



## **Supplemental Remedial Investigation Work Plan**

### **Site:**

“Former” Debbie Cleaners  
3800-3808 Nostrand Avenue  
Brooklyn, New York 11235  
BCP Site # C224237

### **Prepared For:**

New York State Department of Environmental Conservation  
Region II Division of Environmental Remediation  
Hunters Point Plaza  
47-40 21<sup>st</sup> Street  
Long Island City, NY 11101-5401  
Attn: Ms. Dana Mecomber, P.E.  
Environmental Engineer II, Division of Environmental Remediation

### **On Behalf of:**

Acadia 3780-3858 Nostrand Avenue, LLC  
411 Theodore Fremd Avenue, Suite 300  
Rye, New York 10580

### **Prepared By:**

CNS Environmental Corporation  
208 Newtown Road  
Plainview, NY 11803  
CNS Job #: D196

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## 1.0 INTRODUCTION

At the request of Acadia 3780-3858 Nostrand Avenue, LLC (the Applicant), CNS Environmental Corp. (CNS), has prepared this Supplemental Remedial Investigation Work Plan (“SRIWP”) for the “Former” Debbie Cleaners site located at 3800-3808 Nostrand Avenue in Brooklyn, NY (“Site”). See Figure 1: Site Location Map.

### 1.1. Purpose and Objectives

The purpose of this Supplemental SRIWP is to incorporate the information gathered from previous investigations and further delineate these dry cleaning-related chlorinated solvents within the soil, groundwater and soil vapor at the Site. The SRIWP is designed to meet the following Brownfields Cleanup Program (BCP) objectives:

- To provide a brief summary of the site, including the previous investigations performed to date;
- Expand the Soil Vapor Investigation and Groundwater Sampling to the North and South tenant spaces to further define the nature and extent of contamination on the Site beyond the current BCP boundaries within the Nostrand Place Shopping Center;
- To identify potential soil contaminant source area(s) are present within the Chase Bank basement and rear driveway;
- To further assess groundwater flow;
- To determine soil gas mitigation pathways and a SSDS design to protect human health and the environment;
- To develop site-specific cleanup objectives based on information collected from the RIWP and this SRIWP.

The Applicant’s official role as part of the BCP is Volunteer.

### 1.2. Site Location and Description

The Site is approximately 11,152 square foot of tenant spaces and driveway behind the tenant spaces; all of which is located within the northernmost building of the Nostrand Place shopping center property located from 3780 through 3860 Nostrand Avenue. The site is abutted to the north and south by other commercial Nostrand Place tenant spaces; to the east by Nostrand Avenue with a retail shopping center beyond; and approximately 50-feet to the west by residential homes.

### 1.3. Site History

From approximately 1959 through 1985, a portion of the Site was occupied by a dry cleaner, which appears to have led to the dry cleaning-related chlorinated solvent contamination of groundwater and soil vapor. The Site has been occupied by commercial tenants and investigations within the “Former” Debbie Cleaners space had not been performed prior to the Remedial Investigation (RI).

#### 1.4. Previous Environmental Investigations

The following previous Environmental Investigations and/or Reports have been prepared for the Site:

- *Phase I Environmental Site Assessment* prepared by LCS Inc. dated December 6, 2012;
- *Phase II Investigation Report* prepared by CNS dated May 28, 2013;
- *Groundwater Investigation Report* prepared by CNS dated December 5, 2013;
- *Soil Vapor Intrusion Investigation* prepared by CNS dated September 21, 2015
- *Supplemental Phase II Site Investigation* prepared by CNS dated November 17, 2015;
- *2<sup>nd</sup> Quarter 2014 Quarterly Groundwater Monitoring Report* prepared by CNS dated April 25, 2014;
- *3<sup>rd</sup> Quarter 2014 Quarterly Groundwater Monitoring Report* prepared by CNS dated July 30 2014;
- *4<sup>th</sup> Quarter 2014 Quarterly Groundwater Monitoring Report* prepared by CNS dated October 29, 2014;
- *1<sup>st</sup> Quarter 2015 Quarterly Groundwater Monitoring Report* prepared by CNS dated January 29, 2015;
- *2<sup>nd</sup> Quarter 2015 Quarterly Groundwater Monitoring Report* prepared by CNS dated June 10, 2015;
- *3<sup>rd</sup> Quarter 2015 Quarterly Groundwater Monitoring Report* prepared by CNS dated September 14, 2015;
- *4<sup>th</sup> Quarter 2015 Quarterly Groundwater Monitoring Report* prepared by CNS dated November 24, 2015;
- *1<sup>st</sup> Quarter 2016 Quarterly Groundwater Monitoring Report* prepared by CNS dated April 7, 2016;
- *Remedial Investigation Work Plan* prepared by CNS dated July 2017; and
- *Draft Remedial Investigation Report* prepared by CNS dated March 2018.

The following narrative describes the environmental history of the Site:

CNS Environmental Corp reviewed a *Phase I Environmental Site Assessment (ESA)* completed by LCS, Inc. (LCS) in December of 2012 for the subject site; where based on CNS' review of the ESA, LCS identified a former drycleaner as an on-site Recognized Environmental Condition (REC), which was said to have operated from at least 1968 through 1996. LCS based this conclusion on a review of historical Sanborn Fire Insurance Maps, which identified the structure improved at 3796 Nostrand Avenue as occupied by a drycleaner. CNS reviewed the historical Sanborn Maps included in the ESA, which depicts the "dry cleaner" notation on the 1968 through 2007 maps; however as stated within the ESA, City Directories for the property were not reviewed because it was LCS' opinion that historical use was adequately determined based on Sanborn maps. LCS concluded that unless sufficient documentation is provided, a subsurface investigation is warranted to assess the environmental conditions on the subject site due to historic use as a drycleaner.

Due to the absence of additional documentation confirming the existence of a drycleaner at the subject site; CNS ordered City Directories, which covered each potential past or current address that may have been used by the property since its construction. The City Directories revealed that the address of 3796 Nostrand Avenue (currently occupied by Chop Stix Restaurant) was not identified with any dry cleaning tenants based on its 1965 through 1992 listings; however, a drycleaner by the name of "Debbie Cleaners" was identified under the address of 3804 Nostrand Avenue (currently occupied by Chase Bank). This address identifies the drycleaner in its 1965 through 1973 listings; however, its actual occupancy may have occurred as early as 1959 when the building was constructed, through 1985 at which time the tenant is listed as "Flower Den".

In order to further investigate the discrepancy between the Sanborn Maps reviewed by LCS identifying a drycleaner at 3796 Nostrand Avenue, and the City Directories reviewed by CNS identifying a drycleaner at 3804 Nostrand Avenue; CNS compared the historical Sanborn Maps to a site plan showing the current division of tenant spaces within the northernmost building constructed in 1959. Based upon CNS's review, the division of tenant spaces shown on the Sanborn Maps is different from that of the current tenant spaces, and were thus identified under different addresses. When the Sanborn Map is further compared to a current

site plan, the drycleaner notation would appear within the current Chase Bank tenant space located at 3804 Nostrand Avenue; therefore, it is CNS’s opinion that the current 3804 Nostrand Avenue tenant space was originally addressed as 3796 Nostrand Avenue, however remained uncorrected on the Sanborn Maps through the numerous tenant occupancy changes.

Based upon these findings, CNS agreed with LCS’ recommendation that a subsurface investigation was warranted to assess the environmental conditions on the subject site due to historic use as a drycleaner; however, CNS recommended this investigation be completed within the vicinity of the current 3804 Nostrand Avenue occupant, Chase Bank, based upon its historical data. A site visit was conducted on Wednesday, February 27, 2013 to determine an appropriate investigation approach. During the site visit it was determined that access to the bank space would not be permitted due to the sensitivity of the operation; therefore, it was determined that in lieu of conducting the investigation within 3804 Nostrand Avenue, the investigation would take place immediately downgradient of the bank within the basement of the neighboring tenant space located at 3806 Nostrand Avenue, which was vacant at the time.

In response to the above-mentioned findings and recommendations, on Friday, April 12, 2013 CNS conducted a *Phase II Investigation* at the vacant 3806 Nostrand Avenue tenant space. The investigation involved the collection of soil samples and a groundwater sample from one (1) soil boring advanced within the basement, to investigate soil and groundwater quality at the subject site. Additionally, CNS collected one soil-gas sample, one indoor air sample and one ambient air sample to investigate soil vapor and indoor air quality at the subject site. The laboratory results identified that the groundwater and soil vapor contained dry cleaning compounds.

In August of 2013, CNS completed a *Groundwater Investigation* where three (3) permanent monitoring wells (NW1 through NW3) were installed and a total of eight (8) soil samples and three (3) groundwater samples were collected. Monitoring well NW1 was installed in the front sidewalk grade; NW2 was installed at the rear sidewalk grade; and monitoring well NW3 was installed in the basement of the 3806 Nostrand Avenue tenant space. Soil analytical results identified dry cleaning related compounds above the laboratory’s minimum detection limit but below their respective NYSDEC Commercial SCO’s. Groundwater analytical results identified dry-cleaning related compounds (PCE, DCE and TCE) within monitoring well samples NW2-GW2A (Sidewalk grade to the west) and NW3-GW3A (Basement) exceeding their respective NYSDEC TOGS 1.1.1 GA values. Based upon the findings, CNS contacted the NYSDEC and was issued Spill #13-10667. Since that time, CNS has been conducting quarterly groundwater sampling events on monitoring wells NW1, NW2, and NW3.

In September of 2015, CNS completed a *Soil Vapor Intrusion Investigation* at the subject site, where one sub-slab soil-gas sample, one indoor air sample and one ambient air sample were collected. The indoor air levels were below air guidelines; however as a result of elevated sub-slab levels of the VOC constituents Tetrachloroethene and Trichloroethene, mitigation is identified under the NYSDOH Decision Matrix.

In October/November of 2015, CNS completed a *Supplemental Phase II Investigation* at the subject site, to delineate the identified dry cleaning related solvent plume in order to develop a Remedial Action Plan. On October 14<sup>th</sup> and 16<sup>th</sup> of 2015, CNS oversaw the installation of three (3) permanent monitoring wells (NW4, NW5, and NW6), and three (3) temporary wells (TW1, TW2 and TW3) at the subject site. Temporary wells TW1 and TW2 were installed in the northern portion of the basement of the 3808 Nostrand Avenue tenant space and TW3 was installed in the basement of 3800 Nostrand Avenue. Permanent monitoring well NW4 was installed in the common western basement hallway; and NW5 and NW6 was installed in the western back alley at street level. A total of sixteen (16) soil samples and three (3) groundwater samples were collected. Soil sample analytical did not identify any VOC constituents exceeding their respective NYSDEC Unrestricted SCO values. Groundwater sample analytical identified

multiple VOC constituents exceeding their respective NYSDEC Groundwater standards values in all three (3) temporary wells.

Based on the laboratory analytical results, it was CNS's opinion that dry cleaning related solvents have impacted the groundwater at the subject site requiring remediation. CNS recommended that the three (3) temporary wells (TW1, TW2 and TW3) will be made permanent and included in the quarterly sampling events starting in 2016; and a Remedial Action Work Plan be generated outlining current conditions and chemical injection remediation considerations that must to be approved by the NYSDEC prior to implementation.

As stated herein, since Spill # 13-10667 was issued; CNS has been completing *Quarterly Groundwater Monitoring*. Previous sampling events occurred on November 21, 2013, April 14, 2014, July 14, 2014, October 23, 2014, January 8, 2015, June 3, 2015, September 8, 2015, October 30, 2015 and March 18, 2016. Note: The October 2015 sampling event also included the newly installed monitoring wells NW4, NW5 and NW6. Monitoring well sampling events consisted of collecting groundwater measurements for temperature, conductivity, pH, dissolved oxygen and oxygen-reduction potential (ORP) and collecting groundwater samples for VOC analysis via EPA Method 8260. Based upon the most recent sampling event, dry cleaning related compounds remain present within all six (6) monitoring wells. Contaminant increases were identified within monitoring wells NW1, NW2, and NW3; and monitoring wells NW4, NW5 and NW6 exhibited dry cleaning compounds consisting of cis-1,2-Dichloroethene, Tetrachloroethene, and Trichloroethene.

This work was performed by CNS for Acadia in an effort to address the environmental issues at the site. The matter reported to the NYSDEC which contacted Acadia in 2016 regarding proceeding with further investigation.

From August 2017 through November 2017, CNS executed the approved RIWP dated July 2017, consisting of a Geophysical Investigation, Soil Investigation, Groundwater Investigation and Soil Vapor/Indoor Air Investigation. A total of twelve (12) soil borings were advanced within the; U.S. Army Career Center and Building Utilities basement (3800); within the Chase Bank ("Former" Debbie Cleaners) basement (3804); within the southernmost vacant space basement (3808); along the property line within the rear alleyway; and on the sidewalk along Avenue Y, respectively, where a total of thirteen (13) grab soil samples and thirteen (13) composite soil samples were collected. Ten (10) of these soil borings were subsequently converted to temporary groundwater monitoring well points and two (2) soil borings were converted to permanent monitoring wells (one located on the Avenue Y sidewalk and one centrally located in the basement of Chase Bank ("Former" Debbie Cleaners). In addition, CNS converted three (3) existing temporary groundwater well points into permanent monitoring wells, and resampled the previously existing six (6) permanent monitoring wells.

Analytical results associated with soil samples did not identify any SVOCs, PCBs, Pesticides or Metals exceeding the Protection of Groundwater SCOs. The VOC constituents Acetone (samples TW4-S1A and TW8-S1A) and Tetrachloroethene (PCE) (samples TW6-S1A and TW8-S1A) were identified at levels slightly above the Protection of Groundwater SCOs; however, were below their respective Commercial SCOs. Analytical results associated with the twenty-one (21) groundwater samples identified the cVOC COCs consisting of Cis-1,2-Dichloroethene (c-DCE), Tetrachloroethene (PCE) and Trichloroethene (TCE), respectively, exceeding the TOGS values in almost all monitoring wells, respectively. The highest concentrations of these compounds were identified within the southwestern portion of the Site. In addition, several low-level SVOCs exceeding the TOGS values were identified within two temporary monitoring wells installed the rear driveway, and two monitoring wells located within the southernmost vacant space basement (3808). No elevated levels of PCBs or Pesticides were identified, with exception to NW-8, also

located within the southernmost vacant space basement (3808), where two low-level Pesticides exceeded the TOGS values. Lastly, elevated Unfiltered Metal constituents consisting of Chromium, Iron, Lead, Manganese, Nickel and Sodium were identified in all groundwater samples; however, Dissolved Metals results indicated exceedances of only Manganese and Sodium, respectively, which may likely be considered background levels for the area. PFOS and PFOA analytical results were reported at levels well below the NYSDOH Maximum Contaminant Level for Unspecified Organic Contaminants.

The Soil Vapor and Indoor Air Investigation was performed within the U.S. Army Career Center and Building Utilities basement (3800); within the Chase Bank (“Former” Debbie Cleaners) basement (3804); within the southernmost vacant space basement (3808); along the property line within the rear alleyway; and on the sidewalk along Avenue Y, where a total of six (6) sub-slab samples, four (4) indoor air samples, five (5) soil vapor samples and three (3) outdoor ambient air samples were collected. Analytical results associated with sub-slab soil vapor samples identified the cVOC COCs consisting of c-DCE, PCE and TCE, respectively, exceeding their respective NYSDOH Minimum Decision Matrix Values, with the highest concentrations identified within the Chase Bank (“Former” Debbie Cleaners) basement. Exterior soil vapor samples identified both PCE and TCE at levels exceeding their USEPA Target Sub-slab and Exterior Soil Gas Concentrations, to the immediate west and southwest of the Chase Bank tenant space. Indoor Air sample analytical results did not identify any exceedances of the established NYSDOH Air Guidelines; however, c-DCE, PCE, TCE and Carbon Tetrachloride, respectively, were identified above their respective NYSDOH Minimum Decision Matrix Values.

Based upon the findings of the investigation, dry-cleaning related cVOCs were present above regulatory levels within the Site groundwater and soil vapor; however, analytical results both upgradient and downgradient of the source area (“Former” Debbie Cleaners <currently Chase Bank>) did not identify any SVOC, PCB, Pesticides or PFOS/PFOA contaminants. It was CNS’s opinion that additional sampling was required in order to delineate the area of concern and determine appropriate remedial actions for the Site, which may potentially expand the Volunteer Brownfield Site boundaries. Therefore, CNS recommended that a Supplemental Remedial Investigation Work Plan (RIWP) be developed and submitted to the NYSDEC for approval, prior to the completion of additional groundwater and soil vapor sampling activities.

As part of this Supplemental RIWP, CNS recommended the following:

- Additional water level information be collected to better determine the groundwater flow direction(s) and possible tidal influence;
- Additional groundwater and soil vapor sampling locations be installed to help determine the extent of the contaminants;
- Any additional soil vapor sampling locations should be installed so that they can be used as monitoring points during potential future soil vapor extraction efforts; and
- Future sample analyses be limited to the identified dry-cleaning related cVOCs, based upon the extensive current data collected in and around the established source area (Chase Bank), coupled with the historical use of the location as a dry cleaner and analytical results only identifying dry-cleaning related cVOCs as the Site COCs.

Furthermore, CNS also recommends, based upon the soil vapor analysis, that a Sub-slab Depressurization system (SSDS) be designed to mitigate current conditions.

Accumulative data of the sampled mediums is presented within Tables 1 through 3 and Figures 5 and 6.

## 2.0 PHYSICAL SETTING

The BCP Site incorporates approximately 11,152 square foot of tenant spaces and driveway situated in Brooklyn, Kings County, New York. This SRIWP expands beyond these boundaries to investigate the abutting Nostrand Place Shopping Center tenant spaces to the north (3,731 ft<sup>2</sup>) and south (27,497 ft<sup>2</sup>) potentially encompassing an additional 31,228 square feet to the current BCP boundary, respectively.

According to the United States Geological Survey (USGS) Topographic Map, the Site lies at approximately 9-feet above Mean Sea Level. Land use immediately surrounding the Site consists of commercial properties to the north, northeast, east and south along Nostrand Avenue and residential homes to the west. Land use within a half-mile radius of the Site is mixed and consists of commercial use along main roads with mainly residential use throughout the remaining area with several intermittently located public-owned facilities and institutions. See Figure 2: NYC Zoning Land Use Map.

### 2.1. Geological Setting

Based on observations made during the collection of subsurface borings through previous investigations, the soil stratum consisted of 4” of asphalt pavement (at street grade) or concrete slab (at basement grade), with fine to coarse brown sand to the depths of 12-feet below basement grade or 20-feet below street grade.

### 2.2. Hydrogeological Setting

The Site is located approximately 0.5-miles north of Sheepshead Bay where groundwater was originally presumed to flow in a southward locally controlled direction; however previous investigations conducted at the Site identified groundwater at an average depth of 3-feet below basement grade and 12-feet below street grade, presumed to flow in a westerly direction based upon periodic groundwater measurements collected during quarterly sampling events.

### 2.3. Sensitive Receptors

No sensitive ecological receptors such as wetlands have been identified adjacent to or near the Site; however, a Rare Plants and Rare Animals area is located just under a quarter-mile to the southeast, associated with an endangered American Burying Beetle last documented in 1905. There are no drinking water wells documented within the area.

In addition, sensitive population receptors identified within the surrounding area consist of:

- Residential properties located approximately 50-feet west of the Site
- Bright Start Day Care located approximately 150-feet northwest of the Site
- Sheepshead Playground approximately 650-feet to the south beyond Avenue Z
- Public Elementary School # 52 Sheepshead Bay located approximately 1,200-feet to the south beyond Avenue Z and the Sheepshead Playground
- Yeshiva of Kings Bay Universal Pre-K approximately 1,000-feet to the southwest
- Playground # 286 approximately 500-feet to the east
- Junior High School # 14 Shell Bank/YMCA After-School Program approximately 1,000-feet to the northeast
- Sheepshead/Nostrand Community Center Pre-School and CCNS The Bay Neighborhood Senior Center approximately 1,100-feet to the north

See Figure 3 for NYSDEC Environmental Resource Map and Figure 4 for Sensitive Receptor Map.

2.4. Nearby Known Contaminated or Spill Sites

Based upon the most current data provided by the NYSDEC's Environmental Site Databases, there are no known active contaminated or spills sites identified within the immediate area of the Site.

### 3.0 PROPOSED REMEDIAL INVESTIGATION SCOPE OF WORK

The proposed RI work will be conducted in accordance with 6 NYCRR Part 375 - Brownfield Cleanup Regulations; in general conformance with the NYSDEC DER-10 (Technical Guidance for Investigation and Remediation); and in compliance with the Quality Assurance Project Plan (QAPP) appended to the RIWP dated July 2017. The investigation will involve sampling of soil, groundwater and soil vapor. Sample locations may need to be adjusted based on observations made in the field.

The analytical data obtained during the RI will be compared to the commercial and protection of groundwater SCOs; therefore, retaining compatibility with future commercial land use.

#### 3.1. Objectives

This SRIWP was developed to meet the following site-specific objectives:

- Further delineate the extent of dry-cleaning related COCs in soils within and behind (rear driveway) the Chase Bank;
- Further delineate the extent of dry-cleaning related COCs in groundwater to the north and south of the current BCP boundaries within the site;
- Evaluate the potential for soil vapor impacts related to Site COCs and the potential for soil vapor to migrate via preferred pathways and foundations, to the north and south of the BCP boundaries at the Site.

As stated in Section 1.4: Previous Environmental Investigations, dry cleaning-related chlorinated solvents have impacted the groundwater, soil vapor and potentially the soils at the subject site (current analytical data does not support evidence of soil contamination at the Site). Currently there are a total of twenty-one (21) monitoring wells advanced to 20' bgs at street grade and 5' bgs within the basement grade. CNS is proposing to complete a supplemental remedial investigation to satisfy the above site-specific objectives.

A Sampling and Analysis Plan is presented in Table 4, to be used in conjunction with Figure 7: Proposed Supplemental Remedial Investigation Sample Locations. As part of the investigation, mark-outs and utility mapping will be performed in order to provide clearance of potential sampling locations.

#### 3.2. Soil Investigation

As depicted in Figure 7: Supplemental Remedial Investigation Sample Locations, focused soil borings will be located inside the former dry cleaner within the Chase Bank basement and within the rear driveway behind the Chase Bank, to determine if a soil source area is present.

Soil samples will be collected continuously using a Geoprobe™ which will advance five-foot long/1.5-inch diameter Macrocore sampler at the street grade and two-foot long/1-inch diameter Macrocore sampler in the basement. Delineation borings will be terminated four feet into the low permeability (perching) unit. To prevent cross contamination after the sampling, a rod fitted with an expendable point will be sent back down the hole and grouted through the center of that rod as it is pulled back up.

All soil cores will be screened using a PID (11.7 eV lamp) and logged by CNS for geologic characteristics. The sample with the highest PID reading in each boring will be sent to Pace Analytical and analyzed by EPA Method 8260. For the shallow borings, if there are no PID readings, the sample directly above the low permeability layer will be collected for analysis. For the deeper borings, if there are no measured PID

readings, then the soil below the confining layer will be collected for analysis.

Soil samples will be analyzed for Target Compound List (TCL) VOCs by EPA Method 8260 and compared to the NYSDEC Part 375 Soil Cleanup Objectives (SCO's) to determine if additional investigation and/or remediation is warranted.

See Quality Assurance Project Plan included within the July 2017 RIWP for additional procedures.

### 3.3. Groundwater Investigation

As depicted in Figure 7: Supplemental Remedial Investigation Sample Locations, temporary groundwater monitoring well points will be installed in the parking garage (south of BCP boundaries), and in the rear street grade parking lot (north of BCP boundaries). Monitoring well construction details are provided within Section 3.3.1 below.

Prior to sampling, each well will be purged a minimum of three casing volumes using a peristaltic pump with per-well dedicated tubing set in the middle of the well screen, to ensure representative samples from the formation surrounding the wells and to eliminate standing water in the wells. Temperature, pH, dissolved oxygen, turbidity and conductivity measurements will be collected and recorded after the removal of each casing volume. Well sampling logs will be prepared.

A designated measuring point on the top of each well casing will be surveyed vertically to a common datum. It is anticipated that three rounds of water level data will be collected. Water level measurements will be collected periodically and synoptically in each of the wells to determine the direction of groundwater flow. The data will be presented in a table and groundwater elevation contour maps generated for each round.

Groundwater samples will be analyzed for Target Compound List (TCL) VOCs + 1,4-Dioxane by EPA Method 8260 and the Per- and polyfluoroalkyl substances (PFAS) Target Analyte List by EPA Method 537 or ISO 25101:2009 and be compared against the NYSDEC TOGS 1.1.1 Class GA Groundwater Standards. Groundwater for VOCs analysis will be preserved by acidification to a pH of <2 using hydrochloric acid (HCl), cooled to 4°C, and maintained at this temperature until time of analysis. Immediately following collection of the samples, they will be placed in a cooler with "freezer-pats" in order to maintain sample integrity, all volatile sample bottles to be filled to capacity with no headspace for volatilization. If necessary to meet a maximum recommended holding time, the samples are to be shipped by overnight courier to the laboratory. CNS will send the groundwater samples to Pace Analytical for the said analysis.

#### 3.3.1 Monitoring Well Construction

A layout of the current and proposed monitoring well locations for the subject site is shown in Figure 7: Proposed Supplemental Remedial Investigation Sample Locations. Currently there are a total of twenty-one (21) existing monitoring wells advanced to 20' bgs at street grade and 5' bgs within the basement grade, respectively. CNS is proposing to install three (3) temporary groundwater well points at the basement grade of the parking garage and two (2) temporary groundwater well points within the rear street grade parking lot on the west side of the property and to the north of the BCP boundaries.

Monitoring wells installed at the street-grade will be constructed of 2-inch diameter PVC and installed to a depth of five feet below the water table. Up to ten-feet of 0.010 slot screen will be installed to intersect the water table to allow for groundwater fluctuations and free product (if present) on the water table to enter the well. The annular space between the borehole and the well screen will be backfilled with #2 Morie sand to a depth of two feet above the top of the screen. A two-foot thick hydrated bentonite seal will be installed

above the sand and the remainder of the annular space will be backfilled with native soils. The permanent monitoring wells will be completed at grade with a small diameter flush-mount manhole and concrete seal.

Monitoring wells installed at the basement-grade will be constructed of 1/2-inch diameter PVC and installed to a depth of one foot below the water table. Up to five-feet of 0.010 slot screen will be installed to intersect the water table to allow for groundwater fluctuations and free product (if present) on the water table to enter the well. The annular space between the borehole and the well screen will be backfilled with #2 Morie sand to a depth of one-foot above the top of the screen. A one-foot thick hydrated bentonite seal will be installed above the sand and the remainder of the annular space will be backfilled with native soils. The permanent monitoring wells will be completed at grade with a small diameter flush-mount manhole and concrete seal. See Figure 8: Monitoring Well Construction Drawing.

No monitoring wells will be installed in the sand below the confining layer unless PID readings indicate contamination as described. These deep borings will be grouted with bentonite slurry immediately after completion. A mill slot sampler with 3/8-inch polyethylene and 3/8-inch high density polyethylene (HDPE) tubing's with a peristaltic pump will be used to collect the groundwater samples in the sand unit.

### 3.4. Soil Vapor Investigation

Soil vapor point installation and sampling will be conducted in general conformance with the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York dated October 2006, and in accordance with the QAPP included in the July 2017 RIWP.

Soil vapor monitoring/sampling points will be installed inside the buildings at the approximate locations depicted in Figure 7. Indoor and Outdoor Ambient air samples will be collected at the same time soil vapor samples are collected. Sub-slab soil vapor points will be installed within the basements of the northern (Juice Shop and Chop Stix) and southern (Vanka Café, Parking Garage and Silverstar Supermarket) tenant spaces. The proposed soil vapor point locations depicted in Figure 7 were chosen based upon the source area, sensitive receptors and potential preferential exposure pathways, to evaluate the potential for current on-Site and off-Site exposures.

Prior to installing the vapor implant points, CNS will perform a pre-sampling inspection to identify and minimize conditions that may affect the proposed soil vapor sampling, where the structure, floor layout, air flows, physical condition of the structure and sumps will be evaluated, as well as sources of potential indoor air conditions. CNS will utilize the NYSDOH Indoor Air Quality Questionnaire and Building Inventory Form (as revised March 2007) as part of the pre-sampling inspection. Any potential interference(s) identified shall be corrected or minimized prior to CNS performing the installation.

Sub-slab soil vapor implant points will be installed within the basement grade, where tubing shall not extend further than 2-inches into the sub-slab material, to an approximate depth of 6 to 12-inches beneath the building slab utilizing a core drill.

Teflon tubing will be attached to the points which will be backfilled using a porous, inert backfill material (glass beads) allowing a sampling zone of 6 to 12-inches at the basement grade, and sealed with bentonite slurry and the remainder shall be backfilled with clean material plugged at the ground surface with concrete, to prevent any inflow from ambient surface air. In order to prevent infiltration of ambient air into the sub-surface, a protective casing will be installed around each point. A tracer gas will be used during the collection of sub-slab soil vapor samples as a quality assurance/quality control measure to verify the integrity of the soil vapor probe seals.

The sub-slab soil vapor, indoor and outdoor air samples will be collected in dedicated, laboratory-supplied “batch certified clean” six (6)-liter stainless steel Summa canisters at rates no greater than 0.2 L/min, with an average target fill-time of eight (8) hours per canister to reflect the potential exposure scenario on-site. Both indoor and outdoor air samples will be collected at a height of 3 to 5-feet to represent a typical breathing zone/occupant seating height.

CNS will send the sub-slab soil vapor, indoor and outdoor air samples to Pace Analytical for analysis of VOCs by EPA Method TO-15. The reporting limits will meet the specification required via TO-15. Analytical results will be compared against the applicable values presented within the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York dated October 2006.

### 3.5. Investigation Derived Waste Management

#### 3.5.1 Drill Cuttings and other Soil

Drill Cuttings and other soil generated on-site during the SRI from soil borings, monitoring wells or soil vapor implant points may be disposed at the site within the borehole that generated them to within 12 inches of the surface unless:

- Free product or grossly contaminated soil, are present in the cuttings;
- The Borehole will be used for the installation of a monitoring well;
- The borehole has penetrated an aquitard, aquiclude or other confining layer; or extends significantly into bedrock;
- Backfilling the borehole with cuttings will create a significant path for vertical movement of contaminants. Soil additives (bentonite) may be added to the cuttings to reduce permeability;
- The soil cannot fit into the borehole.

Those soil cuttings needing to be managed on-site will be containerized in properly labeled DOT approved 55-gallon drums for future off-site disposal at a permitted facility. All boreholes which require drill cuttings disposal would ultimately be filled with bentonite chips (hydrated) and asphalt/concrete capping. Disposable sampling equipment including, spoons, gloves, bags, paper towels, etc. that came in contact with environmental media will be double bagged and disposed as municipal trash in a facility trash dumpster as non-hazardous trash.

#### 3.5.2 Water/Fluids

All water and fluids resulting from well development and/or well purging will be collected, handled and discharged/disposed in accordance NYSDEC waste management regulations. Since concentrations of contaminants are known to exceed groundwater standards based upon previous investigations, water/fluids will be stored on-site in labeled containers in a secondary containment area awaiting disposal.

#### 3.5.3 Personal Protective Equipment and other Non-Hazardous Materials

Used personal protective equipment (PPE) will be generated during SRI activities. Used PPE and other non-hazardous materials will be disposed of in municipal trash dumpsters on-site.

#### 4.0 QUALITATIVE EXPOSURE ASSESSMENT

A Qualitative Exposure Assessment (QEA) as per DER-10, Appendix 3B will be completed as part of the SRI. The QEA for human health will evaluate and document how persons might be exposed to site-related contaminants, and to identify and characterize the potentially exposed population at the time of the SRI and under anticipated future use.

The QEA will evaluate five elements of an exposure pathway, consisting of:

1. The contaminant source(s) including the location of the contaminant release to the environment or the contaminated environmental medium;
2. An explanation of the contaminant release and transport mechanisms to the exposed population;
3. The identification of all potential exposure points where actual or potential human contact may occur;
4. The routes of exposure; and
5. A characterization of the receptor populations who may be exposed to contaminants at a point of exposure.

## 5.0 REMEDIAL INVESTIGATION SUPPORTING PLANS

### 5.1. Quality Assurance Project Plan

The Quality Assurance Project Plan (QAPP) included within the July 2017 RIWP outlines the scope of the quality assurance and quality control (QA/QC) activities to be performed in support of the SRIWP

The QAPP outlines the technical and analytical approach that CNS Environmental Corp (CNS) will employ during the soil, groundwater and soil vapor sampling at the Site. This QAPP provides a description of project objectives, sampling methods, analytical procedures, and quality assurance requirements that will be used to obtain valid, representative field samples and measurements. Standards contained in the QAPP will be used to ensure the validity of data generated for this project.

The QAPP was prepared for the pre-remediation soil, groundwater, and soil vapor sampling to set guidelines for the generation of reliable data measurement activities such that data generated are scientifically valid, defensible, and comparable and of known precision and accuracy.

### 5.2. Health and Safety Plan

A site-specific Health & Safety Plan (HASP) included within the July 2017 RIWP was prepared in accordance with 40 CFR 300.150 of the National Contingency Plan (NCP) and 29 CFR 1910.120 and is a compilation of minimum health and safety and emergency response requirements to be followed by field personnel during implementation of SRI activities.

The health and safety requirements are based on currently available information and a preliminary analysis of associated potential hazards. This plan establishes the minimum protocols necessary for protecting all on-site field technical personnel during implementation of investigative efforts. All field technical personnel will be equipped with personnel protection/safety equipment which, at a minimum, meets the requirements of this Site HASP.

