Remedial Investigation Report
Former Belle Cleaners
40 Purchase Street
Rye, New York
Site Number 3-60-086

December 2012

Prepared for Submittal to
The New York State Department of Environmental Conservation
Division of Environmental Remediation
21 S. Putt Corners Rd.
New Paltz, NY 12561

on Behalf of:

West Turnpike, Inc.
110 North Marina Drive
Long Beach, CA 90803

Prepared by:

CA RICH CONSULTANTS, INC.
17 Dupont Street
Plainview, New York 11803

December 31, 2012

NYSDEC Region 3
Division of Environmental Remediation
21 S. Putt Corners Rd
New Paltz, NY 12561

Attention: Janet E. Brown P.E.

Re: Remedial Investigation Report
Former Belle Cleaners
40 Purchase Street
Rye, New York, 10580
Site Number 3-60-086

Dear Ms. Brown:

Attached please find the attached Remedial Investigation Report (RIR) for the above referenced location (the Site or Property). The RIR has been developed by CA RiCH Consultants, Inc. (CA RICH) on behalf of West Turnpike, Inc. in accordance with the requirements of the Order on Consent (Index No. W3-1081-05-10) executed March 1, 2006.

If there are any questions regarding this Report, please do not hesitate to call our office.

Sincerely,

CA RICH CONSULTANTS, INC.

Richard J. Izzo, CPG
Senior Associate

cc:

James Kim, Esq.

Attachments

TABLE OF CONTENTS

FIGURES

TABLES

APPENDICES

Remedial Investigation Report
Former Belle Cleaners
40 Purchase Street, Rye, New York
Site Number 3-60-086

1.0 INTRODUCTION & PURPOSE

This Remedial Investigation Report (RIR) has been prepared by CA RICH Consultants, Inc. (CA RICH) on behalf of West Turnpike, Inc. (the Respondent) in response to the informational requirements of the Order on Consent (Index No. W3-1081-05-10) executed March 1, 2006 as administered by the New York State Department of Environmental Conservation (NYSDEC). This RIR is based upon the guidelines set forth in Exhibit "G" of the Order on Consent as well as discussions between CA RICH and NYSDEC representatives. The Remedial Investigation was conducted in accordance with the approved Remedial Investigation Work Plan (RIWP) dated June 2007 and RIWP Addendum dated October 20, 2007.

Environmental conditions at and emanating from the subject Property have been documented in the following reports that were submitted to NYSDEC in the form of a Records Search Report dated October 9, 2006:

- *Phase I Environmental Site Assessment, Survey for Asbestos Containing Materials, and Phase II Site Investigation; proposed Commerce Bank Site, Smith Street and Purchase Street, Rye, Westchester County, New York;* prepared by Whitestone Associates, Inc.; dated October 8, 2004

- *Summary Report, Environmental Testing in response to Reported Release (Spill No. 0406235), Belle Cleaners and Laundry, 40 Purchase Street, Rye, NY 10580*; prepared by CA RICH Consultants, Inc.; dated February 24, 2005

The purpose of this RIR is to summarize the Remedial Investigation of soil, groundwater and air quality impacts identified in the previous investigations and present recommendations to support the development of an acceptable Remedial Action Work Plan.

2.0 SITE HISTORY & DESCRIPTION

2.1 Site History/Description

The subject Property located at 40 Purchase Street, Rye, NY was historically utilized as a dry cleaning facility from the late 1940s until approximately 2006 when the existing one-story building was completely renovated and converted for use as a bank. The Property is currently an active TD Bank branch that occupies the entire ground floor and utilizes the basement for maintenance supplies and an electrical/utility room. The former on-site dry cleaning business (Belle Cleaners) was operated from 1984 through 2005 by Mr. Taesak Kim. 38-40 Purchase Street Corp. (owned by Taesak Kim's son, Mr. James Kim) purchased the property in 2001. In addition, the southern portion of the building was historically divided from the main portion and utilized as a separate retail store that most recently (up until the 2006 building renovation) was occupied by a nail salon.

The footprint of the building along with a small rear driveway comprises the entire Property that is approximately 5,000 square feet in area. The building is located at 40 Purchase Street on the southeast corner of Purchase Street and Smith Street in Rye, Westchester County, NY. A Site Location Map (USGS Topoghraphic Quadrangle) is included as Figure 1.

According to information gathered in the Phase I ESA, the former onsite building was constructed between 1887 and 1892 with occupancy by the C.H. Walker Carriage Facility. The earliest on-site listing for a dry cleaners is 1947 and a dry cleaning facility has been reported on-site from that time until the 2006 renovation and occupation by TD Bank.

The Property has always been serviced by public water and public sewers. The former dry cleaning facility and the separate retail store were heated with oil stored in three 275-gallon aboveground storage tanks. These tanks were removed by TD Bank during site renovation activities and the building is now heated by gas.

2.2 Surrounding Land Use

The former Belle Cleaners Site is located along Purchase Street, the main commercial shopping area within the City of Rye. Adjoining properties include retail and commercial buildings to the north, south and west, and a parking lot to the east.

2.3 Physical/ Hydrogeologic Setting

According to the USGS Mamaroneck Topographic Quadrangle Map, the Property is located at an elevation of 30 feet above mean sea level. Local topography slopes gradually toward Blind Brook located approximately 1/8 mile to the southeast of the Property.

The Property is underlain by glacial till characterized as a poorly sorted mixture of clay, silt sand, gravel, cobbles and boulders of Pleistocene age. This thin veneer of till is expected to be less than 20 feet in thickness and rests unconformably on Ordovician age crystalline bedrock of the Hartland Formation which includes Basal Amphibolite and pelitic schist.

Site specific work conducted to date suggests that the uppermost groundwater surface under unconfined conditions (i.e. the water table) is encountered at a depth of approximately ten to 13 feet below land surface within the unconsolidated glacial sediments and immediately below the basement slab. Shallow groundwater flow underlying the Property will generally mirror local topographic relief. As such, groundwater is expected to flow to the southwest with eventual discharge into Blind Brook which, in turn discharges approximately two miles southeast of the site into the tidal areas of Milton Harbor and the Long Island Sound. Based upon the Property's proximity to Blind Brook and Long Island Sound, it is anticipated that the Property is located in an area of groundwater discharge as opposed to a deep recharge area. Underlying groundwater is not used for potable supply purposes in Rye, as such, no potable resources appear to be threatened by local groundwater contamination.

2.4 Evaluation of Previous Soil & Groundwater Sample Analyses

As outlined in Section 1.0, a series of previous investigations were performed at this site. Copies of these reports were previously submitted in the form of a Records Search Report.

The scope and findings the previous investigations are outlined below:

1. Phase II ESA (Whitestone Associates, October 8, 2004)

   Scope:

   Installation of five shallow soil borings within the rear driveway area with collection and chemical analysis of four soil samples and one groundwater sample for volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs).

Findings:

Soils from sample 7166-B4 collected at the water table (nine feet below grade) contained two semi-volatile compounds (benzo(a)anthracene and benzo(a)pyrene) at 242 ug/kg and 244 ug/kg which were in excess of NYSDEC TAGM 4046 soil cleanup objectives (SCOs), but below NYS Part 375 Unrestricted Use SCOs. Additional SVOCs and the chlorinated VOC tetrachloroethylene (PCE) were also detected, but at concentrations below cleanup objectives.

Groundwater from 7166-B1 detected the presence of PCE at a concentration of 134 micrograms per liter (ug/l). This is in excess of the NYSDEC groundwater quality standard of 5 ug/L. Additional VOCs including trichloroethylene (TCE) vinyl chloride, and benzene were also detected in excess of groundwater quality standards.

2. Environmental Testing in response to Reported Release (CA RICH February 05)

Scope:

Installation of four Geoprobe soil borings and four microwells with collection of soil and groundwater samples from beneath the on-site building. Also included collection of two indoor air samples within the two separate on-site basements along with the installation of two temporary soil vapor points and collection of two sub-slab vapor samples.

Findings:

Results of the February 2005 investigation indicate the presence of low levels of volatile organic compounds (VOCs) in sub-slab soil gas and groundwater underlying the building at concentrations and an areal extent indicative of residual impacts from low-level historical releases or waste handling practices. No indoor air quality impacts were observed.

3.0 SUMMARY OF INVESTIGATION

3.1 Interior/Exterior Soil Borings and Soil Sampling & Analysis

A total of three exterior and three interior soil borings were installed as part of this Remedial Investigation. The three exterior borings were designated SCB-2, SCB-3 and SCB-4 and were drilled in the eastern portion of the Property beneath the small driveway area behind the existing building. The exterior borings were drilled using a Geoprobe with sample collection via macro-core tubes. The interior borings were drilled through the floor of the basement using an electric corer and collected manually with a stainless steel hand auger. The boring locations are illustrated on Figure 2.

Exterior borings SCB-2, SCB-3 and SCB-4 were drilled from the surface down until bedrock refusal was encountered with continuous soil screening for total VOCs using a PID. As per the approved RI Work Plan and Addendum, as no PID readings above background were detected in SC-B-2 and SCB-3, the deepest sample above bedrock refusal was collected for laboratory analysis in each of those two exterior borings. This includes the soil material from 20-22 feet below grade in Boring SCB-2, and 20-21 feet below grade in boring SCB-3. A PID reading of 11.9 ppm was measured in the material collected from approximately 12 to 12.5 feet below land surface in boring SCB-4, coinciding with black staining and saturated conditions (the water table). As such the material from that macro core was submitted for laboratory analysis. Groundwater was encountered in each of the exterior borings at a depth between 10 and 13 feet below land surface. Boring logs are included as Appendix A.

Interior borings SCB-5, SCB-6 and SCB-7 were drilled through the basement slab until refusal was encountered using an electric corer and hand auger. Refusal was encountered within each of the interior borings at depths of 5 ft., 3.5 ft. and 2.5 ft.(respectively) and Groundwater was encountered right below the slab in boring SCB-7 and at depths of 10 inches and 24 inches beneath the slab in borings SCB-5 and SCB-6, respectively. The presence of groundwater right below the slab at the SCB-7 location made it difficult to recover soil samples at a discrete horizon. As such, the sample was collected from the recoverable soils between the slab and the depth of refusal and designated ‘SCB-7 SUB-SLAB’. Soils from the other two interior borings (SCB-5 and SCB-6) were collected from the depth interval just above refusal.

All soil samples were packaged in laboratory-issued sample containers and submitted to NYS-ELAP-certified Accutest Laboratories in Dayton NJ with analysis for VOCs using EPA method 8260 and NYSDEC ASP category B deliverables. In addition, two of the samples (SCB-4 and SCB-5) were also analyzed for SVOCs (EPA method 8270) as well as pesticides/herbicides (EPA method 8081), PCBs (EPA method 8082) and Target Analyte List (TAL) metals. During this sampling the following samples were collected for QA/AC purposes in accordance with the approved Quality Assurance Project Plan (QAPP): one trip blank, one field blank, one duplicate sample, one matrix spike and one matrix spike duplicate. The soil laboratory data were reviewed by a qualified third-party data validator and a Data Usability Summary Report (DUSR) was prepared (Appendix B).

3.2 Well Installation and Groundwater Sampling & Analysis

Interior soil borings SCB-5 and SCB-6 were converted into microwells consisting of one-inch diameter PVC screen and completed to the soil bedrock interface at depths of 60 inches and 45 inches below the basement slab (respectively).

