SITE CHARACTERIZATION AND REMEDIAL INVESTIGATION REPORT FOR SUN CHEMICAL CORPORATION 441 TOMPKINS AVENUE STATEN ISLAND, NEW YORK BLOCK 2846, LOTS 12 AND 54

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I. INTRODUCTION

A. Purpose and Scope

ENVIRON International Corporation (ENVIRON) has prepared this Site Characterization and Remedial Investigation Report (SCR/RIR) regarding the Sun Chemical Corporation ("Sun Chemical") facility located at 441 Tompkins Avenue in Staten Island, New York (the "Site", shown on Figure 1) to present the results of recent soil and ground water sampling conducted at the Site. Sun Chemical conducted this voluntary investigation of the Site in August-October 2006 to evaluate future development and remediation options for the Site following the anticipated cease of operations at the Site. The scope of these investigations was based on a comprehensive review of historic industrial operations and other Site activities that may have resulted in adverse environmental impacts. Appropriate soil and ground water samples were obtained in those areas to characterize the nature and extent of any associated contamination.

The SCR/RIR presented herein was implemented in accordance with the December 2002 New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation (DER) Draft *Technical Guidance for Site Investigation and Remediation*, also known as DER-10.

The remainder of this section provides pertinent information regarding the basis for completing the remedial investigation and planned Site redevelopment. Section II of this report discusses the history of Site ownership and operation, and the nature and scope of prior investigations of the property. Section III discusses the areas of concern (AOCs) identified at the Site and the recent sampling completed in those AOCs.

II. SITE CHARACTERIZATION: INDUSTRIAL OPERATIONS, SITE HISTORY AND PRIOR SITE INVESTIGATIONS

A. Introduction

In accordance with Section 3.1.1(a) of DER-10, Sun Chemical and ENVIRON completed a detailed records search, including interviews with current and former Sun Chemical to develop a history of manufacturing operations and locations of the handling, storage and potential release of hazardous substances, as needed to identify potentially contaminated AOCs at the Site. As discussed in detail in Section III of this report, in August 2006, ENVIRON conducted field characterization and remedial investigation activities based on information gathered during this records search. The remainder of this section discusses the findings of the records search, including: (1) current and historical industrial operations, (2) the history of Site ownership and development; and (3) prior Site evaluations.

B. Current and Historic Industrial Operations

Based on interviews with current and former Sun Chemical employees, ENVIRON determined that the Site has continuously operated for the production of pigments for the printing and cosmetics industries since development of the property for industrial purposes in 1907. Sun Chemical has operated the Site since 1957, primarily producing red pigments, but also lesser quantities of blue, yellow and green pigments, in portions of the facility designated as the Red and Blue Wings (see Figure 2). Although the specific nature of the pigments manufactured by Sun Chemical has changed over time, the overall production processes have remained relatively constant. Specific details regarding pigment manufacturing processes of prior Site owners and operators is not available but based on information regarding raw materials stored on-Site available from historical resources (e.g., Sanborn Fire Insurance maps), Sun Chemical believes that the basic processes employed at the Site prior to 1957 are comparable to those conducted more recently, with the use of inorganic pigments (e.g., lead chromate) considered likely.

Sun Chemical produces pigments as pH-buffered aqueous slurries through the reaction of organic and non-toxic inorganic pigments, such as barium, in an acidic or basic solution depending on the pigment. Raw materials are kept in plastic and plastic-lined paper bags stored in several areas of the main building. Acids and caustic solution are stored in aboveground storage tanks located adjacent to the building, as shown on Figure 2. These operations are conducted in various aboveground tanks/reactors located in the Red Wing and Blue Wing of the main manufacturing building (see the detailed interior plan provided as Figure 2). At completion of the reaction, the resulting pigment slurry is drained via gravity to one of 19 filter presses on

the ground floor that remove the majority of the free liquid by mechanical pressure. The resulting wastewater, which may be either acidic or basic depending on the specific pigment being produced, is treated via pH adjustment in an on-Site wastewater treatment plant prior to discharge to the Port Richmond Wastewater Treatment Plan under a permit issued by the New York City Department of Environmental Protection. The wet pigment cake is removed to a cart and taken to an oven for drying. The dried pigment cake is then ground to a fine powder, and placed in bags or plastic-lined fiber drums prior to shipment to customers. According to Sun Chemical personnel, other than the 1988 release of caustic solution, described in detail below in Section II.C, there have been no significant releases of hazardous substances at the Site. During drain maintenance, Sun Chemical identified evidence of leaks from the industrial wastewater system beneath the Red and Blue Wings. These areas were evaluated through interior soil sampling completed in AOC 16, as discussed in detail in Section III.