### 5.3. Community Air Monitoring Plan

The NYSDOH Generic Community Air Monitoring Plan (CAMP) included within the July 2017 RIWP describes required VOC vapor and/or particulate monitoring that will be conducted during intrusive site investigation activities. The intent of this CAMP is to provide for a measure of protection of the downwind communities from potential airborne releases of constituents of concern during RI activities. As such, this CAMP specifies the potential air emissions, air monitoring procedures, and monitoring schedule.

### 5.4. Citizen Participation Plan

In accordance with NYSDEC's Brownfield Cleanup Program guidance, a Citizen Participation Plan (CPP) meeting the requirements of NYSDEC DER-23 and DER-10 guidance has been prepared and is included within the July 2017 RIWP.

## 6.0 REMEDIAL INVESTIGATION SCHEDULE AND REPORTING

The following RI schedule is proposed. It should be noted that this schedule is subject to change.

<b>Timeline</b>	<b>Task</b>
2 <sup>nd</sup> Quarter 2018	Submittal of Supplemental Remedial Investigation Work Plan (SRIWP)
	Supplemental RI field work commences*
3 <sup>rd</sup> Quarter 2018	Draft Supplemental RI Report Submitted to NYSDEC

\*A minimum of 5-day notice will be provided to NYSDEC in advance of field sampling.

## 7.0 REFERENCES

1. New York State Department of Environmental Conservation - Office of Remediation and Materials Management DER-10 Technical Guidance for Site Investigation and Remediation, May 2010;
2. New York State Department of Environmental Conservation - Division of Environmental Remediation, 6 NYCRR Part 375 Environmental Remediation Programs, December 2006;
3. New York State Department of Environmental Conservation - Division of Water Technical and Operational Guidance Series (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, (as revised June 1998);
4. New York State Department of Environmental Conservation - Office of Remediation and Materials Management, DER-23 Citizen Participation Handbook for Remedial Programs, January 2010;
5. New York State Department of Environmental Conservation – Office of Remediation and Materials Management, 6 NYCRR Part 360 Solid Waste Facilities, 1992
6. New York State Department of Environmental Conservation – Office of Remediation and Materials Management, 6 NYCRR Part 364 Waste Transporters, 1989
7. New York State Department of Health - Center for Environmental Health - Bureau of Environmental Exposure Investigation, Guidance for Evaluating Soil Vapor Intrusion in the State of New York, October 2006;
8. LCS Inc., Phase I Environmental Site Assessment, December 6, 2012;
9. CNS Management Corp., Phase II Investigation Report, May 28, 2013;
10. CNS Management Corp., Groundwater Investigation Report, December 5, 2013;
11. CNS Management Corp., 2nd Quarter 2014 Quarterly Groundwater Monitoring Report, April 25, 2014;
12. CNS Management Corp., 3rd Quarter 2014 Quarterly Groundwater Monitoring Report, July 30 2014;
13. CNS Management Corp., 4th Quarter 2014 Quarterly Groundwater Monitoring Report, October 29, 2014;
14. CNS Environmental Corp., 1st Quarter 2015 Quarterly Groundwater Monitoring Report, January 29, 2015;
15. CNS Environmental Corp., 2nd Quarter 2015 Quarterly Groundwater Monitoring Report, June 10, 2015;
16. CNS Environmental Corp., 3rd Quarter 2015 Quarterly Groundwater Monitoring Report, September 14, 2015;
17. CNS Environmental Corp., Soil Vapor Intrusion Investigation, September 21, 2015;
18. CNS Environmental Corp., Supplemental Phase II Site Investigation, November 17, 2015;
19. CNS Environmental Corp., 4th Quarter 2015 Quarterly Groundwater Monitoring Report, November 24, 2015;
20. CNS Environmental Corp., 1st Quarter 2016 Quarterly Groundwater Monitoring Report, April 7, 2016;
21. Remedial Investigation Work Plan prepared by CNS dated July 2017; and
22. Draft Remedial Investigation Report prepared by CNS dated March 2018.

## 8.0 SIGNATURES AND CERTIFICATION

If you have any questions or require additional information regarding this project please call (516) 932-3228.

Compiled by:



---

Charles Powers  
Principal

I Michael Hauptmann, P.E., certify that I am currently a NYS Registered Professional Engineer and Qualified Environmental Professional as defined in 6 NYCRR Part 375, and that this Supplemental Remedial Investigation Work Plan Report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

Certified by:



---

Michael Hauptmann, P.E.  
NYS Professional Engineering License # 082526

**FIGURE 1**  
**SITE LOCATION MAP**

**FIGURE 2**  
**NYC ZONING LAND USE MAP**



Copyright 2016 The City of New York

Primary Land Use

-  One & Two Family Residence
-  Multi-Family Residence (Walkup)
-  Multi-Family Residence (Elevator)
-  Mixed Residential & Commercial
-  Commercial Use
-  Industrial / Manufacturing
-  Transportation / Utility
-  Public Facilities and Institutions
-  Open Space & Recreation
-  Parking
-  Vacant Land

3804 NOSTRAND AVENUE, BROOKLYN 11235

- Zoning

This location has no related tax lot.

- Additional Zoning Information

This location is completely or partially within the following:

**FRESH Program:**

Discretionary tax incentives

FRESH Program

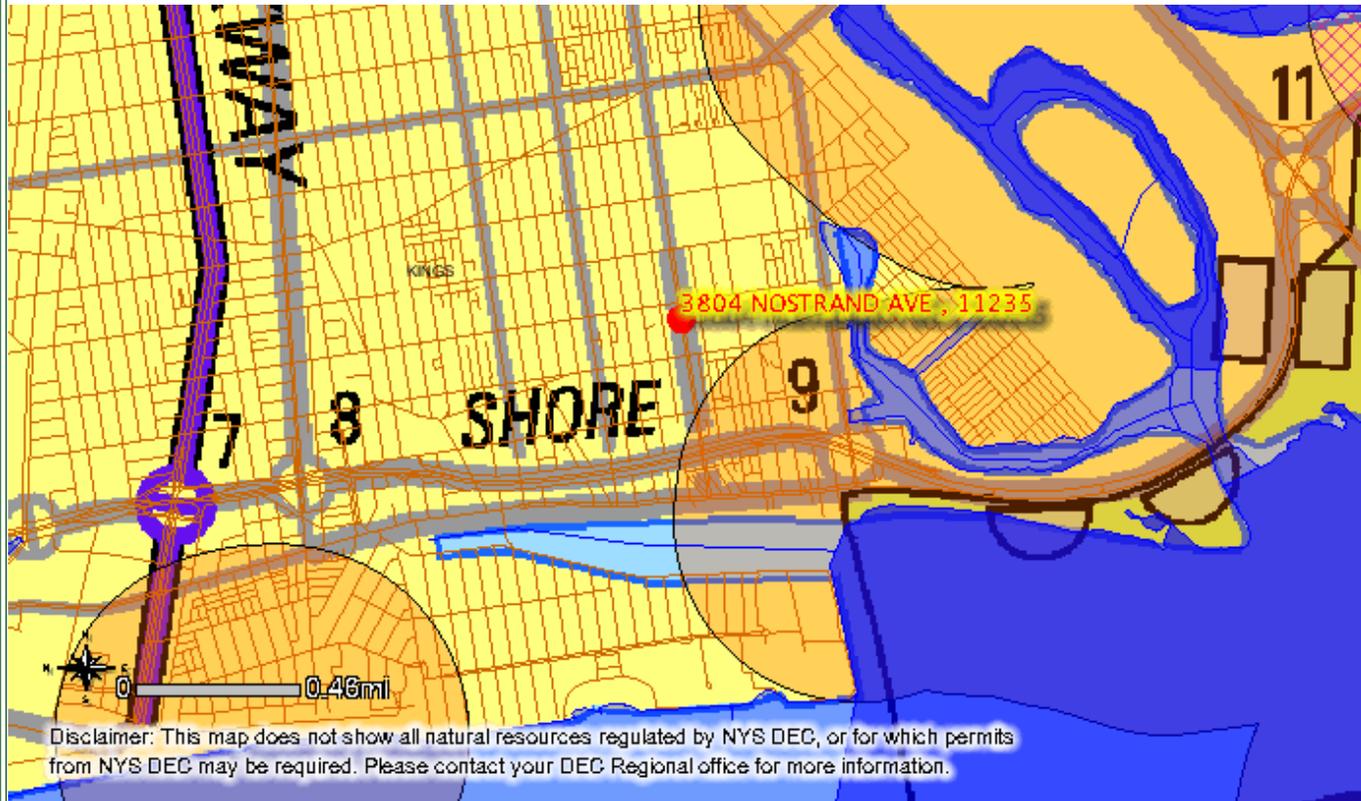
**FIGURE 3**  
**NYSDEC ENVIRONMENTAL RESOURCE MAP**

Please set your printer orientation to "Landscape".

### NYSDEC Environmental Resource Mapper

#### Visible Layers

-  Classified Streams
-  Classified Ponds
-  State-Regulated Freshwater Wetlands
  
-  Wetland Checkzone
-  State-Regulated Freshwater Wetlands
-  Rare Plants and Rare Animals
  
- Significant Natural Communities Buffered**
-  Natural Communities Nearby
-  Significant Natural Communities
-  Interstate Highways
-  Adirondack Park Boundary
-  Counties



MinX: 588155, MaxX: 591325, MinY: 4495289, MaxY: 4491748

**The Coordinates of the point you clicked on are:**

NYTM	E : 589935	Longitude/Latitude	W : 73.937
	N : 4493696		N : 40.589

**Rare Plants and Rare Animals**

<b>This location is in the vicinity of one or more :</b>
Rare Animals and/or Rare Plants

**Old or Potential Records (these records are not displayed on the map)**

Common Name	Scientific Name	Date Last Documented	Location	Habitat Where Last Seen	Animal, Plant, or other	NYS Protected Status
American Burying Beetle	Nicrophorus americanus	1905	Brooklyn		Rare Animal	Endangered

**USGS Quadrangle**

<b>USGS Quadrangle Name</b>
CONEY ISLAND

If your project or action is within or near an area with a rare animal, a permit may be required if the species is listed as endangered or threatened and the department determines the action may be harmful to the species or its habitat.

If your project or action is within or near an area with rare plants and/or significant natural communities, the environmental impacts may need to be addressed.

The presence of a unique geological feature or landform near a project, unto itself, does not trigger a requirement for a NYS DEC permit. Readers are advised, however, that there is the chance that a unique feature may also show in another data layer (ie. a wetland) and thus be subject to permit jurisdiction.

Please refer to the "Need a Permit?" tab for permit information or other authorizations regarding these natural resources.

**Disclaimer:** If you are considering a project or action in, or near, a wetland or a stream, a NYS DEC permit may be required. The Environmental Resources Mapper does not show all natural resources which are regulated by NYS DEC, and for which permits from NYS DEC are required. For example, Regulated Tidal Wetlands, and Wild, Scenic, and Recreational Rivers, are currently not included on the maps.

**FIGURE 4**  
**SENSITIVE RECEPTOR MAP**



<b>PREPARED FOR:</b>	Acadia 3780-3858 Nostrand Avenue, LLC 411 Theodore Fremd Ave., Suite 300, Rye, NY 10580				
	<b>SUBJECT SITE:</b> BCP Site # C224237: "Former" Debbie Cleaners 3800-3808 Nostrand Avenue Brooklyn, NY 11235				
<b>DATE:</b>	June 2018	<b>CNS JOB #:</b>	D196		
<b>DWN BY:</b>	JL	<b>CKD BY:</b>	JM	<b>APRVD BY:</b>	CP

**FIGURE 4**  
**Sensitive Receptor Map**

SCALE: As Noted

**FIGURE 5**  
**COC GROUNDWATER RESULTS FROM RI**

Analytical Parameter	Units	NW5-GW4A 9/29/2017 12' 8" bgs	NYSDEC TOGS 1.1.1 AWQS
<b>Volatiles Organic Compounds</b>			
cis-1,2-Dichloroethene	ppb	24	5
Tetrachloroethene	ppb	270	5
Trichloroethene	ppb	33	5

Analytical Parameter	Units	NW2-GW11A 9/29/2017 12' 1.5" bgs	NYSDEC TOGS 1.1.1 AWQS
<b>Volatiles Organic Compounds</b>			
cis-1,2-Dichloroethene	ppb	250	5
Tetrachloroethene	ppb	1,100	5
Trichloroethene	ppb	140	5

Analytical Parameter	Units	TW6-GW1A 9/26/2017 11' 7.5" bgs	NYSDEC TOGS 1.1.1 AWQS
<b>Volatiles Organic Compounds</b>			
cis-1,2-Dichloroethene	ppb	20	5
Tetrachloroethene	ppb	25	5
Trichloroethene	ppb	8.9	5

Analytical Parameter	Units	TW7-GW1A 9/26/2017 11' 4.2" bgs	NYSDEC TOGS 1.1.1 AWQS
<b>Volatiles Organic Compounds</b>			
Tetrachloroethene	ppb	7.7	5

Analytical Parameter	Units	TW5-GW1A 9/26/2017 12' 4.7" bgs	NYSDEC TOGS 1.1.1 AWQS
<b>Volatiles Organic Compounds</b>			
cis-1,2-Dichloroethene	ppb	60	5
Tetrachloroethene	ppb	320	5
Trichloroethene	ppb	40	5

Analytical Parameter	Units	NW4-GW4A 9/26/2017 3' 0.3" bgs	NYSDEC TOGS 1.1.1 AWQS
<b>Volatiles Organic Compounds</b>			
Tetrachloroethene	ppb	49	5
Trichloroethene	ppb	8.9	5

Analytical Parameter	Units	NW11-GW1A 9/29/2017 9' 7.9" bgs	NYSDEC TOGS 1.1.1 AWQS
<b>Volatiles Organic Compounds</b>			
Tetrachloroethene	ppb	33	5

Analytical Parameter	Units	TW4-GW1A 9/26/2017 13' 1.6" bgs	NYSDEC TOGS 1.1.1 AWQS
<b>Volatiles Organic Compounds</b>			
cis-1,2-Dichloroethene	ppb	65	5
Tetrachloroethene	ppb	25	5
Trichloroethene	ppb	13	5

Analytical Parameter	Units	TW9-GW1A 9/28/2017 3' 1.7" bgs	NYSDEC TOGS 1.1.1 AWQS
<b>Volatiles Organic Compounds</b>			
Tetrachloroethene	ppb	280	5
Trichloroethene	ppb	28	5

Analytical Parameter	Units	NW7-GW1A 9/28/2017 3' 2.7" bgs	NYSDEC TOGS 1.1.1 AWQS
<b>Volatiles Organic Compounds</b>			
Tetrachloroethene	ppb	80	5
Trichloroethene	ppb	6.9	5

Analytical Parameter	Units	TW10-GW1A 9/28/2017 3' 0.6" bgs	NYSDEC TOGS 1.1.1 AWQS
<b>Volatiles Organic Compounds</b>			
Tetrachloroethene	ppb	22	5

Analytical Parameter	Units	TW12-GW1A 9/29/2017 3' 0.4" bgs	NYSDEC TOGS 1.1.1 AWQS
<b>Volatiles Organic Compounds</b>			
Tetrachloroethene	ppb	15	5

Analytical Parameter	Units	TW8-GW1A 9/28/2017 3' 1.5" bgs	NYSDEC TOGS 1.1.1 AWQS
<b>Volatiles Organic Compounds</b>			
cis-1,2-Dichloroethene	ppb	5.7	5
Tetrachloroethene	ppb	34	5

Analytical Parameter	Units	NW10-GW1A 9/29/2017 3' 1.7" bgs	NYSDEC TOGS 1.1.1 AWQS
<b>Volatiles Organic Compounds</b>			
Tetrachloroethene	ppb	22	5

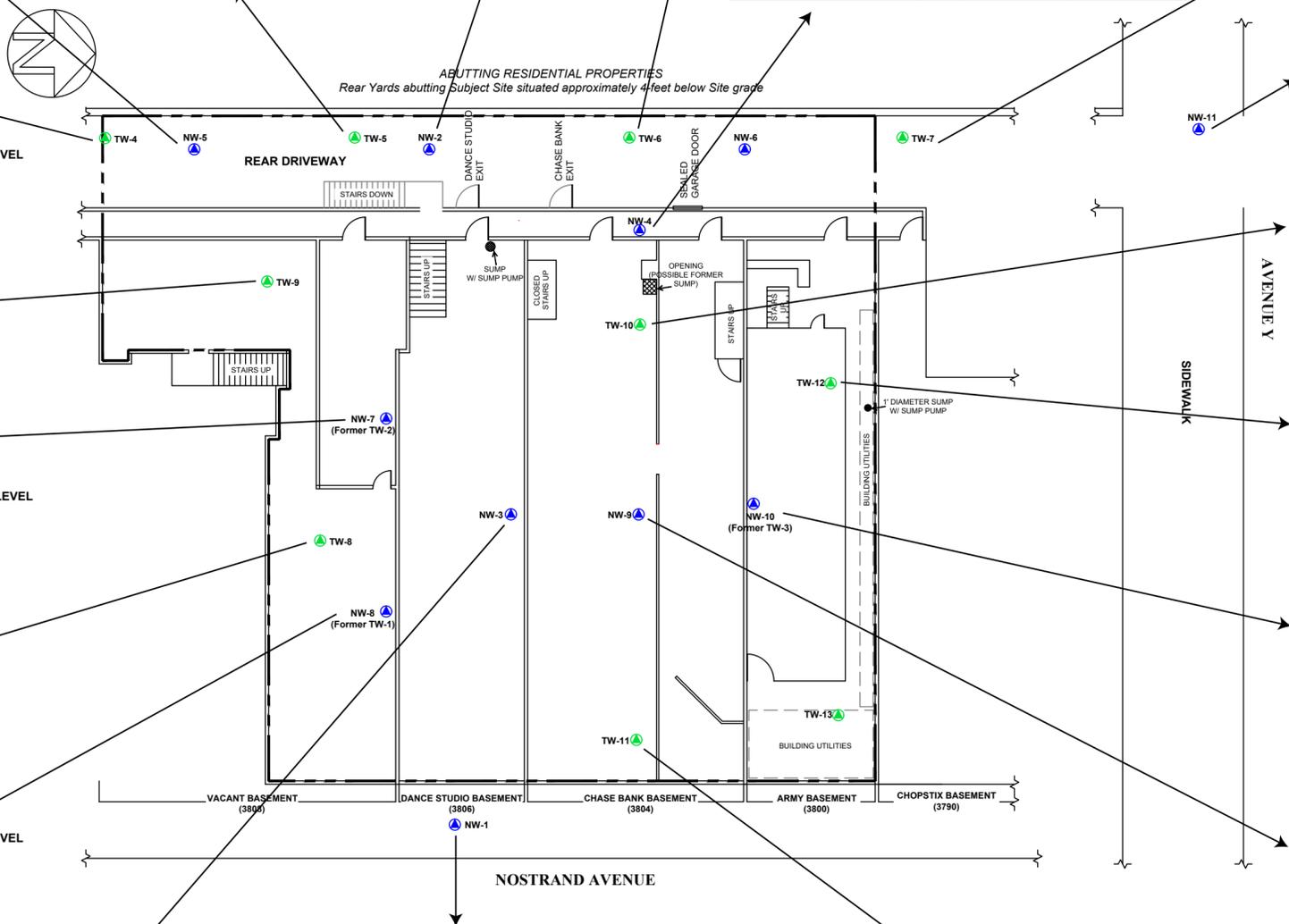
Analytical Parameter	Units	NW8-GW1A 9/28/2017 3' 0.9" bgs	NYSDEC TOGS 1.1.1 AWQS
<b>Volatiles Organic Compounds</b>			
Tetrachloroethene	ppb	52	5

Analytical Parameter	Units	NW9-GW1A 9/28/2017 3' 1.2" bgs	NYSDEC TOGS 1.1.1 AWQS
<b>Volatiles Organic Compounds</b>			
Tetrachloroethene	ppb	24	5

Analytical Parameter	Units	NW3-GW11A 10/26/2017 3' 3.1" bgs	NYSDEC TOGS 1.1.1 AWQS
<b>Volatiles Organic Compounds</b>			
Tetrachloroethene	ppb	20	5
Trichloroethene	ppb	5.6	5

Analytical Parameter	Units	NW1-GW11A 9/26/2017 11' 8.8" bgs	NYSDEC TOGS 1.1.1 AWQS
<b>Volatiles Organic Compounds</b>			
cis-1,2-Dichloroethene	ppb	12	5
Tetrachloroethene	ppb	300	5
Trichloroethene	ppb	14	5

Analytical Parameter	Units	TW11-GW1A 9/28/2017 3' 0.9" bgs	NYSDEC TOGS 1.1.1 AWQS
<b>Volatiles Organic Compounds</b>			
Trichloroethene	ppb	5.6	5



**CNS ENVIRONMENTAL**  
A REAL ESTATE SERVICES COMPANY  
208 NEWTOWN ROAD  
PLAINVIEW, NY 11803

**FIGURE 5**  
RI GROUNDWATER VOC RESULTS  
exceeding TOGS Values

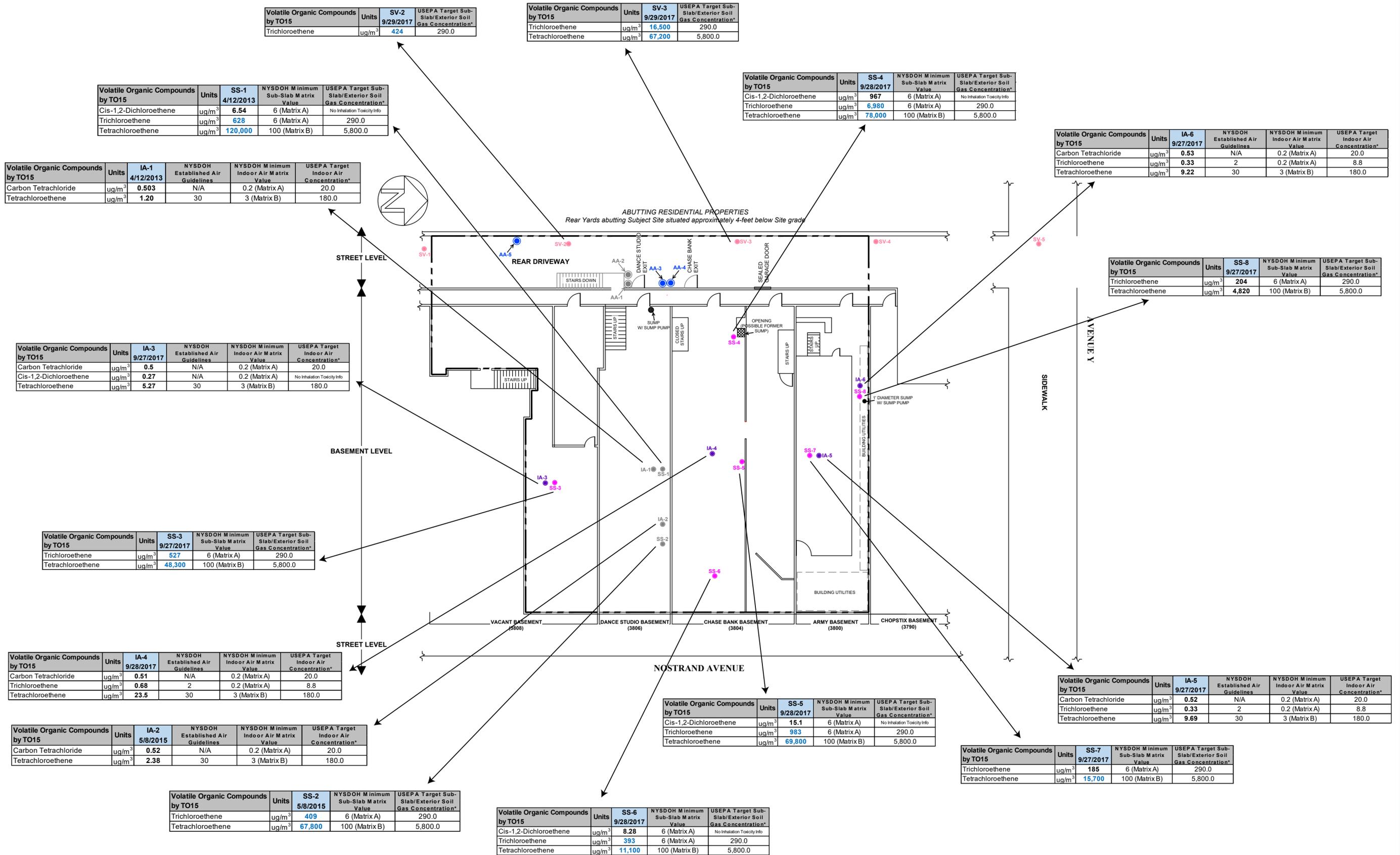
SCALE: 1" = 16'

<b>PREPARED FOR:</b>	ACADIA 3780-3858 NOSTRAND AVENUE, LLC 411 THEODORE FREMD AVE., SUITE 300, RYE, NY 10580				
<b>SUBJECT SITE:</b>	"FORMER" DEBBIE CLEANERS 3800-3808 NOSTRAND AVENUE BROOKLYN, NY 11235 BCP SITE # C224237				
<b>DATE:</b>	DECEMBER 2017	<b>CNS JOB #:</b>	D196		
<b>DWN BY:</b>	JL	<b>CKD BY:</b>	WC	<b>APPRVD BY:</b>	CP

<b>LEGEND:</b>	<p>--- = SITE BOUNDARY</p> <p>▲ = PERMANENT GROUNDWATER MONITORING WELL</p> <p>▲ = TEMPORARY GROUNDWATER MONITORING WELL</p>				
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<b>NOTES:</b>					
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**FIGURE 6**  
**COC SOIL VAPOR RESULTS FROM RI**



**PREPARED FOR:** ACADIA 3780-3858 NOSTRAND AVENUE, LLC  
411 THEODORE FREMD AVE., SUITE 300, RYE, NY 10580

**SUBJECT SITE:** "FORMER" DEBBIE CLEANERS  
3800-3808 NOSTRAND AVENUE  
BROOKLYN, NY 11235  
BCP SITE # C224237

**DATE:** DECEMBER 2017  
**CNS JOB #:** D196

**DWN BY:** JL  
**CKD BY:** WC  
**APPRVD BY:** CP

**FIGURE 6**  
RI SOIL VAPOR & INDOOR AIR RESULTS  
exceeding NYSDOH &/or USEPA Values

**SCALE:** 1" = 16'

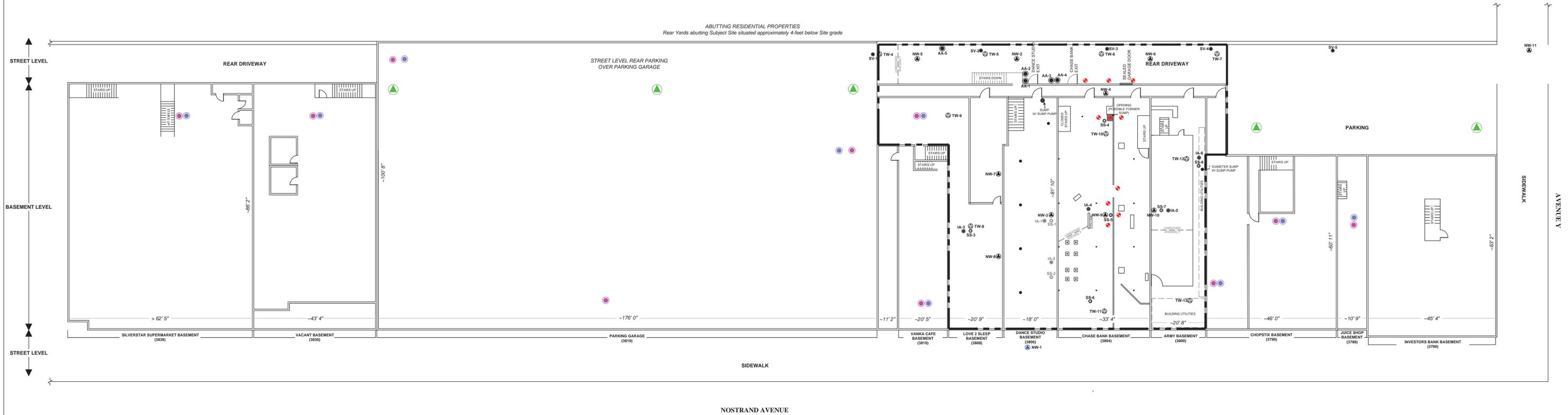
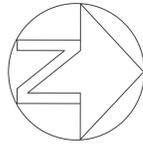
**LEGEND:**

- = SITE BOUNDARY
- = SUB-SLAB SOIL VAPOR SAMPLE LOCATION
- = STREET GRADE SOIL VAPOR SAMPLE LOCATION
- = INDOOR AIR SAMPLE LOCATION
- = OUTDOOR AIR SAMPLE LOCATION
- = SAMPLES COLLECTED PRIOR TO RI (SUB-SLAB, INDOOR AIR AND/OR OUTDOOR AIR)

**NOTES:**

**FIGURE 7**

**PROPOSED SUPPLEMENTAL INVESTIGATION SAMPLE LOCATIONS**



 208 NEWTOWN ROAD PLAINVIEW, NY 11803 <b>FIGURE 7</b> OVERALL SITE PLAN PROPOSED SRI SAMPLE LOCATIONS SCALE: 1" = 16'	<b>PREPARED FOR:</b> ACADIA 3780-3808 NOSTRAND AVENUE, LLC 411 THEODORE FREMD AVE., SUITE 300, RYE, NY 10580
	<b>SUBJECT SITE:</b> "FORMER" DEBBIE CLEANERS 3800-3808 NOSTRAND AVENUE BROOKLYN, NY 11235 BCP SITE # C224237
<b>DATE:</b> JUNE 2018 <b>DWN BY:</b> JL	<b>CNS JOB #:</b> D196 <b>CKD BY:</b> MH <b>APPRVD BY:</b> CP

LEGEND:	
= STREET LEVEL BCP SITE BOUNDARY = ANOMALY IDENTIFIED VIA RI GPR STUDY = RI PERMANENT GROUNDWATER MONITORING WELL = RI TEMPORARY GROUNDWATER MONITORING WELL	= SV = RI STREET GRADE SOIL VAPOR SAMPLE LOCATION = SS = RI SUB-SLAB SOIL VAPOR SAMPLE LOCATION = IA = RI INDOOR AIR SAMPLE LOCATION = AA = RI OUTDOOR AMBIENT AIR SAMPLE LOCATION = PRE-RI SVI SAMPLE LOCATION (SUB-SLAB, INDOOR AIR OR OUTDOOR AIR)
= PROPOSED SUB-SLAB SOIL VAPOR SAMPLE LOCATION = PROPOSED INDOOR AIR SAMPLE LOCATION = PROPOSED TEMPORARY GROUNDWATER MONITORING WELL = PROPOSED SOIL SAMPLE LOCATION	

NOTES:
1. ALL INTERIOR DIMENSIONS TO BE FIELD VERIFIED.
2. LOCATIONS OF BUILDING CHARACTERISTICS (DRAINS, SUMPS, UTILITIES, CRACKS/PERFORATIONS, HVAC, VENTILATION) TO BE FIELD VERIFIED.
3. BASED UPON THE LOCATION OF BUILDING CHARACTERISTICS, CNS MAY INSTALL ADDITIONAL SUB-SLAB SOIL VAPOR POINTS WITHIN THE BASEMENT LEVEL IF PREFERENTIAL PATHWAYS ARE IDENTIFIED.

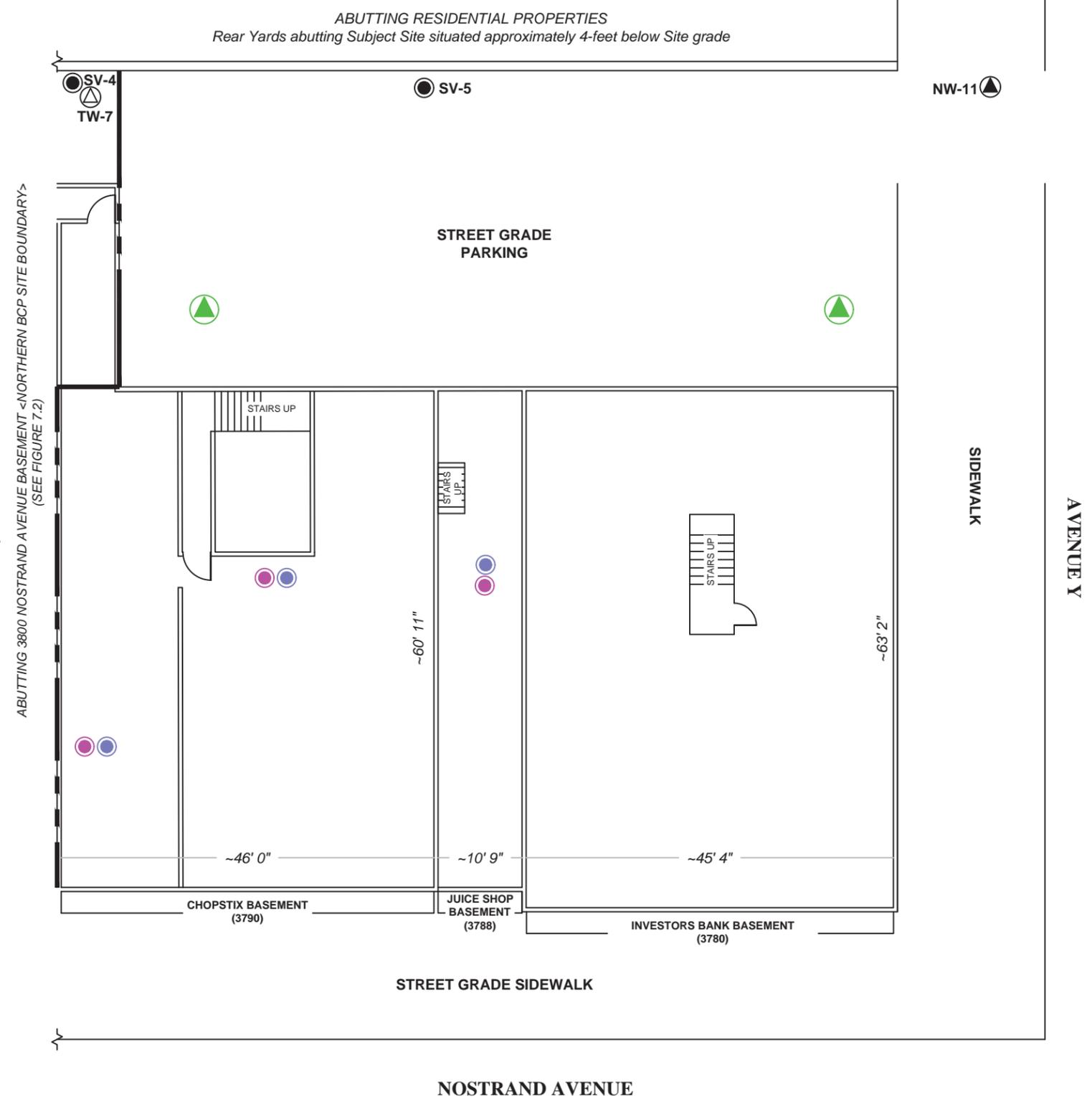
**NOTES:**

1. ALL INTERIOR DIMENSIONS TO BE FIELD VERIFIED.
2. LOCATIONS OF BUILDING CHARACTERISTICS (DRAINS, SUMPS, UTILITIES, CRACKS/PERFORATIONS, HVAC, VENTILATION) TO BE FIELD VERIFIED.
3. BASED UPON THE LOCATION OF BUILDING CHARACTERISTICS, CNS MAY INSTALL ADDITIONAL SUB-SLAB SOIL VAPOR POINTS WITHIN THE BASEMENT LEVEL IF PREFERENTIAL PATHWAYS ARE IDENTIFIED.