These one-inch diameter PVC wells were installed using 0.020-inch slotted (20 slot) pipe and No. 2 sand as provided by the Jesse Morie Company. Each well was constructed to industry standards and fitted with a bolt-down curb box. The locations of the microwells are included on Figure 2. Geologic boring logs and well construction details are included in Appendix A. Two pre-existing wells (MW-1 and MW-2) were also included in the groundwater sampling and analysis program. These two wells were installed during CA RICH's previous investigative activities in 2005 (see Appendix A for pre-existing well construction information). Following installation, the two new wells and the two pre-existing wells were developed using a peristaltic pump. .

Following development, CA RICH returned on October 23, 2012 to sample the wells. A volume of three to five times the volume of the well was removed from each well using a low flow rate peristaltic pump with dedicated polyethylene tubing. A sample of the groundwater from each well was then collected directly from the pump discharge using laboratory-issued containers. Water samples from each well were submitted to NYS-ELAP-certified Accutest Laboratories in Dayton NJ with analysis for VOCs using EPA method 8260 and NYSDEC ASP category B deliverables. In addition, two of the samples (MW-1A and MW-4A) were also analyzed for SVOCs (EPA method 8270) as well as pesticides/herbicides (EPA method 8081), PCBs (EPA method 8082) and Target Analyte List (TAL) metals. . During this sampling the following samples were collected for QA/AC purposes in accordance with the approved Quality Assurance Project Plan (QAPP): one trip blank, one field blank, one duplicate sample, one matrix spike and one matrix

spike duplicate. The groundwater laboratory data was reviewed by a qualified third-party data validator and a Data Usability Summary Report (DUSR) was prepared (Appendix B).

3.3 Vapor Intrusion Sampling

On December 13, 2010, three temporary sub-slab soil vapor points were installed beneath the basement floor slab using a hand-operated hammer drill in accordance with the New York State Department of Health (NYSDOH) "Guidance for Evaluating Soil Vapor Intrusion in the State of New York" dated October 2006 (NYSDOH Guidance). Sub-slab vapor point locations are illustrated on Figure 1. The sub-slab soil vapor sampling point was placed directly beneath the slab within unconsolidated fill or earth materials. The points were constructed of ¼-inch stainless steel tubing. The annular space around the tubing was filled with No. 2 Morie sand. The surface seal of the interior sampling points consisted of melted beeswax.

On December 13th and 14th, soil vapor samples were collected from each temporary soil vapor point. In addition, three interior ambient air and one exterior background air samples were collected as illustrated on Figure 1. The soil vapor and air samples were obtained in accordance with NYSDOH Guidance. Prior to sampling, three volumes of soil vapor were purged from each soil vapor point using an air sampling pump set to a rate of approximately 0.2 liters per minute. A bucket was then placed over the sample assembly and helium gas was used to enrich the atmosphere around the sample location in combination with real-time air monitoring (for helium) to verify that ambient air was not infiltrating the sampling assembly during purging and sampling. Once it was confirmed that ambient air was not being drawn into the assembly, the stainless steel tubing was connected to the SUMMA canister and a soil vapor sample was collected. The indoor air sample and ambient air sample were also collected using SUMMA canisters. The SUMMA canister regulator was set to restrict the sample collection to not exceed 0.2 liters per minute over a one-hour time period for all soil gas, indoor air, and ambient air samples. Sampling was conducted over a 24-hour period.

Upon arrival to the Site on December 14th to collect the SUMMA canisters, it was discovered that all three of the sub-slab samples had entrapped water in the sampling train. Due to the presence of the water table (which had equilibrated to a level approximately 1 to 2 inches above the base of the slab) the samples could not be successfully collected from below the slab. The three indoor air samples and one exterior air sample canisters were disconnected and sealed for shipment to Ecotest Laboratories of North Babylon, New York (an ELAP-certified laboratory) for analysis of VOCs via EPA method TO-15.

In addition to the testing, CA RICH performed an inventory of chemicals/products stored within the basement as outlined below:

Chemical/Product	Amount
Burke Clean & Green Liquid Dish Detergent	1 gallon
Fabuloso All Purpose Cleaner	1 gallon
Solution Series Elite Window and Glass Cleaner	1 gallon
Latex Paint	2 gallons
Comet Cleanser	1 small container

4.0 RESULTS

4.1 Soil Sampling & Analysis

The results of the soil analysis were compared to NYSDEC Part 375 Soil Cleanup Objectives (SCOs) for unrestricted use as well as commercial use. The locations of all of the samples are illustrated on Figure 2 and the analytical results are summarized on Tables 1 through 5. Laboratory reports are included in Appendix C. Of the six soil samples analyzed, only two compounds in two of the samples were detected at a concentration in excess of unrestricted SCOs. Specifically, tetrachloroethylene (PCE) was detected in soil sample SCB-7 (sub-slab) at a concentration of 2,570 micrograms per kilogram (ug/Kg). This concentration is in excess of the NYSDEC Part 375 unrestricted use SCO of 1,300 ug/Kg. However, it is well below the commercial use SCO of 150,000 ug/Kg. In addition, the pesticide 4,4'-DDD was detected in sample SCB-5 (4-5 feet) at a concentration of 20.3 ug/Kg which is in excess of the Part 375 unrestricted use SCO of 3.3 ug/Kg but well below the commercial use SCO of 92,000 ug/Kg. No other VOCs, SVOCs, pesticide/herbicide, PCBs or metals were detected in any of the samples at concentrations exceeding NYSDEC Part 375 unrestricted use SCOs.

4.2 Groundwater Sampling and Analysis

Each of the four monitoring well samples exhibited the presence of PCE in excess of NYSDEC groundwater quality standards. The most elevated detection was 4,230 ug/L in well MW-2. PCE concentrations in wells MW-1, MW-3A and MW-4A were measured at 8.9 ug/L, 17.6 ug/L and 107 ug/L respectively. PCE degradation "daughter" compounds including trichloroethene, and vinyl chloride were observed in wells MW-2 and MW-4A at concentrations in excess of NYSDEC groundwater quality standards. Chlorobenzene was detected in all of the groundwater samples in excess of NYSDEC groundwater quality standards. No SVOCs, pesticides or PCBs were detected in any of the groundwater samples at concentrations in excess of NYSDEC

groundwater quality standards. The metals aluminum, iron and manganese were detected in well MW-4A at levels in excess of NYSDEC standards. In addition, sample MW-1A exhibited the metals iron and manganese above standards. Analytical results for monitoring well groundwater samples are summarized on Tables 6 through 10.

4.2 Vapor Intrusion Sampling

Analytical results for indoor and outside ambient air samples are summarized on Table 11. As shown, TO-15 analysis of the four air samples resulted in detections of acetone, ethyl alcohol, isopropyl alcohol, methylene chloride, tetrachloroethene, toluene and trichloroethene. Of the seven compounds detected, NYSDOH matrix values only exist for three (methyle chloride, trichloroethene and tetrachlorethene). None of the detected compounds were found at concentrations in excess of current NYSDOH Matrix Guidelines.

5.0 QUALITATIVE HUMAN HEALTH AND ENVIRONMENTAL EXPOSURE ASSESSMENT

5.1 Contaminants of Concern

Based upon the information generated during this investigation, the principal contaminant of concern is tetrachloroethene (PCE). PCE is a manufactured chemical that is widely used for the dry cleaning of fabrics and for metal-degreasing. It is also used to make other chemicals and is used in some consumer products. PCE is a nonflammable liquid at room temperature. PCE and its degradation products are described as "sweet" or "aromatic" smelling and are narcotic in high concentrations. Acute exposure to significant concentrations of these chemicals can cause irritation of the skin, eyes and mucus membrane, headache, dizziness, nausea, and in high enough concentrations, loss of consciousness and death *(Sax, 1984)*. The Department of Health and Human Services (DHHS) has determined that PCE may reasonably be anticipated to be a carcinogen as it has been shown to cause liver tumors in mice and kidney tumors in male rats.

5.2 Regulatory Criteria

The concentrations of the contaminants of concern found at the Site were compared to the following standards or guidance values: 1) NYSDEC 6 NYCRR Part 375 Unrestricted use Soil Cleanup Objectives and Restricted Commercial Use Soil Cleanup Objectives. (Ref. 6); 2) Technical and Operational Guidance Series (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, NYSDEC (groundwater only); and 3)

New York State Department of Health (NYSDOH) "Guidance for Evaluating Soil Vapor Intrusion in the State of New York" dated October 2006.

5.3 Impacted Media

As discussed in the previous sections, on-site media impacted by PCE includes soils, groundwater and indoor air. Levels of PCE and associated degradation products were observed in groundwater samples in excess of NYSDEC limitation guidelines/standards. Soil and Indoor air quality was also impacted, but at levels below current guidelines.

5.4 Potential Sensitive Receptors

5.4.1 On-Site Human Health Receptors

Potential on-site sensitive receptors include adult commercial workers and their associated customers/patrons. Miscellaneous delivery persons would have significantly less exposure than building occupants, and therefore, were excluded from further consideration.

5.4.2 On-Site Environmental Receptors

TD Bank is located in a retail/commercial section of Rye. The on-site building covers nearly 100 percent of the subject Property. As such, no on-site environmental receptors (such as fish or wildlife) are identified.

5.4.3 Off-Site Human Health Receptors

Potential off-site human health receptors within a 0.25-mile radius of the Site include adult and child residents, and commercial workers based on the following:

1. Commercial Businesses (up to 0.25 mile) – existing and future
2. Residential Buildings (up to 0.25 mile) – existing and future
3. Building Construction/Renovation (up to 0.25 mile) – existing and future
4. Pedestrians, Cyclists (up to .25 mile) – existing and future

Visitors, pedestrians, cyclists, and miscellaneous delivery persons would have significantly less exposure than building occupants; and therefore, were excluded from further consideration.

Groundwater in Rye is not used for drinking water. Private or municipal water wells do not exist within one-mile of the Site. Both drinking water (via reservoirs) and sewer systems are supplied by municipal sources. Therefore, the risk of the Site contaminating public or private water supply does not exist.

5.4.4 Off-Site Environmental Receptors

As discussed, TD Bank is located in a retail/commercial section of Rye. The area is dominated by buildings, sidewalks and roadways with very little areas of open space or vegetation. Based upon the highly developed nature of the area, no adjacent or nearby plant or fish & wildlife resources are identified that could potentially be threatened by the identified contamination. The closest environmental receptor would be Blind Brook approximately 1/8 mile southeast of the Property.

5.5 Exposure Route

An exposure route is the mechanism by which a receptor comes into contact with a chemical. Three potential primary routes exist by which chemicals can enter the body:

- Ingestion of water, fill or soil;
- Inhalation of vapors and particulates; and
- Dermal contact with water, fill, soil or building materials.

5.6 Exposure Pathways

This evaluation consists of the following components: contaminant source; contaminant release and transport mechanism; point of exposure; route of exposure; and receptor population.

5.6.1 On-Site

The existing building occupies nearly the entire Property footprint. The remainder of the Property is paved. As such, the entire property is currently capped. In addition, the depth to groundwater beneath the basement floor is generally less than one foot. The building is used for retail/commercial purposes and, no on-site digging or soil handling is planned. As such, direct exposure to impacted on-site soils is not considered an exposure pathway for existing or future Site occupants/patrons. Should future Property usage include demolition or renovation of the

building, direct exposure to impacted on-site soils may be a potential short-term exposure pathway for future on-site construction workers.

Groundwater is not used on-site (or in the area) for any purpose. As such, direct exposure to impacted groundwater is not considered an exposure pathway for existing or future Site occupants. Should future property usage include demolition or renovation of the building, direct exposure to impacted on-site groundwater may be a potential short-term exposure pathway for future on-site construction workers.