C. Site History

ENVIRON, on behalf of Sun Chemical, completed a diligent evaluation of the history of Site development, industrial operations and activities based on the ownership and operational history of the Site. This evaluation was conducted consistent with DER-10 and was also in general conformance with the scope and limitations of ASTM International's *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* E-1527-05 (the "ASTM Standard"). Accordingly, ENVIRON reviewed historical Site information, including that available electronically from Environmental Data Resources, Inc. (EDR). The specific resources reviewed by ENVIRON include:

- Deeds for the property.
- Sanborn Fire Insurance maps from 1898, 1917, 1937, 1950, 1962, 1977, 1981, 1983 and 1986 though 1996.
- City Directory abstracts from 1928, 1934, 1960, 1965, 1970, 1979, 1984, 1990 and 2000.
- Aerial photographs from 1954, 1966, 1975, 1984 and 1995.
- A search of available federal, state and local database records for information regarding historical releases, spills and underground storage tank (UST) issues.

ENVIRON also requested, and when available reviewed, Site-related files from the New York City Department of Health and Building Departments, as well as the New York Fire Department. Available records did not provide information specific to issues of potential environmental concern at the Site. Last, ENVIRON interviewed long-term Sun Chemical employees regarding historical raw material, waste and wastewater handling practices. These interviews provided information relevant to the understanding of the handling of industrial wastewater and the locations of former releases.

Based on these resources, ENVIRON has developed the following Site history. The 5.3-acre property comprises three tax lots in Tax Block 2846, including: (1) Lot 12, is a 4.7-acre lot comprising the majority of the property and the land on which manufacturing operations have occurred; (2) Lot 54, the 0.5-acre lot designated in tax records as 88 Chestnut Avenue, is located east of Lot 12 and formerly a portion of a passenger and freight railroad; and (3) Lot 314, is a small lot less than 0.1 acre in size that has been zoned and used for residential purposes since its development in the 19th century. For purposes of this summary of Site history, references are provided relative to these specific lots as appropriate. Significant historical Site features are shown in blue on Plate 1. Figures 2 through 8 provide enlargements of the Site and immediately surrounding properties based on Sanborn Fire Insurance maps from 1898, 1917, 1937, 1950, 1962, 1977 and 1986. Other Sanborn maps, from 1981, 1983 and after 1986, provide identical information as the 1986 map and are therefore not included.

1898 (Sanborn Map)

Lot 12 appears to consist of three parcels. The western parcel, at the corner of Chestnut and Tompkins Avenues, is the Site of a pavilion. The Caprera Hotel is located on the central parcel, along Chestnut Avenue. A shooting gallery and adjoining shelter are shown at the southern (rear) end of this parcel. The largest parcel, which fronts Chestnut and Tompkins Avenues, as well as the Staten Island Metro Transit railroad (the future location of Lot 54) to the west, is undeveloped with an embankment shown in the northeastern corner. Lot 314, being the rear portion of 327 St. Mary's Avenue, and showing a residential property with a single-family dwelling fronting St. Mary's Avenue, does not yet exist

1907-8 (Sun Chemical and 1917 Sanborn Map)

Lot 12 was acquired by the G. Siegle & Co. Color Works (Siegle). Siegle constructed a pigment production facility, which appears to have been in operation as of 1908.

1917 (Sanborn Map)

Lot 12 is shown as a single parcel that has been developed as the G. Siegle & Co. Color Works (built 1908), with two dwellings and five auxiliary buildings also on-Site. A two-wing production building is present, although additions to the west and south have not yet been constructed. A coal pile is shown at the southeastern corner of the Site (furnaces were presumably coal-fired at this time). Interior features include two precipitation and drying/grinding areas. Exterior features include a furnace, a pool (aboveground water storage feature for fire protection) and a supply storage area along the southern perimeter. No specific chemical or hazardous materials storage locations are shown. Lot 54 is the Staten Island Rail Transport Railway, with a single rail spur entering Lot 12 along its eastern perimeter and extending to the northeastern corner of the Site. The future location of Lot

314 is unchanged, although addresses along St. Mary's Avenue have changed. This parcel is shown as #91, with the house divided into a twin dwelling.

1928 (City Directory)

According to New York Telephone records, two residences were located at the current Site address. This is consistent with the two dwellings shown on the 1917 and 1937 Sanborn maps.