**LEGEND:**

- = BASEMENT BCP SITE BOUNDARY
- ▲ = RI PERMANENT GROUNDWATER MONITORING WELL
- △ = RI TEMPORARY GROUNDWATER MONITORING WELL
- SV = RI STREET GRADE SOIL VAPOR SAMPLE LOCATION
- ▲ = PROPOSED TEMPORARY GROUNDWATER MONITORING WELL
- = PROPOSED SUB-SLAB SOIL VAPOR SAMPLE LOCATION
- = PROPOSED INDOOR AIR SAMPLE LOCATION

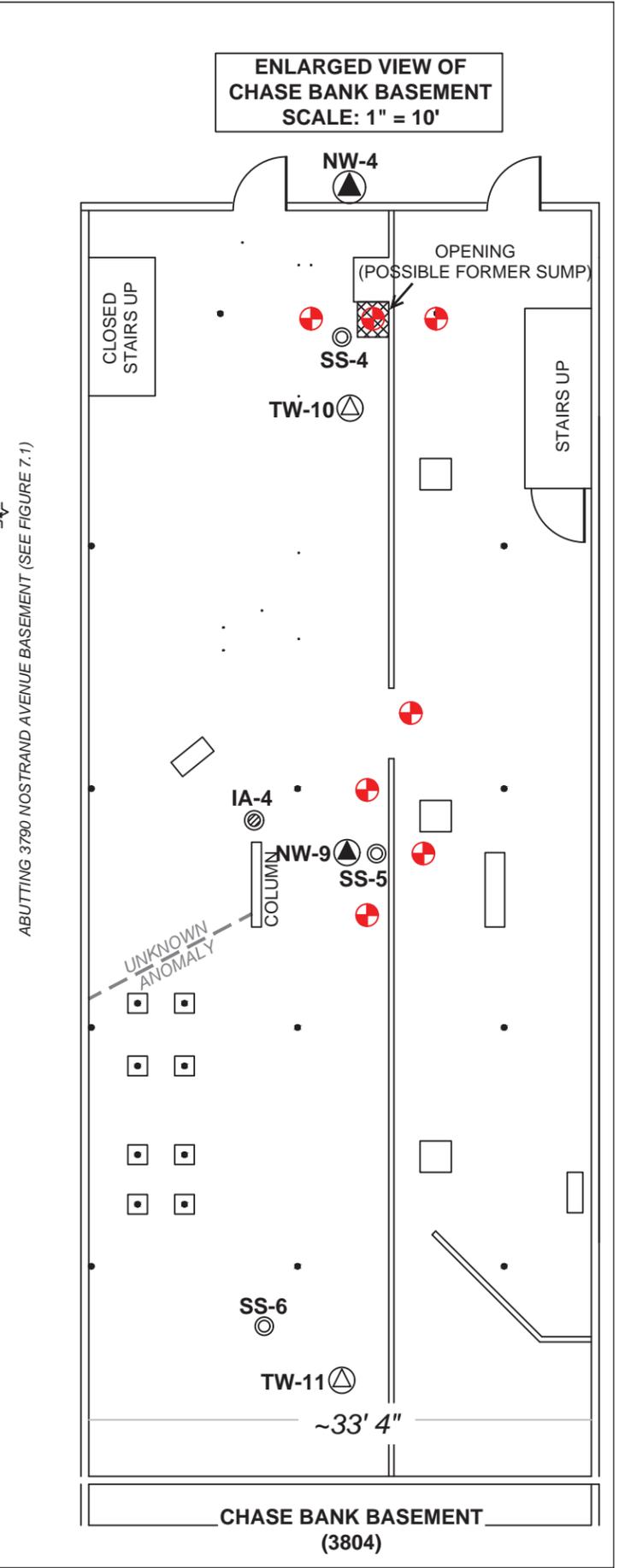
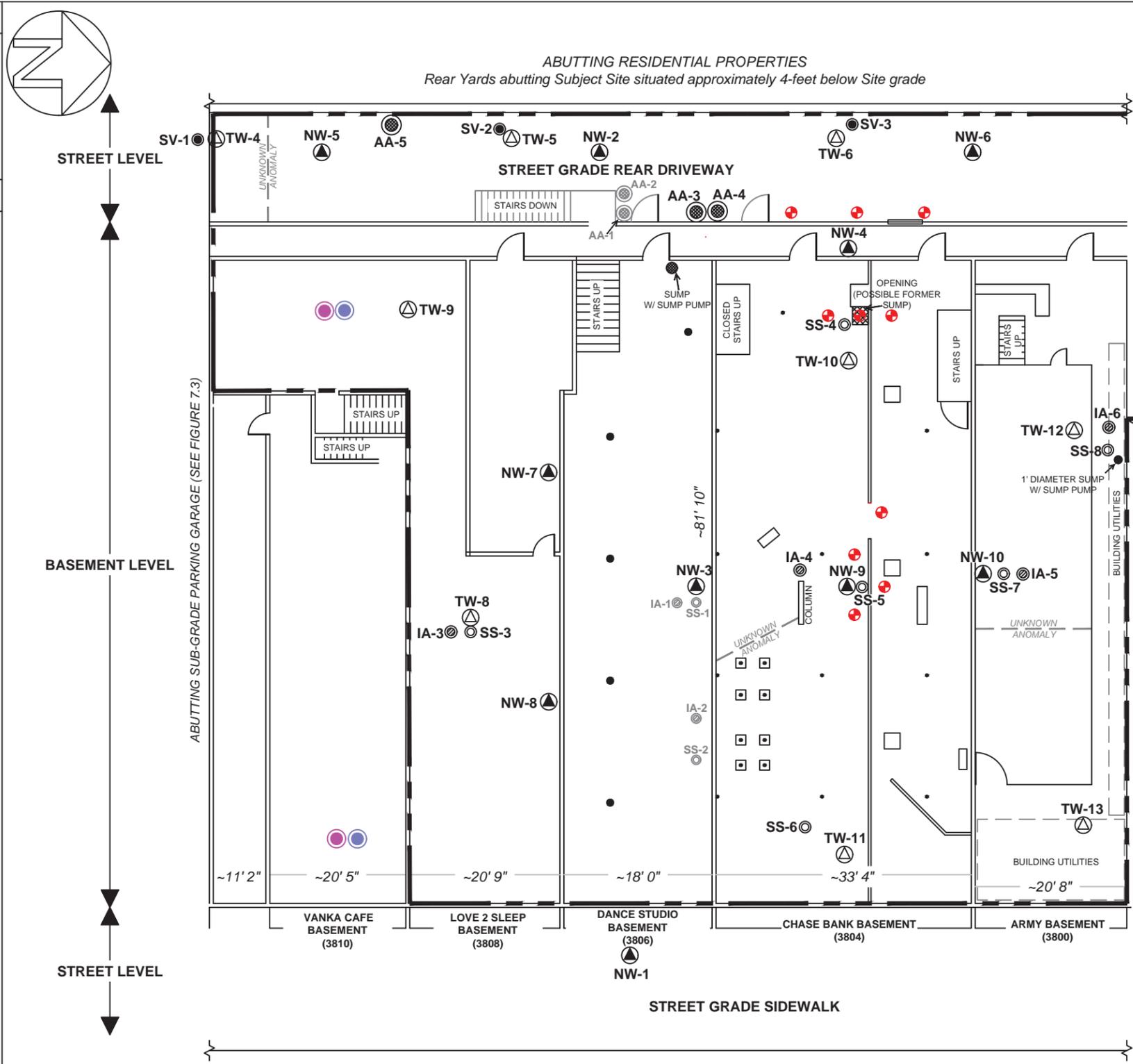
 208 NEWTOWN ROAD PLAINVIEW, NY 11803	<b>PREPARED FOR:</b> ACADIA 3780-3858 NOSTRAND AVENUE, LLC 411 THEODORE FREMD AVE., SUITE 300, RYE, NY 10580
	<b>SUBJECT SITE:</b> "FORMER" DEBBIE CLEANERS 3800-3808 NOSTRAND AVENUE BROOKLYN, NY 11235 BCP SITE # C224237
<b>FIGURE 7.1</b> 3780-3790 NOSTRAND AVENUE PROPOSED SRI SAMPLE LOCATIONS	<b>DATE:</b> JUNE 2018 <b>CNS JOB #:</b> D196
<b>SCALE:</b> 1" = 16'	<b>DWN BY:</b> JL <b>CKD BY:</b> MH <b>APPRVD BY:</b> CP



**NOTES:**

1. ALL INTERIOR DIMENSIONS TO BE FIELD VERIFIED.
2. LOCATIONS OF BUILDING CHARACTERISTICS (DRAINS, SUMPS, UTILITIES, CRACKS/PERFORATIONS, HVAC, VENTILATION) TO BE FIELD VERIFIED.
3. BASED UPON THE LOCATION OF BUILDING CHARACTERISTICS, CNS MAY INSTALL ADDITIONAL SUB-SLAB SOIL VAPOR POINTS WITHIN THE BASEMENT LEVEL IF PREFERENTIAL PATHWAYS ARE IDENTIFIED.

- LEGEND:**
- = BASEMENT BCP SITE BOUNDARY
  - = ANOMALY IDENTIFIED VIA RI GPR STUDY
  - ▲ = RI PERMANENT GROUNDWATER MONITORING WELL
  - △ = RI TEMPORARY GROUNDWATER MONITORING WELL
  - SV = RI STREET GRADE SOIL VAPOR SAMPLE LOCATION
  - SS = RI SUB-SLAB SOIL VAPOR SAMPLE LOCATION
  - ⊙ IA = RI INDOOR AIR SAMPLE LOCATION
  - ⊙ AA = RI OUTDOOR AMBIENT AIR SAMPLE LOCATION
  - = PRE-RI SVI SAMPLE LOCATION (SUB-SLAB, INDOOR AIR OR OUTDOOR AIR)
  - = PROPOSED SUB-SLAB SOIL VAPOR SAMPLE LOCATION
  - = PROPOSED INDOOR AIR SAMPLE LOCATION
  - = PROPOSED SOIL SAMPLE LOCATION



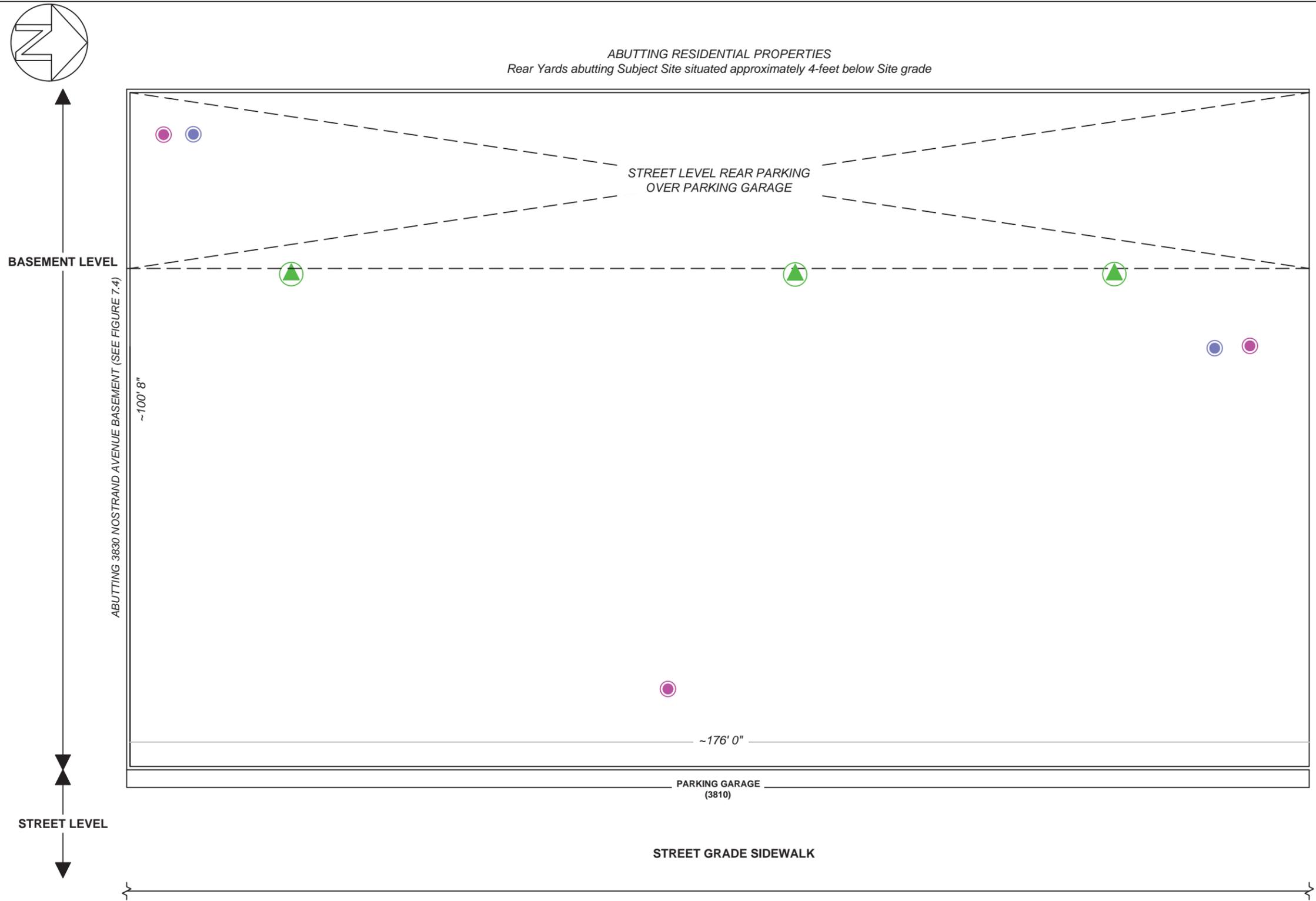
<p><b>CNS ENVIRONMENTAL</b> A REAL ESTATE SERVICES COMPANY 208 NEWTOWN ROAD PLAINVIEW, NY 11803</p>	<p><b>PREPARED FOR:</b></p> <p>ACADIA 3780-3858 NOSTRAND AVENUE, LLC 411 THEODORE FREMD AVE., SUITE 300, RYE, NY 10580</p>
	<p><b>SUBJECT SITE:</b></p> <p>"FORMER" DEBBIE CLEANERS 3800-3808 NOSTRAND AVENUE BROOKLYN, NY 11235 BCP SITE # C224237</p>
<p><b>FIGURE 7.2</b></p> <p>3800-3810 NOSTRAND AVENUE PROPOSED SRI SAMPLE LOCATIONS</p>	<p><b>DATE:</b> JUNE 2018</p> <p><b>CNS JOB #:</b> D196</p>
<p><b>SCALE:</b> 1" = 16'</p>	<p><b>DWN BY:</b> JL CKD BY: MH</p> <p><b>APPRVD BY:</b> CP</p>

**NOTES:**

1. ALL INTERIOR DIMENSIONS TO BE FIELD VERIFIED.
2. LOCATIONS OF BUILDING CHARACTERISTICS (DRAINS, SUMPS, UTILITIES, CRACKS/PERFORATIONS, HVAC, VENTILATION) TO BE FIELD VERIFIED.
3. BASED UPON THE LOCATION OF BUILDING CHARACTERISTICS, CNS MAY INSTALL ADDITIONAL SUB-SLAB SOIL VAPOR POINTS WITHIN THE BASEMENT LEVEL IF PREFERENTIAL PATHWAYS ARE IDENTIFIED.

**LEGEND:**

- = PROPOSED SUB-SLAB SOIL VAPOR SAMPLE LOCATION
- = PROPOSED INDOOR AIR SAMPLE LOCATION
- = PROPOSED TEMPORARY MONITORING WELL LOCATION



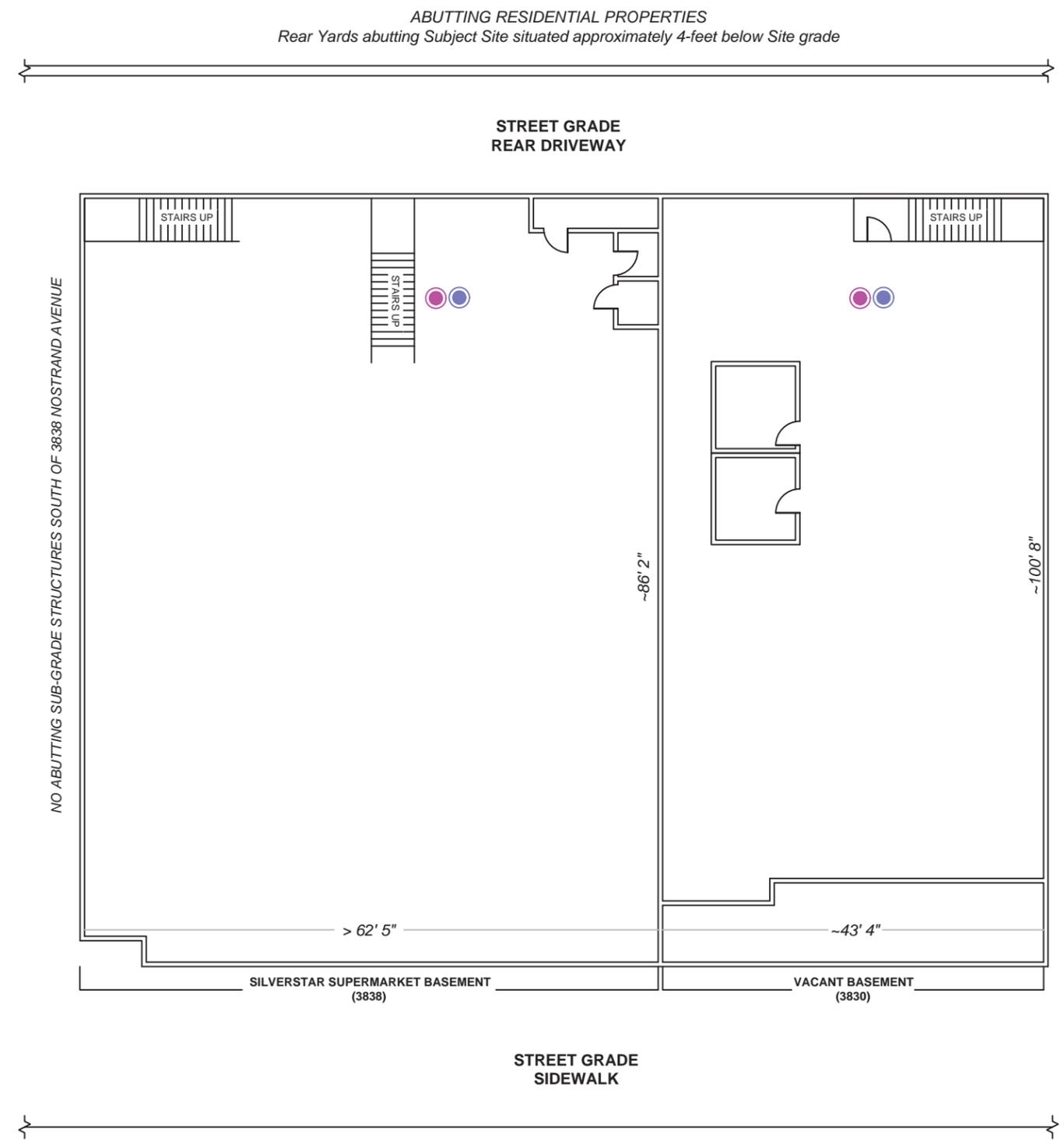
 208 NEWTOWN ROAD PLAINVIEW, NY 11803 <b>FIGURE 7.3</b> 3810 NOSTRAND AVE. (GARAGE) PROPOSED SRI SAMPLE LOCATIONS	<b>PREPARED FOR:</b> ACADIA 3780-3858 NOSTRAND AVENUE, LLC 411 THEODORE FREMD AVE., SUITE 300, RYE, NY 10580
	<b>SUBJECT SITE:</b> "FORMER" DEBBIE CLEANERS 3800-3808 NOSTRAND AVENUE BROOKLYN, NY 11235 BCP SITE # C224237
<b>DATE:</b> JUNE 2018 <b>CNS JOB #:</b> D196	<b>APPRVD BY:</b> CP
<b>DWN BY:</b> JL <b>CKD BY:</b> MH	<b>SCALE:</b> 1" = 16'

**NOTES:**

1. ALL INTERIOR DIMENSIONS TO BE FIELD VERIFIED.
2. LOCATIONS OF BUILDING CHARACTERISTICS (DRAINS, SUMPS, UTILITIES, CRACKS/PERFORATIONS, HVAC, VENTILATION) TO BE FIELD VERIFIED.
3. BASED UPON THE LOCATION OF BUILDING CHARACTERISTICS, CNS MAY INSTALL ADDITIONAL SUB-SLAB SOIL VAPOR POINTS WITHIN THE BASEMENT LEVEL IF PREFERENTIAL PATHWAYS ARE IDENTIFIED.

**LEGEND:**

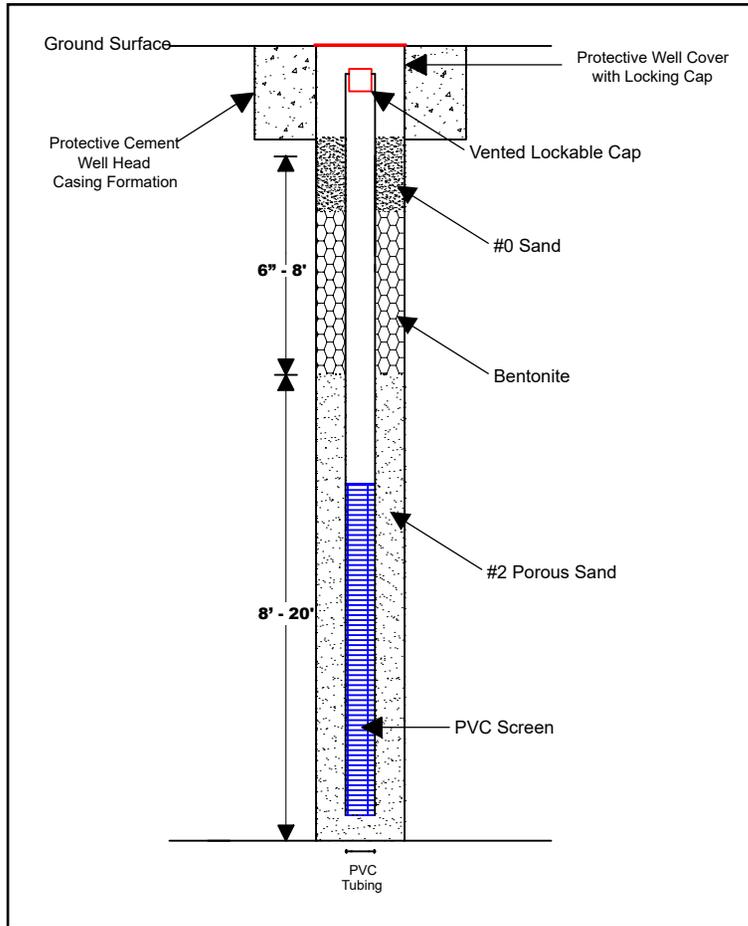
-  = PROPOSED SUB-SLAB SOIL VAPOR SAMPLE LOCATION
-  = PROPOSED INDOOR AIR SAMPLE LOCATION



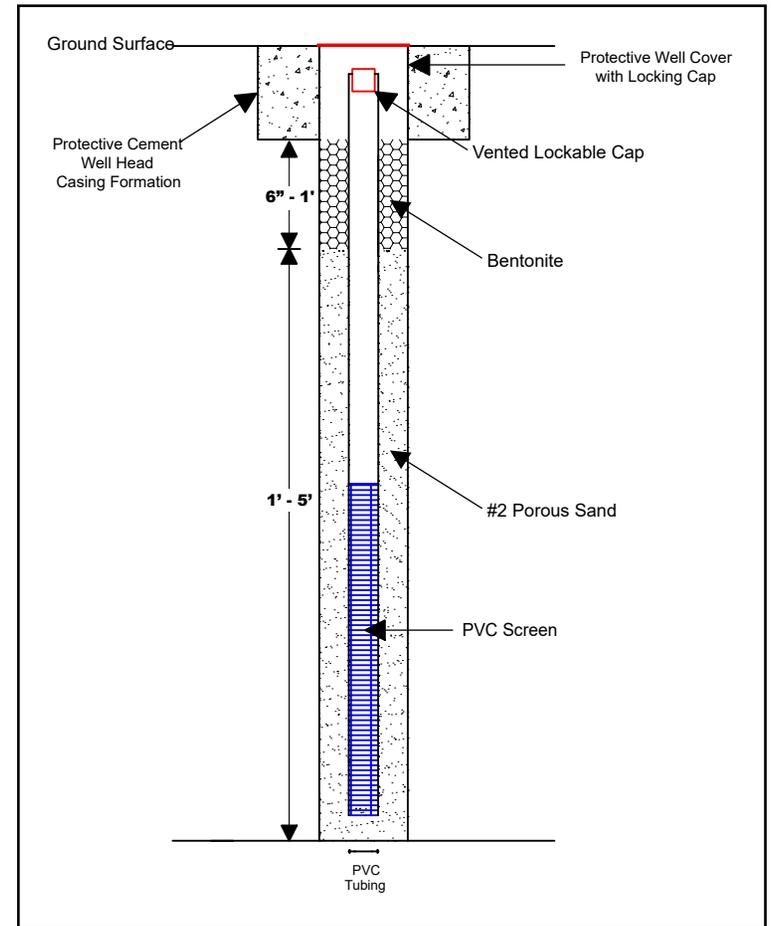
 208 NEWTOWN ROAD PLAINVIEW, NY 11803	<b>PREPARED FOR:</b> ACADIA 3780-3858 NOSTRAND AVENUE, LLC 411 THEODORE FREMD AVE., SUITE 300, RYE, NY 10580
	<b>SUBJECT SITE:</b> "FORMER" DEBBIE CLEANERS 3800-3808 NOSTRAND AVENUE BROOKLYN, NY 11235 BCP SITE # C224237
<b>FIGURE 7.4</b> 3830-3838 NOSTRAND AVENUE PROPOSED SRI SAMPLE LOCATIONS	<b>DATE:</b> MAY 2018 <b>CNS JOB #:</b> D196
<b>SCALE:</b> 1" = 16'	<b>DWN BY:</b> JL <b>CKD BY:</b> MH <b>APPRVD BY:</b> CP

**FIGURE 8**  
**MONITORING WELL CONSTRUCTION DRAWING**

### STREET LEVEL GRADE MONITORING WELL



### BASEMENT LEVEL GRADE MONITORING WELL



**PREPARED FOR:** ACADIA 3758-3858 NOSTRAND AVENUE, LLC  
411 THEODORE FREMD AVE., SUITE 300, RYE, NY 10580

**SUBJECT SITE:** "FORMER" DEBBIE CLEANERS  
3800-3808 NOSTRAND AVENUE  
BROOKLYN, NY 11235

## FIGURE 8

MONITORING WELL CONSTRUCTION

<b>DATE:</b>	JUNE 2016	<b>CNS JOB #:</b>	D196
<b>DWN BY:</b>	JL	<b>CKD BY:</b>	WC
		<b>APPRVD BY:</b>	CP

