label appropriately)
HW	Hot Water Heater	**xxxxxxx**	Perimeter Drains (draw inside or outside outer walls as appropriate)
FP	Fireplaces	**######**	Areas of broken-up concrete
WS	Wood Stoves	● SS-1	Location & label of sub-slab samples
W/D	Washer / Dryer	● IA-1	Location & label of indoor air samples
S	Sumps	● OA-1	Location & label of outdoor air samples
@	Floor Drains	● PFET-1	Location and label of any pressure field test holes.

Structure Sampling Questionnaire and Building Inventory

New York State Department of Environmental Conservation

FIRST FLOOR BUILDING LAYOUT SKETCH

Please click the box with the blue border below to upload a sketch of the first floor of the building.
The sketch should be in a standard image format (.jpg, .png, .tiff)

Clear Image

Design Sketch

Design Sketch Guidelines and Recommended Symbology

- Identify and label the locations of all sub-slab, indoor air, and outdoor air samples on the layout sketch.
- Measure the distance of all sample locations from identifiable features, and include on the layout sketch.
- Identify room use (bedroom, living room, den, kitchen, etc.) on the layout sket
- Identify the locations of the following features on the layout sketch, using the appropriate symbols:

B or **F**	Boiler or Furnace	o	Other floor or wall penetrations (label appropriately)
HW	Hot Water Heater	**xxxxxxx**	Perimeter Drains (draw inside or outside outer walls as appropriate)
FP	Fireplaces	**######**	Areas of broken-up concrete
WS	Wood Stoves	● SS-1	Location & label of sub-slab samples
W/D	Washer / Dryer	● IA-1	Location & label of indoor air samples
S	Sumps	● OA-1	Location & label of outdoor air samples
@	Floor Drains	● PFET-1	Location and label of any pressure field test holes.

Structure Sampling Questionnaire and Building Inventory

New York State Department of Environmental Conservation

OUTDOOR PLOT LAYOUT SKETCH

Please click the box with the blue border below to upload a sketch of the outdoor plot of the building as well as the surrounding area. The sketch should be in a standard image format (.jpg, .png, .tiff)

Clear Image

Design Sketch

Design Sketch Guidelines and Recommended Symbology

- Identify and label the locations of all sub-slab, indoor air, and outdoor air samples on the layout sketch.
- Measure the distance of all sample locations from identifiable features, and include on the layout sketch.
- Identify room use (bedroom, living room, den, kitchen, etc.) on the layout sket
- Identify the locations of the following features on the layout sketch, using the appropriate symbols:

B or **F**	Boiler or Furnace	o	Other floor or wall penetrations (label appropriately)
HW	Hot Water Heater	**xxxxxxx**	Perimeter Drains (draw inside or outside outer walls as appropriate)
FP	Fireplaces	**######**	Areas of broken-up concrete
WS	Wood Stoves	● SS-1	Location & label of sub-slab samples
W/D	Washer / Dryer	● IA-1	Location & label of indoor air samples
S	Sumps	● OA-1	Location & label of outdoor air samples
@	Floor Drains	● PFET-1	Location and label of any pressure field test holes.

Appendix I

DUSR, March 2019 LIHA and Stanton

Indoor Air Samples

Data Validation Services

120 Cobble Creek Road P.O. Box 208
North Creek, NY 12853

Phone 518-251-4429
harry@frontiernet.net

May 31, 2019

Justin King
HDR
16 Corporate Woods Blvd
Albany, NY 12211

RE: Validation of the Stanton Cleaners Site Analytical Air Data
NYSDEC Work Assignment #6
Data Usability Summary Report (DUSR)
Chemtech SDG Nos. K1805, K1952, and K2211

Dear Mr. King:

Review has been completed for the data packages generated by Chemtech Laboratories that pertain to samples collected between 03/05/19 and 03/27/19 at the Stanton Cleaners site. Eleven 6 L canister air samples and two field duplicates were processed for volatiles by USEPA method TO-15.

The data packages submitted by the laboratory contain full deliverables for validation, and this usability report is generated from review of the QC summary form information, with full review of sample raw data and limited review of associated QC raw data. The reported QC summary forms and sample raw data have been reviewed for application of validation qualifiers, with guidance from the USEPA national and regional validation documents, and in consideration for the specific requirements of the analytical methodology.

The following items were reviewed:

* Data Completeness
* Case Narrative
* Custody Documentation
* Holding Times
* Surrogate and Internal Standard Recoveries
* Method and Canister Blanks
* Laboratory Duplicate Correlations
* Laboratory Control Samples (LCSs)
* Instrumental Tunes
* Initial and Continuing Calibration Standards
* Method Compliance
* Sample Result Verification

Those items listed above which show deficiencies are discussed within the text of this narrative. All of the other items were determined to be acceptable for the DUSR level review, as discussed in NYS DER-10 Appendix B Section 2.0 (c). Documentation of the outlying parameters cited in this report can be found in the laboratory data package.