1937 (Sanborn Map)

The facility located on Lot 12 is designated as The Ansbacher-Siegle Corp., manufacturers of dry colors. The main building is shown on Lot 12 as is the southern of the two dwellings shown on the 1917 map. The main building has been expanded, particularly around the north wing, extending over a portion of the rail spur entering the property from the south. A number of additional features are evident, suggesting expansion of industrial activities. For example, a relatively small one-story addition has been constructed on the western end of the main building. Individual blue pulp, bichromate and acid tank storage areas (number of tanks not specified) abut the southern side of the main building. In addition, a chrysophenine plant has been constructed along the southern property line, at the location of the former supply storage area noted on the 1917 Sanborn map. Chrysophenine (4,4'-diaminostilbene-2,2'-disulfonic acid or DSD acid), is a yellow pigment or a fluorescent whitening agent (current application). A miscellaneous materials storage area is adjacent to and west of the chrysophenine plant. Two greenhouses are also located on-Site, one adjacent to the miscellaneous materials storage area and the other further to the east behind an automobile garage associated with the dwelling at the southwestern property corner. The pool has been replaced by a 100,000-gallon reservoir. A boiler room is shown to the rear of the Site with a notation that it was constructed in 1908 (it was not shown on the 1917 map). The coal pile is absent. Lots 54 and future lot 314 are unchanged.

1950 (Sanborn Map)

The Lot 12 parcel is still shown as The Ansbacher-Siegle Corp., manufacturers of dry colors. There are four primary changes to this lot evident since the 1937 map was prepared. First, the small one-story western addition has been replaced by a larger two-story addition (built in 1942) housing color tanks. Second, two underground fuel oil storage tanks (size not specified) are shown at the southeastern property corner, the former coal pile location. Third, the chrysophenine plant has been removed; a machine and carpentry shop with attached office is now shown at that location. A four-section storage building has also been built to the east (rear) of the carpentry shop. A dust collector is shown directly east of the portion of the building that connects the two wings. Last, two additional structures are

located proximate to the automobile garage (uses unspecified). Although Lot 54 is unchanged, the Rosebank Passenger Station for the railroad is now evident at the eastern terminus of St. Mary's Avenue, adjacent to Lot 54. The residences at 91 and 95 St. Mary's Avenue, both of which had fronted the street, are absent and the property lines for these lots are now set back from the road. These properties appear to have been reconfigured as part of the passenger rail station construction. Lot 314 appears to now on the map.

1954 (Aerial Photograph)

The northwestern corner of Lot 12 appears wooded with a single dwelling. The remainder of the Site (all three lots) appears largely as it did on the 1950 Sanborn map with the exception of disturbed ground along the western side of the plant, likely from on-going construction of building additions which were finished in 1955 (see entry for 1962 Sanborn map). No areas of significant exterior storage are evident. Given the small scale of this photograph and the relatively close spacing of the buildings, the aboveground storage tank areas are not visible. A railroad is present on Lot 54. No activity is discernible on Lot 314.

1957 (Deed)

The Ansbacher-Siegle Corporation sold Lot 12 to Sun Chemical on December 1, 1957. Sun Chemical also acquired Lot 314 on that date, although the identity of the prior owner is not available.

1962 (Sanborn Map)

Lot 12 remains as The Ansbacher-Siegle Corp., manufacturers of dry colors. There have been four significant changes to the property configuration since 1950. First, an L-shaped, three-part addition was built in 1955 on the western end of the main building, connecting the northern and southern wings. The largest section of the addition is designated for manufacturing. Second, the residential property at the corner of Chestnut and Tompkins Avenue has been partially converted to an office. A warehouse building with 2nd-floor office space has been constructed between that dwelling and Tompkins Avenue. Third, two free-standing acid tanks have been installed near the northwestern corner of the main building (the blue pulp, dichromate and acid tanks are shown as remaining). Last, all four of the auxiliary buildings between the other dwelling (which fronts Tompkins Avenue) and the machine and carpentry shop have been demolished. Lots 54 and 314 are unchanged since the 1950 map.

1965 (City Directory)

According to New York Telephone Company records, there are two listings related to Sun Chemical for 92 Chestnut Avenue, an address which Sanborn maps of this vintage indicate

as being located at the northeast corner of the Sun Chemical Site. These listings include "Ansbacher Siegle Div of Sun Chemcl Corp Colrs" and "Sun Chemcl Corp". However, there are no listings for 1965 for the current facility address. In addition, there were no subsequent City Directory listings for 92 Chestnut Avenue.

1966 (Aerial photograph)
Lot 12 of the Site appears largely the same as on the 1962 Sanborn map. A relatively large storage area is located between the northern side of the warehouse and Chestnut Avenue. The materials are staged in orderly rows suggesting that they include pallets of drums, bags, raw materials and/or finished goods. There also appears to be miscellaneous storage of materials along the southern fenceline, an area which GZA designated as the "drum and bag storage area" by GZA in a July 2000 Preliminary Site Assessment Work Plan it prepared for NYSDEC (discussed below). No stained areas are apparent.