**SCALE:** NTS

**LEGEND:**

-  = #0 SAND
-  = BENTONITE
-  = #2 POROUS SAND OVER PVC SCHEDULE 40 TUBING

**NOTES:**

**TABLE 1**  
**SUMMARY OF RI SOIL QUALITY DATA**

**Table 1: Summary of RI Soil Quality Data**  
Remedial Investigation of "Former" Debbie Cleaners  
BCP Site # C224237

Sample ID: Depth(s) of Sample: Sampling Date: Medium:	TW4-S1A 12' bgs 9/18/2017 Soil	TW4-S2A 15' bgs 9/18/2017 Soil	TW5-S1A 14' bgs 9/18/2017 Soil	TW6-S1A 11' 6" bgs 9/18/2017 Soil	TW7-S1A 11' bgs 9/18/2017 Soil	TW8-S1A 2' 6" bgs 9/20/2017 Soil	TW9-S1A 3' bgs 9/20/2017 Soil	TW10-S1A 2' 6" bgs 9/21/2017 Soil	NW9-S1A 2' 6" bgs 9/21/2017 Soil	TW11-S1A 2' 6" bgs 9/21/2017 Soil	SBD-01A 2' 6" bgs 9/21/2017 Soil	TW12-S1A 2' 6" bgs 9/22/2017 Soil	TW13-S1A 2' 6" bgs 9/25/2017 Soil	NW11-S1A 9' bgs 9/22/2017 Soil	Protection of Groundwater SCO	Commercial SCO	
<b>Volatiles Organic Compounds</b>																	
1,1,1-Trichloroethane	ppm	< 0.0061	< 0.0067	< 0.0038	< 0.0075	< 0.0065	< 0.0065	< 0.0051	< 0.006	< 0.0055	< 0.0095	< 0.0076	< 0.0038	< 0.0048	< 0.0065	0.68	500
1,1,2,2-Tetrachloroethane	ppm	< 0.0061	< 0.0067	< 0.0038	< 0.0075	< 0.0065	< 0.0065	< 0.0051	< 0.006	< 0.0055	< 0.0095	< 0.0076	< 0.0038	< 0.0048	< 0.0065	N/A	N/A
1,1,2-Trichloroethane	ppm	< 0.0061	< 0.0067	< 0.0038	< 0.0075	< 0.0065	< 0.0065	< 0.0051	< 0.006	< 0.0055	< 0.0095	< 0.0076	< 0.0038	< 0.0048	< 0.0065	N/A	N/A
1,1-Dichloroethane	ppm	< 0.0061	< 0.0067	< 0.0038	< 0.0075	< 0.0065	< 0.0065	< 0.0051	< 0.006	< 0.0055	< 0.0095	< 0.0076	< 0.0038	< 0.0048	< 0.0065	0.27	240
1,1-Dichloroethene	ppm	< 0.0061	< 0.0067	< 0.0038	< 0.0075	< 0.0065	< 0.0065	< 0.0051	< 0.006	< 0.0055	< 0.0095	< 0.0076	< 0.0038	< 0.0048	< 0.0065	0.33	500
1,2,3-Trichlorobenzene	ppm	< 0.0061	< 0.0067	< 0.0038	< 0.0075	< 0.0065	< 0.0065	< 0.0051	< 0.006	< 0.0055	< 0.0095	< 0.0076	< 0.0038	< 0.0048	< 0.0065	N/A	N/A
1,2,4-Trichlorobenzene	ppm	< 0.0061	< 0.0067	< 0.0038	< 0.0075	< 0.0065	< 0.0065	< 0.0051	< 0.006	< 0.0055	< 0.0095	< 0.0076	< 0.0038	< 0.0048	< 0.0065	N/A	N/A
1,2-Dibromo-3-chloropropane	ppm	< 0.0061	< 0.0067	< 0.0038	< 0.0075	< 0.0065	< 0.0065	< 0.0051	< 0.006	< 0.0055	< 0.0095	< 0.0076	< 0.0038	< 0.0048	< 0.0065	N/A	N/A
1,2-Dibromoethane	ppm	< 0.0061	< 0.0067	< 0.0038	< 0.0075	< 0.0065	< 0.0065	< 0.0051	< 0.006	< 0.0055	< 0.0095	< 0.0076	< 0.0038	< 0.0048	< 0.0065	N/A	N/A
1,2-Dichlorobenzene	ppm	< 0.0061	< 0.0067	< 0.0038	< 0.0075	< 0.0065	< 0.0065	< 0.0051	< 0.006	< 0.0055	< 0.0095	< 0.0076	< 0.0038	< 0.0048	< 0.0065	1.1	500
1,2-Dichloroethane	ppm	< 0.0061	< 0.0067	< 0.0038	< 0.0075	< 0.0065	< 0.0065	< 0.0051	< 0.006	< 0.0055	< 0.0095	< 0.0076	< 0.0038	< 0.0048	< 0.0065	0.02	30
1,2-Dichloropropane	ppm	< 0.0061	< 0.0067	< 0.0038	< 0.0075	< 0.0065	< 0.0065	< 0.0051	< 0.006	< 0.0055	< 0.0095	< 0.0076	< 0.0038	< 0.0048	< 0.0065	N/A	N/A
1,3-Dichlorobenzene	ppm	< 0.0061	< 0.0067	< 0.0038	< 0.0075	< 0.0065	< 0.0065	< 0.0051	< 0.006	< 0.0055	< 0.0095	< 0.0076	< 0.0038	< 0.0048	< 0.0065	2.4	280
1,4-Dichlorobenzene	ppm	< 0.0061	< 0.0067	< 0.0038	< 0.0075	< 0.0065	< 0.0065	< 0.0051	< 0.006	< 0.0055	< 0.0095	< 0.0076	< 0.0038	< 0.0048	< 0.0065	1.8	130
1,4-dioxane	ppm	< 0.091	< 0.1	< 0.057	< 0.1	< 0.097	< 0.098	< 0.077	< 0.09	< 0.082	< 0.1	< 0.1	< 0.057	< 0.072	< 0.097	0.1	130
2-Hexanone	ppm	< 0.03	< 0.034	< 0.019	< 0.038	< 0.032	< 0.033	< 0.026	< 0.03	< 0.027	< 0.048	< 0.038	< 0.019	< 0.024	< 0.032	N/A	N/A
4-Methyl-2-pentanone	ppm	< 0.03	< 0.034	< 0.019	< 0.038	< 0.032	< 0.033	< 0.026	< 0.03	< 0.027	< 0.048	< 0.038	< 0.019	< 0.024	< 0.032	N/A	N/A
Acetone	ppm	<b>0.24</b>	<b>0.047</b>	<b>0.0092</b>	<b>0.0078</b>	<b>0.039</b>	<b>0.095</b>	<b>0.0076</b>	<b>0.01</b>	<b>0.011</b>	< 0.048	<b>0.01</b>	< 0.019	<b>0.019</b>	<b>0.0083</b>	0.05	500
Benzene	ppm	< 0.0061	< 0.0067	< 0.0038	< 0.0075	< 0.0065	< 0.0065	< 0.0051	< 0.006	< 0.0055	< 0.0095	< 0.0076	< 0.0038	< 0.0048	< 0.0065	0.06	44
Bromochloromethane	ppm	< 0.0061	< 0.0067	< 0.0038	< 0.0075	< 0.0065	< 0.0065	< 0.0051	< 0.006	< 0.0055	< 0.0095	< 0.0076	< 0.0038	< 0.0048	< 0.0065	N/A	N/A
Bromodichloromethane	ppm	< 0.0061	< 0.0067	< 0.0038	< 0.0075	< 0.0065	< 0.0065	< 0.0051	< 0.006	< 0.0055	< 0.0095	< 0.0076	< 0.0038	< 0.0048	< 0.0065	N/A	N/A
Bromoform	ppm	< 0.0061	< 0.0067	< 0.0038	< 0.0075	< 0.0065	< 0.0065	< 0.0051	< 0.006	< 0.0055	< 0.0095	< 0.0076	< 0.0038	< 0.0048	< 0.0065	N/A	N/A
Bromomethane	ppm	< 0.0061	< 0.0067	< 0.0038	< 0.0075	< 0.0065	< 0.0065	< 0.0051	< 0.006	< 0.0055	< 0.0095	< 0.0076	< 0.0038	< 0.0048	< 0.0065	N/A	N/A
Carbon Disulfide	ppm	<b>0.0039</b>	< 0.0067	< 0.0038	< 0.0075	< 0.0065	< 0.0065	< 0.0051	< 0.006	< 0.0055	< 0.0095	< 0.0076	< 0.0038	< 0.0048	< 0.0065	N/A	N/A
Carbon tetrachloride	ppm	< 0.0061	< 0.0067	< 0.0038	< 0.0075	< 0.0065	< 0.0065	< 0.0051	< 0.006	< 0.0055	< 0.0095	< 0.0076	< 0.0038	< 0.0048	< 0.0065	0.76	22
Chlorobenzene	ppm	< 0.0061	< 0.0067	< 0.0038	< 0.0075	< 0.0065	< 0.0065	< 0.0051	< 0.006	< 0.0055	< 0.0095	< 0.0076	< 0.0038	< 0.0048	< 0.0065	1.1	500
Chloroethane	ppm	< 0.0061	< 0.0067	< 0.0038	< 0.0075	< 0.0065	< 0.0065	< 0.0051	< 0.006	< 0.0055	< 0.0095	< 0.0076	< 0.0038	< 0.0048	< 0.0065	N/A	N/A
Chloroform	ppm	< 0.0061	< 0.0067	< 0.0038	< 0.0075	< 0.0065	< 0.0065	< 0.0051	< 0.006	< 0.0055	< 0.0095	< 0.0076	< 0.0038	< 0.0048	< 0.0065	0.37	350
Chloromethane	ppm	< 0.0061	< 0.0067	< 0.0038	< 0.0075	< 0.0065	< 0.0065	< 0.0051	< 0.006	< 0.0055	< 0.0095	< 0.0076	< 0.0038	< 0.0048	< 0.0065	N/A	N/A
cis-1,2-Dichloroethene	ppm	< 0.0061	< 0.0067	<b>0.0044</b>	<b>0.22</b>	< 0.0065	< 0.0065	< 0.0051	< 0.006	< 0.0055	< 0.0095	< 0.0076	< 0.0038	< 0.0048	< 0.0065	0.25	500
cis-1,3-Dichloropropene	ppm	< 0.0061	< 0.0067	< 0.0038	< 0.0075	< 0.0065	< 0.0065	< 0.0051	< 0.006	< 0.0055	< 0.0095	< 0.0076	< 0.0038	< 0.0048	< 0.0065	N/A	N/A
Cyclohexane	ppm	< 0.0061	< 0.0067	< 0.0038	< 0.0075	< 0.0065	< 0.0065	< 0.0051	< 0.006	< 0.0055	< 0.0095	< 0.0076	< 0.0038	< 0.0048	< 0.0065	N/A	N/A
Dibromochloromethane	ppm	< 0.0061	< 0.0067	< 0.0038	< 0.0075	< 0.0065	< 0.0065	< 0.0051	< 0.006	< 0.0055	< 0.0095	< 0.0076	< 0.0038	< 0.0048	< 0.0065	N/A	N/A
Dichlorodifluoromethane	ppm	< 0.0061	< 0.0067	< 0.0038	< 0.0075	< 0.0065	< 0.0065	< 0.0051	< 0.006	< 0.0055	< 0.0095	< 0.0076	< 0.0038	< 0.0048	< 0.0065	N/A	N/A
Ethylbenzene	ppm	< 0.0061	< 0.0067	< 0.0038	< 0.0075	< 0.0065	< 0.0065	< 0.0051	< 0.006	< 0.0055	< 0.0095	< 0.0076	< 0.0038	< 0.0048	< 0.0065	1	390
Isopropylbenzene	ppm	< 0.0061	< 0.0067	< 0.0038	< 0.0075	< 0.0065	< 0.0065	< 0.0051	< 0.006	< 0.0055	< 0.0095	< 0.0076	< 0.0038	< 0.0048	< 0.0065	N/A	N/A
m&p-Xylene	ppm	< 0.0061	< 0.0067	< 0.0038	< 0.0075	< 0.0065	< 0.0065	< 0.0051	< 0.006	< 0.0055	< 0.0095	< 0.0076	< 0.0038	< 0.0048	< 0.0065	1.6	500
Methyl ethyl ketone	ppm	<b>0.061</b>	<b>0.0072</b>	< 0.023	< 0.045	< 0.039	< 0.039	< 0.031	< 0.036	< 0.033	< 0.057	< 0.046	< 0.023	< 0.029	< 0.039	0.12	500
Methyl t-butyl ether (MTBE)	ppm	< 0.012	< 0.013	< 0.0076	< 0.015	< 0.013	< 0.013	< 0.01	< 0.012	< 0.011	< 0.019	< 0.015	< 0.0076	< 0.0096	< 0.013	0.93	500
Methylacetate	ppm	< 0.0061	< 0.0067	< 0.0038	< 0.0075	< 0.0065	< 0.0065	< 0.0051	< 0.006	< 0.0055	< 0.0095	< 0.0076	< 0.0038	< 0.0048	< 0.0065	N/A	N/A
Methylcyclohexane	ppm	< 0.0061	< 0.0067	< 0.0038	< 0.0075	< 0.0065	< 0.0065	< 0.0051	< 0.006	< 0.0055	< 0.0095	< 0.0076	< 0.0038	< 0.0048	< 0.0065	N/A	N/A
Methylene chloride	ppm	< 0.0061	< 0.0067	< 0.0038	< 0.0075	< 0.0065	< 0.0065	< 0.0051	< 0.006	< 0.0055	< 0.0095	< 0.0076	< 0.0038	< 0.0048	< 0.0065	0.05	500
o-Xylene	ppm	< 0.0061	< 0.0067	< 0.0038	< 0.0075	< 0.0065	< 0.0065	< 0.0051	< 0.006	< 0.0055	< 0.0095	< 0.0076	< 0.0038	< 0.0048	< 0.0065	1.6	500
Styrene	ppm	< 0.0061	< 0.0067	< 0.0038	< 0.0075	< 0.0065	< 0.0065	< 0.0051	< 0.006	< 0.0055	< 0.0095	< 0.0076	< 0.0038	< 0.0048	< 0.0065	N/A	N/A
Tetrachloroethene	ppm	< 0.0061	<b>0.0016</b>	<b>0.012</b>	<b>2.2</b>	< 0.0065	<b>3.3</b>	<b>0.011</b>	<b>0.015</b>	<b>0.0057</b>	<b>&lt; 0.0095</b>	<b>&lt; 0.0076</b>	<b>0.0015</b>	<b>0.0011</b>	< 0.0065	1.3	150
Toluene	ppm	< 0.0061	< 0.0067	< 0.0038	< 0.0075	< 0.0065	< 0.0065	< 0.0051	< 0.006	< 0.0055	< 0.0095	< 0.0076	< 0.0038	< 0.0048	< 0.0065	0.7	500
Total Xylenes	ppm	< 0.0061	< 0.0067	< 0.0038	< 0.0075	< 0.0065	< 0.0065	< 0.0051	<								

**Table 1: Summary of RI Soil Quality Data**  
Remedial Investigation of "Former" Debbie Cleaners  
BCP Site # C224237

Sample ID: Depth(s) of Sample: Sampling Date: Medium:	TW4-S1B 10-12' bgs 9/18/2017 Soil	TW4-S2B 12-15' bgs 9/18/2017 Soil	TW5-S1B 12-14' bgs 9/18/2017 Soil	TW6-S1B 10-12' bgs 9/18/2017 Soil	TW7-S1B 10-13' bgs 9/18/2017 Soil	TW8-S1B 1-3' bgs 9/20/2017 Soil	TW9-S1B 2-4' bgs 9/20/2017 Soil	TW10-S1B 1-3' bgs 9/21/2017 Soil	NW9-S1B 1-3' bgs 9/21/2017 Soil	TW11-S1B 1-3' bgs 9/21/2017 Soil	SBD-01B 1-3' bgs 9/21/2017 Soil	TW12-S1B 1-3' bgs 9/22/2017 Soil	TW13-S1B 1-3' bgs 9/25/2017 Soil	NW11-S1B 8-10' bgs 9/22/2017 Soil	Protection of Groundwater SCO	Commercial SCO	
<b>Semivolatile Organic Compounds</b>																	
1,1-Biphenyl	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	N/A	N/A
1,2,4,5-Tetrachlorobenzene	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	N/A	N/A
2,3,4,6-tetrachlorophenol	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	N/A	N/A
2,4,5-Trichloropheno	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	N/A	N/A
2,4,6-Trichloropheno	ppm	< 0.15	< 0.15	< 0.15	< 0.15	< 0.16	< 0.14	< 0.15	< 0.15	< 0.14	< 0.14	< 0.14	< 0.15	< 0.16	< 0.15	N/A	N/A
2,4-Dichloropheno	ppm	< 0.15	< 0.15	< 0.15	< 0.15	< 0.16	< 0.14	< 0.15	< 0.15	< 0.14	< 0.14	< 0.14	< 0.15	< 0.16	< 0.15	N/A	N/A
2,4-Dimethylpheno	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	N/A	N/A
2,4-Dinitropheno	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	N/A	N/A
2,4-Dinitrotoluene	ppm	< 0.15	< 0.15	< 0.15	< 0.15	< 0.16	< 0.14	< 0.15	< 0.15	< 0.14	< 0.14	< 0.14	< 0.15	< 0.16	< 0.15	N/A	N/A
2,6-Dinitrotoluene	ppm	< 0.15	< 0.15	< 0.15	< 0.15	< 0.16	< 0.14	< 0.15	< 0.15	< 0.14	< 0.14	< 0.14	< 0.15	< 0.16	< 0.15	N/A	N/A
2-Chloronaphthalene	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	N/A	N/A
2-Chlorophenol	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	N/A	N/A
2-Methylnaphthalene	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	N/A	N/A
2-Methylphenol (o-cresol)	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	0.33	500
2-Nitroaniline	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	N/A	N/A
2-Nitrophenol	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	N/A	N/A
3&4-Methylphenol (m&p-cresol)	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	0.33	500
3,3'-Dichlorobenzidine	ppm	< 0.15	< 0.15	< 0.15	< 0.15	< 0.16	< 0.14	< 0.15	< 0.15	< 0.14	< 0.14	< 0.14	< 0.15	< 0.16	< 0.15	N/A	N/A
3-Nitroaniline	ppm	< 0.73	< 0.74	< 0.77	< 0.73	< 0.78	< 0.72	< 0.73	< 0.73	< 0.71	< 0.72	< 0.71	< 0.73	< 0.81	< 0.73	N/A	N/A
4,6-Dinitro-2-methylphenol	ppm	<b>0.28</b>	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	<b>0.28</b>	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	N/A	N/A
4-Bromophenyl phenyl ether	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	N/A	N/A
4-Chloro-3-methylpheno	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	N/A	N/A
4-Chloroaniline	ppm	< 0.73	< 0.74	< 0.77	< 0.73	< 0.78	< 0.72	< 0.73	< 0.73	< 0.71	< 0.72	< 0.71	< 0.73	< 0.81	< 0.73	N/A	N/A
4-Chlorophenyl phenyl ethe	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	N/A	N/A
4-Nitroaniline	ppm	< 1.8	< 1.8	< 1.9	< 1.8	< 1.9	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2	< 1.8	N/A	N/A
4-Nitrophenol	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	N/A	N/A
Acenaphthene	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	98	500
Acenaphthylene	ppm	< 0.15	< 0.15	< 0.15	< 0.15	< 0.16	< 0.14	< 0.15	< 0.15	< 0.14	< 0.14	< 0.14	< 0.15	< 0.16	< 0.15	107	500
Acetophenone	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	N/A	N/A
Anthracene	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	1,000	500
Atrazine	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	N/A	N/A
Benz(a)anthracene	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	1	5.6
Benzaldehyde	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	N/A	N/A
Benzo(a)pyrene	ppm	< 0.15	< 0.15	< 0.15	< 0.15	< 0.16	< 0.14	< 0.15	< 0.15	< 0.14	< 0.14	< 0.14	< 0.15	< 0.16	< 0.15	22	1
Benzo(b)fluoranthene	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	1.7	5.6
Benzo(ghi)perylene	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	1,000	500
Benzo(k)fluoranthene	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	1.7	56
Benzyl butyl phthalate	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	<b>0.31</b>	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	N/A	N/A
Bis(2-chloroethoxy)methane	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	N/A	N/A
Bis(2-chloroethyl)ether	ppm	< 0.15	< 0.15	< 0.15	< 0.15	< 0.16	< 0.14	< 0.15	< 0.15	< 0.14	< 0.14	< 0.14	< 0.15	< 0.16	< 0.15	N/A	N/A
Bis(2-chloroisopropyl)ether	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	N/A	N/A
Bis(2-ethylhexyl)phthalate	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	N/A	N/A
Caprolactam	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	N/A	N/A
Carbazole	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	N/A	N/A
Chrysene	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	1	56
Dibenz(a,h)anthracene	ppm	< 0.15	< 0.15	< 0.15	< 0.15	< 0.16	< 0.14	< 0.15	< 0.15	< 0.14	< 0.14	< 0.14	< 0.15	< 0.16	< 0.15	1,000	0.56
Dibenzofuran	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	210	350
Diethyl phthalate	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	N/A	N/A
Dimethylphthalate	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	N/A	N/A
Di-n-butylphthalate	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	N/A	N/A
Di-n-octylphthalate	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	N/A	N/A
Fluoranthene	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0		

**Table 1: Summary of RI Soil Quality Data**  
Remedial Investigation of "Former" Debbie Cleaners  
BCP Site # C224237

Sample ID: Depth(s) of Sample: Sampling Date: Medium:	TW4-S1B 10-12' bgs 9/18/2017 Soil	TW4-S2B 12-15' bgs 9/18/2017 Soil	TW5-S1B 12-14' bgs 9/18/2017 Soil	TW6-S1B 10-12' bgs 9/18/2017 Soil	TW7-S1B 10-13' bgs 9/18/2017 Soil	TW8-S1B 1-3' bgs 9/20/2017 Soil	TW9-S1B 2-4' bgs 9/20/2017 Soil	TW10-S1B 1-3' bgs 9/21/2017 Soil	NW9-S1B 1-3' bgs 9/21/2017 Soil	TW11-S1B 1-3' bgs 9/21/2017 Soil	SBD-01B 1-3' bgs 9/21/2017 Soil	TW12-S1B 1-3' bgs 9/22/2017 Soil	TW13-S1B 1-3' bgs 9/25/2017 Soil	NW11-S1B 8-10' bgs 9/22/2017 Soil	Protection of Groundwater SCO	Commercial SCO	
<b>Semivolatile Organic Compounds</b>																	
Hexachlorobenzene	ppm	< 0.15	< 0.15	< 0.15	< 0.15	< 0.16	< 0.14	< 0.15	< 0.15	< 0.14	< 0.14	< 0.14	< 0.15	< 0.16	< 0.15	N/A	N/A
Hexachlorobutadiene	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	N/A	N/A
Hexachlorocyclopentadiene	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	N/A	N/A
Hexachloroethane	ppm	< 0.15	< 0.15	< 0.15	< 0.15	< 0.16	< 0.14	< 0.15	< 0.15	< 0.14	< 0.14	< 0.14	< 0.15	< 0.16	< 0.15	N/A	N/A
Indeno(1,2,3-cd)pyrene	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	8.2	5.6
Isophorone	ppm	< 0.15	< 0.15	< 0.15	< 0.15	< 0.16	<b>0.14</b>	< 0.15	< 0.15	< 0.14	< 0.14	< 0.14	< 0.15	< 0.16	< 0.15	N/A	N/A
Naphthalene	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	12	500
Nitrobenzene	ppm	< 0.15	< 0.15	< 0.15	< 0.15	< 0.16	< 0.14	< 0.15	< 0.15	< 0.14	< 0.14	< 0.14	< 0.15	< 0.16	< 0.15	N/A	N/A
N-Nitrosodimethylamine	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	N/A	N/A
N-Nitrosodi-n-propylamine	ppm	< 0.15	< 0.15	< 0.15	< 0.15	< 0.16	< 0.14	< 0.15	< 0.15	< 0.14	< 0.14	< 0.14	< 0.15	< 0.16	< 0.15	N/A	N/A
N-Nitrosodiphenylamine	ppm	< 0.15	< 0.15	< 0.15	< 0.15	< 0.16	< 0.14	< 0.15	< 0.15	< 0.14	< 0.14	< 0.14	< 0.15	< 0.16	< 0.15	N/A	N/A
Pentachloropheno	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	0.8	6.7
Phenanthrene	ppm	< 0.15	< 0.15	< 0.15	< 0.15	< 0.16	<b>0.17</b>	< 0.15	< 0.15	< 0.14	< 0.14	< 0.14	< 0.15	< 0.16	< 0.15	1,000	500
Phenol	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	< 0.25	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	0.33	500
Pyrene	ppm	< 0.25	< 0.26	< 0.27	< 0.26	< 0.27	<b>0.16</b>	< 0.26	< 0.26	< 0.25	< 0.25	< 0.25	< 0.26	< 0.28	< 0.26	1,000	500
<b>PCBs</b>																	
PCB-1016	ppm	< 0.074	< 0.073	< 0.077	< 0.075	< 0.077	< 0.073	< 0.073	< 0.071	< 0.071	< 0.073	< 0.071	< 0.073	< 0.079	< 0.074	3.2	1
PCB-1221	ppm	< 0.074	< 0.073	< 0.077	< 0.075	< 0.077	< 0.073	< 0.073	< 0.071	< 0.071	< 0.073	< 0.071	< 0.073	< 0.079	< 0.074	3.2	1
PCB-1232	ppm	< 0.074	< 0.073	< 0.077	< 0.075	< 0.077	< 0.073	< 0.073	< 0.071	< 0.071	< 0.073	< 0.071	< 0.073	< 0.079	< 0.074	3.2	1
PCB-1242	ppm	< 0.074	< 0.073	< 0.077	< 0.075	< 0.077	< 0.073	< 0.073	< 0.071	< 0.071	< 0.073	< 0.071	< 0.073	< 0.079	< 0.074	3.2	1
PCB-1248	ppm	< 0.074	< 0.073	< 0.077	< 0.075	< 0.077	< 0.073	< 0.073	< 0.071	< 0.071	< 0.073	< 0.071	< 0.073	< 0.079	< 0.074	3.2	1
PCB-1254	ppm	< 0.074	< 0.073	< 0.077	< 0.075	< 0.077	< 0.073	< 0.073	< 0.071	< 0.071	< 0.073	< 0.071	< 0.073	< 0.079	< 0.074	3.2	1
PCB-1260	ppm	< 0.074	< 0.073	< 0.077	< 0.075	< 0.077	< 0.073	< 0.073	< 0.071	< 0.071	< 0.073	< 0.071	< 0.073	< 0.079	< 0.074	3.2	1
PCB-1262	ppm	< 0.074	< 0.073	< 0.077	< 0.075	< 0.077	< 0.073	< 0.073	< 0.071	< 0.071	< 0.073	< 0.071	< 0.073	< 0.079	< 0.074	3.2	1
PCB-1268	ppm	< 0.074	< 0.073	< 0.077	< 0.075	< 0.077	< 0.073	< 0.073	< 0.071	< 0.071	< 0.073	< 0.071	< 0.073	< 0.079	< 0.074	3.2	1
<b>Pesticides</b>																	
4,4' -DDD	ppm	<b>0.16</b>	< 0.0022	< 0.0023	< 0.0022	< 0.0023	< 0.0022	< 0.0022	< 0.0021	< 0.0021	< 0.0022	< 0.0021	< 0.0022	< 0.0024	< 0.0022	14	92
4,4' -DDE	ppm	<b>0.046</b>	< 0.0022	< 0.0023	< 0.0022	< 0.0023	<b>0.027</b>	< 0.0022	< 0.0021	< 0.0021	< 0.0022	< 0.0021	< 0.0022	< 0.0024	< 0.0022	17	62
4,4' -DDT	ppm	<b>0.016</b>	< 0.0022	< 0.0023	< 0.0022	< 0.0023	<b>0.051</b>	< 0.0022	< 0.0021	< 0.0021	< 0.003	< 0.0021	< 0.0022	< 0.0024	< 0.0022	136	47
a-BHC	ppm	< 0.0074	< 0.0073	< 0.0077	< 0.0075	< 0.0077	< 0.0073	< 0.0073	< 0.0071	< 0.0071	< 0.0073	< 0.0071	< 0.0073	< 0.0079	< 0.0074	0.02	3.4
a-Chlordane	ppm	< 0.0037	< 0.0036	< 0.0038	< 0.0037	< 0.0039	< 0.0037	< 0.0037	< 0.0036	< 0.0035	< 0.0037	< 0.0035	< 0.0036	< 0.0039	< 0.0037	2.9	24
Aldrin	ppm	< 0.0037	< 0.0036	< 0.0038	< 0.0037	< 0.0039	< 0.0037	< 0.0037	< 0.0036	< 0.0035	< 0.0037	< 0.0035	< 0.0036	< 0.0039	< 0.0037	0.19	0.68
b-BHC	ppm	< 0.0074	< 0.0073	< 0.0077	< 0.0075	< 0.0077	< 0.0073	< 0.0073	< 0.0071	< 0.0071	< 0.0073	< 0.0071	< 0.0073	< 0.0079	< 0.0074	0.09	3
Chlordane	ppm	< 0.037	< 0.036	< 0.038	< 0.037	< 0.039	< 0.037	< 0.037	< 0.036	< 0.035	< 0.037	< 0.035	< 0.036	< 0.039	< 0.037	N/A	N/A
d-BHC	ppm	< 0.0074	< 0.0073	< 0.0077	< 0.0075	< 0.0077	< 0.0073	< 0.0073	< 0.0071	< 0.0071	< 0.0073	< 0.0071	< 0.0073	< 0.0079	< 0.0074	0.25	500
Dieldrin	ppm	< 0.0037	< 0.0036	< 0.0038	< 0.0037	< 0.0039	< 0.0037	< 0.0037	< 0.0036	< 0.0035	< 0.0037	< 0.0035	< 0.0036	< 0.0039	< 0.0037	0.1	1.4
Endosulfan I	ppm	< 0.0074	< 0.0073	< 0.0077	< 0.0075	< 0.0077	< 0.0073	< 0.0073	< 0.0071	< 0.0071	< 0.0073	< 0.0071	< 0.0073	< 0.0079	< 0.0074	102	200
Endosulfan II	ppm	< 0.0074	< 0.0073	< 0.0077	< 0.0075	< 0.0077	< 0.0073	< 0.0073	< 0.0071	< 0.0071	< 0.0073	< 0.0071	< 0.0073	< 0.0079	< 0.0074	102	200
Endosulfan sulfate	ppm	< 0.0074	< 0.0073	< 0.0077	< 0.0075	< 0.0077	< 0.0073	< 0.0073	< 0.0071	< 0.0071	< 0.0073	< 0.0071	< 0.0073	< 0.0079	< 0.0074	1,000	200
Endrin	ppm	< 0.0074	< 0.0073	< 0.0077	< 0.0075	< 0.0077	< 0.0073	< 0.0073	< 0.0071	< 0.0071	< 0.0073	< 0.0071	< 0.0073	< 0.0079	< 0.0074	0.06	89
Endrin aldehyde	ppm	< 0.0074	< 0.0073	< 0.0077	< 0.0075	< 0.0077	< 0.0073	< 0.0073	< 0.0071	< 0.0071	< 0.0073	< 0.0071	< 0.0073	< 0.0079	< 0.0074	N/A	N/A
Endrin ketone	ppm	< 0.0074	< 0.0073	< 0.0077	< 0.0075	< 0.0077	< 0.0073	< 0.0073	< 0.0071	< 0.0071	< 0.0073	< 0.0071	< 0.0073	< 0.0079	< 0.0074	N/A	N/A
g-BHC (Lindane)	ppm	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0014	< 0.0014	< 0.0015	< 0.0014	< 0.0015	< 0.0016	< 0.0015	0.1	9.2
g-Chlordane	ppm	< 0.0037	< 0.0036	< 0.0038	< 0.0037	< 0.0039	< 0.0037	< 0.0037	< 0.0036	< 0.0035	< 0.0037	< 0.0035	< 0.0036	< 0.0039	< 0.0037	N/A	N/A
Heptachlor	ppm	< 0.0074	< 0.0073	< 0.0077	< 0.0075	< 0.0077	< 0.0073	< 0.0073	< 0.0071	< 0.0071	< 0.0073	< 0.0071	< 0.0073	< 0.0079	< 0.0074	0.38	15
Heptachlor epoxide	ppm	< 0.0074	< 0.0073	< 0.0077	< 0.0075	< 0.0077	< 0.0073	< 0.0073	< 0.0071	< 0.0071	< 0.0073	< 0.0071	< 0.0073	< 0.0079	< 0.0074	N/A	N/A
Methoxychlor	ppm	< 0.037	< 0.036	< 0.038	< 0.037	< 0.039	< 0.037	< 0.037	< 0.036	< 0.035	< 0.037	< 0.035	< 0.036	< 0.039	< 0.037	N/A	N/A
Toxaphene	ppm	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.14	< 0.14	< 0.15	< 0.14	< 0.15	< 0.16	< 0.15	N/A	N/A

**Table 1: Summary of RI Soil Quality Data**  
Remedial Investigation of "Former" Debbie Cleaners  
BCP Site # C224237

Sample ID: Depth(s) of Sample: Sampling Date: Medium:	TW4-S1B 10-12' bgs 9/18/2017 Soil	TW4-S2B 12-15' bgs 9/18/2017 Soil	TW5-S1B 12-14' bgs 9/18/2017 Soil	TW6-S1B 10-12' bgs 9/18/2017 Soil	TW7-S1B 10-13' bgs 9/18/2017 Soil	TW8-S1B 1-3' bgs 9/20/2017 Soil	TW9-S1B 2-4' bgs 9/20/2017 Soil	TW10-S1B 1-3' bgs 9/21/2017 Soil	NW9-S1B 1-3' bgs 9/21/2017 Soil	TW11-S1B 1-3' bgs 9/21/2017 Soil	SBD-01B 1-3' bgs 9/21/2017 Soil	TW12-S1B 1-3' bgs 9/22/2017 Soil	TW13-S1B 1-3' bgs 9/25/2017 Soil	NW11-S1B 8-10' bgs 9/22/2017 Soil	Protection of Groundwater SCO	Commercial SCO	
<b>Total Metals</b>																	
Aluminum	ppm	10,400	7,090	12,100	11,100	13,800	7,900	8,260	11,000	7,070	6,860	6,400	7,580	6,740	7,820	N/A	N/A
Antimony	ppm	< 2.0	< 1.8	< 1.8	< 1.8	< 1.8	< 1.7	< 1.7	< 2.0	< 1.8	< 2.0	< 1.9	< 1.7	< 2.1	< 1.7	N/A	N/A
Arsenic	ppm	6.08	3.83	2.16	2.33	2.93	2.78	2.54	2.81	2.37	2.23	2.15	1.9	2.1	1.71	16	16
Barium	ppm	204	19.6	35.2	19.4	23.8	52.3	21	26.5	40	18.4	15.9	18.8	20.5	19.8	820	400
Beryllium	ppm	0.48	0.35	0.42	0.39	0.42	0.44	0.43	0.46	0.49	0.43	0.39	0.39	0.45	0.34	47	590
Cadmium	ppm	< 0.40	< 0.37	< 0.36	< 0.37	< 0.36	< 0.35	< 0.34	< 0.39	< 0.36	< 0.39	< 0.37	< 0.33	< 0.42	< 0.34	7.5	9.3
Calcium	ppm	5,770	494	869	530	522	10,000	1,240	4,540	5,740	1,270	692	2,460	1,270	962	N/A	N/A
Chromium	ppm	22.3	14.6	19.9	19.1	20.9	24	16.4	23.9	30.7	16.9	17.5	17.7	19.1	17.7	N/A	1,500
Cobalt	ppm	6.84	5.28	7.69	6.8	7.44	6.03	6.55	8.12	9.81	6.67	6.52	8.1	7.24	6.41	N/A	N/A
Copper	ppm	49.5	9.36	13.5	28.7	10.5	13.8	12.5	10.7	13.6	11.7	12	12.9	22.3	8.93	1,720	270
Total Cyanide	ppm	< 0.56	< 0.51	< 0.53	< 0.56	< 0.59	< 0.51	< 0.50	< 0.55	< 0.54	< 0.56	< 0.49	< 0.56	< 0.61	< 0.56	40	27
Iron	ppm	19,800	14,900	16,600	15,900	18,000	12,000	12,600	16,700	16,100	13,900	13,600	12,300	11,900	11,800	N/A	N/A
Lead	ppm	131	6.2	5.8	9.3	5.5	23.9	9.5	2.3	3.1	1.7	1.7	8.7	1.3	1.6	450	1,000
Magnesium	ppm	2,910	2,560	3,220	2,510	2,790	2,790	2,730	3,420	2,710	2,630	2,320	3,350	3,040	2,110	N/A	N/A
Manganese	ppm	204	114	249	154	203	196	122	222	264	199	193	175	328	160	2,000	10,000
Mercury	ppm	0.11	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	0.02	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	0.73	2.8
Nickel	ppm	27.8	29.4	48.6	31.4	25.9	26.8	37.6	32.8	60.9	36	38	34.4	45.9	26.3	130	310
Potassium	ppm	913	597	793	826	896	984	1,030	1,490	811	922	711	882	783	779	N/A	N/A
Selenium	ppm	< 1.6	< 1.5	< 1.5	< 1.5	< 1.4	< 1.4	< 1.4	< 1.6	< 1.4	< 1.6	< 1.5	< 1.3	< 1.7	< 1.4	4	1,500
Silver	ppm	< 0.40	< 0.37	< 0.36	< 0.37	< 0.36	< 0.35	< 0.34	< 0.39	< 0.36	< 0.39	< 0.37	< 0.33	< 0.42	< 0.34	8.3	1,500
Sodium	ppm	631	150	331	137	84	315	281	122	102	107	94	111	105	241	N/A	N/A
Thallium	ppm	< 1.6	< 1.5	< 1.5	< 1.5	< 1.4	< 1.4	< 1.4	< 1.6	< 1.4	< 1.6	< 1.5	< 1.3	< 1.7	< 1.4	N/A	N/A
Vanadium	ppm	25.6	17.1	24.3	22.9	28.4	20.4	21.4	35.8	24.8	20.3	19.7	23.6	21.5	21.5	N/A	N/A
Zinc	ppm	197	22.4	31.7	27.8	28.8	39.9	55	35.3	26.7	25.8	24.7	29.9	25.1	23.5	2,480	10,000