In summary, results for the samples are usable either as reported or with minor qualification.

Data completeness, accuracy, precision, representativeness, reproducibility, sensitivity, and comparability are acceptable.

Validation qualifier definitions and the client sample identification summaries are attached to this text. Also included in this report is the qualified client EDD and laboratory report forms edited with the recommended qualifiers.

Volatile Analyses by EPA TO-15

Results for acetone in ST-SS-1 and ST-SS-3 and in the samples reported in SDG K1952 are qualified as estimated, with a marginal low bias, due to slightly lo recovery in the associate LCS (69%, below the 70% limit).

The field duplicates of LIHA-IA-1 and ST-IA-1 shows correlations within validation guidelines, with the exception of those for methylene chloride and hexane (51%RPD and 53%RPD) in LIHA-IA2, results for which are qualified as estimated in that parent sample and its duplicate.

The laboratory duplicates of ST-IA-1 and LIHA-IA2 show correlations within validation guidelines.

Holding times were met, surrogate and internal standard responses are compliant, and instrument tunes meet fragmentation requirements. Method and canister blanks show no contamination affecting sample reported results.

Initial calibration linearity and calibration verification responses are within validation guidelines.

Results of analytes initially reported with the laboratory "E" flag are derived from the dilution analyses of the samples.

Please do not hesitate to contact me if questions or comments arise during your review of this report.

Very truly yours,

Judy Harry

Attachments: Validation Qualifier Definitions
Sample Identifications
Qualified Report of Analysis Results Forms
Qualified Laboratory EDD

VALIDATION DATA QUALIFIER DEFINITIONS

U	The analyte was analyzed for, but was not detected above the level of the associated reported quantitation limit.
J	The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
J-	The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased low.
J+	The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased high.
UJ	The analyte was analyzed for, but was not detected. The associated reported quantitation limit is approximate and may be inaccurate or imprecise.
NJ	The detection is tentative in identification and estimated in value. Although there is presumptive evidence of the analyte, the result should be used with caution as a potential false positive and/or elevated quantitative value.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control limits. The analyte may or may not be present.
EMPC	The results do not meet all criteria for a confirmed identification. The quantitative value represents the Estimated Maximum Possible Concentration of the analyte in the sample.

Client and Laboratory Sample IDs

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
FORM S-I

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

NYSDEC Sample ID/Code	Laboratory Sampl ID/Code	VOA GC/MS (Method #)	BNA GC/MS (Method #)	VOA GC (Method #)	Pest PCBs (Method #)	Metals (Method #)	Other (Method #)
ST-SS-2	K1805-01	TO-15					
ST-IA-1	K1805-02	TO-15					
ST-DUP-1	K1805-03	TO-15					
ST-SS-1	K1805-04	TO-15					
ST-OA-1	K1805-05	TO-15					
ST-IA-2	K1805-06	TO-15					
ST-SS-3	K1805-07	TO-15					

CHEMTECH

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
FORM S-I

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

NYSDEC Sample ID/Code	Laboratory Sampl ID/Code	VOA GC/MS (Method #)	BNA GC/MS (Method #)	VOA GC (Method #)	Pest PCBs (Method #)	Metals (Method #)	Other (Method #)
L1HA-IA1	K1952-01	TO-15					
~~L1HA-IA1-DUP~~	~~K1952-02~~	~~TO-15~~					
L1HA-IA2	K1952-03	TO-15					
L1HA-IA3	K1952-04	TO-15					
L1HA-OA1	K1952-05	TO-15					

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
FORM S-I

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

NYSDEC Sample ID/Code	Laboratory Sampl ID/Code	VOA GC/MS (Method #)	BNA GC/MS (Method #)	VOA GC (Method #)	Pest PCBs (Method #)	Metals (Method #)	Other (Method #)
LIHA-IA2	K2211-01	TO-15					
LIHA-IA2-DUP	K2211-02	TO-15					
10269	K2211-03	TO-15					

Appendix J

DUSR, February 2019

Emerging Contaminant

Aqueous Samples

Data Validation Services

120 Cobble Creek Road P.O. Box 208
North Creek, NY 12853

Phone 518-251-4429
harry@frontiernet.net

March 25, 2019

Justin King
HDR
16 Corporate Woods Blvd
Albany, NY 12211

RE: Validation of the NYSDEC Stanton Cleaners Analytical Data Packages
Data Usability Summary Report (DUSR)
Con-test SDG No. 19B0355

Dear Mr. King:

Review has been completed for the data package generated by Con-test that pertains to samples collected 02/07/19 at the Stanton Cleaners site. Three aqueous samples, and a field duplicate were processed for per- and poly fluorinated alkyl substances (PFAS) and 1,4-dioxane. An equipment blank was also processed for PFAS. The analytical methodologies are those of the USEPA SW846 method 8270D SIM and a modified USEPA method 537.