1970 and 1975 (City Directory)
The current Site address is listed in New York Telephone records under "Sun Chemcl Corp Pigmts Dept".

1975 (Aerial photograph)
The dwelling on Lot 12 immediately east of the warehouse has been removed and another feature, slightly larger than the footprint of the former dwelling, appears to be under construction. Much of the outdoor storage of materials north of the warehouse appears to be gone; only several trucks are present. There continues to be storage of miscellaneous materials along the southern fenceline; no stained ground is apparent. The remainder of the Site appears unchanged since 1966.

1977 (Sanborn Map)
The office/dwelling structure has been removed as have the blue pulp, dichromate and acid tanks along the southern side of the main building. There have been no other significant changes to the three lots at the Site.

1979 (City Directory)
The current Site address, with the street name compressed to "Tmpkns Ave", is listed in New York Telephone records under "Sun Chemcl Corp Pigmts Dept".

1981, 1983 and 1986 through 1996 (Sanborn Maps)
There are no significant changes to the facility noted to any of the three lots on these 13 maps. The property owner is shown as Sun Chemical Corp. beginning in 1986. The only

structural change at the Site shown on these maps is the addition of a pump house and garage west of the machine and carpentry shop on the 1996 map.

1984 (Deed)
Sun Chemical acquired Lot 54 on June 19, 1984 from Staten-Island South Beach, Inc.

1984 (City Directory)
The Site address, with the street name compressed to "Tmpkns Ave", is listed in New York Telephone records under "Sun Chemcl Corp Pigmts Dept".

1984 (Aerial photograph)
Although materials storage is evident near the warehouse and the southern fenceline, the small scale of this photograph does not enable the nature of those materials to be identified.

1986 (Deed)
On December 31, 1986, Sun Chemical was acquired by SUN/DIC Acquisition Corporation, the current owner of Lots 12, 54 and 314.

1990 (City Directory)
The Site address, with the street name compressed to "Tmpkns Ave", is listed in NYNEX Information Resource Company records under "Sun Chemcl Corp Pigmts Dept".

1993 (Database Search)
Two 25,000-gallon fuel oil USTs were removed. The records indicate that the tanks were installed in 1946 and formerly held No. 5 or No. 6 fuel oil. A 10,000 UST was then reportedly installed in approximately 1993 for No. 2 fuel oil storage. (This tank, actually an aboveground storage tank within a secondary containment structure, remains on-Site.)

1995 (City Directory)
The Site address is listed in NYNEX records under "Sun Chemcl Corp Pigmts Dept".

1995 (Aerial photograph)
Relatively large material storage areas are evident east of the warehouse and west of the machine and carpentry shop. The warehouse storage location (which is asphalt-paved) is still used for the staging of bagged finished product and other materials. A vehicle/forklift track encircles the warehouse storage area.

D. Prior Site Evaluations

Several evaluations were completed at the Site prior to the recent Site assessment, as summarized below under the following subheadings: (1) summary of 1988 soils investigation; (2) summary of the 1994 study by NYSDEC; and (3) summary of the 2001 Preliminary Site Assessment.

1. Summary of 1988 Soil Investigation

Based on internal Sun Chemical documentation, discussions with Sun Chemical personnel and correspondence between Sun Chemical and regulatory agencies, on February 17, 1988 a bulk raw material storage tank located near the southern property boundary was overfilled resulting in the discharge of approximately 545 gallons of a 25% sodium hydroxide solution to the exposed soil surface. The solution flowed from the Sun Chemical Site onto portions of the adjacent St. Joseph's Parochial School property, entering two storm drains connected to the school's combined sewer system. Sun Chemical retained OH Materials, Inc. as its emergency response contractor, and immediately initiated emergency response measures to contain the released caustic material and evaluate any environmental impacts from the release. Based on soil sampling completed at that time by OH Materials, the pH of the near-surface soils on the two properties was greater than 12, as was the water in the storm sewers. Accordingly, Sun excavated the impacted soils and cleaned the affected storm sewers. Subsequent soil sampling confirmed that elevated pH levels requiring response had been effectively addressed. The March 29, 1988 Technical Report (Preliminary) prepared by the New York Department of Environmental Protection Division of Hazardous Materials Programs (DHMP) and included herein in Attachment A indicates that personnel from the DHMP were involved at the time of the release and subsequent remediation, and that those personnel concluded that remediation of the release was completed in March 1988. This conclusion was confirmed by the City of New York Department of Environmental Protection in its April 14, 1988 letter to NYSDEC.