All results are presented in parts per million (ppm)  
 Results in **BOLD** were detected above the Laboratory's Minimum Detection Limit, but below all applicable regulatory guidance value  
 Results in **BOLD BLUE** exceed the NYSDEC Protection of Groundwater SCOs  
 Results in **shaded in YELLOW** exceed the NYSDEC Commercial SCOs  
**N/A** = No Regulatory Standard Available  
**Protection of Groundwater SCOs** = 6 NYCRR Part 375, Table 375-6.8 (b) Restricted Use Soil Cleanup Objectives, Protection of Groundwater (12/2006)  
**Commercial SCOs** = 6 NYCRR Part 375, Table 375-6.8 (b) Restricted Use Soil Cleanup Objectives, Commercial for the Protection of Public Health (12/2006)

**TABLE 2**  
**SUMMARY OF RI GROUNDWATER QUALITY DATA**

**Table 2: Summary of RI Groundwater Quality Data**  
 Remedial Investigation of "Former" Debbie Cleaners  
 BCP Site # C224237

Sample ID: Depth(s) of Sample: Sampling Date: Medium:	NW1-GW11A 11' 8.8" bgs 9/26/2017 Ground Water	NW2-GW11A 12' 1.5" bgs 9/29/2017 Ground Water	NW3-GW11A 3' 1" bgs 10/26/2017 Ground Water	NW4-GW4A 3' 0.3" bgs 9/26/2017 Ground Water	NW5-GW4A 12' 8" bgs 9/29/2017 Ground Water	NW6-GW4A 11' 7.2" bgs 9/29/2017 Ground Water	NW7-GW1A 3' 2.7" bgs 9/28/2017 Ground Water	NW8-GW1A 3' 0.9" bgs 9/28/2017 Ground Water	NW9-GW1A 3' 1.2" bgs 9/28/2017 Ground Water	NW10-GW1A 3' 1.7" bgs 9/29/2017 Ground Water	NW11-GW1A 9' 7.9" bgs 9/29/2017 Ground Water	TOGS 1.1.1 GW Standards and Guidance Values	
<b>Volatiles Organic Compounds</b>													
1,1,1-Trichloroethane	ppb	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	5	
1,1,2,2-Tetrachloroethane	ppb	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	5	
1,1,2-Trichloroethane	ppb	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1	
1,1-Dichloroethane	ppb	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	5	
1,1-Dichloroethene	ppb	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	5	
1,2,3-Trichlorobenzene	ppb	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	5	
1,2,4-Trichlorobenzene	ppb	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	5	
1,2-Dibromo-3-chloropropane	ppb	< 0.50	< 1.0	< 1.0	< 0.50	< 1.0	< 1.0	< 0.50	< 0.50	< 1.0	< 1.0	0.04	
1,2-Dibromoethane	ppb	< 0.25	< 1.0	< 1.0	< 0.25	< 1.0	< 1.0	< 0.25	< 0.25	< 1.0	< 1.0	N/A	
1,2-Dichlorobenzene	ppb	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	3	
1,2-Dichloroethane	ppb	< 0.60	< 1.0	< 1.0	< 0.60	< 1.0	< 1.0	< 0.60	< 0.60	< 1.0	< 1.0	0.6	
1,2-Dichloropropane	ppb	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1	
1,3-Dichlorobenzene	ppb	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	3	
1,4-Dichlorobenzene	ppb	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	3	
1,4-dioxane	ppb	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	N/A	
2-Hexanone	ppb	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	50	
4-Methyl-2-pentanone	ppb	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	N/A	
Acetone	ppb	12	10	11	10	17	15	18	15	20	13	50	
Benzene	ppb	< 0.70	< 0.70	0.25	< 0.70	< 0.70	< 0.70	< 0.70	< 0.70	< 0.70	< 0.70	1	
Bromochloromethane	ppb	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	5	
Bromodichloromethane	ppb	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	50	
Bromoform	ppb	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	50	
Bromomethane	ppb	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	5	
Carbon Disulfide	ppb	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.7	N/A	
Carbon tetrachloride	ppb	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	5	
Chlorobenzene	ppb	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	5	
Chloroethane	ppb	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	5	
Chloroform	ppb	< 2.0	< 2.0	< 2.0	< 2.0	0.36	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	7	
Chloromethane	ppb	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	N/A	
cis-1,2-Dichloroethene	ppb	12	250	2.8	3.1	24	2.1	4.9	4	1.5	0.91	0.77	5
cis-1,3-Dichloropropene	ppb	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	0.4	
Cyclohexane	ppb	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	N/A	
Dibromochloromethane	ppb	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	50	
Dichlorodifluoromethane	ppb	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	5	
Ethylbenzene	ppb	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	5	
Isopropylbenzene	ppb	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	5	
m&p-Xylene	ppb	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	N/A	
Methyl ethyl ketone	ppb	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	50	
Methyl t-butyl ether (MTBE)	ppb	0.98	1.4	0.96	1.2	0.73	2.2	0.66	< 1.0	0.42	0.42	0.59	N/A
Methylacetate	ppb	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	N/A	
Methylcyclohexane	ppb	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	N/A	
Methylene chloride	ppb	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	5	
o-Xylene	ppb	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	N/A	
Styrene	ppb	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	5	
Tetrachloroethene	ppb	300	1,100	20	49	270	4.8	80	52	24	22	33	5
Toluene	ppb	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	5	
Total Xylenes	ppb	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	N/A	
trans-1,2-Dichloroethene	ppb	< 2.0	4.3	< 2.0	< 2.0	0.72	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	5	
trans-1,3-Dichloropropene	ppb	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	0.4	
Trichloroethene	ppb	14	140	5.6	8.9	33	1.9	6.9	3.6	2.1	1.7	2.3	5
Trichlorofluoromethane	ppb	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	5	
Trichlorotrifluoroethane	ppb	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	N/A	
Vinyl chloride	ppb	< 1.0	0.54	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	2	

**Table 2: Summary of RI Groundwater Quality Data**  
 Remedial Investigation of "Former" Debbie Cleaners  
 BCP Site # C224237

Sample ID: Depth(s) of Sample: Sampling Date: Medium:	NW1-GW11A 11' 8.8" bgs 9/26/2017 Ground Water	NW2-GW11A 12' 1.5" bgs 9/29/2017 Ground Water	NW3-GW11A 3' 1" bgs 10/26/2017 Ground Water	NW4-GW4A 3' 0.3" bgs 9/26/2017 Ground Water	NW5-GW4A 12' 8" bgs 9/29/2017 Ground Water	NW6-GW4A 11' 7.2" bgs 9/29/2017 Ground Water	NW7-GW1A 3' 2.7" bgs 9/28/2017 Ground Water	NW8-GW1A 3' 0.9" bgs 9/28/2017 Ground Water	NW9-GW1A 3' 1.2" bgs 9/28/2017 Ground Water	NW10-GW1A 3' 1.7" bgs 9/29/2017 Ground Water	NW11-GW1A 9' 7.9" bgs 9/29/2017 Ground Water	TOGS 1.1.1 GW Standards and Guidance Values	
<b>Semivolatile Organic Compounds</b>													
1,1-Biphenyl	ppb	< 0.47	< 0.47	< 0.48	< 0.48	< 0.47	< 0.47	< 0.47	< 0.48	< 0.47	< 0.47	< 0.49	5
1,2,4,5-Tetrachlorobenzene	ppb	< 0.47	< 0.47	< 0.48	< 0.48	< 0.47	< 0.47	< 0.47	< 0.48	< 0.47	< 0.47	< 0.49	5
2,3,4,6-tetrachlorophenol	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	N/A
2,4,5-Trichlorophenol	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	N/A
2,4,6-Trichlorophenol	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	N/A
2,4-Dichlorophenol	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	N/A
2,4-Dimethylphenol	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	50
2,4-Dinitrophenol	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	10
2,4-Dinitrotoluene	ppb	< 4.7	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	< 4.7	< 4.9	5
2,6-Dinitrotoluene	ppb	< 4.7	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	< 4.7	< 4.9	5
2-Chloronaphthalene	ppb	< 4.7	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	< 4.7	< 4.9	5
2-Chlorophenol	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	N/A
2-Methylnaphthalene	ppb	< 4.7	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	< 4.7	< 4.9	N/A
2-Methylphenol (o-cresol)	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	N/A
2-Nitroaniline	ppb	< 4.7	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	< 4.7	< 4.9	5
2-Nitrophenol	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	N/A
3,3'-Dichlorobenzidine	ppb	< 4.7	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	< 4.7	< 4.9	5
3-Nitroaniline	ppb	< 4.7	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	< 4.7	< 4.9	5
4,6-Dinitro-2-methylphenol	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	N/A
4-Bromophenyl phenyl ether	ppb	< 4.7	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	< 4.7	< 4.9	N/A
4-Chloro-3-methylphenol	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	N/A
4-Chloroaniline	ppb	< 4.7	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	< 4.7	< 4.9	5
4-Chlorophenyl phenyl ether	ppb	< 4.7	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	< 4.7	< 4.9	N/A
4-Nitroaniline	ppb	< 4.7	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	< 4.7	< 4.9	5
4-Nitrophenol	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	N/A
Acenaphthene	ppb	< 4.7	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	< 4.7	< 4.9	20
Acenaphthylene	ppb	< 0.28	< 0.28	< 0.29	< 0.29	< 0.28	< 0.28	< 0.28	< 0.29	< 0.28	< 0.28	< 0.29	N/A
Acetophenone	ppb	< 4.7	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	< 4.7	< 4.9	N/A
Anthracene	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	50
Atrazine	ppb	< 0.47	< 0.47	< 0.48	< 0.48	< 0.47	< 0.47	< 0.47	< 0.48	< 0.47	< 0.47	< 0.49	7.5
Benz(a)anthracene	ppb	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	<b>0.03</b>	< 0.02	< 0.02	< 0.02	0.002
Benzaldehyde	ppb	< 4.7	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	< 4.7	< 4.9	N/A
Benzo(a)pyrene	ppb	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	ND
Benzo(b)fluoranthene	ppb	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.002
Benzo(ghi)perylene	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	N/A
Benzo(k)fluoranthene	ppb	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.002
Benzyl butyl phthalate	ppb	< 4.7	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	< 4.7	< 4.9	50
Bis(2-chloroethoxy)methane	ppb	< 4.7	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	< 4.7	< 4.9	5
Bis(2-chloroethyl)ether	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	1
Bis(2-chloroisopropyl)ether	ppb	< 4.7	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	< 4.7	< 4.9	N/A
Bis(2-ethylhexyl)phthalate	ppb	< 0.28	< 0.28	< 0.29	< 0.29	< 0.28	< 0.28	<b>0.31</b>	< 0.29	< 0.28	< 0.28	< 0.29	5
Caprolactam	ppb	< 4.7	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	< 4.7	< 4.9	N/A
Carbazole	ppb	< 4.7	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	< 4.7	< 4.9	N/A
Chrysene	ppb	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	<b>0.03</b>	< 0.02	< 0.02	< 0.02	0.002
Dibenz(a,h)anthracene	ppb	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	N/A
Dibenzofuran	ppb	< 4.7	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	< 4.7	< 4.9	N/A
Diethyl phthalate	ppb	< 4.7	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	< 4.7	< 4.9	50
Dimethylphthalate	ppb	< 4.7	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	< 4.7	< 4.9	50
Di-n-butylphthalate	ppb	< 4.7	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	< 4.7	< 4.9	50
Di-n-octylphthalate	ppb	< 4.7	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	< 4.7	< 4.9	50
Fluoranthene	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	50
Fluorene	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	50
Hexachlorobenzene	ppb	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.04
Hexachlorobutadiene	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	0.5
Hexachlorocyclopentadiene	ppb	< 0.09	< 0.09	< 0.10	< 0.10	< 0.10	< 0.10	< 0.09	< 0.10	< 0.09	< 0.09	< 0.10	5
Hexachloroethane	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	5
Indeno(1,2,3-cd)pyrene	ppb	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.002
Isophorone	ppb	< 4.7	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	< 4.7	< 4.9	50

**Table 2: Summary of RI Groundwater Quality Data**  
 Remedial Investigation of "Former" Debbie Cleaners  
 BCP Site # C224237

Sample ID: Depth(s) of Sample: Sampling Date: Medium:	NW1-GW11A 11' 8.8" bgs 9/26/2017 Ground Water	NW2-GW11A 12' 1.5" bgs 9/29/2017 Ground Water	NW3-GW11A 3' 1" bgs 10/26/2017 Ground Water	NW4-GW4A 3' 0.3" bgs 9/26/2017 Ground Water	NW5-GW4A 12' 8" bgs 9/29/2017 Ground Water	NW6-GW4A 11' 7.2" bgs 9/29/2017 Ground Water	NW7-GW1A 3' 2.7" bgs 9/28/2017 Ground Water	NW8-GW1A 3' 0.9" bgs 9/28/2017 Ground Water	NW9-GW1A 3' 1.2" bgs 9/28/2017 Ground Water	NW10-GW1A 3' 1.7" bgs 9/29/2017 Ground Water	NW11-GW1A 9' 7.9" bgs 9/29/2017 Ground Water	TOGS 1.1.1 GW Standards and Guidance Values	
<b>Semivolatile Organic Compounds</b>													
Naphthalene	ppb	< 4.7	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	< 4.7	< 4.9	10
Nitrobenzene	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	0.4
N-Nitrosodimethylamine	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	N/A
N-Nitrosodi-n-propylamine	ppb	< 4.7	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	< 4.7	< 4.9	N/A
N-Nitrosodiphenylamine	ppb	< 4.7	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	< 4.7	< 4.9	50
Pentachlorophenol	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	1
Phenanthrene	ppb	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	50
Phenol	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	1
Pyrene	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	50
<b>PCBs</b>													
PCB-1016	ppb	< 0.047	< 0.047	< 0.047	< 0.048	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	0.09
PCB-1221	ppb	< 0.047	< 0.047	< 0.047	< 0.048	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	0.09
PCB-1232	ppb	< 0.047	< 0.047	< 0.047	< 0.048	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	0.09
PCB-1242	ppb	< 0.047	< 0.047	< 0.047	< 0.048	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	0.09
PCB-1248	ppb	< 0.047	< 0.047	< 0.047	< 0.048	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	0.09
PCB-1254	ppb	< 0.047	< 0.047	< 0.047	< 0.048	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	0.09
PCB-1260	ppb	< 0.047	< 0.047	< 0.047	< 0.048	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	0.09
PCB-1262	ppb	< 0.047	< 0.047	< 0.047	< 0.048	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	0.09
PCB-1268	ppb	< 0.047	< 0.047	< 0.047	< 0.048	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	0.09
<b>Pesticides</b>													
4,4' -DDD	ppb	< 0.005	< 0.010	< 0.012	< 0.005	< 0.010	< 0.005	< 0.005	<b>0.042</b>	< 0.005	< 0.005	< 0.005	0.3
4,4' -DDE	ppb	< 0.005	< 0.010	<b>0.023</b>	< 0.005	< 0.010	< 0.005	< 0.005	<b>0.029</b>	< 0.005	< 0.005	< 0.005	0.2
4,4' -DDT	ppb	< 0.005	< 0.010	< 0.012	< 0.005	< 0.010	< 0.005	< 0.005	<b>0.26</b>	< 0.005	< 0.005	< 0.005	0.2
a-BHC	ppb	< 0.005	< 0.010	< 0.024	< 0.005	< 0.010	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.01
a-chlordane	ppb	< 0.009	< 0.047	< 0.047	< 0.010	< 0.047	< 0.009	< 0.009	< 0.009	< 0.009	< 0.009	< 0.010	N/A
Alachlor	ppb	< 0.070	< 0.35	< 0.35	< 0.071	< 0.36	< 0.071	< 0.070	< 0.071	< 0.071	< 0.071	< 0.071	0.5
Aldrin	ppb	< 0.001	< 0.007	< 0.007	< 0.001	< 0.007	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	ND
b-BHC	ppb	< 0.005	< 0.024	< 0.024	< 0.005	< 0.024	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.04
Chlordane	ppb	< 0.047	< 0.050	< 0.23	< 0.048	< 0.24	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	0.05
d-BHC	ppb	< 0.005	< 0.024	< 0.024	< 0.005	< 0.024	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.04
Dieldrin	ppb	<b>0.003</b>	< 0.004	< 0.007	< 0.001	< 0.010	< 0.001	< 0.001	<b>0.011</b>	< 0.001	< 0.002	<b>0.004</b>	0.004
Endosulfan I	ppb	< 0.009	< 0.047	< 0.047	< 0.010	< 0.047	< 0.009	< 0.009	< 0.009	< 0.009	< 0.009	< 0.010	N/A
Endosulfan II	ppb	< 0.009	< 0.047	< 0.047	< 0.010	< 0.047	< 0.009	< 0.009	< 0.009	< 0.009	< 0.009	< 0.010	N/A
Endosulfan Sulfate	ppb	< 0.009	< 0.047	< 0.047	< 0.010	< 0.047	< 0.009	< 0.009	< 0.009	< 0.009	< 0.009	< 0.010	N/A
Endrin	ppb	< 0.009	< 0.010	< 0.047	< 0.010	< 0.010	< 0.009	< 0.009	< 0.009	< 0.009	< 0.009	< 0.010	ND
Endrin Aldehyde	ppb	< 0.009	< 0.047	< 0.047	< 0.010	< 0.047	< 0.009	<b>0.055</b>	< 0.009	< 0.009	< 0.009	< 0.010	5
Endrin ketone	ppb	< 0.009	< 0.047	< 0.047	< 0.010	< 0.047	< 0.009	< 0.009	< 0.009	< 0.009	< 0.009	< 0.010	5
g-BHC (Lindane)	ppb	< 0.005	< 0.024	< 0.024	< 0.005	< 0.024	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.05
g-chlordane	ppb	< 0.009	< 0.047	< 0.047	< 0.010	< 0.047	< 0.009	< 0.009	< 0.009	< 0.009	< 0.009	< 0.010	N/A
Heptachlor	ppb	< 0.009	< 0.010	< 0.047	< 0.010	< 0.010	< 0.009	< 0.009	< 0.009	< 0.009	< 0.009	< 0.010	0.04
Heptachlor epoxide	ppb	< 0.009	< 0.010	< 0.047	< 0.010	< 0.010	< 0.009	< 0.009	< 0.009	< 0.009	< 0.009	< 0.010	0.03
Methoxychlor	ppb	< 0.094	< 0.47	< 0.47	< 0.095	< 0.47	< 0.094	< 0.094	< 0.094	< 0.094	< 0.094	< 0.095	35
Toxaphene	ppb	< 0.19	< 0.47	< 0.94	< 0.19	< 0.95	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	0.06
<b>Total Metals (Unfiltered)</b>													
Aluminum	ppb	<b>84</b>	<b>127</b>	<b>394</b>	<b>1,760</b>	<b>84</b>	<b>136</b>	<b>978</b>	<b>10,800</b>	<b>27,300</b>	<b>1,500</b>	<b>3,450</b>	N/A
Antimony	ppb	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	3
Arsenic - LDL	ppb	<b>14</b>	<b>2</b>	< 4	< 4	<b>2</b>	<b>1</b>	<b>3</b>	< 4	<b>6</b>	<b>1</b>	<b>6</b>	25
Barium	ppb	<b>51</b>	<b>58</b>	<b>28</b>	<b>44</b>	<b>43</b>	<b>45</b>	<b>137</b>	<b>98</b>	<b>143</b>	<b>44</b>	<b>60</b>	1,000
Beryllium	ppb	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	3
Cadmium	ppb	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	5
Calcium	ppb	<b>108,000</b>	<b>114,000</b>	<b>39,500</b>	<b>73,900</b>	<b>109,000</b>	<b>103,000</b>	<b>85,200</b>	<b>69,400</b>	<b>60,600</b>	<b>63,400</b>	<b>94,900</b>	N/A
Chromium	ppb	< 1	<b>1</b>	<b>2</b>	<b>4</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>22</b>	<b>61</b>	<b>3</b>	<b>9</b>	50
Cobalt	ppb	< 5	<b>1</b>	< 5	<b>2</b>	<b>2</b>	<b>1</b>	<b>8</b>	<b>9</b>	<b>20</b>	<b>3</b>	<b>5</b>	N/A
Copper	ppb	< 5	<b>3</b>	<b>3</b>	<b>4</b>	<b>4</b>	<b>2</b>	<b>4</b>	<b>18</b>	<b>47</b>	<b>4</b>	<b>8</b>	200
Total Cyanide	ppb	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	200
Iron	ppb	<b>3,260</b>	<b>140</b>	<b>310</b>	<b>1,890</b>	<b>140</b>	<b>190</b>	<b>1,410</b>	<b>11,400</b>	<b>31,500</b>	<b>2,080</b>	<b>4,050</b>	300
Lead	ppb	<b>6</b>	< 2	< 2	<b>2</b>	< 2	< 2	<b>2</b>	<b>6</b>	<b>15</b>	<b>1</b>	<b>3</b>	25
Magnesium	ppb	<b>21,000</b>	<b>10,100</b>	<b>7,550</b>	<b>6,780</b>	<b>6,720</b>	<b>13,300</b>	<b>10,300</b>	<b>10,600</b>	<b>13,500</b>	<b>8,080</b>	<b>12,600</b>	35,000
Manganese	ppb	<b>569</b>	<b>411</b>	<b>3,560</b>	<b>2,280</b>	<b>275</b>	<b>1,720</b>	<b>3,100</b>	<b>880</b>	<b>1,930</b>	<b>730</b>	<b>1,170</b>	300
Mercury	ppb	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.7
Nickel	ppb	<b>2</b>	<b>11</b>	<b>3</b>	<b>10</b>	<b>8</b>	<b>4</b>	<b>24</b>	<b>60</b>	<b>131</b>	<b>17</b>	<b>20</b>	100
Potassium	ppb	<b>14,700</b>	<b>18,400</b>	<b>10,800</b>	<b>17,100</b>	<b>15,900</b>	<b>22,600</b>	<b>20,400</b>	<b>17,300</b>	<b>18,000</b>	<b>14,400</b>	<b>25,200</b>	N/A
Selenium	ppb	<b>3</b>	< 3	< 2	<b>2</b>	< 3	< 3	<b>2</b>	< 2	< 2	< 3	< 3	10
Silver	ppb	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	50
Sodium	ppb	<b>247,000</b>	<b>295,000</b>	<b>221,000</b>	<b>144,000</b>	<b>227,000</b>	<b>201,000</b>	<b>146,000</b>	<b>207,000</b>	<b>164,000</b>	<b>181,000</b>	<b>270,000</b>	20,000
Thallium - LDL	ppb	< 0.5	< 0.5	< 1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.5
Vanadium	ppb	< 10	<b>3</b>	< 10	<b>4</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>21</b>	<b>50</b>	<b>5</b>	<b>12</b>	N/A
Zinc	ppb	< 10	<b>5</b>	<b>1</b>	<b>6</b>	<b>4</b>	< 10	<b>3</b>	<b>33</b>	<b>69</b>	<b>6</b>	<b>11</b>	2,000

**Table 2: Summary of RI Groundwater Quality Data**  
 Remedial Investigation of "Former" Debbie Cleaners  
 BCP Site # C224237

Sample ID: Depth(s) of Sample: Sampling Date: Medium:	NW1-GW11A 11' 8.8" bgs 9/26/2017 Ground Water	NW2-GW11A 12' 1.5" bgs 9/29/2017 Ground Water	NW3-GW11A 3' 1" bgs 10/26/2017 Ground Water	NW4-GW4A 3' 0.3" bgs 9/26/2017 Ground Water	NW5-GW4A 12' 8" bgs 9/29/2017 Ground Water	NW6-GW4A 11' 7.2" bgs 9/29/2017 Ground Water	NW7-GW1A 3' 2.7" bgs 9/28/2017 Ground Water	NW8-GW1A 3' 0.9" bgs 9/28/2017 Ground Water	NW9-GW1A 3' 1.2" bgs 9/28/2017 Ground Water	NW10-GW1A 3' 1.7" bgs 9/29/2017 Ground Water	NW11-GW1A 9' 7.9" bgs 9/29/2017 Ground Water	TOGS 1.1.1 GW Standards and Guidance Values	
<b>Total Metals (Dissolved)</b>													
Aluminum (Dissolved)	ppb	< 11	< 11	<b>49</b>	< 11	< 11	< 11	< 11	<b>87</b>	<b>92</b>	<b>81</b>	< 11	N/A
Antimony, (Dissolved)	ppb	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	3
Arsenic, (Dissolved)	ppb	<b>1</b>	<b>4</b>	<b>2</b>	< 3	<b>3</b>	<b>1</b>	<b>2</b>	< 3	< 3	< 3	<b>1</b>	25
Barium (Dissolved)	ppb	<b>139</b>	<b>56</b>	<b>27</b>	<b>36</b>	<b>38</b>	<b>42</b>	<b>124</b>	<b>53</b>	<b>30</b>	<b>34</b>	<b>41</b>	1,000
Beryllium (Dissolved)	ppb	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	3
Cadmium (Dissolved)	ppb	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	5
Calcium (Dissolved)	ppb	<b>91,500</b>	<b>113,000</b>	<b>40,900</b>	<b>61,100</b>	<b>103,000</b>	<b>100,000</b>	<b>81,000</b>	<b>63,600</b>	<b>55,100</b>	<b>60,500</b>	<b>82,300</b>	N/A
Chromium (Dissolved)	ppb	< 1	<b>1</b>	<b>1</b>	< 1	< 1	< 1	< 1	< 1	<b>1</b>	<b>1</b>	<b>2</b>	50
Cobalt, (Dissolved)	ppb	< 5	< 5	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>7</b>	<b>3</b>	<b>2</b>	<b>1</b>	< 5	N/A
Copper, (Dissolved)	ppb	<b>1</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>3</b>	< 5	<b>3</b>	<b>1</b>	<b>1</b>	< 5	< 5	200
Cyanide (Dissolved)	ppb	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	200
Iron, (Dissolved)	ppb	<b>40</b>	< 10	< 10	<b>40</b>	< 10	< 10	< 10	< 10	< 10	< 10	< 10	300
Lead (Dissolved)	ppb	< 2	<b>1</b>	<b>3</b>	< 2	< 2	< 2	< 2	<b>2</b>	<b>1</b>	< 2	< 2	25
Magnesium (Dissolved)	ppb	<b>15,500</b>	<b>9,800</b>	<b>7,860</b>	<b>6,330</b>	<b>6,460</b>	<b>12,600</b>	<b>9,480</b>	<b>7,720</b>	<b>6,060</b>	<b>7,320</b>	<b>11,400</b>	35,000
Manganese, (Dissolved)	ppb	<b>2</b>	<b>381</b>	<b>3,370</b>	<b>2,500</b>	<b>216</b>	<b>1,550</b>	<b>2,980</b>	<b>633</b>	<b>633</b>	<b>598</b>	<b>989</b>	300
Mercury (Dissolved)	ppb	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.7
Nickel, (Dissolved)	ppb	<b>6</b>	<b>10</b>	<b>2</b>	<b>6</b>	<b>6</b>	<b>3</b>	<b>18</b>	<b>8</b>	<b>6</b>	<b>5</b>	<b>3</b>	100
Potassium (Dissolved)	ppb	<b>14,100</b>	<b>18,900</b>	<b>10,900</b>	<b>17,300</b>	<b>15,600</b>	<b>23,800</b>	<b>19,700</b>	<b>15,000</b>	<b>13,600</b>	<b>15,100</b>	<b>23,100</b>	N/A
Selenium, (Dissolved)	ppb	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	10
Silver (Dissolved)	ppb	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	50
Sodium (Dissolved)	ppb	<b>240,000</b>	<b>318,000</b>	<b>190,000</b>	<b>137,000</b>	<b>240,000</b>	<b>205,000</b>	<b>167,000</b>	<b>213,000</b>	<b>188,000</b>	<b>1,840,000</b>	<b>275,000</b>	20,000
Thallium, (Dissolved)	ppb	< 0.5	< 0.5	< 1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.5
Vanadium, (Dissolved)	ppb	< 11	<b>2</b>	<b>1</b>	< 11	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>3</b>	N/A
Zinc, (Dissolved)	ppb	<b>2</b>	<b>5</b>	<b>1</b>	<b>2</b>	<b>5</b>	<b>3</b>	<b>1</b>	<b>1</b>	< 11	<b>2</b>	< 11	2,000
Sample ID: Depth(s) of Sample: Sampling Date: Medium:	NW1-GW11B 11' 8.8" bgs 9/26/2017 Ground Water	NW2-GW11B 12' 1.5" bgs 9/29/2017 Ground Water	NW3-GW11B 3' 1" bgs 10/26/2017 Ground Water	NW4-GW4B 3' 0.3" bgs 9/26/2017 Ground Water	NW5-GW4B 12' 8" bgs 9/29/2017 Ground Water	NW6-GW4B 11' 7.2" bgs 9/29/2017 Ground Water	NW7-GW1B 3' 2.7" bgs 9/28/2017 Ground Water	NW8-GW1B 3' 0.9" bgs 9/28/2017 Ground Water	NW9-GW1B 3' 1.2" bgs 9/28/2017 Ground Water	NW10-GW1B 3' 1.7" bgs 9/29/2017 Ground Water	NW11-GW1B 9' 7.9" bgs 9/29/2017 Ground Water	NYSDOH MCL	
<b>PFOA and PFOS</b>													
Perfluorooctanoate (PFOA)	ppt	25.3	64.9	16.4	29.5	37.2	32.2	32.3	28.7	36.1	39.4	64.3	50,000
Perfluorooctanesulfonate (PFOS)	ppt	10.2	43.4	13.7	103	52.0	62.7	18.9	61.1	106	92.0	14.9	50,000

All results are presented in parts per billion (ppb) unless otherwise noted  
 Results in **BOLD** were detected above the Laboratory's Minimum Detection Limit, but below all applicable regulatory guidance value:  
 Results in shaded in **YELLOW** exceed the NYSDEC TOGS 1.1.1 GW Standards and Guidance Values

N/A = No Regulatory Standard Available  
**TOGS 1.1.1 GW Standards and Guidance Values** = Division of Water Technical and Operational Guidance Series (1.1.1), Table 1: Ambient Water Quality Standards and Guidance Values, Class GA (6/1998)  
**NYSDOH MCL** = State Sanitary Code Subpart 5-1, Department of Health Maximum Contaminant Level for Unspecified Organic Contaminants

**Table 2: Summary of RI Groundwater Quality Data**  
Remedial Investigation of "Former" Debbie Cleaners  
BCP Site # C224237

Sample ID: Depth(s) of Sample: Sampling Date: Medium:	TW4-GW1A 13' 1.6" bgs 9/26/2017 Ground Water	TW5-GW1A 12' 4.7" bgs 9/26/2017 Ground Water	TW6-GW1A 11' 7.5" bgs 9/26/2017 Ground Water	TW7-GW1A 11' 4.2" bgs 9/26/2017 Ground Water	GWBD-01A 11' 4.2" bgs 9/26/2017 Ground Water	TW8-GW1A 3' 1.5" bgs 9/28/2017 Ground Water	TW9-GW1A 3' 1.7" bgs 9/28/2017 Ground Water	TW10-GW1A 3' 0.6" bgs 9/28/2017 Ground Water	TW11-GW1A 3' 0.9" bgs 9/28/2017 Ground Water	TW12-GW1A 3' 0.4" bgs 9/29/2017 Ground Water	TW13-GW1A 3' 0.3" bgs 9/29/2017 Ground Water	TOGS 1.1.1 GW Standards and Guidance Values	
<b>Volatiles Organic Compounds</b>													
1,1,1-Trichloroethane	ppb	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	5	
1,1,2,2-Tetrachloroethane	ppb	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	5	
1,1,2-Trichloroethane	ppb	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1	
1,1-Dichloroethane	ppb	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	5	
1,1-Dichloroethene	ppb	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	5	
1,2,3-Trichlorobenzene	ppb	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	5	
1,2,4-Trichlorobenzene	ppb	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	5	
1,2-Dibromo-3-chloropropane	ppb	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0	< 1.0	0.04	
1,2-Dibromoethane	ppb	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 1.0	< 1.0	N/A	
1,2-Dichlorobenzene	ppb	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	3	
1,2-Dichloroethane	ppb	< 0.60	< 0.60	< 0.60	< 0.60	< 0.60	< 0.60	< 0.60	< 0.60	< 1.0	< 1.0	0.6	
1,2-Dichloropropane	ppb	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1	
1,3-Dichlorobenzene	ppb	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	3	
1,4-Dichlorobenzene	ppb	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	3	
1,4-dioxane	ppb	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	N/A	
2-Hexanone	ppb	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	50	
4-Methyl-2-pentanone	ppb	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	N/A	
Acetone	ppb	13	20	14	20	24	17	10	19	14	23	50	
Benzene	ppb	< 0.70	< 0.70	< 0.70	< 0.70	< 0.70	< 0.70	< 0.70	< 0.70	< 0.70	< 0.70	1	
Bromochloromethane	ppb	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	5	
Bromodichloromethane	ppb	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	50	
Bromoform	ppb	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	50	
Bromomethane	ppb	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	5	
Carbon Disulfide	ppb	< 1.0	< 1.0	< 1.0	15	12	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	N/A	
Carbon tetrachloride	ppb	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	5	
Chlorobenzene	ppb	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	5	
Chloroethane	ppb	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	5	
Chloroform	ppb	< 2.0	0.46	< 2.0	< 2.0	< 2.0	< 2.0	0.59	< 2.0	< 2.0	< 2.0	7	
Chloromethane	ppb	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	N/A	
cis-1,2-Dichloroethene	ppb	65	60	20	2.8	2.6	5.7	3.8	3	4	2.4	0.39	5
cis-1,3-Dichloropropene	ppb	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	0.4	
Cyclohexane	ppb	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	N/A	
Dibromochloromethane	ppb	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	50	
Dichlorodifluoromethane	ppb	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	5	
Ethylbenzene	ppb	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	5	
Isopropylbenzene	ppb	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	5	
m&p-Xylene	ppb	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	N/A	
Methyl ethyl ketone	ppb	< 5.0	< 5.0	< 5.0	2.6	4.1	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	50	
Methyl t-butyl ether (MTBE)	ppb	3.1	1.4	1.8	1.7	1.7	0.4	0.35	2.2	< 1.0	4.1	0.26	N/A
Methylacetate	ppb	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	N/A	
Methylcyclohexane	ppb	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	N/A	
Methylene chloride	ppb	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	5	
o-Xylene	ppb	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	N/A	
Styrene	ppb	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	5	
Tetrachloroethene	ppb	25	320	25	7.7	6.6	34	280	22	4	15	1.3	5
Toluene	ppb	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	5	
Total Xylenes	ppb	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	N/A	
trans-1,2-Dichloroethene	ppb	0.99	1.4	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	5	
trans-1,3-Dichloropropene	ppb	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	0.4	
Trichloroethene	ppb	13	40	8.9	2.6	2.3	4.6	28	3.6	5.6	5	1.4	5
Trichlorofluoromethane	ppb	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	5	
Trichlorotrifluoroethane	ppb	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	N/A	
Vinyl chloride	ppb	0.93	< 1.0	0.25	< 1.0	< 1.0	0.89	< 1.0	< 1.0	< 1.0	< 1.0	2	