The most prevalent on-site exposure pathway is vapor emanating from VOCs, including PCE within the subsurface groundwater and soils entering into the building as a result of any sub-basement floor or lower wall openings/cracks. The potential receptors from such a pathway into the building would be to on-site commercial workers, and adult customers/patrons. The primary route of exposure would be inhalation.

5.6.2 Off-Site

There is a potential exposure pathway from vapor emanating from VOCs, including PCE within the groundwater to enter into the adjoining buildings as a result of any sub-basement floor or lower wall openings/cracks. The indoor air quality at the adjoining properties is susceptible to contamination from subsurface vapor intrusion attributable to VOCs emitted from the shallow contaminated groundwater beneath the Site. The potential receptors from such a migration pathway into the building would be to off-site commercial workers, and adult and child residents. The primary route of exposure would be inhalation.

Because groundwater is shallow (less than 20 feet below land surface) there is a potential off-site exposure pathway for direct contact with impacted groundwater during off-site construction activities. The potential receptors for such a pathway would be construction workers.

6.0 Conclusions and Recommendations

6.1 Soils

Soil sampling and analysis completed during this Remedial Investigation indicates that impacted soils are generally limited to the area of boring SCB-7. The concentration of PCE identified at this location (2,570 ug/Kg) is in excess of Part 375 unrestricted use SCOs but below restricted commercial SCOs. The soils underlying the building are completely saturated as the water table

is encountered directly beneath the slab. Based upon this and the relatively low levels of PCE detected in the soils, soil excavation does not appear to be an appropriate response. Residual soil contamination beneath the water table at the levels observed can be treated as part of a groundwater remediation program, if necessary.

6.2 Groundwater

Sampling and analysis of groundwater from four permanent microwells confirms the presence of on-site groundwater impacts by VOCs (primarily PCE) at levels in excess of NYSDEC groundwater quality standards. Based upon the distribution of observed contamination, it appears that the greatest impact occurs in the vicinity of MW-2 and MW-4A which are located in the center of the building and downgradient (respectively). Published topographic maps and regional groundwater flow information indicates groundwater flow under normal conditions to the southwest with eventual discharge into Blind Brook which discharges approximately 2 miles southeast of the Site into the tidal areas of Milton Harbor and the Long Island Sound. Based upon the Property's proximity to Blind Brook and Long Island Sound, it is anticipated that the Property is located in an area of groundwater discharge as opposed to a deep recharge area. Underlying groundwater is not used for potable supply purposes in Rye, as such, no potable resources appear to be threatened by local groundwater contamination.

Based upon the results of this remedial investigation and the previous testing, remedial action with respect to groundwater may be required. Such action would likely include the installation and operation of an in-situ treatment system utilizing either pump & treat, chemical oxidation or air sparging. A chemical oxidation system would include pumping groundwater during injection activities to avoid merely displacing the contaminants.

6.3 Air Quality

Results of vapor intrusion testing indicate the presence of VOCs (particularly PCE) in the indoor air within the basement of the on-site building at a level below NYSDOH matrix guidelines. These vapors are most likely attributable to the presence of the groundwater contamination directly beneath the basement slab. The on-site treatment and remediation of groundwater should effectively remove the source of on-site vapor and prevent the migration of vapor off-site.

oOo

REFERENCES

1. E.S. Asselstine & I.G. Grossman, (1955), The Groundwater Resources of Westchester County, USGS Bulletin GW-35.

2. CA Rich Consultants, Inc.; (February 24, 2005) *Summary Report, Environmental Testing in response to Reported Release (Spill No. 0406235), Belle Cleaners and Laundry, 40 Purchase Street, Rye, NY 10580*; prepared by

3. Whitestone Associates, Inc.; (October 8, 2004) Phase I Environmental Site Assessment, Survey for Asbestos Containing Materials, and Phase II Site Investigation; proposed Commerce Bank Site, Smith Street and Purchase Street, Rye, Westchester County, New York;

4. NYSDEC, (October 22, 1993), Technical and Operational Guidance Series (1.1.1) Ambient Water Quality Standards and Guidance Values.

5. New York State Department of Health (2006) Guidance for Evaluating Soil Vapor Intrusion in the State of New York.

6. United States Geological Survey (1979) Mamaroneck, NY, Topographic Quadrangle Map.

7. Sax, N.I; “Dangerous Properties of Industrial Materials” ; © 1984

8. NYSDEC. 6 NYCRR Part 375 Environmental Remediation Programs, Environmental Remediation Programs, Subparts 375-1 to 375- 4 & 375-6. New York: Author, December 2006.

FIGURES

APPROX. SCALE (ft.)

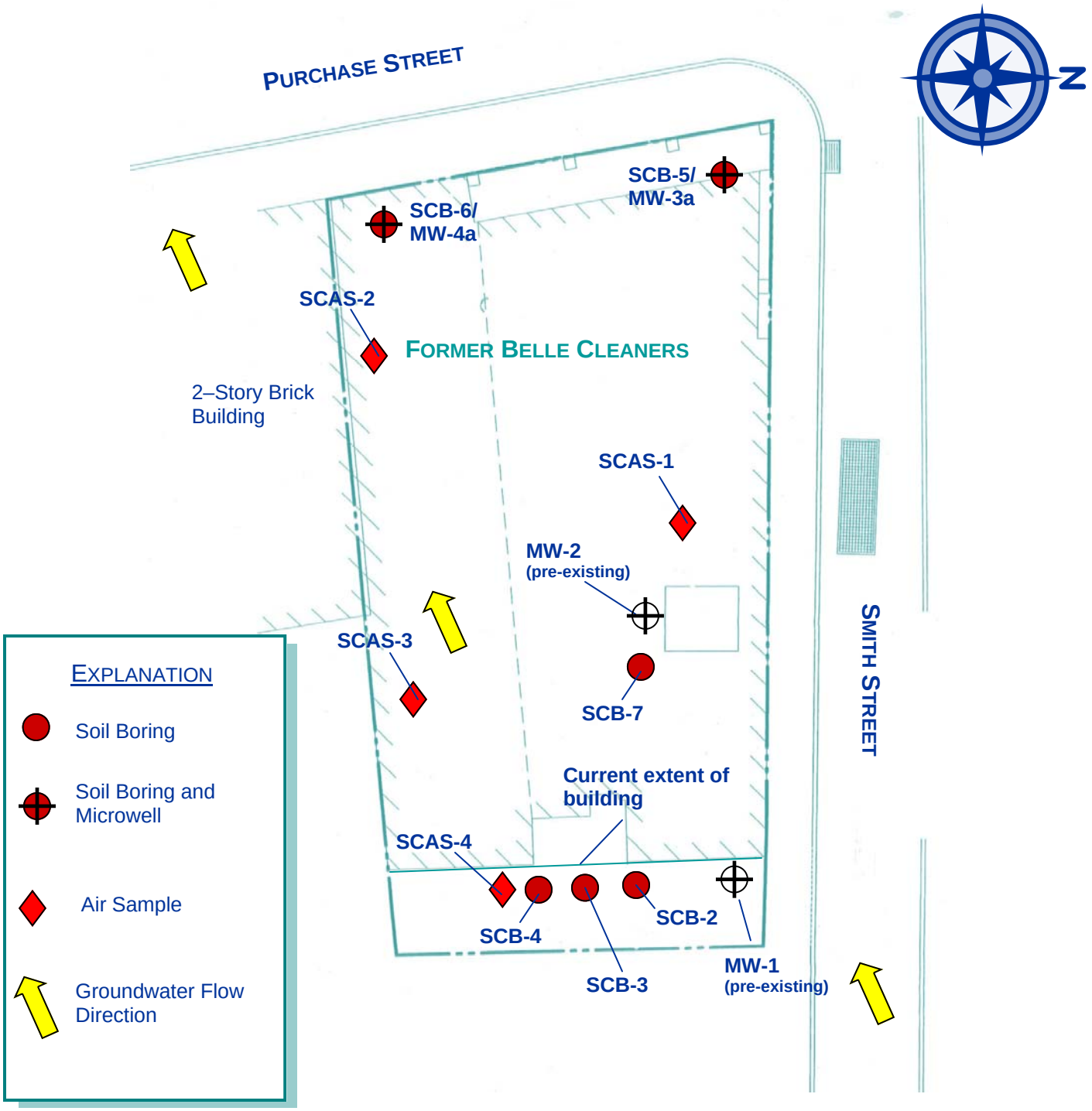
0 1,200 2,400

N

Adapted from USGS Mamaroneck Quadrangle Map (1975 photorevision)

CA RICH CONSULTANTS, INC.
17 Dupont Street,
Plainview, NY 11803

TITLE: SITE LOCATION MAP		DATE: 2/16/07
		SCALE: AS SHOWN
FIGURE: 1	Former Belle Cleaners 40 Purchase St. Rye, NY	DRAWN BY: STM
DRAWING:		APPR. BY: RJI



APPROX. SCALE (ft.)

0 16 32

Adapted from Whitestone Associates, Inc. 9/28/04

Modified 7/26/12

CA RICH CONSULTANTS, INC.
17 Dupont Street,
Plainview, NY 11803

TITLE: **RI Sampling Locations**	*DATE:* **7/26/12**
	SCALE: **AS SHOWN**
FIGURE: **2**	**Former Belle Cleaners** **40 Purchase Street** **Rye, NY**
DRAWING:	*DRAWN BY:* **STM**
	APPR. BY: **RJI**

TABLES

Table 1

Analytical Results for Volatile Organic Compounds In Soil Samples
Former Belle Cleaners
40 Purchase Street, Rye, New York

Sample ID	SCB-2 (20-22)	SCB-3 (20-21	SCB-4 (10-15)	SCB-5 (4-5) SS	SCB-6 (1.5-3.5) SS	SCB-7(SUB-SLAB)	SCB-XX	FB-4/26/12	TB-4/26/12	*Part 375	**Part 375
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Liquid	Liquid	Unrestricted	Commercial
Date Sampled	4/24/2012	4/24/2012	4/24/2012	4/26/2012	4/26/2012	4/24/2012	4/26/2012	4/26/2012	4/26/2012	Use	
Volatile Organic Compounds											
Units	ug/kg	ug/Kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/l	ug/l	ug/kg	ug/kg
Acetone	ND	ND	ND	ND	ND	37.1	ND	ND	ND	50	500,000
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	60	44,000
Bromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NVG	NVG
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NVG	NVG
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	NVG	NVG
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NVG	NVG
2-Butanone (MEK)	ND	ND	ND	ND	ND	ND	ND	ND	ND	120	500,000
Carbon disulfide	ND	ND	ND	ND	ND	ND	ND	ND	ND	NVG	NVG
Carbon tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	760	22,000
Chlorobenzene	ND	ND	ND	ND	ND	1.2 J	ND	ND	ND	1,100	500,000
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NVG	NVG
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	370	350,000
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NVG	NVG
Cyclohexane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NVG	NVG
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NVG	NVG
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NVG	NVG
1,2-Dibromoethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NVG	NVG
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	3.2 J	ND	ND	ND	1,100	500,000
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,400	280,000
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	0.66 J	ND	ND	ND	1,800	130,000
Dichlorodifluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NVG	NVG
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	270	240,000
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	20	30,000
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	330	500,000
cis-1,2-Dichloroethene	ND	ND	ND	1.6 J	2.7 J	9.4	2.1 J	0.52 J	ND	250	500,000
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	190	500,000
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NVG	NVG
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	NVG	NVG
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	NVG	NVG
1,4-Dioxane	ND	ND	ND	ND	ND	ND	ND	ND	ND	100	130,000
Ethylbenzene	ND	ND	ND	ND	ND	0.28 J	ND	ND	ND	1,000	390,000
Freon 113	ND	ND	ND	ND	ND	ND	ND	ND	ND	NVG	NVG
2-Hexanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	NVG	NVG
Isopropylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	NVG	NVG
Methyl Acetate	ND	ND	ND	ND	ND	ND	ND	ND	ND	NVG	NVG
Methylcyclohexane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NVG	NVG
Methyl Tert Butyl Ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	930	500,000
4-Methyl-2-pentanone(MIBK)	ND	ND	ND	ND	ND	ND	ND	ND	ND	NVG	NVG
Methylene chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	50	500,000
Styrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	NVG	NVG
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NVG	NVG
Tetrachloroethene	ND	ND	ND	3.5 J	1.7 J	**2,570**	3.2 J	ND	ND	1,300	150,000
Toluene	0.50 J	ND	ND	ND	0.63 J	2	ND	ND	ND	700	500,000
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	NVG	NVG
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	NVG	NVG
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	680	500,000
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NVG	NVG
Trichloroethene	ND	ND	ND	1.0 J	1.1 J	24.9	1.2 J	ND	ND	470	200,000
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NVG	NVG
Vinyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	20	13,000
m,p-Xylene	ND	ND	ND	ND	ND	0.69 J	ND	ND	ND	260	500,000
o-Xylene	ND	ND	ND	ND	ND	0.37 J	ND	ND	ND	260	500,000
Xylene (total)	ND	ND	ND	ND	ND	1.1 J	ND	ND	ND	260	500,000