Sun Chemical subsequently constructed a concrete retaining wall along the common boundary between the Site and the school to minimize the potential for future drainage of storm water off-Site. During these construction activities, discolored soil was observed on the Sun Chemical property and accordingly, soil samples were collected (from unspecified depths but which are believed to be less than 3 feet). Soil samples were taken from one location within the trench dug to accommodate the retaining wall and from three nearby locations on the school property. These four samples were analyzed for RCRA characteristics and RCRA metals by the EP Toxicity method (EP Tox). Three additional soil samples were collected from one off-Site and two on-Site locations, and analyzed for a broader suite of parameters, including RCRA characteristics and RCRA metals by EP Tox,

total cyanide, total phenols, Priority Pollutant metals (PPMs)[1], TCL volatile organic compounds (VOCs), TCL pesticides and polychlorinated biphenyls (PCBs), and TCL semi-volatile organic compounds (SVOCs). These results were provided to the DEP by Sun Chemical in 1988 as part of the emergency response action.

Those data indicated that pesticides and acid extractable compounds were not detected. In addition, only three VOCs (acetone, methylene chloride and toluene) were detected, all at *de minimis* levels. Further, acetone and methylene chloride also were present in the laboratory method blanks, confirming that the presence of those constituents most likely resulted from laboratory contamination. Cyanide was detected but also not at significant concentrations. Lead, PCBs and one base/neutral extractable organic compound (BN), di-octyl phthalate, were detected at elevated concentrations and consequently, in the April 14, 1988 letter noted above, the DHMP referred further investigation of the Site to the NYSDEC. No additional investigation or remediation was required by DHMP. However, in 2006 additional soil sampling was completed in this area, as discussed below, including analyses for metals, PCBs and BNs.

2. Summary of 1994 Hazardous Substances Disposal Site Study by NYSDEC

In a December 28, 1994 letter to Sun Chemical (provided in Attachment B), NYSDEC indicated that it had begun a Hazardous Substances Disposal Site Study (the "Study"), noting that the Sun Chemical Site was included in an inventory NYSDEC had compiled of potentially contaminated Sites. Based on its review of the historical data from the Sun Chemical facility reviewed as part of the Study, NYSDEC identified the following three contaminants of concern (provided with maximum concentrations) in soil at the Site in a draft "Hazardous Substance Waste Disposal Site – Description" form: lead (3,020 ppm), bis(2-ethylhexyl)phthalate (BEHP) (400 ppm) and PCBs (15 ppm). These constituents were identified by Sun Chemical during its response activities related to the 1988 caustic solution release. As indicated in the preceding subsection, other parameters for which analyses were conducted in 1988 were either not detected or were identified at levels of potential concern to NYSDEC. Based on these data, NYSDEC included the Site on a list of 612 Sites identified by the Study.

Sun Chemical is not aware of any additional actions taken by NYSDEC related to this listing prior to NYSDEC's July 9, 1999 letter (see Attachment B) notifying Sun Chemical that the Department had completed a December 1, 1998 addendum and would conduct a Preliminary Site Assessment (PSA). (Sun Chemical received a comparable notice from NYSDEC dated February 16, 2000). NYSDEC contracted TAMS/GZA GeoEnvironmental of New York (TAMS/GZA) to prepare a PSA work plan (the TAMS/GZA Work Plan). An

[1] The PPMs include the following thirteen metals: antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium and zinc.

initial draft was completed for NYSDEC in July 1999 proposing Site-wide soil and ground water sampling at the Sun Chemical facility, rather than sampling targeted to the former caustic release location. That work plan was not implemented.

Concurrent with NYSDEC's involvement with the Site, Sun Chemical was in discussions with the Department regarding taking the lead in conducting the PSA. In a March 1, 2000 letter from Brown & Wood LLP (now Sidley Austin Brown & Wood LLP), Sun Chemical's outside counsel at that time, Sun Chemical indicated its preference for completing the PSA at its expense using an environmental consulting firm it retained. During an April 7, 2000 telephone conversation with ENVIRON, NYSDEC agreed that Sun could take the lead in completing a PSA specifically targeting the former caustic release area.

3. Preparation of 2001 Preliminary Site Assessment

Following the discussions with NYSDEC discussed in the preceding subsection, Sun Chemical retained ENVIRON to prepare a PSA Work Plan for submission to NYSDEC. ENVIRON submitted a PSA Work Plan to NYSDEC in April 2001 proposing soil sampling in the area of the Site and the adjoining school property that appeared to have been affected by the February 1988 caustic solution release. Based on comments received from NYSDEC in May 2001, ENVIRON updated the PSA and submitted a Revised PSA Work Plan to NYSDEC in August 2001.