**Table 2: Summary of RI Groundwater Quality Data**  
 Remedial Investigation of "Former" Debbie Cleaners  
 BCP Site # C224237

Sample ID: Depth(s) of Sample: Sampling Date: Medium:	TW4-GW1A 13' 1.6" bgs 9/26/2017 Ground Water	TW5-GW1A 12' 4.7" bgs 9/26/2017 Ground Water	TW6-GW1A 11' 7.5" bgs 9/26/2017 Ground Water	TW7-GW1A 11' 4.2" bgs 9/26/2017 Ground Water	GWBD-01A 11' 4.2" bgs 9/26/2017 Ground Water	TW8-GW1A 3' 1.5" bgs 9/28/2017 Ground Water	TW9-GW1A 3' 1.7" bgs 9/28/2017 Ground Water	TW10-GW1A 3' 0.6" bgs 9/28/2017 Ground Water	TW11-GW1A 3' 0.9" bgs 9/28/2017 Ground Water	TW12-GW1A 3' 0.4" bgs 9/29/2017 Ground Water	TW13-GW1A 3' 0.3" bgs 9/29/2017 Ground Water	TOGS 1.1.1 GW Standards and Guidance Values
<b>Semivolatile Organic Compounds</b>												
1,1-Biphenyl	ppb	< 0.47	< 0.48	< 0.48	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.48	< 0.47	5
1,2,4,5-Tetrachlorobenzene	ppb	< 0.47	< 0.48	< 0.48	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.48	< 0.47	5
2,3,4,6-tetrachlorophenol	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	N/A
2,4,5-Trichlorophenol	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	N/A
2,4,6-Trichlorophenol	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	N/A
2,4-Dichlorophenol	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	N/A
2,4-Dimethylphenol	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	50
2,4-Dinitrophenol	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	10
2,4-Dinitrotoluene	ppb	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	5
2,6-Dinitrotoluene	ppb	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	5
2-Chloronaphthalene	ppb	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	5
2-Chlorophenol	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	N/A
2-Methylnaphthalene	ppb	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	N/A
2-Methylphenol (o-cresol)	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	N/A
2-Nitroaniline	ppb	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	5
2-Nitrophenol	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	N/A
3,3'-Dichlorobenzidine	ppb	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	5
3-Nitroaniline	ppb	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	5
4,6-Dinitro-2-methylphenol	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	N/A
4-Bromophenyl phenyl ether	ppb	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	N/A
4-Chloro-3-methylphenol	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	N/A
4-Chloroaniline	ppb	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	5
4-Chlorophenyl phenyl ether	ppb	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	N/A
4-Nitroaniline	ppb	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	5
4-Nitrophenol	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	N/A
Acenaphthene	ppb	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	20
Acenaphthylene	ppb	< 0.28	< 0.29	< 0.29	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.29	< 0.28	N/A
Acetophenone	ppb	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	N/A
Anthracene	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	50
Atrazine	ppb	< 0.47	< 0.48	< 0.48	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.48	< 0.47	7.5
Benz(a)anthracene	ppb	< 0.02	< 0.02	< 0.02	0.03	0.03	0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.002
Benzaldehyde	ppb	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	N/A
Benzo(a)pyrene	ppb	0.02	< 0.02	< 0.02	0.03	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	ND
Benzo(b)fluoranthene	ppb	< 0.02	< 0.02	< 0.02	0.02	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.002
Benzo(ghi)perylene	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	N/A
Benzo(k)fluoranthene	ppb	< 0.02	< 0.02	< 0.02	0.02	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.002
Benzyl butyl phthalate	ppb	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	50
Bis(2-chloroethoxy)methane	ppb	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	5
Bis(2-chloroethyl)ether	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	1
Bis(2-chloroisopropyl)ether	ppb	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	N/A
Bis(2-ethylhexyl)phthalate	ppb	< 0.28	< 0.29	< 0.29	< 0.28	0.37	< 0.28	< 0.28	< 0.28	< 0.29	< 0.28	5
Caprolactam	ppb	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	N/A
Carbazole	ppb	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	N/A
Chrysene	ppb	0.03	< 0.02	< 0.02	0.03	0.03	0.03	< 0.02	< 0.02	< 0.02	< 0.02	0.002
Dibenz(a,h)anthracene	ppb	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	N/A
Dibenzofuran	ppb	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	N/A
Diethyl phthalate	ppb	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	50
Dimethylphthalate	ppb	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	50
Di-n-butylphthalate	ppb	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	50
Di-n-octylphthalate	ppb	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	50
Fluoranthene	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	50
Fluorene	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	50
Hexachlorobenzene	ppb	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.04
Hexachlorobutadiene	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	0.5
Hexachlorocyclopentadiene	ppb	< 0.09	< 0.10	< 0.10	< 0.09	< 0.09	< 0.09	< 0.10	< 0.09	< 0.10	< 0.09	5
Hexachloroethane	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	5
Indeno(1,2,3-cd)pyrene	ppb	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.002
Isophorone	ppb	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	50

**Table 2: Summary of RI Groundwater Quality Data**  
 Remedial Investigation of "Former" Debbie Cleaners  
 BCP Site # C224237

Sample ID: Depth(s) of Sample: Sampling Date: Medium:	TW4-GW1A 13' 1.6" bgs 9/26/2017 Ground Water	TW5-GW1A 12' 4.7" bgs 9/26/2017 Ground Water	TW6-GW1A 11' 7.5" bgs 9/26/2017 Ground Water	TW7-GW1A 11' 4.2" bgs 9/26/2017 Ground Water	GWBD-01A 11' 4.2" bgs 9/26/2017 Ground Water	TW8-GW1A 3' 1.5" bgs 9/28/2017 Ground Water	TW9-GW1A 3' 1.7" bgs 9/28/2017 Ground Water	TW10-GW1A 3' 0.6" bgs 9/28/2017 Ground Water	TW11-GW1A 3' 0.9" bgs 9/28/2017 Ground Water	TW12-GW1A 3' 0.4" bgs 9/29/2017 Ground Water	TW13-GW1A 3' 0.3" bgs 9/29/2017 Ground Water	TOGS 1.1.1 GW Standards and Guidance Values	
<b>Semivolatile Organic Compounds</b>													
Naphthalene	ppb	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	10	
Nitrobenzene	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	0.4	
N-Nitrosodimethylamine	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	N/A	
N-Nitrosodi-n-propylamine	ppb	< 4.7	< 4.8	< 4.8	<b>3.7</b>	< 4.7	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	N/A	
N-Nitrosodiphenylamine	ppb	< 4.7	< 4.8	< 4.8	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.8	< 4.7	50	
Pentachlorophenol	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	1	
Phenanthrene	ppb	< 0.05	<b>0.06</b>	< 0.05	<b>0.13</b>	<b>0.12</b>	<b>0.11</b>	< 0.05	< 0.05	< 0.05	< 0.05	50	
Phenol	ppb	< 0.19	< 0.19	< 0.19	< 0.19	<b>0.37</b>	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	1	
Pyrene	ppb	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	50	
<b>PCBs</b>													
PCB-1016	ppb	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	0.09	
PCB-1221	ppb	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	0.09	
PCB-1232	ppb	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	0.09	
PCB-1242	ppb	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	0.09	
PCB-1248	ppb	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	0.09	
PCB-1254	ppb	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	0.09	
PCB-1260	ppb	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	0.09	
PCB-1262	ppb	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	0.09	
PCB-1268	ppb	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	0.09	
<b>Pesticides</b>													
4,4' -DDD	ppb	< 0.005	< 0.005	< 0.005	< 0.010	< 0.005	< 0.005	< 0.005	< 0.010	< 0.005	< 0.005	< 0.010	0.3
4,4' -DDE	ppb	< 0.005	< 0.005	< 0.005	< 0.010	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.010	0.2
4,4' -DDT	ppb	< 0.005	< 0.005	< 0.005	< 0.010	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.010	0.2
a-BHC	ppb	< 0.005	< 0.005	< 0.005	< 0.010	< 0.010	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.010	0.01
a-chlordane	ppb	< 0.009	< 0.009	< 0.009	< 0.047	< 0.009	< 0.009	< 0.009	< 0.009	< 0.009	< 0.010	< 0.047	N/A
Alachlor	ppb	< 0.070	< 0.071	< 0.071	< 0.35	< 0.070	< 0.070	< 0.070	< 0.071	< 0.071	< 0.071	< 0.35	0.5
Aldrin	ppb	< 0.001	< 0.001	< 0.001	< 0.007	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.007	ND
b-BHC	ppb	< 0.005	< 0.005	< 0.005	< 0.024	< 0.040	< 0.005	< 0.005	< 0.005	< 0.007	< 0.007	< 0.024	0.04
Chlordane	ppb	< 0.047	< 0.047	< 0.047	< 0.050	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.23	0.05
d-BHC	ppb	< 0.005	< 0.005	< 0.005	< 0.024	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.024	0.04
Dieldrin	ppb	< 0.001	< 0.001	< 0.001	< 0.004	< 0.004	< 0.002	< 0.001	< 0.004	< 0.001	< 0.001	< 0.010	0.004
Endosulfan I	ppb	< 0.009	< 0.009	< 0.009	< 0.047	< 0.009	< 0.009	< 0.009	< 0.009	< 0.009	< 0.010	< 0.047	N/A
Endosulfan II	ppb	< 0.009	< 0.009	< 0.009	< 0.047	< 0.009	< 0.009	< 0.009	< 0.009	< 0.009	< 0.010	< 0.047	N/A
Endosulfan Sulfate	ppb	< 0.009	< 0.009	< 0.009	< 0.047	< 0.009	< 0.009	< 0.009	< 0.009	< 0.009	< 0.010	< 0.047	N/A
Endrin	ppb	< 0.009	< 0.009	< 0.009	< 0.010	< 0.009	< 0.009	< 0.009	< 0.009	< 0.009	< 0.010	< 0.010	ND
Endrin Aldehyde	ppb	< 0.009	< 0.009	< 0.009	< 0.047	< 0.009	< 0.009	< 0.009	< 0.009	< 0.009	< 0.010	< 0.047	5
Endrin ketone	ppb	< 0.009	< 0.009	< 0.009	< 0.047	< 0.009	< 0.009	< 0.009	< 0.009	< 0.009	< 0.010	< 0.047	5
g-BHC (Lindane)	ppb	< 0.005	< 0.005	< 0.005	< 0.024	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.024	0.05
g-chlordane	ppb	< 0.009	< 0.009	< 0.009	< 0.047	< 0.009	< 0.009	< 0.009	< 0.009	< 0.009	< 0.010	< 0.047	N/A
Heptachlor	ppb	< 0.009	< 0.009	< 0.009	< 0.010	< 0.009	< 0.009	< 0.009	< 0.009	< 0.009	< 0.010	< 0.010	0.04
Heptachlor epoxide	ppb	< 0.009	< 0.009	< 0.009	< 0.010	< 0.009	< 0.009	< 0.009	< 0.009	< 0.009	< 0.010	< 0.010	0.03
Methoxychlor	ppb	< 0.094	< 0.094	< 0.094	< 0.47	< 0.094	< 0.094	< 0.094	< 0.094	< 0.094	< 0.095	< 0.47	35
Toxaphene	ppb	< 0.19	< 0.19	< 0.19	< 0.94	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.94	0.06
<b>Total Metals (Unfiltered)</b>													
Aluminum	ppb	<b>10,800</b>	<b>8,090</b>	<b>2,480</b>	<b>14,800</b>	<b>17,200</b>	<b>12,200</b>	<b>21,100</b>	<b>35,400</b>	<b>29,600</b>	<b>21,000</b>	<b>3,450</b>	N/A
Antimony	ppb	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	3
Arsenic - LDL	ppb	<b>9</b>	<b>4</b>	< 4	<b>9</b>	<b>10</b>	< 4	<b>1</b>	<b>9</b>	<b>8</b>	< 4	<b>4</b>	25
Barium	ppb	<b>174</b>	<b>162</b>	<b>47</b>	<b>99</b>	<b>108</b>	<b>88</b>	<b>86</b>	<b>172</b>	<b>205</b>	<b>110</b>	<b>94</b>	1,000
Beryllium	ppb	< 1	< 1	< 1	< 1	< 1	< 1	<b>1</b>	<b>2</b>	<b>2</b>	< 1	< 1	3
Cadmium	ppb	<b>1</b>	< 4	< 4	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	< 4	5
Calcium	ppb	<b>166,000</b>	<b>109,000</b>	<b>92,500</b>	<b>93,700</b>	<b>91,600</b>	<b>58,900</b>	<b>71,600</b>	<b>55,300</b>	<b>74,900</b>	<b>48,400</b>	<b>58,200</b>	N/A
Chromium	ppb	<b>31</b>	<b>15</b>	<b>6</b>	<b>32</b>	<b>35</b>	<b>34</b>	<b>84</b>	<b>57</b>	<b>81</b>	<b>39</b>	<b>8</b>	50
Cobalt	ppb	<b>11</b>	<b>9</b>	<b>4</b>	<b>16</b>	<b>17</b>	<b>15</b>	<b>18</b>	<b>45</b>	<b>25</b>	<b>22</b>	<b>9</b>	N/A
Copper	ppb	<b>34</b>	<b>21</b>	<b>5</b>	<b>28</b>	<b>31</b>	<b>25</b>	<b>52</b>	<b>51</b>	<b>62</b>	<b>32</b>	<b>10</b>	200
Total Cyanide	ppb	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	200
Iron	ppb	<b>15,400</b>	<b>7,600</b>	<b>3,020</b>	<b>18,800</b>	<b>20,400</b>	<b>16,400</b>	<b>34,300</b>	<b>37,700</b>	<b>38,300</b>	<b>22,800</b>	<b>4,450</b>	300
Lead	ppb	<b>28</b>	<b>5</b>	< 2	<b>23</b>	<b>25</b>	<b>9</b>	<b>19</b>	<b>40</b>	<b>17</b>	<b>20</b>	<b>4</b>	25
Magnesium	ppb	<b>15,200</b>	<b>11,900</b>	<b>12,200</b>	<b>15,300</b>	<b>14,800</b>	<b>11,500</b>	<b>12,400</b>	<b>15,300</b>	<b>17,400</b>	<b>12,700</b>	<b>7,760</b>	35,000
Manganese	ppb	<b>2,770</b>	<b>3,610</b>	<b>1,250</b>	<b>3,060</b>	<b>2,950</b>	<b>926</b>	<b>615</b>	<b>4,040</b>	<b>4,180</b>	<b>5,910</b>	<b>2,410</b>	300
Mercury	ppb	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.7
Nickel	ppb	<b>68</b>	<b>58</b>	<b>16</b>	<b>67</b>	<b>73</b>	<b>66</b>	<b>109</b>	<b>127</b>	<b>181</b>	<b>92</b>	<b>32</b>	100
Potassium	ppb	<b>22,600</b>	<b>17,800</b>	<b>21,400</b>	<b>17,800</b>	<b>19,500</b>	<b>14,600</b>	<b>16,000</b>	<b>17,000</b>	<b>26,700</b>	<b>14,400</b>	<b>20,100</b>	N/A
Selenium	ppb	<b>4</b>	<b>6</b>	<b>4</b>	<b>4</b>	<b>3</b>	< 2	< 2	< 2	< 2	< 3	< 3	10
Silver	ppb	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	50
Sodium	ppb	<b>224,000</b>	<b>265,000</b>	<b>201,000</b>	<b>144,000</b>	<b>164,000</b>	<b>170,000</b>	<b>59,900</b>	<b>165,000</b>	<b>266,000</b>	<b>161,000</b>	<b>240,000</b>	20,000
Thallium - LDL	ppb	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.5
Vanadium	ppb	<b>27</b>	<b>18</b>	<b>5</b>	<b>32</b>	<b>38</b>	<b>30</b>	<b>48</b>	<b>67</b>	<b>61</b>	<b>40</b>	<b>10</b>	N/A
Zinc	ppb	<b>69</b>	<b>26</b>	<b>7</b>	<b>66</b>	<b>72</b>	<b>36</b>	<b>61</b>	<b>80</b>	<b>97</b>	<b>47</b>	<b>14</b>	2,000

**Table 2: Summary of RI Groundwater Quality Data**  
 Remedial Investigation of "Former" Debbie Cleaners  
 BCP Site # C224237

Sample ID: Depth(s) of Sample: Sampling Date: Medium:	TW4-GW1A 13' 1.6" bgs 9/26/2017 Ground Water	TW5-GW1A 12' 4.7" bgs 9/26/2017 Ground Water	TW6-GW1A 11' 7.5" bgs 9/26/2017 Ground Water	TW7-GW1A 11' 4.2" bgs 9/26/2017 Ground Water	GWBD-01A 11' 4.2" bgs 9/26/2017 Ground Water	TW8-GW1A 3' 1.5" bgs 9/28/2017 Ground Water	TW9-GW1A 3' 1.7" bgs 9/28/2017 Ground Water	TW10-GW1A 3' 0.6" bgs 9/28/2017 Ground Water	TW11-GW1A 3' 0.9" bgs 9/28/2017 Ground Water	TW12-GW1A 3' 0.4" bgs 9/29/2017 Ground Water	TW13-GW1A 3' 0.3" bgs 9/29/2017 Ground Water	TOGS 1.1.1 GW Standards and Guidance Values	
<b>Total Metals (Dissolved)</b>													
Aluminum (Dissolved)	ppb	< 11	< 11	< 11	< 11	< 11	<b>86</b>	<b>94</b>	<b>93</b>	<b>89</b>	<b>62</b>	<b>66</b>	N/A
Antimony, (Dissolved)	ppb	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	3
Arsenic, (Dissolved)	ppb	<b>1</b>	< 3	< 3	< 3	< 3	<b>1</b>	< 3	< 3	<b>1</b>	< 3	<b>1</b>	25
Barium (Dissolved)	ppb	<b>97</b>	<b>50</b>	<b>37</b>	<b>35</b>	<b>37</b>	<b>30</b>	<b>17</b>	<b>31</b>	<b>70</b>	<b>30</b>	<b>72</b>	1,000
Beryllium (Dissolved)	ppb	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	3
Cadmium (Dissolved)	ppb	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	5
Calcium (Dissolved)	ppb	<b>122,000</b>	<b>90,100</b>	<b>84,500</b>	<b>76,000</b>	<b>76,600</b>	<b>58,800</b>	<b>67,900</b>	<b>50,200</b>	<b>67,600</b>	<b>44,000</b>	<b>51,000</b>	N/A
Chromium (Dissolved)	ppb	< 1	<b>1</b>	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	50
Cobalt, (Dissolved)	ppb	<b>3</b>	<b>1</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>2</b>	<b>1</b>	<b>5</b>	<b>3</b>	<b>3</b>	<b>5</b>	N/A
Copper, (Dissolved)	ppb	<b>1</b>	<b>4</b>	< 5	< 5	< 5	<b>1</b>	<b>2</b>	<b>1</b>	< 5	< 5	<b>1</b>	200
Cyanide (Dissolved)	ppb	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	200
Iron, (Dissolved)	ppb	<b>320</b>	< 10	< 10	<b>90</b>	<b>110</b>	< 10	<b>50</b>	< 10	< 10	< 10	< 10	300
Lead (Dissolved)	ppb	<b>2</b>	< 2	< 2	<b>1</b>	< 2	< 2	<b>2</b>	< 2	< 2	< 2	< 2	25
Magnesium (Dissolved)	ppb	<b>11,200</b>	<b>9,390</b>	<b>12,300</b>	<b>9,450</b>	<b>9,670</b>	<b>7,790</b>	<b>6,620</b>	<b>7,500</b>	<b>7,910</b>	<b>7,370</b>	<b>6,240</b>	35,000
Manganese, (Dissolved)	ppb	<b>1,970</b>	<b>1,690</b>	<b>1,380</b>	<b>1,950</b>	<b>2,000</b>	<b>386</b>	<b>356</b>	<b>2,030</b>	<b>2,930</b>	<b>4,500</b>	<b>2,060</b>	300
Mercury (Dissolved)	ppb	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.7
Nickel, (Dissolved)	ppb	<b>13</b>	<b>9</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>4</b>	<b>9</b>	<b>6</b>	<b>10</b>	<b>5</b>	<b>8</b>	100
Potassium (Dissolved)	ppb	<b>19,300</b>	<b>15,100</b>	<b>19,800</b>	<b>15,100</b>	<b>15,400</b>	<b>13,500</b>	<b>12,700</b>	<b>12,600</b>	<b>20,500</b>	<b>12,600</b>	<b>21,600</b>	N/A
Selenium, (Dissolved)	ppb	<b>3</b>	<b>3</b>	< 4	< 4	< 4	< 4	<b>5</b>	< 4	< 4	< 4	< 4	10
Silver (Dissolved)	ppb	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	50
Sodium (Dissolved)	ppb	<b>187,000</b>	<b>233,000</b>	<b>181,000</b>	<b>145,000</b>	<b>141,000</b>	<b>196,000</b>	<b>60,500</b>	<b>165,000</b>	<b>278,000</b>	<b>160,000</b>	<b>244,000</b>	20,000
Thallium, (Dissolved)	ppb	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.5
Vanadium, (Dissolved)	ppb	< 11	< 11	< 11	< 11	< 11	<b>2</b>	< 11	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	N/A
Zinc, (Dissolved)	ppb	<b>4</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>3</b>	< 11	<b>1</b>	< 11	< 11	< 11	<b>1</b>	2,000
Sample ID: Depth(s) of Sample: Sampling Date: Medium:	TW4-GW1B 13' 1.6" bgs 9/26/2017 Ground Water	TW5-GW1B 12' 4.7" bgs 9/26/2017 Ground Water	TW6-GW1B 11' 7.5" bgs 9/26/2017 Ground Water	TW7-GW1B 11' 4.2" bgs 9/26/2017 Ground Water	GWBD-01B 11' 4.2" bgs 9/26/2017 Ground Water	TW8-GW1B 3' 1.5" bgs 9/28/2017 Ground Water	TW9-GW1B 3' 1.7" bgs 9/28/2017 Ground Water	TW10-GW1B 3' 0.6" bgs 9/28/2017 Ground Water	TW11-GW1B 3' 0.9" bgs 9/28/2017 Ground Water	TW12-GW1B 3' 0.4" bgs 9/29/2017 Ground Water	TW13-GW1B 3' 0.3" bgs 9/29/2017 Ground Water	NYSDOH MCL	
<b>PFOA and PFOS</b>													
Perfluorooctanoate (PFOA)	ppt	80.5	88.5	32.2	31.3	32.3	24	40.2	15.4	16.1	14.3	11.4	50,000
Perfluorooctanesulfonate (PFOS)	ppt	38	56.3	44.6	35.2	37.5	48.2	54.2	48.4	77.6	65.6	41.3	50,000

All results are presented in parts per billion (ppb) unless otherwise noted  
 Results in **BOLD** were detected above the Laboratory's Minimum Detection Limit, but below all applicable regulatory guidance value:  
 Results in shaded in **YELLOW** exceed the NYSDEC TOGS 1.1.1 GW Standards and Guidance Values

N/A = No Regulatory Standard Available  
**TOGS 1.1.1 GW Standards and Guidance Values** = Division of Water Technical and Operational Guidance Series (1.1.1), Table 1: Ambient Water Quality Standards and Guidance Values, Class GA (6/1998)  
**NYSDOH MCL** = State Sanitary Code Subpart 5-1, Department of Health Maximum Contaminant Level for Unspecified Organic Contaminants

**TABLE 3**  
**SUMMARY OF RI AIR AND SOIL VAPOR QUALITY DATA**

**Table 3: Summary of RI Air and Soil Vapor Quality Data**  
Remedial Investigation of "Former" Debbie Cleaners  
BCP Site # C224237

Sample ID: Depth/Height of Sample: Sampling Date: Medium:		SS-3 12" below slab 9/27/2017 Sub-Slab	SS-4 12" below slab 9/28/2017 Sub-Slab	SS-5 12" below slab 9/28/2017 Sub-Slab	SS-6 12" below slab 9/28/2017 Sub-Slab	SS-7 12" below slab 9/27/2017 Sub-Slab	SS-8 12" below slab 9/27/2017 Sub-Slab	NYSDOH Minimum Sub-Slab Matrix Value	USEPA Target Sub Slab/Exterior Soil Gas Concentration
<b>Volatiles Organic Compounds</b>									
1,1,1,2-Tetrachloroethane	µg/m <sup>3</sup>	<b>3.71</b>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	N/A	550
1,1,1-Trichloroethane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	100 (Matrix B)	730,000
1,1,2,2-Tetrachloroethane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	N/A	70
1,1,2-Trichloroethane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	N/A	29
1,1-Dichloroethane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	N/A	2,600
1,1-Dichloroethene	µg/m <sup>3</sup>	< 0.20	< 0.20	<b>0.35</b>	< 0.20	< 0.20	< 0.20	6 (Matrix A)	29,000
1,2,4-Trichlorobenzene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	N/A	290
1,2,4-Trimethylbenzene	µg/m <sup>3</sup>	<b>60.9</b>	<b>37.3</b>	<b>28.1</b>	<b>31.2</b>	<b>88.9</b>	<b>39.6</b>	N/A	8,800
1,2-Dibromoethane(EDB)	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	N/A	6.8
1,2-Dichlorobenzene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	N/A	29,000
1,2-Dichloroethane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	N/A	160
1,2-dichloropropane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	N/A	580
1,2-Dichlorotetrafluoroethane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A
1,3,5-Trimethylbenzene	µg/m <sup>3</sup>	<b>16.1</b>	<b>9.97</b>	<b>6.93</b>	<b>7.42</b>	<b>46.7</b>	<b>11</b>	N/A	8,800
1,3-Butadiene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	N/A	140
1,3-Dichlorobenzene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A
1,4-Dichlorobenzene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	N/A	370
1,4-Dioxane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	N/A	820
2-Hexanone(MBK)	µg/m <sup>3</sup>	< 1.00	<b>1.78</b>	< 1.00	<b>1.23</b>	<b>12.8</b>	<b>6.35</b>	N/A	4,400
4-Ethyltoluene	µg/m <sup>3</sup>	<b>18.3</b>	<b>9.87</b>	<b>5.11</b>	<b>6.88</b>	<b>32</b>	<b>10.8</b>	N/A	N/A
4-Isopropyltoluene	µg/m <sup>3</sup>	<b>2.69</b>	< 1.00	< 1.00	<b>1.57</b>	<b>9.66</b>	<b>2.02</b>	N/A	N/A
4-Methyl-2-pentanone(MIBK)	µg/m <sup>3</sup>	<b>2.62</b>	<b>2.44</b>	<b>1.67</b>	< 1.00	<b>3.57</b>	<b>3.82</b>	N/A	440,000
Acetone	µg/m <sup>3</sup>	<b>26.1</b>	<b>10.9</b>	<b>9.07</b>	<b>7.93</b>	<b>32.8</b>	<b>31.8</b>	N/A	4,500,000
Acrylonitrile	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	N/A	60
Benzene	µg/m <sup>3</sup>	<b>15.1</b>	<b>16.1</b>	<b>6</b>	<b>1.39</b>	<b>4.25</b>	<b>5.27</b>	N/A	520
Benzyl chloride	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	N/A	83
Bromodichloromethane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	<b>1.14</b>	<b>4.32</b>	N/A	110
Bromoform	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	N/A	3,700
Bromomethane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	N/A	730
Carbon Disulfide	µg/m <sup>3</sup>	<b>11.9</b>	<b>4.05</b>	<b>4.48</b>	< 1.00	<b>5.1</b>	<b>15.1</b>	N/A	100,000
Carbon Tetrachloride	µg/m <sup>3</sup>	< 0.20	<b>0.25</b>	< 0.20	< 0.20	< 0.20	< 0.20	6 (Matrix A)	680
Chlorobenzene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	N/A	7,300
Chloroethane (Ethyl Chloride)	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	N/A	1,500,000
Chloroform	µg/m <sup>3</sup>	<b>12.4</b>	<b>114</b>	<b>21.9</b>	<b>7.95</b>	<b>15.6</b>	<b>83</b>	N/A	180
Chloromethane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	N/A	13,000
Cis-1,2-Dichloroethene	µg/m <sup>3</sup>	<b>3.02</b>	<b>967</b>	<b>15.1</b>	<b>8.28</b>	<b>0.58</b>	<b>1.91</b>	6 (Matrix A)	No Inhalation Toxicity Info
cis-1,3-Dichloropropene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	N/A	1,000
Cyclohexane	µg/m <sup>3</sup>	<b>3.38</b>	<b>2.91</b>	<b>1.66</b>	< 1.00	< 1.00	<b>1.72</b>	N/A	880,000
Dibromochloromethane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	N/A	No Inhalation Toxicity Info
Dichlorodifluoromethane	µg/m <sup>3</sup>	<b>4.3</b>	<b>2.57</b>	<b>2.73</b>	<b>3.75</b>	<b>2.68</b>	<b>2.57</b>	N/A	15,000
Ethanol	µg/m <sup>3</sup>	<b>1.49</b>	<b>1.68</b>	<b>1.41</b>	<b>1.53</b>	<b>1.18</b>	< 1.00	N/A	N/A
Ethyl acetate	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	N/A	10,000
Ethylbenzene	µg/m <sup>3</sup>	<b>33.6</b>	<b>15.1</b>	<b>7.29</b>	<b>7.46</b>	<b>130</b>	<b>14.4</b>	N/A	1,600
Heptane	µg/m <sup>3</sup>	<b>16.5</b>	<b>5.57</b>	<b>1.86</b>	<b>1.46</b>	<b>12.8</b>	<b>5.98</b>	N/A	N/A
Hexachlorobutadiene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	N/A	190
Hexane	µg/m <sup>3</sup>	<b>12.6</b>	<b>5.53</b>	<b>2.29</b>	<b>1.33</b>	<b>4.44</b>	<b>4.05</b>	N/A	N/A
Isopropylalcohol	µg/m <sup>3</sup>	< 1.00	<b>1.25</b>	< 1.00	< 1.00	<b>1.78</b>	< 1.00	N/A	N/A
Isopropylbenzene	µg/m <sup>3</sup>	<b>3.18</b>	<b>1.47</b>	<b>1.12</b>	< 1.00	<b>14.2</b>	<b>2.25</b>	N/A	N/A
m,p-Xylene	µg/m <sup>3</sup>	<b>132</b>	<b>63.8</b>	<b>34.3</b>	<b>37.1</b>	<b>599</b>	<b>61.2</b>	N/A	15,000
Methyl Ethyl Ketone	µg/m <sup>3</sup>	<b>1.43</b>	<b>1.21</b>	< 1.00	< 1.00	<b>4.42</b>	<b>4.8</b>	N/A	730,000
Methyl tert-butyl ether(MTBE)	µg/m <sup>3</sup>	< 1.00	<b>1.57</b>	<b>2.05</b>	< 1.00	< 1.00	< 1.00	N/A	16,000
Methylene Chloride	µg/m <sup>3</sup>	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	100 (Matrix B)	88,000
n-Butylbenzene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	<b>4.05</b>	< 1.00	<b>4.77</b>	N/A	No Inhalation Toxicity Info
o-Xylene	µg/m <sup>3</sup>	<b>45.1</b>	<b>22.3</b>	<b>14.9</b>	<b>13.6</b>	<b>313</b>	<b>22.9</b>	N/A	15,000
Propylene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	N/A	440,000
sec-Butylbenzene	µg/m <sup>3</sup>	<b>1.78</b>	< 1.00	< 1.00	< 1.00	<b>7.08</b>	<b>1.43</b>	N/A	No Inhalation Toxicity Info
Styrene	µg/m <sup>3</sup>	<b>7.83</b>	<b>3.3</b>	<b>2.29</b>	<b>2.92</b>	< 1.00	<b>4.38</b>	N/A	150,000
Tetrachloroethene	µg/m <sup>3</sup>	<b>48,300</b>	<b>78,000</b>	<b>69,800</b>	<b>11,100</b>	<b>15,700</b>	<b>4,820</b>	100 (Matrix B)	5,800
Tetrahydrofuran	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	N/A	290,000
Toluene	µg/m <sup>3</sup>	<b>109</b>	<b>43.7</b>	<b>14.4</b>	<b>13</b>	<b>19.4</b>	<b>41.8</b>	N/A	730,000
Trans-1,2-Dichloroethene	µg/m <sup>3</sup>	< 1.00	<b>76.5</b>	<b>1.9</b>	< 1.00	< 1.00	< 1.00	N/A	No Inhalation Toxicity Info
trans-1,3-Dichloropropene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A
Trichloroethene	µg/m <sup>3</sup>	<b>527</b>	<b>6,980</b>	<b>983</b>	<b>393</b>	<b>185</b>	<b>204</b>	6 (Matrix A)	290
Trichlorofluoromethane	µg/m <sup>3</sup>	<b>28.7</b>	<b>1.54</b>	<b>2.58</b>	<b>7.8</b>	<b>2.07</b>	<b>1.48</b>	N/A	No Inhalation Toxicity Info
Trichlorotrifluoroethane	µg/m <sup>3</sup>	< 1.00	<b>8.73</b>	<b>1.22</b>	< 1.00	< 1.00	< 1.00	N/A	730,000
Vinyl Chloride	µg/m <sup>3</sup>	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	6 (Matrix C)	930