Notes:
SCB-XX Sample is a duplicate of SCB-5
ug/Kg - micrograms per kilogram or parts per billion
ND - Not detected at or above laboratory detection limits
NVG - No Value Given
U- The analyte was analyzed for, but was not detected above the reported sample quanitation limit.
J - Estimated Value
R - The sample result is unreliable/unusable. The presence or absence of the analyte can not be verified.
FB - Field Blank
bold and boxed = concentration above Part 375 unrestricted use SCO

**6 NYCRR Part 375; Subparts 375-1 to 375-4 & 375-6; Table 375-6.8(a):Unrestricted Use Soil Cleanup Objectives*
***6 NYCRR Part 375; Subparts 375-1 to 375-4 & 375-6; Table 375-6.8(b):Commercial Use Soil Cleanup Objectives*

Table 2

Analytical Results for Semi-Volatile Organic Compounds In Soil Samples

Former Belle Cleaners
40 Purchase Street, Rye, New York

Sample ID	SCB-2 (20-22)	SCB-3 (20-21)	SCB-4 (19-15)	SCB-5 (4-5) SS	SCB-6 (1.5-3.5) SS	SCB-7 (SUB-SLAB)	SCB-XX	*Part 375	**Part 375
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Restricted	Commercial
Date Sampled	4/24/2012	4/24/2012	4/24/2012	4/26/2012	4/26/2012	4/24/2012	4/26/2012	Use	
Semi-Volatile Organic Compounds									
Units	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
2-Chlorophenol	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
4-Chloro-3-methyl phenol	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
2,4-Dichlorophenol	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
2,4-Dimethylphenol	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
2,4-Dinitrophenol	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
4,6-Dinitro-o-cresol	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
2-Methylphenol	NA	NA	ND	ND	NA	NA	ND	330	500,000
3&4-Methylphenol	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
2-Nitrophenol	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
4-Nitrophenol	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
Pentachlorophenol	NA	NA	ND	ND	NA	NA	ND	800	6,700
Phenol	NA	NA	ND	ND	NA	NA	ND	330	500,000
2,3,4,6-Tetrachlorophenol	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
2,4,5-Trichlorophenol	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
2,4,6-Trichlorophenol	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
Acenaphthene	NA	NA	ND	ND	NA	NA	ND	20,000	500,000
Acenaphthylene	NA	NA	ND	ND	NA	NA	ND	100,000	500,000
Acetophenone	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
Anthracene	NA	NA	ND	ND	NA	NA	ND	100,000	500,000
Atrazine	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
Benzo(a)anthracene	NA	NA	52.3	23.1 J	NA	NA	22.0 J	1,000	5,600
Benzo(a)pyrene	NA	NA	54.7	16.2 J	NA	NA	ND	1,000	1,000
Benzo(b)fluoranthene	NA	NA	57.5	ND	NA	NA	ND	1,000	5,600
Benzo(g,h,i)perylene	NA	NA	41.8	ND	NA	NA	ND	100,000	500,000
Benzo(k)fluoranthene	NA	NA	37.1	ND	NA	NA	ND	800	56,000
4-Bromophenyl phenyl ether	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
Butyl benzyl phthalate	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
1,1'-Biphenyl	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
Benzaldehyde	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
2-Chloronaphthalene	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
4-Chloroaniline	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
Carbazole	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
Caprolactam	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
Chrysene	NA	NA	49.9	18.9 J	NA	NA	19.2 J	1,000	56,000
bis(2-Chloroethoxy)methane	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
bis(2-Chloroethyl)ether	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
bis(2-Chloroisopropyl)ether	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
4-Chlorophenyl phenyl ether	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
2,4-Dinitrotoluene	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
2,6-Dinitrotoluene	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
3,3'-Dichlorobenzidine	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
Dibenzo(a,h)anthracene	NA	NA	ND	ND	NA	NA	ND	330	560
Dibenzofuran	NA	NA	ND	ND	NA	NA	ND	7,000	350,000
Di-n-butyl phthalate	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
Di-n-octyl phthalate	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
Diethyl phthalate	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
Dimethyl phthalate	NA	NA	102	165	NA	NA	160	NVG	NVG
bis(2-Ethylhexyl)phthalate	NA	NA	ND	49.1 J	NA	NA	ND	NVG	NVG
Fluoranthene	NA	NA	65	31.6 J	NA	NA	33.3 J	100,000	500,000
Fluorene	NA	NA	ND	ND	NA	NA	ND	30,000	500,000
Hexachlorobenzene	NA	NA	ND	ND	NA	NA	ND	330	6,000
Hexachlorobutadiene	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
Hexachlorocyclopentadiene	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
Hexachloroethane	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
Indeno(1,2,3-cd)pyrene	NA	NA	36	ND	NA	NA	ND	500	5,600
Isophorone	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
2-Methylnaphthalene	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
2-Nitroaniline	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
3-Nitroaniline	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
4-Nitroaniline	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
Naphthalene	NA	NA	ND	ND	NA	NA	ND	12,000	500,000
Nitrobenzene	NA	NA	ND	ND	NA	NA	ND	NVG	69,000
N-Nitroso-di-n-propylamine	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
N-Nitrosodiphenylamine	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
Phenanthrene	NA	NA	ND	ND	NA	NA	ND	100,000	500,000
Pyrene	NA	NA	78.9	34.3	NA	NA	35.5 J	100,000	500,000
1,2,4,5-Tetrachlorobenzene	NA	NA	ND	ND	NA	NA	ND	NVG	NVG

SCB-XX - Sample is a duplicate of SCB-5
NA - No Analyzed
ND - Not detected at or above laboratory detection limits
NVG - No Value Given
J - Estimated Value
FB - Field Blank

**6 NYCRR Part 375; Subparts 375-1 to 375-4 & 375-6; Table 375-6.8(a):Unrestricted Use Soil Cleanup Objectives*
***6 NYCRR Part 375; Subparts 375-1 to 375-4 & 375-6; Table 375-6.8(b):Commercial Use Soil Cleanup Objectives*

TABLE 3

Analytical Results for Pesticides In Soil Samples
Former Belle Cleaners
40 Purchase Street, Rye, New York

Sample ID	SCB-2 (20-22)	SCB-3 (20-21)	SCB-4 (10-15)	SCB-5 (4-5) SS	SCB-6 (1.5-3.5) SS	SCB-7 (SUB-SLAB	SCB-XX	*Part 375	**Part 375
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Unrestricted	Commercial
Date Sampled	4/24/2012	4/24/2012	4/24/2012	4/26/2012	4/26/2012	4/24/2012	4/26/2012	Use	
Pesticides									
Units	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Aldrin	NA	NA	ND	ND	NA	NA	ND	5	680
alpha-BHC	NA	NA	ND	ND	NA	NA	ND	20	3,400
beta-BHC	NA	NA	ND	ND	NA	NA	ND	36	3,000
delta-BHC	NA	NA	ND	ND	NA	NA	ND	40	500,000
gamma-BHC (Lindane)	NA	NA	ND	ND	NA	NA	ND	100	9,200
alpha-Chlordane	NA	NA	2	0.9	NA	NA	ND	94	24,000
gamma-Chlordane	NA	NA	1.8	0.91	NA	NA	ND	NVG	NVG
Dieldrin	NA	NA	ND	ND	NA	NA	ND	5	1,400
4,4'-DDD	NA	NA	ND	**20.3**	NA	NA	19.2	3	92,000
4,4'-DDE	NA	NA	ND	3.7	NA	NA	3.6	3	62,000
4,4'-DDT	NA	NA	ND	1.9	NA	NA	6.5 a	3	47,000
Endrin	NA	NA	ND	ND	NA	NA	ND	14	89,000
Endosulfan sulfate	NA	NA	ND	ND	NA	NA	ND	2,400	200,000
Endrin aldehyde	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
Endosulfan-I	NA	NA	ND	ND	NA	NA	ND	2,400	200,000
Endosulfan-II	NA	NA	ND	ND	NA	NA	ND	2,400	200,000
Heptachlor	NA	NA	ND	ND	NA	NA	ND	42	15,000
Heptachlor epoxide	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
Methoxychlor	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
Endrin ketone	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
Toxaphene	NA	NA	ND	ND	NA	NA	ND	NVG	NVG

Notes:

SCB-XX- Sample is a duplicate of SCB-5

a - Reported from a second signal for comfirmation

ug/Kg - micrograms per kilogram or parts per billion

ND - Not detected at or above laboratory detection limits

NVG - No Value Given

J - Estimated Value

FB - Field Blank

NA - Not Analyzed

bold & boxed = above Part 375 unrestricted use SCO

**6 NYCRR Part 375; Subparts 375-1 to 375-4 & 375-6; Table 375-6.8(a):Unrestricted Use Soil Cleanup Objectives*

***6 NYCRR Part 375; Subparts 375-1 to 375-4 & 375-6; Table 375-6.8(b):Commercial Use Soil Cleanup Objectives*

Validated

Table 4

Analytical Results for PCBs In Soil Samples

Former Belle Cleaners

40 Purchase Street, Rye, New York

Sample ID	**SCB-2 (20-22)**	**SCB-3 (20-21)**	**SCB-4 (10-15)**	**SCB-5 (4-5) SS**	**SCB-6 (1.5-3.5) SS**	**SCB-7 (SUB-SLAB**	**SCB-XX**	***Part 375**	****Part 375**
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Unrestricted	Commercial
Date Samples	4/24/2012	4/24/2012	4/24/2012	4/26/2012	4/26/2012	4/24/2012	4/26/2012	Use	Use
PCBs									
Units	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Aroclor 1016	NA	NA	ND	ND	NA	NA	ND	100	1,000
Aroclor 1221	NA	NA	ND	ND	NA	NA	ND	100	1,000
Aroclor 1232	NA	NA	ND	ND	NA	NA	ND	100	1,000
Aroclor 1242	NA	NA	ND	ND	NA	NA	ND	100	1,000
Aroclor 1248	NA	NA	ND	ND	NA	NA	ND	100	1,000
Aroclor 1254	NA	NA	ND	ND	NA	NA	ND	100	1,000
Aroclor 1260	NA	NA	ND	ND	NA	NA	ND	100	1,000
Aroclor 1268	NA	NA	ND	ND	NA	NA	ND	100	1,000
Aroclor 1262	NA	NA	ND	ND	NA	NA	ND	100	1,000