The August 2001 Revised PSA Work Plan also documented the results of ENVIRON's July 2001 evaluation of the integrity of the floor beneath the pigment filter presses in response to NYSDEC's claims that the acidic and basic wastewaters released to the floor were hazardous waste. The intent of ENVIRON's inspections was to identify any areas of deterioration or damage to the interior concrete flooring through which filter press wastewaters could potentially impact underlying soils. The August 2001 Revised PSA Work Plan indicated that no such damage was observed.

The PSA Work Plan was not implemented, and there was no further interaction between ENVIRON and NYSDEC related to soil and ground water conditions on the Site.

III. SITE CHARACTERIZATION AND REMEDIAL INVESTIGATION: SOIL AND GROUND WATER SAMPLING PROGRAM

A. Overview

Based on the detailed review of historical documentation and discussions with Sun Chemical personnel, ENVIRON identified 15 AOCs warranting further evaluation. These AOCs, and the specific environmental concerns, are presented in Table 1. The Site characterization was completed in August 2006 to provide an initial understanding of soil quality at the Site. ENVIRON, on behalf of Sun Chemical, implemented a remedial investigation (RI) plan in October 2006 to provide additional data regarding the nature of soil and ground water quality at the Site. The RI sampling program was completed between August 28 and October 17, 2006. Analytical results of the sampling program are discussed by individual AOC below. Summary data tables are provided in Appendix B.

B. Overview of Sampling Program and Methodologies

SGS Environmental Drilling, Inc. of West Creek, New Jersey installed all monitoring wells at the Site using hollow-stem augers. SGS also completed the soil borings using direct-push techniques under the supervision of an ENVIRON geologist. At each soil boring, continuous soil cores were collected to enable logging of geologic conditions and screening of the soil cores with a photo-ionization detector (PID) to assist in determining whether there was evidence of impacted soils; no such impacts were observed. Soil boring logs, which provide soil classification information and field screening results, are provided in Appendix A. The summary data tables provided in Appendix B include the actual sampling locations, depths and analyses. All soil sampling locations are shown on Plate 1.

At each location, ENVIRON attempted to collect soil samples from the intervals most likely to have been adversely impacted by former industrial operations. For AOCs designated based on surficial activities (e.g., aboveground storage tanks or railroad tracks), sampling was targeted to the soil surface directly beneath the pavement. At certain locations, however, the presence of crushed stone bedding for the pavement or rocky soils precluded sampling at that interval. In those instances, ENVIRON therefore collected the soil sample from the uppermost soil interval encountered.

All downhole drilling and sampling equipment was decontaminated between uses. Downhole components including direct-push rods and core barrels, were decontaminated with an Alconox solution followed by a tap water rinse.

All soil samples were placed directly into laboratory-provided glassware and stored on ice in a cooler under appropriate chain-of-custody protocol. Samples were delivered to Severn Trent Laboratories (STL) (now TestAmerica, Inc.) of Edison, New Jersey, a New Jersey-certified laboratory, for all of the required analytical services. Given the potential for historic use of inorganic pigment, soil samples from each AOC were analyzed for Priority Pollutant metals (PPM) plus barium by the applicable USEPA 6010 and 7000 series methods. In addition, soil samples from certain AOCs were also analyzed for VOCs by USEPA Method 8260B, PCBs by USEPA Method 8080, TCL SVOCs by USEPA Method 8270C. Summarized soil data are provided in tables included as Appendix B. A CD-ROM provided as Attachment C provides the STL laboratory reports for the August-October 2006 sampling program.

As discussed in each of the following subsections, the SC and RI determined whether there was contamination associated with each AOC targeted for sampling, identified the constituents of concern associated with a given AOC, and evaluated the lateral and vertical extent of those impacts. Specific information regarding each AOC, and the associated analytical results, are discussed below.

C. Findings in Areas of Concern

1. AOC 1 – Former Shooting Gallery

AOC 1 is the location of a former shooting gallery, identified on the 1898 Sanborn Fire Insurance map for the Site. Although the predominantly residential character of adjacent property lots at that time suggested that live ammunition was not used at this shooting gallery. Nonetheless, Environ evaluated this area to determine if shooting activities resulted in impaired soil quality. ENVIRON advanced six borings in this AOC. The first two borings, B101 and B102, were completed in August 2006 for initial characterization and were advanced to a depth of 4 feet. Three soil samples were obtained from each location and analyzed for PPMs and barium. In addition, analyses for TCL VOCs were completed given to provide additional data regarding VOC conditions at the Site. Sun Chemical completed borings B103 through B106 in October 2006, collecting soil samples from each of these borings from one or two intervals. These samples were analyzed for PPMs plus barium. In addition, soil samples from boring B106 (from 1.5-2.0’ and 3.5-4.0’) were analyzed for SVOCs to assist in the characterization of this portion of the Site and adjacent AOC 14. The actual sampling depths and analyses are provided on the summary data tables included in Appendix B.