All results are presented in micrograms per cubic meter (µg/m<sup>3</sup>)  
 Results in **BOLD** were detected above the Laboratory's Minimum Detection Limit, but below all applicable regulatory guidance values  
 Results in **BOLD BLUE** exceed the USEPA Target Concentrations  
 Results in shaded in **YELLOW** exceed the NYSDOH Minimum Matrix Concentrations

**N/A** = No Regulatory Standard Available  
**No Inhalation Toxicity Data**= Inhalation Unit Risk and/or Inhalation Reference Concentration data does not exist; no corresponding screening level .  
**NYSDOH Minimum Decision Matrix Values**= NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006) : Soil Vapor/Indoor Air Matrix A, B and C Minimum Concentrations (updated May 2017)  
**USEPA Target Sub-Slab & Exterior Soil Gas Concentration**= EPA-OLEM Vapor Intrusion Assessment, Vapor Intrusion Screening Level (VISL) Calculator Version 3.5.1 (June 2017 Regional Screening Levels): Commercial Exposure Scenario, Target Sub-slab and Exterior Soil Gas Concentration @ a Target Risk for Carcinogens of 1E-05, a Target Hazard Quotient for Non-Carcinogens of 1, and an average Groundwater Temperature of 25° C

**Table 3: Summary of RI Air and Soil Vapor Quality Data**  
Remedial Investigation of "Former" Debbie Cleaners  
BCP Site # C224237

Sample ID: Depth/Height of Sample: Sampling Date: Medium:		IA-3 ~ 4' above slab 9/27/2017 Indoor Air	IA-4 ~ 4' above slab 9/28/2017 Indoor Air	IA-5 ~ 4' above slab 9/27/2017 Indoor Air	IA-6 ~ 4' above slab 9/27/2017 Indoor Air	NYSDOH Established Air Guidelines	NYSDOH Minimum Indoor Air Matrix Value	USEPA Target Indoor Air Concentration
<b>Volatiles Organic Compounds</b>								
1,1,1,2-Tetrachloroethane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	17
1,1,1-Trichloroethane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	3 (Matrix B)	22,000
1,1,2,2-Tetrachloroethane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	2.1
1,1,2-Trichloroethane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	0.88
1,1-Dichloroethane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	77
1,1-Dichloroethene	µg/m <sup>3</sup>	< 0.20	< 0.20	< 0.20	< 0.20	N/A	0.2 (Matrix A)	880
1,2,4-Trichlorobenzene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	8.8
1,2,4-Trimethylbenzene	µg/m <sup>3</sup>	<b>1.54</b>	<b>1.4</b>	<b>1.19</b>	<b>1.27</b>	N/A	N/A	260
1,2-Dibromoethane(EDB)	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	0.2
1,2-Dichlorobenzene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	880
1,2-Dichloroethane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	4.7
1,2-dichloropropane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	18
1,2-Dichlorotetrafluoroethane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	N/A
1,3,5-Trimethylbenzene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	260
1,3-Butadiene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	4.1
1,3-Dichlorobenzene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	N/A
1,4-Dichlorobenzene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	11
1,4-Dioxane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	25
2-Hexanone(MBK)	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	130
4-Ethyltoluene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	N/A
4-Isopropyltoluene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	N/A
4-Methyl-2-pentanone(MIBK)	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	13,000
Acetone	µg/m <sup>3</sup>	<b>44.4</b>	<b>39.6</b>	<b>44.6</b>	<b>46.5</b>	N/A	N/A	140,000
Acrylonitrile	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	1.8
Benzene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	16
Benzyl chloride	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	2.5
Bromodichloromethane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	3.3
Bromoform	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	110
Bromomethane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	22
Carbon Disulfide	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	3,100
Carbon Tetrachloride	µg/m <sup>3</sup>	<b>0.5</b>	<b>0.51</b>	<b>0.52</b>	<b>0.53</b>	N/A	0.2 (Matrix A)	20
Chlorobenzene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	220
Chloroethane (Ethyl Chloride)	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	44,000
Chloroform	µg/m <sup>3</sup>	< 1.00	< 1.00	<b>1.57</b>	<b>2.88</b>	N/A	N/A	5.3
Chloromethane	µg/m <sup>3</sup>	<b>1.17</b>	<b>1.23</b>	<b>1.16</b>	<b>1.2</b>	N/A	N/A	390
Cis-1,2-Dichloroethene	µg/m <sup>3</sup>	<b>0.27</b>	< 0.20	< 0.20	< 0.20	N/A	0.2 (Matrix A)	No Inhalation Toxicity Info
cis-1,3-Dichloropropene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	31
Cyclohexane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	26,000
Dibromochloromethane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	No Inhalation Toxicity Info
Dichlorodifluoromethane	µg/m <sup>3</sup>	<b>2.47</b>	<b>2.26</b>	<b>2.34</b>	<b>2.27</b>	N/A	N/A	440
Ethanol	µg/m <sup>3</sup>	<b>85.7</b>	<b>150</b>	<b>186</b>	<b>184</b>	N/A	N/A	N/A
Ethyl acetate	µg/m <sup>3</sup>	<b>1.33</b>	< 1.00	<b>1.17</b>	< 1.00	N/A	N/A	310
Ethylbenzene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	49
Heptane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	N/A
Hexachlorobutadiene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	5.6
Hexane	µg/m <sup>3</sup>	<b>1.17</b>	< 1.00	<b>1.22</b>	<b>1.26</b>	N/A	N/A	N/A
Isopropylalcohol	µg/m <sup>3</sup>	<b>5.13</b>	<b>8.7</b>	<b>13.3</b>	<b>12.6</b>	N/A	N/A	N/A
Isopropylbenzene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	N/A
m,p-Xylene	µg/m <sup>3</sup>	<b>3.14</b>	<b>3.12</b>	<b>2.78</b>	<b>2.63</b>	N/A	N/A	440
Methyl Ethyl Ketone	µg/m <sup>3</sup>	<b>1.43</b>	<b>2.33</b>	<b>2.56</b>	<b>2.03</b>	N/A	N/A	22,000
Methyl tert-butyl ether(MTBE)	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	470
Methylene Chloride	µg/m <sup>3</sup>	< 3.00	< 3.00	< 3.00	< 3.00	60	3 (Matrix B)	2,600
n-Butylbenzene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	No Inhalation Toxicity Info
o-Xylene	µg/m <sup>3</sup>	<b>1.28</b>	<b>1.18</b>	<b>1.05</b>	<b>1.06</b>	N/A	N/A	440
Propylene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	13,000
sec-Butylbenzene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	No Inhalation Toxicity Info
Styrene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	4,400
Tetrachloroethene	µg/m <sup>3</sup>	<b>5.27</b>	<b>23.5</b>	<b>9.69</b>	<b>9.22</b>	30 <sup>(1)</sup>	3 (Matrix B)	180
Tetrahydrofuran	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	8,800
Toluene	µg/m <sup>3</sup>	<b>4.14</b>	<b>4.97</b>	<b>5.12</b>	<b>4.82</b>	N/A	N/A	22,000
Trans-1,2-Dichloroethene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	No Inhalation Toxicity Info
trans-1,3-Dichloropropene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	N/A
Trichloroethene	µg/m <sup>3</sup>	< 0.20	<b>0.68</b>	<b>0.33</b>	<b>0.33</b>	2 <sup>(2)</sup>	0.2 (Matrix A)	8.8
Trichlorofluoromethane	µg/m <sup>3</sup>	<b>1.3</b>	<b>1.27</b>	<b>1.31</b>	<b>1.31</b>	N/A	N/A	No Inhalation Toxicity Info
Trichlorotrifluoroethane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	N/A	N/A	22,000
Vinyl Chloride	µg/m <sup>3</sup>	< 0.20	< 0.20	< 0.20	< 0.20	N/A	0.2 (Matrix C)	28

All results are presented in micrograms per cubic meter (µg/m<sup>3</sup>)  
 Results in **BOLD** were detected above the Laboratory's Minimum Detection Limit, but below all applicable regulatory guidance values  
 Results in **BOLD BLUE** exceed the USEPA Target Concentrations  
 Results in shaded in **YELLOW** exceed the NYSDOH Minimum Matrix Concentrations

**N/A** = No Regulatory Standard Available  
**No Inhalation Toxicity Data**= Inhalation Unit Risk and/or Inhalation Reference Concentration data does not exist; no corresponding screening level .  
**NYSDOH Minimum Decision Matrix Values**= NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006) : Soil Vapor/Indoor Air Matrix A, B and C Minimum Concentrations (updated May 2017)  
**USEPA Target Indoor Air Concentration**= EPA-OLEM Vapor Intrusion Assessment, Vapor Intrusion Screening Level (VISL) Calculator Version 3.5.1 (June 2017 Regional Screening Levels): Commercial Exposure Scenario, Target Indoor Air Concentration @ a Target Risk for Carcinogens of 1.00E-05, a Target Hazard Quotient for Non-Carcinogens of 1, and an average Groundwater Temperature of 25° C  
**NYSDOH Air Guideline Value**= NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006) : Table 3.1  
 (1) New Guideline effective 9/2013 (NYSDOH Soil Vapor Intrusion Updates)  
 (2) New Guideline effective 8/2015 (NYSDOH Soil Vapor Intrusion Updates)

**Table 3: Summary of RI Air and Soil Vapor Quality Data**  
Remedial Investigation of "Former" Debbie Cleaners  
BCP Site # C224237

Sample ID: Depth/Height of Sample: Sampling Date: Medium:		SV-1 11' bgs 9/29/2017 Soil Vapor	SV-2 11' bgs 9/29/2017 Soil Vapor	SV-3 9' bgs 9/29/2017 Soil Vapor	SV-4 9' bgs 9/29/2017 Soil Vapor	SV-5 7' bgs 9/29/2017 Soil Vapor	USEPA Target Sub Slab/Exterior Soil Gas Concentration
<b>Volatiles Organic Compounds</b>							
1,1,1,2-Tetrachloroethane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	550
1,1,1-Trichloroethane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	730,000
1,1,2,2-Tetrachloroethane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	70
1,1,2-Trichloroethane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	<b>12.6</b>	< 1.00	29
1,1-Dichloroethane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	2,600
1,1-Dichloroethene	µg/m <sup>3</sup>	< 0.20	< 0.20	<b>20.1</b>	< 0.20	< 0.20	29,000
1,2,4-Trichlorobenzene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	290
1,2,4-Trimethylbenzene	µg/m <sup>3</sup>	<b>20.2</b>	<b>26.4</b>	<b>22</b>	<b>19.8</b>	<b>51.1</b>	8,800
1,2-Dibromoethane(EDB)	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	6.8
1,2-Dichlorobenzene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	29,000
1,2-Dichloroethane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	160
1,2-dichloropropane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	580
1,2-Dichlorotetrafluoroethane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	N/A
1,3,5-Trimethylbenzene	µg/m <sup>3</sup>	<b>5.7</b>	<b>7.22</b>	<b>5.9</b>	<b>5.65</b>	<b>14.7</b>	8,800
1,3-Butadiene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	140
1,3-Dichlorobenzene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	N/A
1,4-Dichlorobenzene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	370
1,4-Dioxane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	820
2-Hexanone(MBK)	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	<b>3.41</b>	4,400
4-Ethyltoluene	µg/m <sup>3</sup>	<b>3.57</b>	<b>5.75</b>	<b>5.55</b>	<b>3.7</b>	<b>16.8</b>	N/A
4-Isopropyltoluene	µg/m <sup>3</sup>	<b>1.55</b>	< 1.00	< 1.00	<b>2.14</b>	<b>2.36</b>	N/A
4-Methyl-2-pentanone(MIBK)	µg/m <sup>3</sup>	< 1.00	<b>2.36</b>	<b>1.04</b>	<b>6.22</b>	<b>4.26</b>	440,000
Acetone	µg/m <sup>3</sup>	<b>34.7</b>	<b>120</b>	<b>28.5</b>	< 1.00	<b>146</b>	4,500,000
Acrylonitrile	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	60
Benzene	µg/m <sup>3</sup>	< 1.00	<b>6.83</b>	<b>26.4</b>	<b>13.3</b>	<b>13.8</b>	520
Benzyl chloride	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	83
Bromodichloromethane	µg/m <sup>3</sup>	< 1.00	<b>4.17</b>	< 1.00	< 1.00	< 1.00	110
Bromoform	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	3,700
Bromomethane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	730
Carbon Disulfide	µg/m <sup>3</sup>	<b>5.85</b>	<b>9.27</b>	<b>31.1</b>	<b>44.8</b>	<b>20.9</b>	100,000
Carbon Tetrachloride	µg/m <sup>3</sup>	< 0.20	<b>0.35</b>	<b>0.3</b>	< 0.20	<b>0.48</b>	680
Chlorobenzene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	7,300
Chloroethane (Ethyl Chloride)	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	1,500,000
Chloroform	µg/m <sup>3</sup>	<b>4.19</b>	<b>21</b>	<b>31.8</b>	<b>1.78</b>	<b>15.3</b>	180
Chloromethane	µg/m <sup>3</sup>	< 1.00	< 1.00	<b>1.03</b>	< 1.00	< 1.00	13,000
Cis-1,2-Dichloroethene	µg/m <sup>3</sup>	< 0.20	<b>97.1</b>	<b>13,700</b>	<b>12.6</b>	< 0.20	No Inhalation Toxicity Info
cis-1,3-Dichloropropene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	1,000
Cyclohexane	µg/m <sup>3</sup>	<b>1.38</b>	<b>5.74</b>	<b>12.5</b>	<b>135</b>	<b>10.2</b>	880,000
Dibromochloromethane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	No Inhalation Toxicity Info
Dichlorodifluoromethane	µg/m <sup>3</sup>	<b>2.86</b>	<b>1.95</b>	<b>1.69</b>	< 1.00	<b>3.84</b>	15,000
Ethanol	µg/m <sup>3</sup>	<b>2.03</b>	<b>16.1</b>	<b>1.66</b>	<b>2.43</b>	<b>20.3</b>	N/A
Ethyl acetate	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	10,000
Ethylbenzene	µg/m <sup>3</sup>	<b>4.17</b>	<b>7.03</b>	<b>5.38</b>	<b>5.55</b>	<b>36.1</b>	1,600
Heptane	µg/m <sup>3</sup>	<b>3.15</b>	<b>9.54</b>	<b>15</b>	<b>56.1</b>	<b>22</b>	N/A
Hexachlorobutadiene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	190
Hexane	µg/m <sup>3</sup>	<b>1.96</b>	<b>15.6</b>	<b>58.5</b>	<b>131</b>	<b>29.4</b>	N/A
Isopropylalcohol	µg/m <sup>3</sup>	< 1.00	<b>5.26</b>	< 1.00	< 1.00	<b>5.13</b>	N/A
Isopropylbenzene	µg/m <sup>3</sup>	<b>1.27</b>	<b>1.77</b>	<b>1.45</b>	<b>1.58</b>	<b>3.55</b>	N/A
m,p-Xylene	µg/m <sup>3</sup>	<b>16.8</b>	<b>22.1</b>	<b>22.5</b>	<b>19.8</b>	<b>128</b>	15,000
Methyl Ethyl Ketone	µg/m <sup>3</sup>	<b>2.04</b>	<b>16.1</b>	< 1.00	< 1.00	<b>55.4</b>	730,000
Methyl tert-butyl ether(MTBE)	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	16,000
Methylene Chloride	µg/m <sup>3</sup>	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	88,000
n-Butylbenzene	µg/m <sup>3</sup>	<b>1.05</b>	< 1.00	<b>2.95</b>	<b>2.57</b>	<b>4.65</b>	No Inhalation Toxicity Info
o-Xylene	µg/m <sup>3</sup>	<b>9.07</b>	<b>11.8</b>	<b>11.2</b>	<b>11.6</b>	<b>49.9</b>	15,000
Propylene	µg/m <sup>3</sup>	< 1.00	<b>5.13</b>	<b>251</b>	<b>1,010</b>	<b>10.5</b>	440,000
sec-Butylbenzene	µg/m <sup>3</sup>	<b>1.28</b>	< 1.00	<b>1.22</b>	<b>1.27</b>	<b>1.74</b>	No Inhalation Toxicity Info
Styrene	µg/m <sup>3</sup>	<b>1.83</b>	< 1.00	<b>2.57</b>	<b>1.55</b>	< 1.00	150,000
Tetrachloroethene	µg/m <sup>3</sup>	<b>40.6</b>	<b>3,310</b>	<b>67,200</b>	<b>230</b>	<b>38.8</b>	5,800
Tetrahydrofuran	µg/m <sup>3</sup>	< 1.00	< 1.00	<b>1.56</b>	< 1.00	< 1.00	290,000
Toluene	µg/m <sup>3</sup>	<b>8.55</b>	<b>31.6</b>	<b>13.7</b>	< 1.00	<b>108</b>	730,000
Trans-1,2-Dichloroethene	µg/m <sup>3</sup>	< 1.00	<b>8.36</b>	<b>1,070</b>	< 1.00	< 1.00	No Inhalation Toxicity Info
trans-1,3-Dichloropropene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	N/A
Trichloroethene	µg/m <sup>3</sup>	<b>0.21</b>	<b>424</b>	<b>16,500</b>	<b>19.7</b>	<b>1.81</b>	290
Trichlorofluoromethane	µg/m <sup>3</sup>	<b>6.18</b>	<b>2.68</b>	<b>1.44</b>	< 1.00	<b>2.46</b>	No Inhalation Toxicity Info
Trichlorotrifluoroethane	µg/m <sup>3</sup>	< 1.00	< 1.00	<b>1.95</b>	< 1.00	< 1.00	730,000
Vinyl Chloride	µg/m <sup>3</sup>	< 0.20	< 0.20	<b>148</b>	<b>0.56</b>	< 0.20	930

All results are presented in micrograms per cubic meter (µg/m<sup>3</sup>)  
 Results in **BOLD** were detected above the Laboratory's Minimum Detection Limit, but below all applicable regulatory guidance values  
 Results in **BOLD BLUE** exceed the USEPA Target Concentrations  
 Results in shaded in **YELLOW** exceed the NYSDOH Minimum Matrix Concentrations

**N/A** = No Regulatory Standard Available

**No Inhalation Toxicity Data**= Inhalation Unit Risk (IUR) and/or Inhalation Reference Concentration (RfC) data does not exist and no corresponding screening level is provided.

**NYSDOH Minimum Decision Matrix Values**= NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006) : Soil Vapor/Indoor Air Matrix A, B and C Minimum Concentrations (updated May 2017)

**USEPA Target Sub-Slab & Exterior Soil Gas Concentration**= EPA-OLEM Vapor Intrusion Assessment, Vapor Intrusion Screening Level (VISL) Calculator Version 3.5.1 (June 2017 Regional Screening Levels): Commercial Exposure Scenario, Target Sub-slab and Exterior Soil Gas Concentration Target Risk for Carcinogens of 1E-05, a Target Hazard Quotient for Non-Carcinogens of 1, and an average Groundwater Temperature of 25° C

**Table 3: Summary of RI Air and Soil Vapor Quality Data**  
 Remedial Investigation of "Former" Debbie Cleaners  
 BCP Site # C224237

Sample ID: Depth/Height of Sample: Sampling Date: Medium:		AA-3 ~ 4' above grade 9/27/2017 Outdoor Air	AA-4 ~ 4' above grade 9/28/2017 Outdoor Air	AA-5 ~ 4' above grade 9/29/2017 Outdoor Air
<b>Volatiles Organic Compounds</b>				
1,1,1,2-Tetrachloroethane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
1,1,1-Trichloroethane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
1,1,2,2-Tetrachloroethane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
1,1,2-Trichloroethane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
1,1-Dichloroethane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
1,1-Dichloroethene	µg/m <sup>3</sup>	< 0.20	< 0.20	< 0.20
1,2,4-Trichlorobenzene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
1,2,4-Trimethylbenzene	µg/m <sup>3</sup>	< 1.00	< 1.00	<b>4.01</b>
1,2-Dibromoethane(EDB)	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
1,2-Dichlorobenzene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
1,2-Dichloroethane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
1,2-dichloropropane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
1,2-Dichlorotetrafluoroethane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
1,3,5-Trimethylbenzene	µg/m <sup>3</sup>	< 1.00	< 1.00	<b>1.24</b>
1,3-Butadiene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
1,3-Dichlorobenzene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
1,4-Dichlorobenzene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
1,4-Dioxane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
2-Hexanone(MBK)	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
4-Ethyltoluene	µg/m <sup>3</sup>	< 1.00	< 1.00	<b>1.33</b>
4-Isopropyltoluene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
4-Methyl-2-pentanone(MIBK)	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
Acetone	µg/m <sup>3</sup>	<b>94.2</b>	<b>16.9</b>	<b>12.7</b>
Acrylonitrile	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
Benzene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
Benzyl chloride	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
Bromodichloromethane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
Bromoform	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
Bromomethane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
Carbon Disulfide	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
Carbon Tetrachloride	µg/m <sup>3</sup>	<b>0.49</b>	<b>0.46</b>	<b>0.49</b>
Chlorobenzene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
Chloroethane (Ethyl Chloride)	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
Chloroform	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
Chloromethane	µg/m <sup>3</sup>	<b>1.15</b>	<b>1.04</b>	<b>1.08</b>
Cis-1,2-Dichloroethene	µg/m <sup>3</sup>	< 0.20	< 0.20	< 0.20
cis-1,3-Dichloropropene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
Cyclohexane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
Dibromochloromethane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
Dichlorodifluoromethane	µg/m <sup>3</sup>	<b>2.39</b>	<b>2.27</b>	<b>2.37</b>
Ethanol	µg/m <sup>3</sup>	<b>13.7</b>	<b>16.8</b>	<b>10.3</b>
Ethyl acetate	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
Ethylbenzene	µg/m <sup>3</sup>	< 1.00	< 1.00	<b>1.11</b>
Heptane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
Hexachlorobutadiene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
Hexane	µg/m <sup>3</sup>	< 1.00	< 1.00	<b>1.11</b>
Isopropylalcohol	µg/m <sup>3</sup>	<b>5.75</b>	<b>1.08</b>	<b>7.2</b>
Isopropylbenzene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
m,p-Xylene	µg/m <sup>3</sup>	< 1.00	< 1.00	<b>2.85</b>
Methyl Ethyl Ketone	µg/m <sup>3</sup>	<b>3.04</b>	< 1.00	<b>1.01</b>
Methyl tert-butyl ether(MTBE)	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
Methylene Chloride	µg/m <sup>3</sup>	< 3.00	< 3.00	< 3.00
n-Butylbenzene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
o-Xylene	µg/m <sup>3</sup>	< 1.00	< 1.00	<b>1.13</b>
Propylene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
sec-Butylbenzene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
Styrene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
Tetrachloroethene	µg/m <sup>3</sup>	<b>0.45</b>	<b>1.06</b>	<b>1.11</b>
Tetrahydrofuran	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
Toluene	µg/m <sup>3</sup>	<b>1.63</b>	<b>1.28</b>	<b>1.29</b>
Trans-1,2-Dichloroethene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
trans-1,3-Dichloropropene	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
Trichloroethene	µg/m <sup>3</sup>	< 0.20	< 0.20	< 0.20
Trichlorofluoromethane	µg/m <sup>3</sup>	<b>1.24</b>	<b>1.23</b>	<b>1.35</b>
Trichlorotrifluoroethane	µg/m <sup>3</sup>	< 1.00	< 1.00	< 1.00
Vinyl Chloride	µg/m <sup>3</sup>	< 0.20	< 0.20	< 0.20

All results are presented in micrograms per cubic meter (µg/m<sup>3</sup>)

**TABLE 4**  
**SAMPLING AND ANALYSIS PLAN**

**Table 4: Sampling and Analysis Plan**

<b>Sample Location Type</b>	<b>Matrix</b>	<b>Sample Depth</b>	<b>Drilling Method</b>	<b>Sampling Method</b>	<b>Analytical Method</b>	<b>Purpose</b>
Permanent Groundwater Monitoring Well (Existing)	Groundwater	3-ft to 5-ft below Basement Grade or 12-ft to 13-ft below Street Grade	N/A	Obtain Water Level and Quality Measurements; Low Flow Methods	Volatile Organic Compounds + 1,4-Dioxane by EPA 8260 and PFAS Target Analyte List by IEPA 537 or SO 25101	Collect additional data as part of SRI
Temporary Groundwater Monitoring Well (Existing)	Groundwater	3-ft to 5-ft below Basement Grade or 12-ft to 13-ft below Street Grade	Geoprobe with Hollow Stem Auger	Obtain Water Level and Quality Measurements; Low Flow Methods	Volatile Organic Compounds + 1,4-Dioxane by EPA 8260 and PFAS Target Analyte List by IEPA 537 or SO 25101	Collect additional data as part of SRI
Proposed Soil Boring and Temporary Monitoring Well	Soil	TBD as per Field Screening	Geoprobe with Hollow Stem Auger	PID Screening; Grab Method	Volatile Organic Compounds by EPA 8260	Determine chlorinated solvent source area
	Groundwater	3-ft to 5-ft below Basement Grade or 12-ft to 13-ft below Street Grade	Geoprobe with Hollow Stem Auger	Obtain Water Level and Quality Measurements; Low Flow Methods	Volatile Organic Compounds + 1,4-Dioxane by EPA 8260 and PFAS Target Analyte List by IEPA 537 or SO 25101	Evaluate groundwater flow direction, nature and extent of impacts from former dry cleaner
Proposed Sub-slab and Street-Grade Soil Vapor Sample Location	Soil Vapor	At least 1-ft above water table, TBD as per groundwater depth	Soil Vapor Probe (Geoprobe or Hammer Drill)	6-Liter SUMMA Canister for 4-Hour Sampling Period	Volatile Organic Compounds by EPA TO15	Evaluate extent of impacts from former dry cleaner
Proposed Indoor Air Sample Location	Indoor Ambient Air	N/A	N/A	6-Liter SUMMA Canister for 4-Hour Sampling Period	Volatile Organic Compounds by EPA TO15	Evaluate extent of impacts from former dry cleaner
Proposed Outdoor Air Sample Location	Outdoor Ambient Air	N/A	N/A	6-Liter SUMMA Canister for 4-Hour Sampling Period	Volatile Organic Compounds by EPA TO15	Evaluate extent of impacts from former dry cleaner

**APPENDIX A**  
**PROJECT PERSONNEL**

## PROJECT PERSONNEL

<b>Environmental Consultant:</b>	<b>CNS Environmental Corp. 208 Newtown Road Plainview, NY 11803 Tel. (516) 932-3228 Fax. (516) 932-3288</b>
<b>Project Manager:</b>	<b>Charles Powers</b>
<b>Field Investigation Team (FIT):</b>	<b>Michael Hauptmann, P.E. Joanna Licata Mohammad Qurashi</b>
<b>Site Health and Safety Officer:</b>	<b>Charles Powers</b>
<b>Designated Alternates:</b>	<b>Michael Hauptmann, P.E.</b>

<b>Proposed Subcontractor:</b>	<b>PAL Environmental Services 11-02 Queens Plaza South Long Island City, NY 11101 Tel. (718) 349-0900 Fax. (718) 349-2800</b>
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<b>Proposed Laboratory:</b>	<b>Pace Analytical 575 Broad Hollow Road Melville, NY 11747 Tel. (631) 694-3040 Fax. (631) 420-8436</b>
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*If the principal personnel designated on this project changes, information for new personnel will be submitted to the NYSDEC for approval.*

**APPENDIX B**  
**REMEDIAL PARTY CONTACT INFORMATION**

## REMEDIAL PARTY CONTACT INFORMATION

<b>Site Owner:</b>	<b>Acadia 3780-3858 Nostrand Avenue 411 Theodore Fremd Avenue., Suite 300 Rye, NY 10580</b>
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<b>Authorized Representative:</b>	<b>Brian Bacharach Tel. (914) 288-8100 Fax. (914) 428-2760</b>
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<b>Owner's Attorney:</b>	<b>James P. Rigano 538 Broadhollow Road, Suite 217 Melville, NY 11747 Tel. (631) 756-5900 Fax. (631) 756-0008</b>
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**APPENDIX C**  
**UPDATED CITIZEN PARTICIPATION PLAN**



Department of  
Environmental  
Conservation

# **Brownfield Cleanup Program Citizen Participation Plan for Former Debbie Cleaners**

August 2016  
(updated June 2018)

BCP # C224237  
3800-3808 Nostrand Avenue  
Brooklyn  
Kings County, New York

## Contents

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3. Major Issues of Public Concern .....	9
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5. Investigation and Cleanup Process.....	10
Appendix A .....	Project Contacts and Locations of Reports and Information
Appendix B .....	Site Contact List
Appendix C .....	Site Location Map
Appendix D.....	Brownfield Cleanup Program Process

\* \* \* \* \*

**Note:** The information presented in this Citizen Participation Plan was current as of the date of its approval by the New York State Department of Environmental Conservation. Portions of this Citizen Participation Plan may be revised during the site’s investigation and cleanup process.

Applicant: **Acadia 3780-3858 Nostrand Avenue LLC (“Applicant”)**  
Site Name: **“Former” Debbie Cleaners**  
Site Address: **3800-3808 Nostrand Avenue**  
Site County: **Kings**  
Site Number: **C224237**

## **1. What is New York’s Brownfield Cleanup Program?**

New York’s Brownfield Cleanup Program (BCP) works with private developers to encourage the voluntary cleanup of contaminated properties known as “brownfields” so that they can be reused and developed. These uses include recreation, housing, and business.

A *brownfield* is any real property that is difficult to reuse or redevelop because of the presence or potential presence of contamination. A brownfield typically is a former industrial or commercial property where operations may have resulted in environmental contamination. A brownfield can pose environmental, legal, and financial burdens on a community. If a brownfield is not addressed, it can reduce property values in the area and affect economic development of nearby properties.

The BCP is administered by the New York State Department of Environmental Conservation (NYSDEC) which oversees Applicants who conduct brownfield site investigation and cleanup activities. An Applicant is a person who has requested to participate in the BCP and has been accepted by NYSDEC. The BCP contains investigation and cleanup requirements, ensuring that cleanups protect public health and the environment. When NYSDEC certifies that these requirements have been met, the property can be reused or redeveloped for the intended use.

For more information about the BCP, go online at:  
<http://www.dec.ny.gov/chemical/8450.html>.

## **2. Citizen Participation Activities**

### *Why NYSDEC Involves the Public and Why It Is Important*

NYSDEC involves the public to improve the process of investigating and cleaning up contaminated sites, and to enable citizens to participate more fully in decisions that affect their health, environment, and social well-being. NYSDEC provides opportunities for citizen involvement and encourages early two-way communication with citizens before decision makers form or adopt final positions.

Involving citizens affected and interested in site investigation and cleanup programs is important for many reasons. These include:

- Promoting the development of timely, effective site investigation and cleanup programs that protect public health and the environment
- Improving public access to, and understanding of, issues and information related to a particular site and that site's investigation and cleanup process
- Providing citizens with early and continuing opportunities to participate in NYSDEC's site investigation and cleanup process
- Ensuring that NYSDEC makes site investigation and cleanup decisions that benefit from input that reflects the interests and perspectives found within the affected community
- Encouraging dialogue to promote the exchange of information among the affected/interested public, State agencies, and other interested parties that strengthens trust among the parties, increases understanding of site and community issues and concerns, and improves decision making.

This Citizen Participation (CP) Plan provides information about how NYSDEC will inform and involve the public during the investigation and cleanup of the site identified above. The public information and involvement program will be carried out with assistance, as appropriate, from the Applicant.

#### *Project Contacts*

Appendix A identifies NYSDEC project contact(s) to whom the public should address questions or request information about the site's investigation and cleanup program. The public's suggestions about this CP Plan and the CP program for the site are always welcome. Interested people are encouraged to share their ideas and suggestions with the project contacts at any time.

#### *Locations of Reports and Information*

The locations of the reports and information related to the site's investigation and cleanup program also are identified in Appendix A. These locations provide convenient access to important project documents for public review and comment. Some documents may be placed on the NYSDEC web site. If this occurs, NYSDEC will inform the public in fact sheets distributed about the site and by other means, as appropriate.

#### *Site Contact List*

Appendix B contains the site contact list. This list has been developed to keep the community informed about, and involved in, the site's investigation and cleanup process. The site contact list will be used periodically to distribute fact sheets that provide updates about the status of the project. These will include notifications of upcoming activities at the site (such as fieldwork), as well as availability of project documents and announcements about public comment periods.

The site contact list includes, at a minimum:

- chief executive officer and planning board chairperson of each county, city, town and village in which the site is located;
- residents, owners, and occupants of the site and properties adjacent to the site;
- the public water supplier which services the area in which the site is located;
- any person who has requested to be placed on the site contact list;
- the administrator of any school or day care facility located on or near the site for purposes of posting and/or dissemination of information at the facility;
- location(s) of reports and information.

The site contact list will be reviewed periodically and updated as appropriate. Individuals and organizations will be added to the site contact list upon request. Such requests should be submitted to the NYSDEC project contact(s) identified in Appendix A. Other additions to the site contact list may be made at the discretion of the NYSDEC project manager, in consultation with other NYSDEC staff as appropriate.

**Note:** The first site fact sheet (usually related to the draft Remedial Investigation Work Plan) is distributed both by paper mailing through the postal service and through DEC Delivers, its email listserv service. The fact sheet includes instructions for signing up with the appropriate county listserv to receive future notifications about the site. See <http://www.dec.ny.gov/chemical/61092.html>.