SCB-XX- Sample is a duplicate of SCB-5

NA - Not Analyzed

ug/Kg - micrograms per kilogram or parts per billion

ND - Not detected at or above laboratory detection limits

NVG - No Value Given

J - Estimated Value

FB - Field Blank

*6 NYCRR Part 375; Subparts 375-1 to 375-4 & 375-6;
Table 375-6.8(a): Unrestricted Use Soil Cleanup Objectives

**6 NYCRR Part 375; Subparts 375-1 to 375-4 & 375-6;
Table 375-6.8(b): Commercial Use Soil Cleanup Objectives

Validated

TABLE 5

Analytical Results for Metals In Soil
Former Belle Cleaners
40 Purchase Street, Rye, New York

Sample ID	SCB-2 (20-22)	SCB-3 (20-21)	SCB-4 (10-15)	SCB-5 (4-5) SS	SCB-6 (1.5-3.5) SS	SCB-7 (SUB-SLAB)	SCB-XX	*Part 375	**Part 375
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Unrestricted	Commercial
Date Sampled	4/24/2012	4/24/2012	4/24/2012	4/26/2012	4/26/2012	4/24/2012	4/26/2012	Use	Use
Metals									
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Aluminum	NA	NA	4,940	4,620	NA	NA	5,300	NVG	NVG
Antimony	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
Arsenic	NA	NA	ND	ND	NA	NA	ND	13	16
Barium	NA	NA	48.8	29.8	NA	NA	35	350	400
Beryllium	NA	NA	0.25	0.22	NA	NA	0.26	7	590
Cadmium	NA	NA	ND	ND	NA	NA	ND	3	9.3
Calcium	NA	NA	1,320	1,590	NA	NA	3,450	NVG	NVG
Chromium	NA	NA	14.8	14	NA	NA	16	NVG	NVG
Cobalt	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
Copper	NA	NA	12.9	9.6	NA	NA	11	50	270
Iron	NA	NA	9,230	9,030	NA	NA	10,200	NVG	NVG
Lead	NA	NA	10.3	9.2	NA	NA	10	63	1000
Magnesium	NA	NA	1,720	1,740	NA	NA	1,910	NVG	NVG
Manganese	NA	NA	195	163	NA	NA	187	1,600	10,000
Mercury	NA	NA	0.052	ND	NA	NA	0.05	0.18	2.8
Nickel	NA	NA	19.7	20.3	NA	NA	24	30	310
Potassium	NA	NA	1,210	1,230	NA	NA	1,260	NVG	NVG
Selenium	NA	NA	ND	ND	NA	NA	ND	4	1,500
Silver	NA	NA	ND	ND	NA	NA	ND	2	1,500
Sodium	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
Thallium	NA	NA	ND	ND	NA	NA	ND	NVG	NVG
Vanadium	NA	NA	14.1	13.3	NA	NA	14	NVG	NVG
Zinc	NA	NA	17.8	19.2	NA	NA	22	109	10,000

Notes:
SCB-XX- Sample is a duplicate of SCB-5
mg/kg - milligrams per kilogram or parts per million
ND - Not detected at or above laboratory detection limits
NVG - No Value Given
J - Estimated Value
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limits.
FB - Field Blank
NA- Not Analyzed

*6 NYCRR Part 375; Subparts 375-1 to 375-4 & 375-6; Table 375-6.8(a):Unrestricted Use Soil Cleanup Objectives
***6 NYCRR Part 375; Subparts 375-1 to 375-4 & 375-6; Table 375-6.8(b):Commercial Use Soil Cleanup Objectives*

Validated

Table 6

Analytical Results for Volatile Organic Compounds In Groundwater

Former Belle Cleaners

40 Purchase Street

Rye, NY

Sample ID	MW-1	MW-2	MW-3a	MW-4a	MW-XX**	Field Blank	Trip Blank	NYSDEC
Matrix	groundwater	groundwater	groundwater	groundwater	groundwater	liquid	liquid	TOGS*
Date Sampled	10/23/2012	10/23/2012	10/23/2012	10/23/2012	10/23/2012	10/23/2012	10/23/2012	
Volatile Organic Compounds								
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	ND	ND	ND	ND	ND	ND	ND	50
Benzene	ND	ND	ND	ND	ND	ND	ND	1
Bromochloromethane	ND	ND	ND	ND	ND	ND	ND	5
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	50
Bromoform	ND	ND	ND	ND	ND	ND	ND	50
Bromomethane	ND	ND	ND	ND	ND	ND	ND	5
2-Butanone (MEK)	ND	ND	ND	ND	ND	ND	ND	50
Carbon disulfide	ND	ND	ND	ND	ND	ND	ND	NS
Carbon tetrachloride	ND	ND	ND	ND	ND	ND	ND	5
Chlorobenzene	**19.1**	**22.4**	4.6	**6.4**	**60**	ND	ND	5
Chloroethane	ND	ND	ND	ND	ND	ND	ND	5
Chloroform	ND	ND	ND	ND	ND	ND	ND	7
Chloromethane	ND	ND	ND	ND	ND	ND	ND	NS
Cyclohexane	1.6 J	ND	ND	ND	ND	ND	ND	NS
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	ND	ND	0.04
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	50
1,2-Dibromoethane	ND	ND	ND	ND	ND	ND	ND	NS
1,2-Dichlorobenzene	ND	**8.6**	ND	ND	2.6	ND	ND	3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	3
1,4-Dichlorobenzene	ND	ND	ND	ND	2.9	ND	ND	3
Dichlorodifluoromethane	ND	ND	ND	ND	ND	ND	ND	5
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	5
1,2-Dichloroethane	1.5	3.6	ND	ND	2.9	ND	ND	0.6
1,1-Dichloroethene	ND	2.7	ND	ND	ND	ND	ND	5
cis-1,2-Dichloroethene	3.5	121	1.5	136	47.6	ND	ND	5
trans-1,2-Dichloroethene	ND	**14.4**	ND	5.0	ND	ND	ND	5
1,2-Dichloropropane	2.6	ND	ND	ND	5.1	ND	ND	1
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	0.4
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	0.4
1,4-Dioxane	ND	ND	ND	ND	ND	ND	ND	NS
Ethylbenzene	ND	ND	ND	ND	1.3	ND	ND	5
Freon 113	ND	ND	ND	ND	ND	ND	ND	NS
2-Hexanone	ND	ND	ND	ND	ND	ND	ND	50
Isopropylbenzene	ND	ND	ND	ND	ND	ND	ND	5
Methyl Acetate	ND	ND	ND	ND	ND	ND	ND	NS
Methylcyclohexane	ND	ND	ND	ND	ND	ND	ND	NS
Methyl Tert Butyl Ether	0.72 J	ND	ND	ND	ND	ND	ND	NS
4-Methyl-2-pentanone (MIBK)	ND	ND	ND	ND	ND	ND	ND	NS
Methylene chloride	ND	ND	ND	ND	ND	ND	ND	5
Styrene	ND	ND	ND	ND	ND	ND	ND	930
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	5
Tetrachloroethene	**8.9**	**4,230**	**17.6**	**107**	**4,570 J**	ND	ND	5
Toluene	ND	ND	ND	ND	ND	ND	ND	5
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	5
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	5
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	5
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	1
Trichloroethene	0.78 J	**101**	1.1	**26.7**	**27.1**	ND	ND	5
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	5
Vinyl chloride	ND	**31.7**	ND	**14.7**	**2.3**	ND	ND	2
m,p-Xylene	ND	ND	ND	ND	0.88 J	ND	ND	NS
o-Xylene	ND	ND	ND	ND	ND	ND	ND	NS
Xylene (total)	ND	ND	ND	ND	0.88 J	ND	ND	5

Notes:

ug/L - micrograms per liter or parts per billion

ND - Not detected at or above laboratory detection limits

NS - No Standard

J - Estimated Value

UJ - Reported quantitation limit is approximate

Boxed and bold indicates exceedance groundwater standards or guidance values

**NYSDEC Technical and Operational Guidance Series (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations; June 1998*

*** MW-XX is a duplicate of MW-2*

R- the presence or absence of the analyte cannot be verified due to quality control criteria