Notably, there was no visual evidence of ammunition at the borings. Analytical results of this sampling indicated that VOCs and SVOCs were generally not detected but when present, were typically identified at negligible concentrations well below 1 part per million.

Metals were detected; Appendix B provides the specific detected metals concentrations, as well as concentrations of the detected SVOCs and VOCs.

2. AOC 2 – Former Railroad Tracks at Eastern Parking Lot

AOC 2 is the location of the former Staten Island Rapid Transit railroad line, and the associated rail spur formerly servicing the Site. Sun Chemical removed these lines (including the rails and ties) in the 1980s to enable construction of the parking lot that now borders the eastern side of the facility. Soil samples were collected from AOC 2 from borings B201 through B204 and from MW5. Given concerns regarding impacts from historic loading/unloading operations, and constituents often associated with operating rail siding, soil samples from AOC 2 were analyzed for PPMs, barium and SVOCs. Soil samples from these borings were obtained from six-inch intervals generally at the soil surface (underlying the asphalt pavement) and from approximately 1.5-2.0'. In addition, a deeper sample was colleted from B202 (3.5-4.0'), B204 (2.0-2.5') and MW05 (3.5'4.0'). In addition, soil samples from boring B1606, completed east of the Red Wing (See below "AOC 16"), also provides data relevant to AOC 2. Soil samples were collected from B1606 at 2.0-2.5' and 3.5-4.0'.

There were scattered detections of polycyclic aromatic hydrocarbons (PAHs) at concentrations between 1 ppm and 10 ppm, generally in surface soils only. Other SVOCs were either not detected or were present at low concentrations typically less than 1 ppm. Metals were detected; Appendix B provides the specific detected metals concentrations, as well as concentrations of the detected SVOCs.

3. AOC 3 – Former Blue Pulp Aboveground Storage Tank South of Blue Wing

AOC 3 is the location of the former blue pulp aboveground storage tank south of the Blue Wing, evident on Sanborn Fire Insurance maps dating from 1937, 1950 and 1962. Soil boring B301 was completed in August 2006 directly south of the former tank location. The two soil samples from B301 (from 0.3-0.8' and 2.0-2.5') were analyzed for PPMs and barium. ENVIRON also completed boring B302 in October 2006 to the southwest of the former tank location, with one sample collected from 1.0-1.5' for PPM and barium analysis. Due to the existence of underground utility lines (particularly water and wastewater lines), as well as elevated concrete pads for current tanks, other locations proximate to the former tank area were not accessible. Appendix B provides the specific detected metals concentrations.

4. AOC 4 – Former Bichromate Aboveground Storage Tank South of Blue Wing

AOC 4 is the location of the former bichromate aboveground storage tank south of the Blue Wing. This tank is evident on Sanborn Fire Insurance maps dating from 1937, 1950

and 1962. Boring B401 was completed in August 2006, with a sample for PPM and barium analysis collected from 1.5-2.0'. ENVIRON also completed boring B402 in October 2006. Two soil samples were collected from B402 for PPM and barium analysis, including from 1.0-1.5' and 2.0-2.5'. Appendix B provides the specific detected metals concentrations.

5. AOC 5 – Former Acid Aboveground Storage Tank South of Blue Wing

AOC 5 is the location of the former acid aboveground storage tank south of the Blue Wing. This tank is evident on Sanborn Fire Insurance maps dating from 1937, 1950 and 1962. Although the information indicated that only acid was stored in this tank, rather than inorganic pigments, soil samples were collected from MW3 for PPM and barium analysis from 0.2-0.7' and 1.5-2.0'. Appendix B provides the specific detected metals concentrations.

6. AOC 6 – Former Acid Aboveground Storage Tanks South of Red Wing

AOC 6 is the location of the former acid aboveground storage tanks south of the Red Wing (the pad remains). These tanks are evident on Sanborn Fire Insurance maps dating from 1937, 1950 and 1962. ENVIRON completed boring B601 adjacent to the pad and collected a soil sample in August 2006 from 1.8-2.0 feet for PPM and barium analysis. Additional samples were collected proximate to B601 in October 2006 at borings B602 (2.0-.2.5') and B603 (1.0-1.5'). These samples were also analyzed for PPMs and barium. In addition, three other borings (B604, B605 and B606) were completed in the courtyard where AOC 6 is located. Soil sampling was completed at those borings to more broadly characterize soil quality associated with the former AST as well as to determine soil conditions in areas that were historically used for raw material and finished product handling and storage. Soil samples were collected from 1.5-2.0 feet at each location, as well as from 3.5-4.0' and 4.0-4.5' at B604. All of these soil samples were analyzed for PPM and barium, with the samples from B604 also analyzed for SVOCs. Other than negligible concentrations of bis(2-ethylhexyl phthalate), SVOCs were not detected. Appendix B provides the specific detected metals concentrations.