Subsequent fact sheets about the site will be distributed exclusively through the listserv, except for households without internet access that have indicated the need to continue to receive site information in paper form. Please advise the NYSDEC site project manager identified in Appendix A if that is the case. Paper mailings may continue during the investigation and cleanup process for some sites, based on public interest and need.

### *CP Activities*

The table at the end of this section identifies the CP activities, at a minimum, that have been and will be conducted during the site's investigation and cleanup program. The flowchart in Appendix D shows how these CP activities integrate with the site investigation and cleanup process. The public is informed about these CP activities

through fact sheets and notices distributed at significant points during the program. Elements of the investigation and cleanup process that match up with the CP activities are explained briefly in Section 5.

- **Notices and fact sheets** help the interested and affected public to understand contamination issues related to a site, and the nature and progress of efforts to investigate and clean up a site.
- **Public forums, comment periods and contact with project managers** provide opportunities for the public to contribute information, opinions and perspectives that have potential to influence decisions about a site's investigation and cleanup.

The public is encouraged to contact project staff at any time during the site's investigation and cleanup process with questions, comments, or requests for information.

This CP Plan may be revised due to changes in major issues of public concern identified in Section 3 or in the nature and scope of investigation and cleanup activities. Modifications may include additions to the site contact list and changes in planned citizen participation activities.

#### *Technical Assistance Grant*

NYSDEC must determine if the site poses a significant threat to public health or the environment. This determination generally is made using information developed during the investigation of the site, as described in Section 5.

If the site is determined to be a significant threat, a qualifying community group may apply for a Technical Assistance Grant (TAG). The purpose of a TAG is to provide funds to the qualifying group to obtain independent technical assistance. This assistance helps the TAG recipient to interpret and understand existing environmental information about the nature and extent of contamination related to the site and the development/implementation of a remedy.

An eligible community group must certify that its membership represents the interests of the community affected by the site, and that its members' health, economic well-being or enjoyment of the environment may be affected by a release or threatened release of contamination at the site.

As of the date the declaration (page 2) was signed by the NYSDEC project manager, the significant threat determination for the site had not yet been made.

To verify the significant threat status of the site, the interested public may contact the NYSDEC project manager identified in Appendix A.

For more information about TAGs, go online at <http://www.dec.ny.gov/regulations/2590.html>

Note: The table identifying the citizen participation activities related to the site's investigation and cleanup program follows on the next page:

Citizen Participation Activities	Timing of CP Activity(ies)
<b>Application Process:</b>	
<ul style="list-style-type: none"> <li>• Prepare site contact list</li> <li>• Establish document repository(ies)</li> </ul>	At time of preparation of application to participate in the BCP.
<ul style="list-style-type: none"> <li>• Publish notice in Environmental Notice Bulletin (ENB) announcing receipt of application and 30-day public comment period</li> <li>• Publish above ENB content in local newspaper</li> <li>• Mail above ENB content to site contact list</li> <li>• Conduct 30-day public comment period</li> </ul>	When NYSDEC determines that BCP application is complete. The 30-day public comment period begins on date of publication of notice in ENB. End date of public comment period is as stated in ENB notice. Therefore, ENB notice, newspaper notice, and notice to the site contact list should be provided to the public at the same time.
<b>After Execution of Brownfield Site Cleanup Agreement (BCA):</b>	
<ul style="list-style-type: none"> <li>• Prepare Citizen Participation (CP) Plan</li> </ul>	Before start of Remedial Investigation <b>Note:</b> Applicant must submit CP Plan to NYSDEC for review and approval within 20 days of the effective date of the BCA.
<b>Before NYSDEC Approves Remedial Investigation (RI) Work Plan:</b>	
<ul style="list-style-type: none"> <li>• Distribute fact sheet to site contact list about proposed RI activities and announcing 30-day public comment period about draft RI Work Plan</li> <li>• Conduct 30-day public comment period</li> </ul>	Before NYSDEC approves RI Work Plan. If RI Work Plan is submitted with application, public comment periods will be combined and public notice will include fact sheet. Thirty-day public comment period begins/ends as per dates identified in fact sheet.
<b>After Applicant Completes Remedial Investigation:</b>	
<ul style="list-style-type: none"> <li>• Distribute fact sheet to site contact list that describes RI results</li> </ul>	Before NYSDEC approves RI Report
<b>Before NYSDEC Approves Remedial Work Plan (RWP):</b>	
<ul style="list-style-type: none"> <li>• Distribute fact sheet to site contact list about draft RWP and announcing 45-day public comment period</li> <li>• Public meeting by NYSDEC about proposed RWP (if requested by affected community or at discretion of NYSDEC project manager)</li> <li>• Conduct 45-day public comment period</li> </ul>	Before NYSDEC approves RWP. Forty-five day public comment period begins/ends as per dates identified in fact sheet. Public meeting would be held within the 45-day public comment period.
<b>Before Applicant Starts Cleanup Action:</b>	
<ul style="list-style-type: none"> <li>• Distribute fact sheet to site contact list that describes upcoming cleanup action</li> </ul>	Before the start of cleanup action.
<b>After Applicant Completes Cleanup Action:</b>	
<ul style="list-style-type: none"> <li>• Distribute fact sheet to site contact list that announces that cleanup action has been completed and that NYSDEC is reviewing the Final Engineering Report</li> <li>• Distribute fact sheet to site contact list announcing NYSDEC approval of Final Engineering Report and issuance of Certificate of Completion (COC)</li> </ul>	At the time the cleanup action has been completed. <b>Note:</b> The two fact sheets are combined when possible if there is not a delay in issuing the COC.

### 3. Major Issues of Public Concern

This section of the CP Plan identifies major issues of public concern that relate to the site. Additional major issues of public concern may be identified during the course of the site's investigation and cleanup process.

Based on information collected to date, groundwater and indoor air that migrates from the subsurface ("soil vapor") at the Site is known to be contaminated with dry-cleaning chemicals from past use by a dry cleaner from approximately 1959 through 1985 at a portion of the Site. The extent and the severity of the contamination are currently unknown and as such, there is the potential that the contamination has impacted adjacent/neighboring properties, which include residences; however, groundwater in the area of the site is not used for potable purposes, therefore, any contaminated groundwater which may be present is not a major issue of public concern unless it is contributing to the migration of contaminated vapors off-site. Based upon the collected soil vapor data, outdoor ambient air at the Site has not been affected and indoor ambient air does not warrant mitigation measures.

### 4. Site Information

Appendix C contains a map identifying the location of the site.

#### *Site Description*

The Site is referred to as the Former Debbie Cleaners located at 3800 through 3808 Nostrand Avenue in Brooklyn, Kings County, New York. The Site is located in an urban area, abutted to the north and south by other commercial tenant spaces; to the east by Nostrand Avenue with a retail shopping center beyond; and to the west by the shopping center driveway on the ground level and a hallway on the basement level, with residential homes beyond. The Site consists of approximately 19,951 square foot of tenant spaces and driveway behind the tenant spaces, consisting of an 8,843 square foot ground level, 7,238 square foot of basement, and 3,870 square feet of rear driveway; all of which is located within the northernmost building of the Nostrand Place shopping center property located from 3780 through 3860 Nostrand Avenue.

#### *History of Site Use, Investigation, and Cleanup*

From approximately 1959 through 1985, a portion of the Site was occupied by a dry cleaner, which appears to have led to the dry cleaning-related contamination of groundwater and indoor air that migrates from the subsurface ("soil vapor"). The Site has been occupied by commercial tenants and investigations within the former Debbie Cleaners space have not been performed to date. An initial site investigation completed from April-May 2013 in the 3806 Nostrand Avenue tenant space identified dry cleaning-related **chemicals of concern** in the groundwater above the NYSDEC groundwater standards. Subsequent groundwater investigations have been performed in 2014

through 2016 and dry cleaning-related **chemicals of concern** continued to be identified above the NYSDEC groundwater standards. As a result of the findings, the identified contamination was reported to the NYSDEC and Spill #13-10667 was assigned. In 2015, an investigation was completed where dry cleaning-related **chemicals of concern** were identified within soil vapor and indoor air within the mitigation guidelines and under the NYSDOH Decision Matrix, respectively. Soil sampling has not exhibited any evidence of contamination above remedial requirements. Based upon investigations conducted to date, the primary contaminants of concern for the site consist of **dry cleaning-related chemicals of concern** including cis-1,2,-Dichloroethene (c-DCE), trans-1,2-Dichloroethene (t-DCE), Tetrachloroethene (PCE), and Trichloroethene (TCE).

## 5. Investigation and Cleanup Process

### *Application*

The Applicant has applied for and been accepted into New York's Brownfield Cleanup Program as a Volunteer. This means that the Applicant was not responsible for the disposal or discharge of the contaminants or whose ownership or operation of the site took place after the discharge or disposal of contaminants. The Volunteer must fully characterize the nature and extent of contamination onsite, and must conduct a "qualitative exposure assessment," a process that characterizes the actual or potential exposures of people, fish and wildlife to contaminants on the site and to contamination that has migrated from the site.

The Applicant in its Application proposes that the site will be used for commercial purposes.

To achieve this goal, the Applicant will conduct investigation activities at the site with oversight provided by NYSDEC. The Brownfield Cleanup Agreement executed by NYSDEC and the Applicant sets forth the responsibilities of each party in conducting these activities at the site.

### *Investigation*

The Applicant has completed a partial site investigation before it entered into the BCP. For the partial investigation, NYSDEC will determine if the data are useable.

The Applicant will conduct a supplemental investigation of the site officially called a "remedial investigation" (RI). This investigation will be performed with NYSDEC oversight. The Applicant must develop a remedial investigation workplan, which is subject to public comment.

The site investigation has several goals:

- 1) define the nature and extent of contamination in soil, surface water, groundwater and any other parts of the environment that may be affected;

- 2) identify the source(s) of the contamination;
- 3) assess the impact of the contamination on public health and the environment; and
- 4) provide information to support the development of a proposed remedy to address the contamination or the determination that cleanup is not necessary.

The Applicant submits a draft “Remedial Investigation Work Plan” to NYSDEC for review and approval. NYSDEC makes the draft plan available to the public review during a 30-day public comment period.

When the investigation is complete, the Applicant will prepare and submit a report that summarizes the results. This report also will recommend whether cleanup action is needed to address site-related contamination. The investigation report is subject to review and approval by NYSDEC.

NYSDEC will use the information in the investigation report to determine if the site poses a significant threat to public health or the environment. If the site is a “significant threat,” it must be cleaned up using a remedy selected by NYSDEC from an analysis of alternatives prepared by the Applicant and approved by NYSDEC. If the site does not pose a significant threat, the Applicant may select the remedy from the approved analysis of alternatives.

#### *Interim Remedial Measures*

An Interim Remedial Measure (IRM) is an action that can be undertaken at a site when a source of contamination or exposure pathway can be effectively addressed before the site investigation and analysis of alternatives are completed. If an IRM is likely to represent all or a significant part of the final remedy, NYSDEC will require a 30-day public comment period.

#### *Remedy Selection*

When the investigation of the site has been determined to be complete, the project likely would proceed in one of two directions:

1. The Applicant may recommend in its investigation report that no action is necessary at the site. In this case, NYSDEC would make the investigation report available for public comment for 45 days. NYSDEC then would complete its review, make any necessary revisions, and, if appropriate, approve the investigation report. NYSDEC would then issue a “Certificate of Completion” (described below) to the Applicant.

**or**

2. The Applicant may recommend in its investigation report that action needs to be

taken to address site contamination. After NYSDEC approves the investigation report, the Applicant may then develop a cleanup plan, officially called a “Remedial Work Plan”. The Remedial Work Plan describes the Applicant’s proposed remedy for addressing contamination related to the site.

When the Applicant submits a draft Remedial Work Plan for approval, NYSDEC would announce the availability of the draft plan for public review during a 45-day public comment period.

### *Cleanup Action*

NYSDEC will consider public comments, and revise the draft cleanup plan if necessary, before approving the proposed remedy. The New York State Department of Health (NYSDOH) must concur with the proposed remedy. After approval, the proposed remedy becomes the selected remedy. The selected remedy is formalized in the site Decision Document.

The Applicant may then design and perform the cleanup action to address the site contamination. NYSDEC and NYSDOH oversee the activities. When the Applicant completes cleanup activities, it will prepare a final engineering report that certifies that cleanup requirements have been achieved or will be achieved within a specific time frame. NYSDEC will review the report to be certain that the cleanup is protective of public health and the environment for the intended use of the site.

### *Certificate of Completion*

When NYSDEC is satisfied that cleanup requirements have been achieved or will be achieved for the site, it will approve the final engineering report. NYSDEC then will issue a Certificate of Completion (COC) to the Applicant. The COC states that cleanup goals have been achieved, and relieves the Applicant from future liability for site-related contamination, subject to certain conditions. The Applicant would be eligible to redevelop the site after it receives a COC.

### *Site Management*

The purpose of site management is to ensure the safe reuse of the property if contamination will remain in place. Site management is the last phase of the site cleanup program. This phase begins when the COC is issued. Site management incorporates any institutional and engineering controls required to ensure that the remedy implemented for the site remains protective of public health and the environment. All significant activities are detailed in a Site Management Plan.

An *institutional control* is a non-physical restriction on use of the site, such as a deed restriction that would prevent or restrict certain uses of the property. An institutional control may be used when the cleanup action leaves some contamination that makes

the site suitable for some, but not all uses.

An *engineering control* is a physical barrier or method to manage contamination. Examples include: caps, covers, barriers, fences, and treatment of water supplies.

Site management also may include the operation and maintenance of a component of the remedy, such as a system that pumps and treats groundwater. Site management continues until NYSDEC determines that it is no longer needed.

## **Appendix A**

### **Project Contacts and Locations of Reports and Information**

#### **Project Contacts**

For information about the site's investigation and cleanup program, the public may contact any of the following project staff:

#### **New York State Department of Environmental Conservation (NYSDEC):**

Mr. Michael D. MacCabe, P.E.  
Senior Environmental Engineer / Project Manager  
NYSDEC Region 2  
Division of Environmental Remediation  
1 Hunter's Point Plaza  
47-40 21st Street  
Long Island City, NY 11101  
(718) 482-4900

Adanna Roberts  
Citizen Participation Specialist  
NYSDEC Region 2  
Division of Environmental Remediation  
1 Hunter's Point Plaza  
47-40 21st Street  
Long Island City, NY 11101  
(718) 482-4966

#### **New York State Department of Health (NYSDOH):**

Ms. Angela Martin  
Public Health Specialist  
Bureau of Environmental Exposure Investigation  
Center for Environmental Health  
New York State Department of Health  
Corning Tower, Rm 1787  
Albany, NY 12237  
518-402-7860

#### **Locations of Reports and Information**

The facilities identified below are being used to provide the public with convenient access to important project documents:

**Kings Bay Library**  
3650 Nostrand Avenue  
Brooklyn, NY 11229  
Phone: 718-368-1705  
Hours: **Sun. (closed)**  
**Mon./Wed./Fri. (10am-6pm)**  
**Tues. (10am-8pm)**  
**Thurs. (1pm-8pm)**  
**Sat. (10am-5pm)**

**NYSDEC Region 2**  
1 Hunter's Point Plaza  
47-40 21st Street  
Long Island City, NY 11101  
Attn: **Ms. Dana Mecomber, P.E.**  
Phone: **(718) 482-4900**  
Hours: (call for appointment)

**Brooklyn Community Board No 15**  
**Kingsborough Community College**  
2001 Oriental Blvd. Room C124  
Brooklyn, NY 11235  
Tel: 718-332-3008  
Email: [bk1cb15@verizon.net](mailto:bk1cb15@verizon.net)

## Appendix B Site Contact List

### **Owner**

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Acadia 3780-3858 Nostrand Avenue LLC  
411 Theodore Fremd Avenue., Suite 300  
Rye, NY 10580  
(914) 288-8100

### **Environmental Consultant**

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CNS Environmental Corp.  
208 Newtown Road  
Plainview, NY 11803  
(516) 932-3228

### **NYSDEC**

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Ms. Dana Mecomber, P.E., Project Manager  
NYSDEC Region 2  
Division of Environmental Remediation  
1 Hunter's Point Plaza  
47-40 21st Street  
Long Island City, NY 11101  
(718) 482-4900

Adanna Roberts, Citizen Participation Specialist  
NYSDEC Region 2  
Division of Environmental Remediation  
1 Hunter's Point Plaza  
47-40 21st Street  
Long Island City, NY 11101  
(718) 482-4966

### **NYCDEP**

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Ms. Emily Lloyd  
59-17 Junction Boulevard  
Flushing, NY 11373

### **NYC Planning Commission**

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Mr. Carl Weisbrod  
Central Office  
120 Broadway, 31<sup>st</sup> Floor  
New York, NY 10271

### **Mayor of New York City**

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Mayor Bill De Blasio  
City Hall  
New York, NY 10007

### **Owner's Attorney**

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James P. Rigano  
538 Broadhollow Road, Suite 217  
Melville, NY 11747  
(631) 756-5900

### **Document Repository**

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Kings Bay Library  
3650 Nostrand Avenue  
Brooklyn, NY 11229

### **Local News Sources/Media**

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CBS Local Media  
1271 Avenue of the Americas, 4<sup>th</sup> Floor  
New York, NY 10020  
[cbslocaldigitalsales@cbs.com](mailto:cbslocaldigitalsales@cbs.com)

Brooklyn Daily Eagle  
Gina Ong, 718-643-9099 x. 105  
[legals@brooklyneasgle.com](mailto:legals@brooklyneasgle.com)

### **Brooklyn Borough President**

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Eric L. Adams  
Borough Hall  
209 Joralemon Street  
Brooklyn, NY 11201

### **Brooklyn Community Board District #15**

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Theresa Scavo, Chairperson  
Kingsboro Community College  
2001 Oriental Boulevard, Cluster C  
Room C124  
Brooklyn, NY 11235

**Nearby Schools**

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Raphael Alvarez, Principal  
PS #52  
2675 East 29<sup>th</sup> Street  
Brooklyn, NY 11235  
(718) 648-0882  
Terri Aheam, Principal  
JHS # 14 Shell Bank / YMCA After-School  
Program  
2424 Batchelder Street  
Brooklyn, NY 11235  
(718) 743-0220

**Nearby Day Care/Pre-K/Nursery Schools**

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Sunrise Day Care  
2900 Avenue Y  
Brooklyn, NY 11235  
(718) 743-7434

Beachbrook Nursery School  
2953 Avenue X  
Brooklyn, NY 11235  
(718) 648-7162

Yeshiva of Kings Bay Universal Pre-K  
2611 Avenue Z  
Brooklyn, NY 11235  
(718) 646-8500

### **Tenants within Nostrand Place Shopping Center**

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Investor's Bank 3780 Nostrand Avenue Brooklyn, NY 11235	BillMed Management LLC 3820 Nostrand Avenue, Suite 109 Brooklyn, NY 11235
Tokyo Boy Sushi 3788 Nostrand Avenue Brooklyn, NY 11235	eAutoLease 3820 Nostrand Avenue, Suite 107 Brooklyn, NY 11235
Chop Stix Chinese Restaurant and Sushi Bar 3790 Nostrand Avenue Brooklyn, NY 11235	Danny Super Dollar Inc. 3822 Nostrand Avenue Brooklyn, NY 11235
U.S. Army Recruiting Office 3800 Nostrand Avenue Brooklyn, NY 11235	Nostrand Ice Cream Shop 3824 Nostrand Avenue Brooklyn, NY 11235
Chase Bank 3804 Nostrand Avenue Brooklyn, NY 11235	Viewpoint Optical 3826 Nostrand Avenue Brooklyn, NY 11235
Academy of Dance and Creative Arts 3806 Nostrand Avenue Brooklyn, NY 11235	Care Pharmacy 3828 Nostrand Avenue Brooklyn, NY 11235
Vacant Space 3808 Nostrand Avenue Brooklyn, NY 11235	Vacant Space 3830 Nostrand Avenue, Brooklyn, NY 11235
Vanka Café 3810 Nostrand Avenue Brooklyn, NY 11235	Silver Star Meat Market 3838 Nostrand Avenue Brooklyn, NY 11235
Arie Express Barber Shop 3810A Nostrand Avenue Brooklyn, NY 11235	Cactus Gourmet 3850 Nostrand Avenue Brooklyn, NY 11235
Sensitive Nails 3812 Nostrand Avenue Brooklyn, NY 11235	99 ¢ E & S USA 3850B Nostrand Avenue Brooklyn, NY 11235
Laszczyk Bozena Physical Therapy 3814 Nostrand Avenue Brooklyn, NY 11235	Complete Radiology PC 3852 Nostrand Avenue Brooklyn, NY 11235
Dr. Oleg Kotelskiy, MD 3816 Nostrand Avenue Brooklyn, NY 11235	State Farm Insurance 3858 Nostrand Avenue, Suite 201 Brooklyn, NY 11235
Law offices of Anna Latkovskaia 3820 Nostrand Avenue, Suite 101 Brooklyn, NY 11235	Atlantic Medical Care Associates 3858 Nostrand Avenue, Suite 204 Brooklyn, NY 11235

**Owner/Occupants at Block 7446, Lot 1 (3861 Nostrand Avenue, Brooklyn, New York 11235)**

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Current owner:

Country Leasing Limited Partnership

Current Tenants:

Blink Fitness  
3827 Nostrand Avenue  
Brooklyn, NY 11235

Party City  
3797-3849 Nostrand Avenue  
Brooklyn, NY 11235

Aldi Market  
3785 Nostrand Avenue  
Brooklyn, NY 11235

Rainbow  
3839 Nostrand Avenue  
Brooklyn, NY 11235

Bay Gift and Stationary  
3809 Nostrand Avenue  
Brooklyn, NY 11235

Connie's Pizzeria  
3845 Nostrand Avenue  
Brooklyn, NY 11235

Petland Discounts  
3815 Nostrand Avenue  
Brooklyn, NY 11235

Subway  
3847 Nostrand Avenue  
Brooklyn, NY 11235

Rite Aid  
3823 Nostrand Avenue  
Brooklyn, NY 11235

Allstate  
3847A Nostrand Avenue  
Brooklyn, NY 11235

Goldstar Jewelry  
3833 Nostrand Avenue  
Brooklyn, NY 11235

Kouros Bay Diner  
3861 Nostrand Avenue  
Brooklyn, NY 11235

**Adjacent Residential Property Owners (Section 22, Block 7445)**

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Lot 171  
Rakhel Chtok  
2501 East 29th St, Brooklyn, New York 11235

Lot 71  
Phillip and Jeri Babich  
2503 East 29th St, Brooklyn, New York 11235

Lot 70  
Gennaro and Maria Petraro  
2505 East 29th St, Brooklyn, New York 11235

Lot 69  
Yefim and Marina Sabler  
2507 East 29th St, Brooklyn, New York 11235

Lot 68  
Info unavailable

Lot 67  
Michael P. and Fay T. Gutnick  
2511 East 29th St, Brooklyn, New York 11235

Lot 66  
Wai Kwan Lau  
2515 East 29th St, Brooklyn, New York 11235

Lot 65  
Dmitriy Gutkin  
2517 East 29th St, Brooklyn, New York 11235

Lot 59  
Andrew Klymkovich  
2519 East 29th St, Brooklyn, New York 11235

Lot 58  
Albert Itkin and Anna Pertseva  
2521 East 29th St, Brooklyn, New York 11235

Lot 57  
Arnold J and Madeline Kiner  
2525 East 29th St, Brooklyn, New York 11235

Lot 56  
Filipp and Anna Desyatnikov  
2527 East 29th St, Brooklyn, New York 11235

Lot 55  
Alexander and Tanya Gitarts  
2529 East 29<sup>th</sup> St, Brooklyn, New York 11235

Lot 54  
Stanley Arthur and Karen Beth Sorongon  
2531 East 29th St, Brooklyn, New York 11235

Lot 53  
Sabina Safanov  
2535 East 29th St, Brooklyn, New York 11235

Lot 52  
Leonid Elent  
2537 East 29th St, Brooklyn, New York 11235

Lot 51  
Nataliya and Leonid Lipman  
2539 East 29th St, Brooklyn, New York 11235

Lot 50  
Yefim and Lilia Mayzus  
2541 East 29th St, Brooklyn, New York 11235

Lot 49  
Laura Blady  
2543 East 29th St, Brooklyn, New York 11235

Lot 48  
Mikhail and Liliya Gorelik  
2545 East 29th St, Brooklyn, New York 11235

Lot 47  
Leonid Vinokur  
2549 East 29th St, Brooklyn, New York 11235

Lot 46  
Vyacheslav Lempert  
2551 East 29th St, Brooklyn, New York 11235

Lot 45  
Jae R. and Sandra S. Lee  
2553 East 29th St, Brooklyn, New York 11235

Lot 44  
Eldar Rakhamimov  
2555 East 29th St, Brooklyn, New York 11235

**Adjacent Residential Property Owners (Section 22, Block 7445)**

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Lot 43  
Mauro Dell'olio  
2557 East 29th St, Brooklyn, New York 11235

Lot 42  
Mitchell A. and Jamie S. Judd  
2559 East 29th St, Brooklyn, New York 11235

Lot 41  
Roman and Bella Grinshpuh  
2561 East 29th St, Brooklyn, New York 11235

Lot 40  
Xiu Rong Wen  
2563 East 29th St, Brooklyn, New York 11235

Lot 39  
Misha Messing  
2567 East 29th St, Brooklyn, New York 11235

Lot 38  
Svetlana Leybovich  
2569 East 29th St, Brooklyn, New York 11235

Lot 37  
Tanya Unisov  
2571 East 29th St, Brooklyn, New York 11235

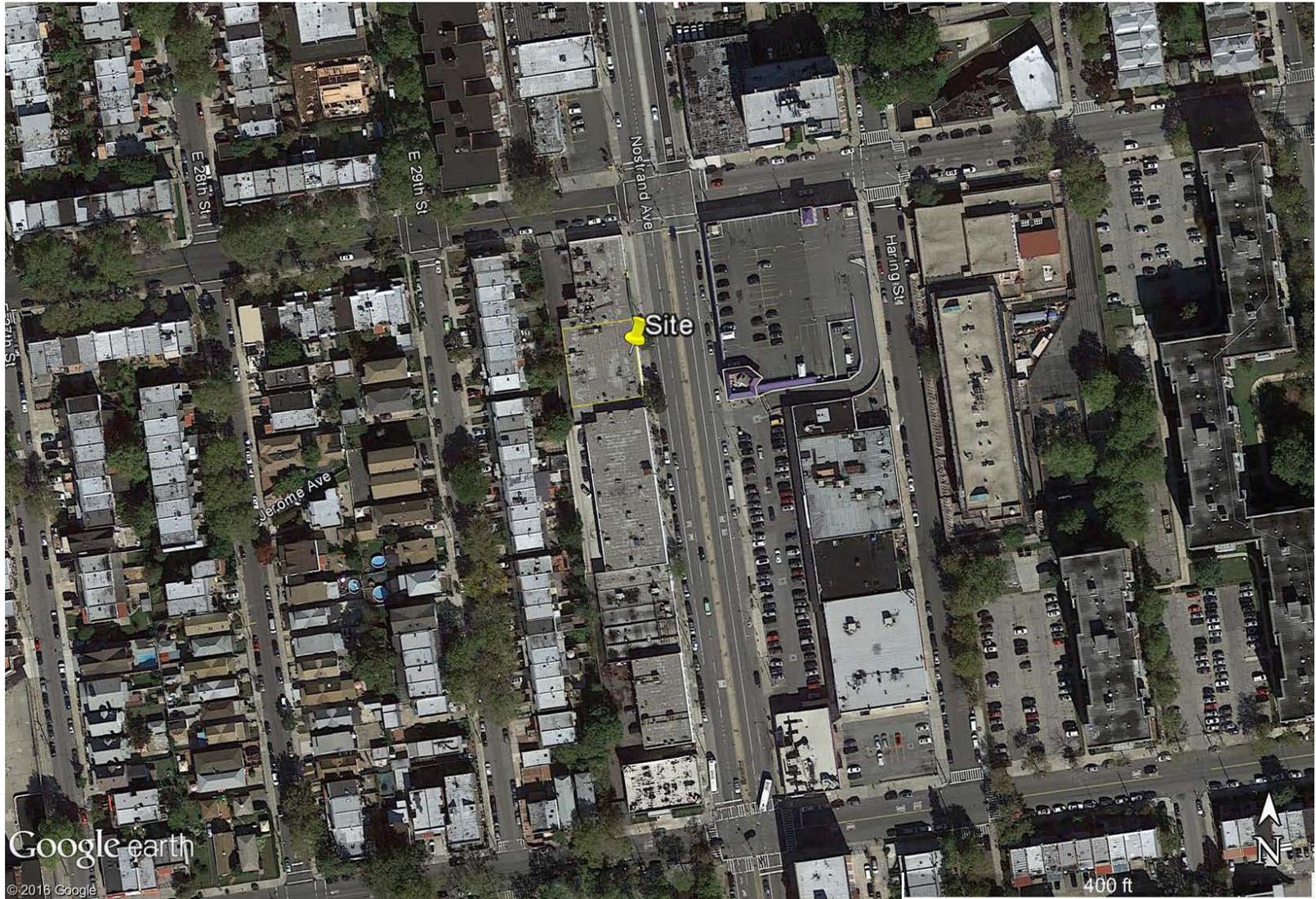
Lot 36  
Miriam McKay  
2903 Avenue Z, Brooklyn, New York 11235

Lot 35  
Nicola and Barbara Quaranta  
2905 Avenue Z, Brooklyn, New York 11235

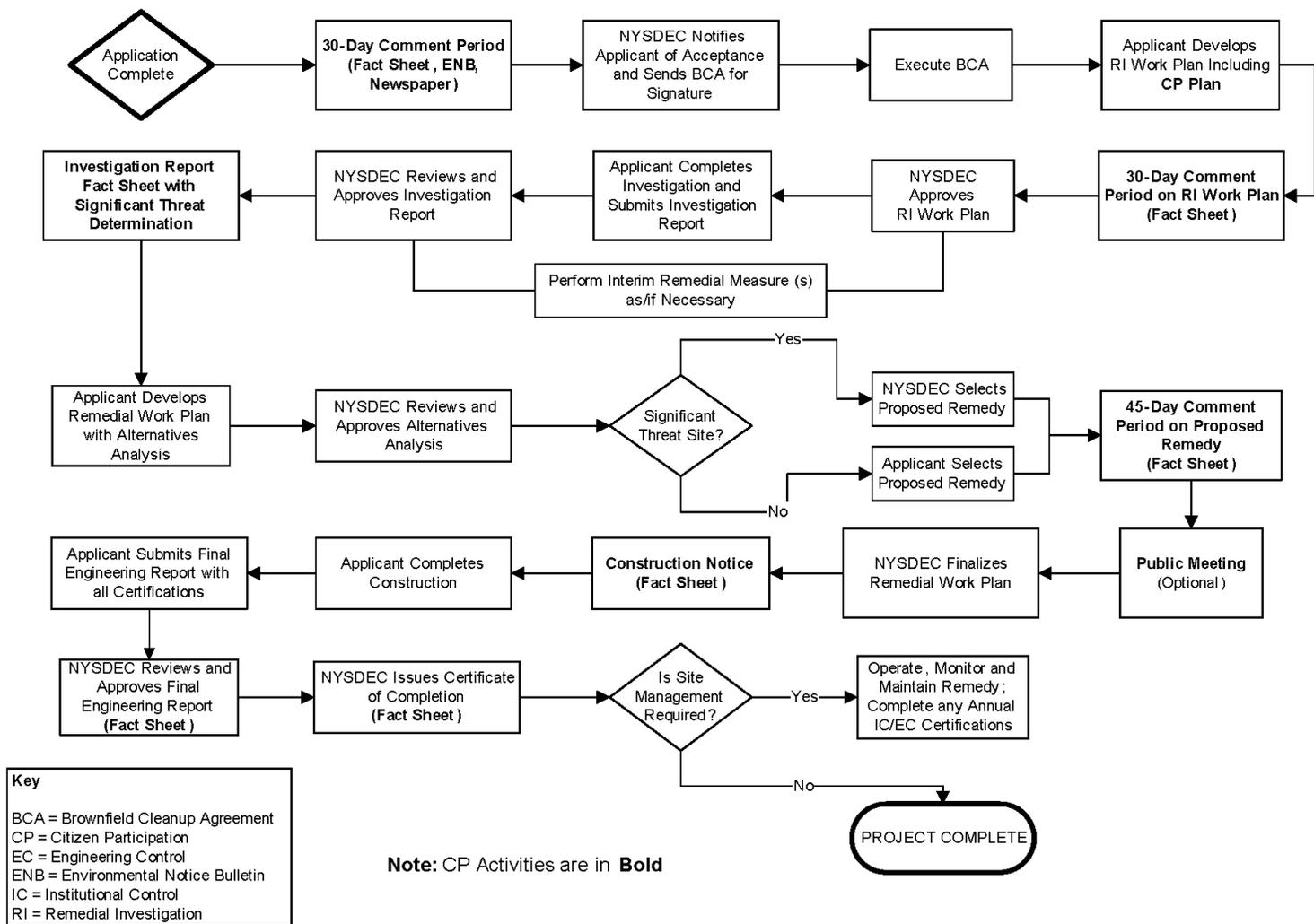
Lot 34  
Anthony Pezzolanti II  
2907 Avenue Z, Brooklyn, New York 11235

Lot 136  
Francesco and Rosa Marino  
2901 Avenue Z, Brooklyn, New York 11235

# Appendix C Site Location Map



## Appendix D Brownfield Cleanup Program Process



**APPENDIX D**

**DRAFT REMEDIAL INVESTIGATION REPORT DATED MARCH 2018**

*On File with NYSDEC; Not inserted due to 220MB File Size*

**APPENDIX E**

**REMEDIAL INVESTIGATION WORK PLAN (RIWP) DATED JULY 2017**

*On file with NYSDEC; Not inserted due to File Size*