Table 7

Analytical Results for Semi-Volatile Organic Compounds In Groundwater

Former Belle Cleaners

40 Purchase Street

Rye, NY

Sample ID	MW-1A	MW-2	MW-3A	MW-4A	MW-XX**	Field Blank	Trip Blank	NYSDEC TOGS*
Matrix	groundwater	groundwater	groundwater	groundwater	groundwater	liquid	liquid	
Date Sampled	10/23/2012	10/23/2012	10/23/2012	10/23/2012	10/23/2012	10/23/2012	10/23/2012	
Semi-Volatile Organic Compounds								
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
2-Chlorophenol	ND	NA	NA	ND	NA	ND	NA	2
4-Chloro-3-methyl phenol	ND	NA	NA	ND	NA	ND	NA	2
2,4-Dichlorophenol	ND	NA	NA	ND	NA	ND	NA	2
2,4-Dimethylphenol	ND	NA	NA	ND	NA	ND	NA	2
2,4-Dinitrophenol	ND	NA	NA	ND	NA	ND	NA	2
4,6-Dinitro-o-cresol	ND	NA	NA	ND	NA	ND	NA	NS
2-Methylphenol	ND	NA	NA	ND	NA	ND	NA	2
3&4-Methylphenol	ND	NA	NA	ND	NA	ND	NA	2
2-Nitrophenol	ND	NA	NA	ND	NA	ND	NA	2
4-Nitrophenol	ND	NA	NA	ND	NA	ND	NA	2
Pentachlorophenol	ND	NA	NA	ND	NA	ND	NA	2
Phenol	ND	NA	NA	ND	NA	ND	NA	2
2,3,4,6-Tetrachlorophenol	ND	NA	NA	ND	NA	ND	NA	2
2,4,5-Trichlorophenol	ND	NA	NA	ND	NA	ND	NA	2
2,4,6-Trichlorophenol	ND	NA	NA	ND	NA	ND	NA	2
Acenaphthene	ND	NA	NA	ND	NA	ND	NA	20
Acenaphthylene	ND	NA	NA	ND	NA	ND	NA	20
Acetophenone	ND	NA	NA	ND	NA	ND	NA	NS
Anthracene	ND	NA	NA	ND	NA	ND	NA	50
Atrazine	ND	NA	NA	ND	NA	ND	NA	7.5
Benzaldehyde	ND	NA	NA	ND	NA	ND	NA	NS
Benzo(a)anthracene	ND	NA	NA	ND	NA	ND	NA	0.002
Benzo(a)pyrene	ND	NA	NA	ND	NA	ND	NA	NS
Benzo(b)fluoranthene	ND	NA	NA	ND	NA	ND	NA	0.002
Benzo(g,h,i)perylene	ND	NA	NA	ND	NA	ND	NA	5
Benzo(k)fluoranthene	ND	NA	NA	ND	NA	ND	NA	0.002
1,1'-Biphenyl	ND	NA	NA	ND	NA	ND	NA	5
4-Bromophenyl phenyl ether	ND	NA	NA	ND	NA	ND	NA	NS
Butyl benzyl phthalate	ND	NA	NA	ND	NA	ND	NA	50
Caprolactam	ND	NA	NA	ND	NA	ND	NA	NS
2-Chloronaphthalene	ND	NA	NA	ND	NA	ND	NA	NS
4-Chloroaniline	ND	NA	NA	ND	NA	ND	NA	5
Carbazole	ND	NA	NA	ND	NA	ND	NA	29
Chrysene	ND	NA	NA	ND	NA	ND	NA	0.002
bis(2-Chloroethoxy)methane	ND	NA	NA	ND	NA	ND	NA	NS
bis(2-Chloroethyl)ether	ND	NA	NA	ND	NA	ND	NA	NS
bis(2-Chloroisopropyl)ether	ND	NA	NA	ND	NA	ND	NA	NS
4-Chlorophenyl phenyl ether	ND	NA	NA	ND	NA	ND	NA	NS
2,4-Dinitrotoluene	ND	NA	NA	ND	NA	ND	NA	5
2,6-Dinitrotoluene	ND	NA	NA	ND	NA	ND	NA	5
3,3'-Dichlorobenzidine	ND	NA	NA	ND	NA	ND	NA	5
Dibenzo(a,h)anthracene	ND	NA	NA	ND	NA	ND	NA	50
Dibenzofuran	ND	NA	NA	ND	NA	ND	NA	5
Di-n-butyl phthalate	ND	NA	NA	ND	NA	ND	NA	50
Di-n-octyl phthalate	ND	NA	NA	ND	NA	ND	NA	50
Diethyl phthalate	0.37 J	NA	NA	0.27 J	NA	0.24 J	NA	50
Dimethyl phthalate	ND	NA	NA	ND	NA	ND	NA	50
bis(2-Ethylhexyl)phthalate	ND	NA	NA	ND	NA	ND	NA	NS
Fluoranthene	ND	NA	NA	ND	NA	ND	NA	50
Fluorene	ND	NA	NA	ND	NA	ND	NA	50
Hexachlorobenzene	ND	NA	NA	ND	NA	ND	NA	0.04
Hexachlorobutadiene	ND	NA	NA	ND	NA	ND	NA	0.5
Hexachlorocyclopentadiene	ND	NA	NA	ND	NA	ND	NA	5
Hexachloroethane	ND	NA	NA	ND	NA	ND	NA	5
Indeno(1,2,3-cd)pyrene	ND	NA	NA	ND	NA	ND	NA	0.002
Isophorone	ND	NA	NA	ND	NA	ND	NA	50
2-Methylnaphthalene	ND	NA	NA	ND	NA	ND	NA	50
2-Nitroaniline	ND	NA	NA	ND	NA	ND	NA	5
3-Nitroaniline	ND	NA	NA	ND	NA	ND	NA	5
4-Nitroaniline	ND	NA	NA	ND	NA	ND	NA	5
Naphthalene	ND	NA	NA	ND	NA	ND	NA	10
Nitrobenzene	ND	NA	NA	ND	NA	ND	NA	0.4
N-Nitroso-di-n-propylamine	ND	NA	NA	ND	NA	ND	NA	NS
N-Nitrosodiphenylamine	ND	NA	NA	ND	NA	ND	NA	50
Phenanthrene	ND	NA	NA	ND	NA	ND	NA	50
Pyrene	ND	NA	NA	ND	NA	ND	NA	50
1,2,4,5-Tetrachlorobenzene	ND	NA	NA	ND	NA	ND	NA	5

notes:

NA-Not Analyzed

ND - Not detected at or above laboratory detection limits

NS - No Standard

J - Estimated Value

UJ - Reported quantitation limit is approximate

**NYSDEC Technical and Operational Guidance Series (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations; June 1998*

** MW-XX is a duplicate of MW-2

Boxed and bold indicates exceedance of groundwater standards or guidance values

Table 8

Analytical Results for Pesticides and PCB's In Groundwater

Former Belle Cleaners
40 Purchase Street
Rye, NY

Sample ID	MW-1A	MW-2	MW-3A	MW-4A	MW-XX**	Field Blank	Trip Blank	NYSDEC
Matrix	groundwater	groundwater	groundwater	groundwater	groundwater	liquid	liquid	TOGS*
Date Sampled	10/23/2012	10/23/2012	10/23/2012	10/23/2012	10/23/2012	10/23/2012	10/23/2012	
PCBs								
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
2,4-D	ND	NA	NA	ND	NA	ND	NA	NS
Aldrin	ND	NA	NA	ND	NA	ND	NA	NS
alpha-BHC	ND	NA	NA	ND	NA	ND	NA	NS
2,4,5-TP (Silvex)	ND	NA	NA	ND	NA	ND	NA	NS
beta-BHC	ND	NA	NA	ND	NA	ND	NA	NS
2,4,5-T	ND	NA	NA	ND	NA	ND	NA	NS
Dalapon	ND	NA	NA	ND	NA	ND	NA	50
delta-BHC	ND	NA	NA	ND	NA	ND	NA	NS
Dicamba	ND	NA	NA	ND	NA	ND	NA	0.44
Dichloroprop	ND	NA	NA	ND	NA	ND	NA	NS
gamma-BHC (Lindane)	ND	NA	NA	ND	NA	ND	NA	NS
Dinoseb	ND	NA	NA	ND	NA	ND	NA	2
MCPA	ND	NA	NA	ND	NA	ND	NA	NS
MCPP	ND	NA	NA	ND	NA	ND	NA	NS
Pentachlorophenol	0.18	NA	NA	0.15	NA	ND	NA	2
2,4-DB	ND	NA	NA	ND	NA	ND	NA	NS
alpha-Chlordane	ND	NA	NA	0.08	NA	ND	NA	NS
gamma-Chlordane	ND	NA	NA	0.066	NA	ND	NA	NS
Dieldrin	ND	NA	NA	ND	NA	ND	NA	0.004
4,4'-DDD	ND	NA	NA	ND	NA	ND	NA	0.3
4,4'-DDE	ND	NA	NA	ND	NA	ND	NA	0.2
4,4'-DDT	ND	NA	NA	ND	NA	ND	NA	0.2
Endrin	ND	NA	NA	ND	NA	ND	NA	NS
Endosulfan sulfate	ND	NA	NA	ND	NA	ND	NA	NS
Endrin aldehyde	ND	NA	NA	ND	NA	ND	NA	5
Endrin ketone	ND	NA	NA	ND	NA	ND	NA	5
Endosulfan-I	ND	NA	NA	ND	NA	ND	NA	NS
Endosulfan-II	ND	NA	NA	ND	NA	ND	NA	NS
Heptachlor	ND	NA	NA	ND	NA	ND	NA	0.04
Heptachlor epoxide	ND	NA	NA	ND	NA	ND	NA	0.03
Methoxychlor	ND	NA	NA	ND	NA	ND	NA	35
Toxaphene	ND	NA	NA	ND	NA	ND	NA	0.06
Aroclor 1016	ND	NA	NA	ND	NA	ND	NA	0.1
Aroclor 1221	ND	NA	NA	ND	NA	ND	NA	0.1
Aroclor 1232	ND	NA	NA	ND	NA	ND	NA	0.1
Aroclor 1242	ND	NA	NA	ND	NA	ND	NA	0.1
Aroclor 1248	ND	NA	NA	ND	NA	ND	NA	0.1
Aroclor 1254	ND	NA	NA	ND	NA	ND	NA	0.1
Aroclor 1260	ND	NA	NA	ND	NA	ND	NA	0.1
Aroclor 1262	ND	NA	NA	ND	NA	ND	NA	0.1
Aroclor 1268	ND	NA	NA	ND	NA	ND	NA	0.1

Notes:
ug/L - micrograms per liter or parts per billion
ND - Not detected at or above laboratory detection limits
NA- Not Analyzed
NS - No Standard
J - Estimated Value

**NYSDEC Technical and Operational Guidance Series (1.1.1)*
Ambient Water Quality Standards and Guidance Values
and Groundwater Effluent Limitations; June 1998
*** MW-XX is a duplicate of MW-2*

Table 9
Analytical Results for Metals In Groundwater
Former Belle Cleaners
40 Purchase Street
Rye, NY

Sample ID	MW-1A	MW-2	MW-3A	MW-4A	MW-XX**	Field Blank	Trip Blank	NYSDEC
Matrix	groundwater	groundwater	groundwater	groundwater	groundwater	liquid	liquid	TOGS*
Date Sampled	10/23/2012	10/23/2012	10/23/2012	10/23/2012	10/23/2012	10/23/2012	10/23/2012	
Total Metals								
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	1,090	NA	NA	**13,800**	NA	<200	NA	2,000
Antimony	<6.0	NA	NA	<6.0	NA	<6.0	NA	6
Arsenic	5.9	NA	NA	<3.0	NA	<3.0	NA	50
Barium	466	NA	NA	248	NA	<200	NA	2,000
Beryllium	<1.0	NA	NA	<1.0	NA	<1.0	NA	3
Cadmium	<3.0	NA	NA	<3.0	NA	<3.0	NA	10
Calcium	128,000	NA	NA	161,000	NA	<5000	NA	NS
Chromium	<10	NA	NA	26.4	NA	<10	NA	100
Cobalt	<50	NA	NA	<50	NA	<50	NA	NS
Copper	<10	NA	NA	36	NA	<10	NA	1,000
Iron	**23,700**	NA	NA	**18,800**	NA	<100	NA	600
Lead	3.9	NA	NA	23.1	NA	<3.0	NA	50
Magnesium	26,000	NA	NA	29,800	NA	<5000	NA	35,000
Manganese	**6,080**	NA	NA	**1,420**	NA	<15	NA	600
Mercury	<0.20	NA	NA	<0.20	NA	<0.20	NA	1.4
Nickel	<10	NA	NA	43.1	NA	<10	NA	200
Potassium	<10000	NA	NA	15,600	NA	<10000	NA	NS
Selenium	<10	NA	NA	<10	NA	<10	NA	20
Silver	<10	NA	NA	<10	NA	<10	NA	100
Sodium	472,000	NA	NA	635,000	NA	<10000	NA	NS
Thallium	<2.0	NA	NA	<2.0	NA	<2.0	NA	0.5
Vanadium	<50	NA	NA	<50	NA	<50	NA	NS
Zinc	<20	NA	NA	56.4	NA	<20	NA	5,000

Notes:
ug/L - micrograms per liter or parts per billion
ND - Not detected at or above laboratory detection limits
NS - No Standard
J - Estimated Value
NA - Not Analyzed

**NYSDEC Technical and Operational Guidance Series (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations; June 1998*
** MW-XX is a duplicate of MW-2
R- the presence or absence of the analyte cannot be verified

Boxed and bold indicates exceedance of groundwater standards or guidance values

TABLE 10

Summary of Analytical Detections for
Indoor and Outside Ambient Air Samples
Former Belle Cleaners
40 Purchase Street
Rye, NY

Sample ID	**SCAS-1**	**SCAS-2**	**SCAS-3**	**SCAS-4**	**NYSDOH**
Matrix	Indoor Air	Indoor Air	Indoor Air	Outside Ambient Air	Ambient Air
Date Sampled	12/13/2010	12/13/2010	12/13/2010	12/13/2010	Matrix Value*
Location					
Method EPA TO-15					
Parameters	ug/m^3	ug/m^3	ug/m^3	ug/m^3	ug/m^3
Acetone	9.75	14.74	14.74	2.85	NGV
Ethyl alchohol	101.68	111.10	96.03	5.65	NGV
Isopropyl Alcohol	39.28	41.74	39.28	ND	NGV
Methylene Chloride	ND	ND	ND	6.60	60
Tetrachloroethene	45.46	38.00	52.92	ND	100
Toluene	9.79	11.30	11.30	ND	NGV
Trichloroethene	ND	ND	2.20	ND	5

Notes:

*NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York; October 2006

NGV = No Given Value

All concentrations are reported in micrograms per cubic meter (ug/m ^{3})

ND = Compound was analyzed for but was not detected

CA RICH ENVIRONMENTAL SPECIALISTS

APPENDIX A
Boring Logs and Well Construction Details

CA RICH Consultants, Inc.