The data packages submitted by the laboratory contain full deliverables for validation, but this usability report is generated from review of the QC summary form information, with full review of sample raw data and limited review of associated QC raw data. The reported QC summary forms and sample raw data have been reviewed for application of validation qualifiers, with guidance from the USEPA national and regional validation documents, and in consideration for the specific requirements of the analytical methodology. The following items were reviewed:

* Data Completeness
* Case Narrative
* Custody Documentation
* Holding Times
* Surrogate and Internal Standard Recoveries
* Method and Equipment Blanks
* Laboratory Control Sample (LCS)
* Matrix Spike Recoveries and Correlations
* Blind Field Duplicate Correlations
* Instrumental Tunes
* Initial and Continuing Calibration Standards
* Method Compliance
* Sample Result Verification

Those items listed above which show deficiencies are discussed within the text of this narrative. All of the other items were determined to be acceptable for the DUSR level review, as discussed in NYS DER-10 Appendix B Section 2.0 (c). Documentation of the outlying parameters cited in this report can be found in the laboratory data package.

In summary, results for the samples are usable either as reported or with minor qualification or edit. Data completeness, accuracy, precision, representativeness, reproducibility, and sensitivity are acceptable. Comparability issues are discussed in the section below.

The client sample identifications are attached to this text. Also included in this report is the EQuIS EDD with recommended qualifiers/edits applied in red.

Chain-of-Custody

Edits and scratchouts should have been dated and initialed.

1,4-Dioxane by EPA8270D SIM

The detections of 1,4-dioxane in PW-9-20190207 and PW-9-20190207-1 have been edited to reflect non-detection at the reporting limit due to poor fragment proportions and signal/noise ratios.

Holding times were met. Surrogate recoveries are within the laboratory acceptance range, and internal standard responses are compliant. Instrument tunes meet fragmentation requirements.

Matrix spike recoveries and correlations of PW-11A-20190207 are within the laboratory acceptance range/limit.

Blind field duplicate correlations for PW-9-20190207 are within validation guidelines.

The LCS recovery is within
the acceptance range, and calibration standards show responses within analytical protocol requirements.

PFAS by Modified EPA Method 537

PFAS compounds are identified by their common acronyms in this report. The EDDs reference both the technical names and the acronyms.

Matrix spike recoveries and correlations of PW-11A-20190207 are within validation guidelines, as are the blind field duplicate correlations for PW-9-20190207.

Blanks show no contamination, and holding times were met.

Surrogate and internal standard recoveries are within laboratory acceptance ranges. It is noted that this laboratory utilizes only the three surrogate standards that are denoted in the original method 537 methodology for PFAS in drinking water. The modifications of method 537 used by most of the environmental laboratories typically include individual isotopic dilution surrogate standards that specifically correspond with almost all of the target analytes. The target analyte- specific surrogates allow for better evaluation of retention times and other raw data components that are often affected by matrix effects and interferences of more complex matrices than drinking water.

The results for FOSA in the samples and equipment blank are qualified as estimated due to the low recovery (18%) of that analyte in the associated LCS.

The results for PFHxS are qualified as estimated in the samples due to low response (33%D) in the associated calibration standard.

Please do not hesitate to contact me if questions or comments arise during your review of this report.

Very truly yours,

Judy Harry

Attachments: Validation Qualifier Definitions
Sample Identifications
Qualified Laboratory EQuIS EDD

VALIDATION DATA QUALIFIER DEFINITIONS

U	The analyte was analyzed for, but was not detected above the level of the associated reported quantitation limit.
J	The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
J-	The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased low.
J+	The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased high.
UJ	The analyte was analyzed for, but was not detected. The associated reported quantitation limit is approximate and may be inaccurate or imprecise.
NJ	The detection is tentative in identification and estimated in value. Although there is presumptive evidence of the analyte, the result should be used with caution as a potential false positive and/or elevated quantitative value.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control limits. The analyte may or may not be present.
EMPC	The results do not meet all criteria for a confirmed identification. The quantitative value represents the Estimated Maximum Possible Concentration of the analyte in the sample.

Client and Laboratory Sample IDs

con-test®
ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

HDR, Inc.
16 Corporate Woods, Suite 104
Albany, NY 12211
ATTN: Justin King

REPORT DATE: 2/25/2019

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 10018218-004

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 19B0355

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Great Neck, NY

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
PW-2A-20190207	19B0355-01	Ground Water		SOP 434-PFAAS SW-846 8270D	
PW-9-20190207	19B0355-02	Ground Water		SOP 434-PFAAS SW-846 8270D	
PW-11A-20190207	19B0355-03	Ground Water		SOP 434-PFAAS SW-846 8270D	
PW-9-20190207-1	19B0355-04	Ground Water		SOP 434-PFAAS SW-846 8270D	
FB-20190207	19B0355-05	Field Blank		SOP 434-PFAAS	