Environmental Specialists

17 Dupont Street, Plainview, NY 11803

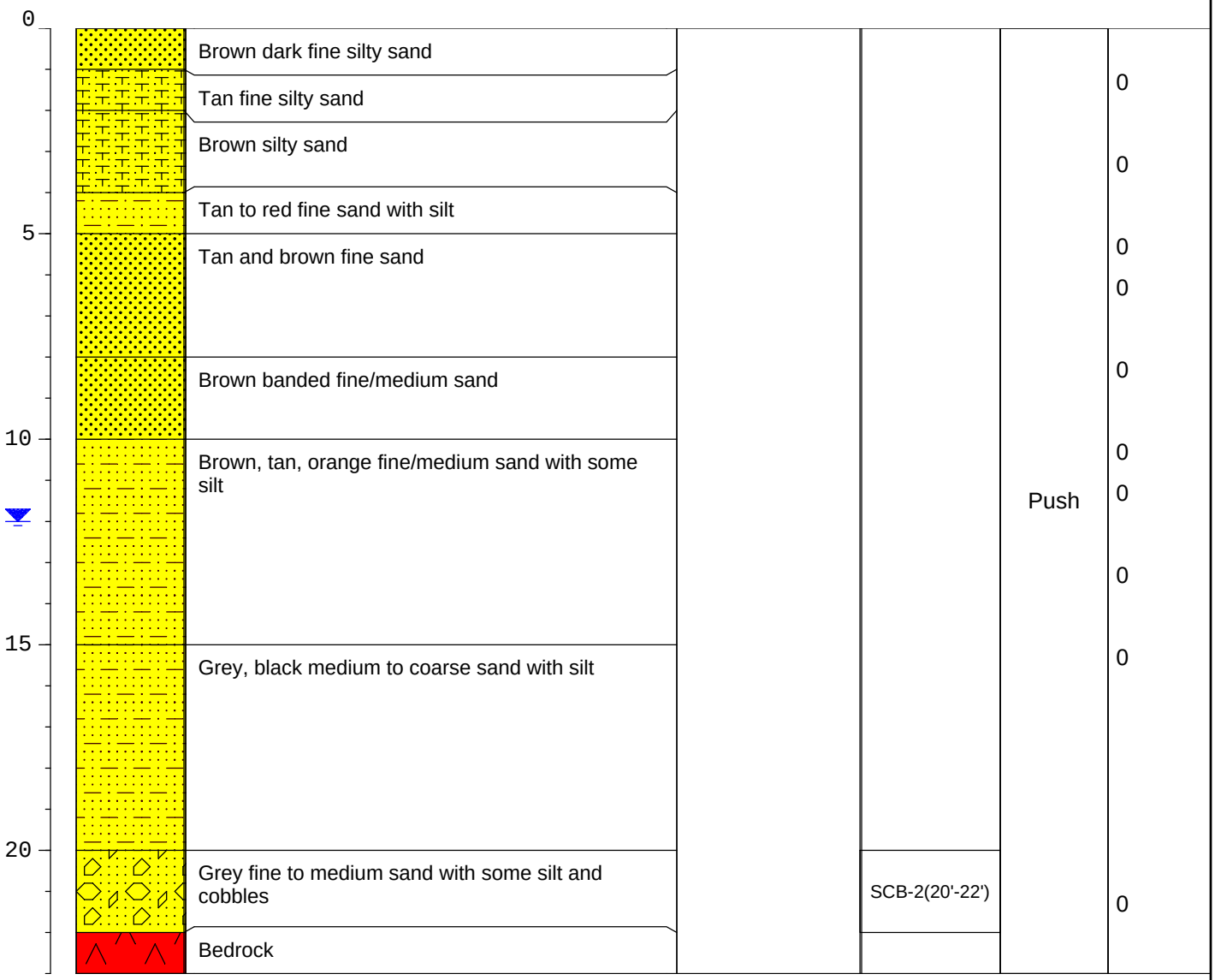
FIELD BORING LOG

BOREHOLE NO.: **SCB-2**

TOTAL DEPTH: **22'**

PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	**40 Purchase Street**	DRILLING CO.:	**Aarco**
SITE LOCATION:	**Rye, NY**	DRILLER:	**John and John**
JOB NO.:	**Belle Cleaners**	RIG TYPE:	**Geoprobe**
LOGGED BY:	**Mike Yager**	METHOD OF DRILLING:	**Direct Push**
PROJECT MANAGER:	**Richard Izzo**	SAMPLING METHODS:	**Soil Sleeves**
DATES DRILLED:	**4/24/12**	HAMMER WT./DROP	

▽ Water level in boring



DEPTH	SOIL TYPE	SOIL DESCRIPTION	COMMENTS	SAMPLE	Blows per ft.	PID ppm
0		Brown dark fine silty sand				0
		Tan fine silty sand				0
		Brown silty sand				0
5		Tan to red fine sand with silt				0
		Tan and brown fine sand				0
		Brown banded fine/medium sand				0
10		Brown, tan, orange fine/medium sand with some silt			Push	0
▽						0
15		Grey, black medium to coarse sand with silt				0
20		Grey fine to medium sand with some silt and cobbles		SCB-2(20'-22')		0
		Bedrock				

NOTES:

CA RICH Consultants, Inc.

Environmental Specialists

17 Dupont Street, Plainview, NY 11803

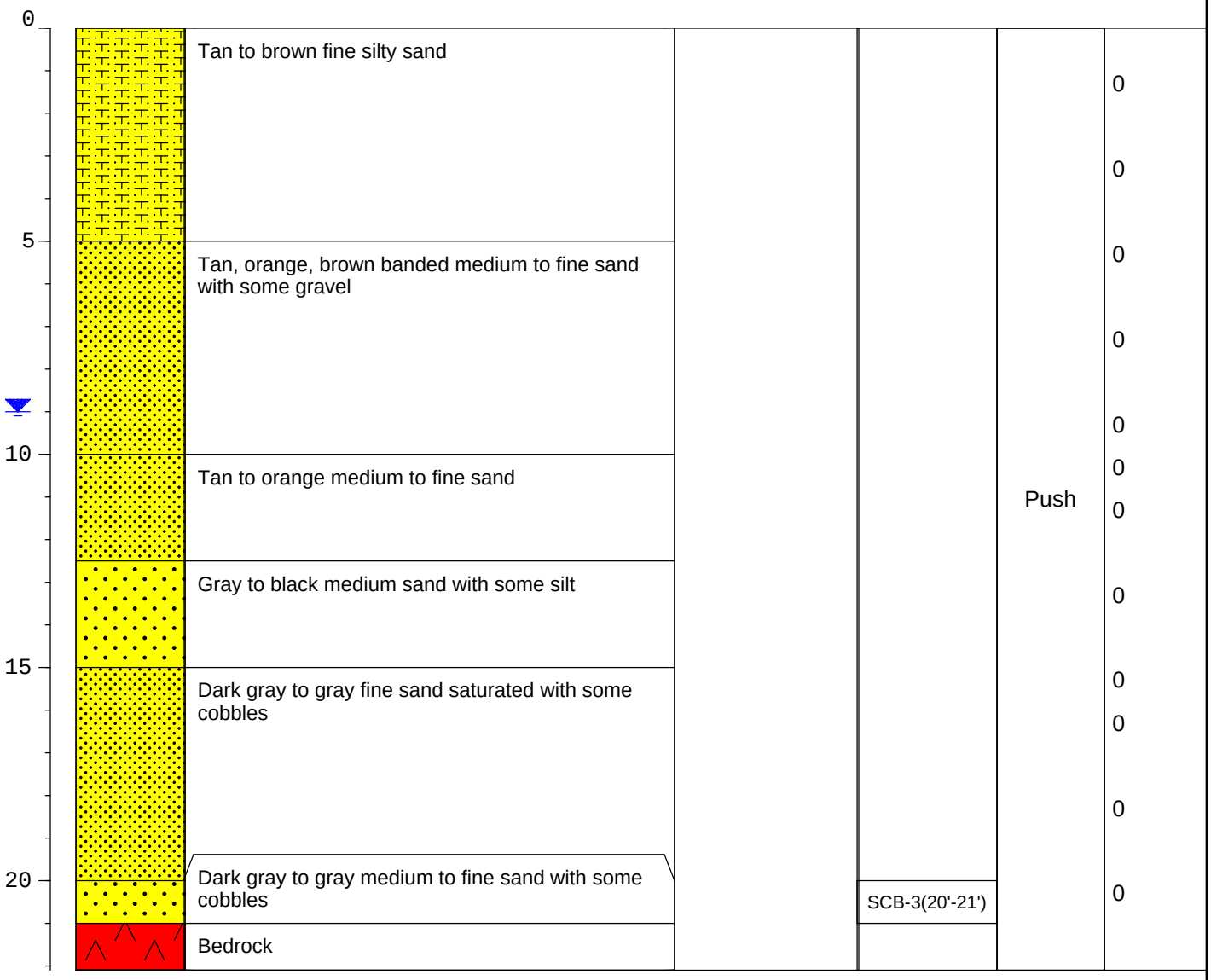
FIELD BORING LOG

BOREHOLE NO.: **SCB-3**

TOTAL DEPTH: **21'**

PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	**40 Purchase Street**	DRILLING CO.:	**Aarco**
SITE LOCATION:	**Rye, NY**	DRILLER:	**John and John**
JOB NO.:	**Belle Cleaners**	RIG TYPE:	**Geoprobe**
LOGGED BY:	**Mike Yager**	METHOD OF DRILLING:	**Direct Push**
PROJECT MANAGER:	**Richard Izzo**	SAMPLING METHODS:	**Soil Sleeves**
DATES DRILLED:	**4/24/12**	HAMMER WT./DROP	**NA**

▽ Water level in boring



NOTES:

CA RICH Consultants, Inc.

Environmental Specialists

17 Dupont Street, Plainview, NY 11803

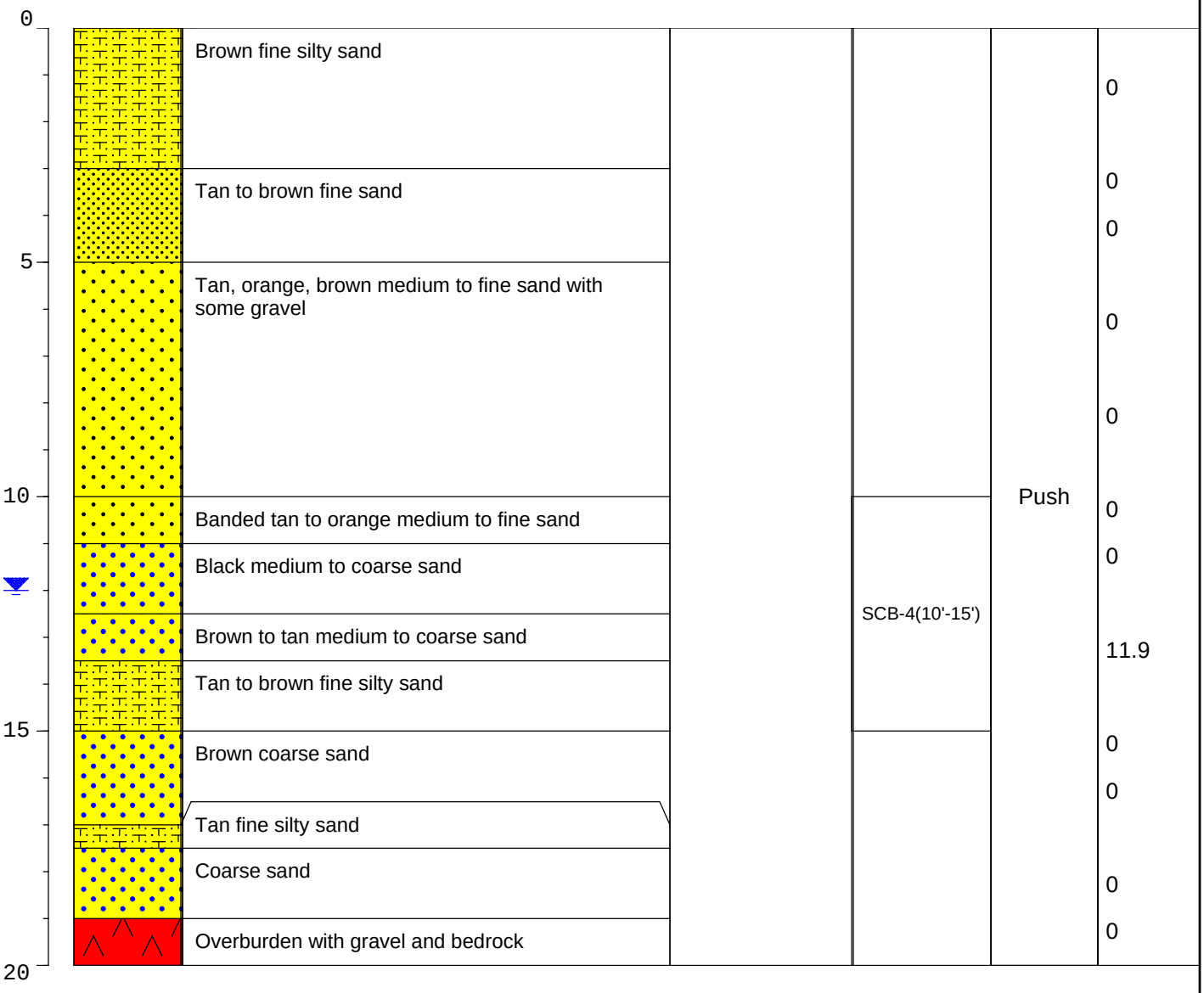
FIELD BORING LOG

BOREHOLE NO.: **SCB-4**

TOTAL DEPTH: **19'**

PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	**40 Purchase Street**	DRILLING CO.:	**Aarco**
SITE LOCATION:	**Rye, NY**	DRILLER:	**John and John**
JOB NO.:	**Belle Cleaners**	RIG TYPE:	**Geoprobe**
LOGGED BY:	**Mike Yager**	METHOD OF DRILLING:	**Direct Push**
PROJECT MANAGER:	**Richard Izzo**	SAMPLING METHODS:	**Soil Sleeves**
DATES DRILLED:	**4/24/12**	HAMMER WT./DROP	**NA**

▽ Water level in boring



DEPTH	SOIL TYPE	SOIL DESCRIPTION	COMMENTS	SAMPLE	Blows per ft.	PID ppm
0		Brown fine silty sand				0
		Tan to brown fine sand				0
5		Tan, orange, brown medium to fine sand with some gravel				0
						0
10		Banded tan to orange medium to fine sand			Push	0
		Black medium to coarse sand				0
		Brown to tan medium to coarse sand		SCB-4(10'-15')		11.9
		Tan to brown fine silty sand				
15		Brown coarse sand				0
		Tan fine silty sand				0
		Coarse sand				0
20		Overburden with gravel and bedrock				0

NOTES:

CA RICH Consultants, Inc.

Environmental Specialists

17 Dupont Street, Plainview, NY 11803

FIELD BORING LOG

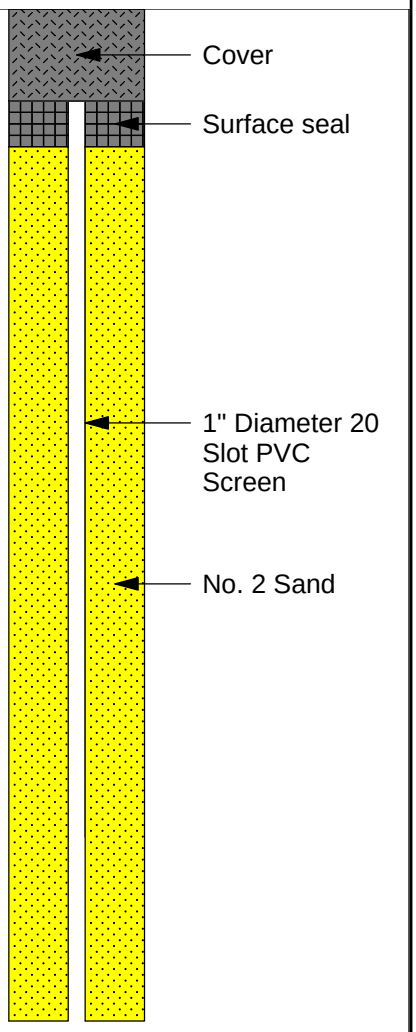
BOREHOLE NO.: **MW-3a (SCB-5)**

TOTAL DEPTH: **6 feet**

PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	**40 Purchase St**	DRILLING CO.:	**Aarco**
SITE LOCATION:	**Rye, NY**	DRILLER:	**John and John**
JOB NO.:	**Belle Cleaners**	RIG TYPE:	**Hand Auger/Post Hole**
LOGGED BY:	**Mike Yager**	METHOD OF DRILLING:	**NA**
PROJECT MANAGER:	**Richard Izzo**	SAMPLING METHODS:	**Hand Auger/Post Hole**
DATES DRILLED:	**4/26/12**	HAMMER WT./DROP	**NA**

▽ Water level in well

DEPTH	SOIL TYPE	SOIL DESCRIPTION	SAMPLE NUMBER	Blows per ft.	PID ppm	BORING COMPLETION	WELL DESCRIPTION
0							
1 ▽		Brown, tan, orange medium to coarse sand with some fine sandy Silt			0		
2					0		
3					0		
4					0		
5			SCB-5(4'-5')				
6		Bedrock encountered at approximately 5.5 feet	No Recovery				



NOTES:

CA RICH Consultants, Inc.

Environmental Specialists

17 Dupont Street, Plainview, NY 11803

FIELD BORING LOG

BOREHOLE NO.: **MW-4a (SCB-6)**

TOTAL DEPTH: **4 feet**

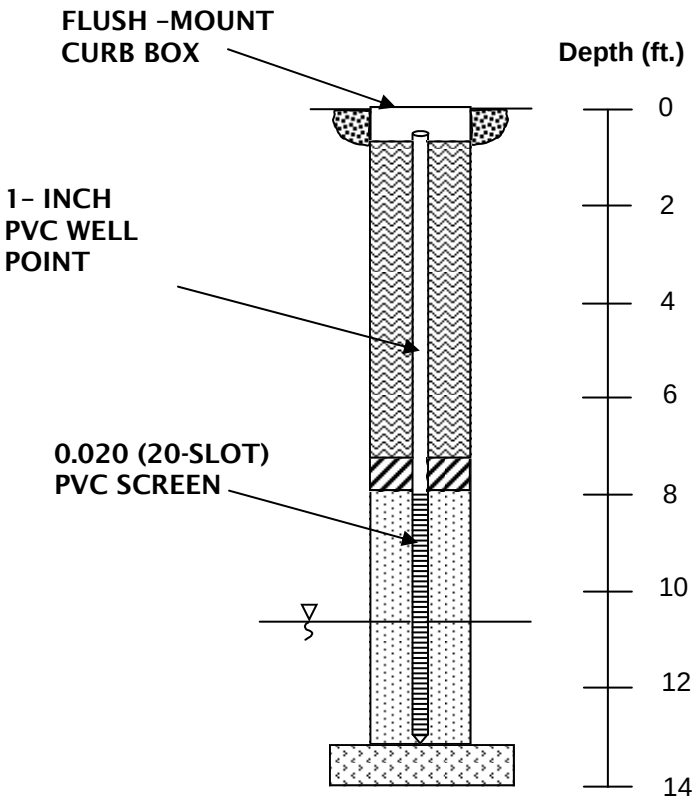
PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	**40 Purchase St**	DRILLING CO.:	**Aarco**
SITE LOCATION:	**Rye, NY**	DRILLER:	**John and John**
JOB NO.:	**Belle Cleaners**	RIG TYPE:	**Hand Auger/Post Hole**
LOGGED BY:	**Mike Yager**	METHOD OF DRILLING:	**NA**
PROJECT MANAGER:	**Richard Izzo**	SAMPLING METHODS:	**Hand Auger/Post Hole**
DATES DRILLED:	**4/26/12**	HAMMER WT./DROP	**NA**

▽ Water level in well

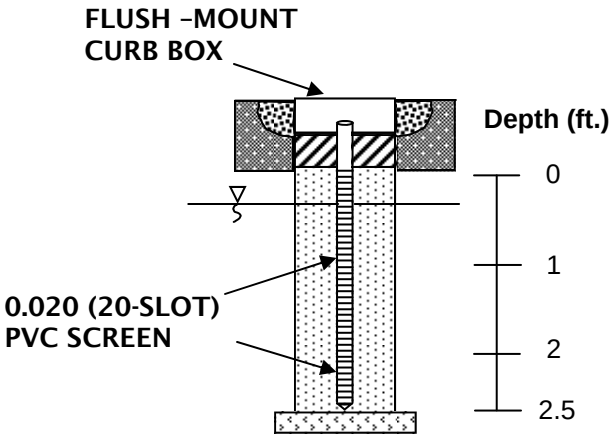
DEPTH	SOIL TYPE	SOIL DESCRIPTION	SAMPLE NUMBER	Blows per ft.	PID ppm	BORING COMPLETION	WELL DESCRIPTION
0		Gravel				Cover	
1		Green to gray medium to coarse sand				Surface seal	
2 ▽		Rust to red medium to coarse sand and some gravel and chunks of rock	SCB-6(1.5'-3.5')	Push	0	1" Diameter 20 Slot PVC Screen	
3						No. 2 Sand	
4		Bedrock					

NOTES:

MW-1



MW-2



LEGEND

- CEMENT
- BEDROCK
- BENTONITE
- FLOOR / SLAB
- NO. 2 MORIE SAND
- CEMENT/BENTONITE GROUT

CA RICH CONSULTANTS, INC.
17 Dupont Street,
Plainview, NY 11803

TITLE: **WELL CONSTRUCTION DETAILS (Wells installed in 2005)**

DATE: **1/10/13**

SCALE: **AS SHOWN**

FIGURE: **3**

DRAWING:

Former Belle Cleaners
40 Purchase Street
Rye, NY

DRAWN BY: **STM**

APPR. BY: **RJI**

APPENDIX B
Data Usability Summary Report

APPENDIX C
Laboratory Data Sheets