7. AOC 7 – Former Chrysophenine Plant

AOC 7 is the location of the former chrysophenine plant evident on the 1937 Sanborn Fire Insurance map. This structure was located along the southern property boundary, partially beneath the current locations of the machine and carpentry shop and the storage building to the east. ENVIRON completed three soil borings to evaluate soil conditions at the former chrysophenine plant, including borings B701 and B702 in August 2006, and boring B703 in October 2006. The first two borings were advanced to 4 feet, and soil samples collected from 0.5-1.0' and from a six-inch interval between 1 and 2 feet. These

samples were analyzed for TCL VOCs, PPM and barium. One soil sample was collected from Boring B703 (0.5-1.0') for PPM and barium analysis. VOCs were not detected in this AOC. Appendix B provides the specific detected metals concentrations.

8. AOC 8 – Former Southern Material Storage Area

AOC 8 is the location of the former southern material storage area, located east of current machine and carpentry shop. One boring, B801, was advanced in that area in August 2006. Two soil samples were collected from that boring from 0.5-1.0' and 2.0-2.5 feet for PPM and barium analysis. In addition, the deeper soil sample was also analyzed for TCL VOCs. No VOCs were detected. Appendix B provides the specific detected metals concentrations.

9. AOC 9 – Current Drum and Bag Storage Area

AOC 9 is the location of the current drum and bag storage area, including the rainwater and spill containment sump. A portion of this area also includes the location of two former caustic aboveground storage tanks. A total of five soil borings (B901 through B905) were completed in this AOC in August 2006. Two soil samples were collected from each boring, generally from the soil surface and a deeper interval between 2 and 3 feet below grade. These soil samples were analyzed for TCL VOCs, PPM and barium. VOCs were generally not detected, but where present, were identified at *de minimis* part-per-billion concentrations. Appendix B provides the specific detected metals concentrations.

10. AOC 10

AOC 10 consists of the wastewater conveyance components specifically associated with the six Blue Wing filter presses (Presses 1 through 6). As noted above, wastewater is mechanically removed from pigment slurries at these filter presses. The wastewater at the Blue Wing filter presses drains to a concrete floor (some epoxy-coated), with areas of overlying acid-resistant brick, and to trench drains located in front/north of the presses as well as behind/south of the units. These drains direct the wastewater to the on-Site wastewater treatment plant.

As part of its annual maintenance program at the facility, completed over a two-week period each July, Sun cleans, inspects and, if necessary, repairs the production-area floors, including floors beneath the filter presses. The goal of this annual maintenance program is to identify and mitigate any areas where the flooring may have become worn or damaged during the prior year. All damaged and/or worn areas, including floors beneath the filter presses, are then repaired (consistent with OSHA requirements [e.g., to address potential trip hazards] given that employees work in the areas beneath the presses). During each maintenance shutdown, most recently in July 2007, Sun Chemical also completes a thorough

cleaning of the floors using high-pressure water.

Based on ENVIRON's most recent inspection of flooring in the Blue Wing press area, there had been surficial wear to the concrete and acid brick flooring, including spalling and cracking. Physical inspections of those areas reveal that all wear appears to be superficial, not penetrating the floor . These observations were consistent with information provided by Sun Chemical indicating that there has been no significant damage identified to the flooring and trenches associated with the Blue Wing filter presses over time. As such, because there was no evidence of deterioration such that would enable releases of pigment liquids to the underlying soil, sampling was not performed at this AOC.

11. AOC 11

AOC 11 consists of the wastewater conveyance components specifically associated with the ten Red Wing filter presses (Presses 10, 51, and 54 through 61). Pigment slurries generated in the Red Wing are dewatered in these filter presses in the same manner as described above for the Blue Wing. The floor inspection processes were the same as described above for AOC 10 and, as with the Blue Wing, AOC 10, no significant damage to the flooring and trenches has been identified in the Red Wing filter press area and thus, any release of pigment liquids to the underlying soil was unlikely. Consequently, sampling was not performed at this AOC.

12. AOC 12 – Two Former 25,000-Gallon No. 6 Fuel Oil Underground Storage Tanks

AOC 12 is the location of the two former 25,000-gallon No. 6 fuel oil USTs near southeastern property corner. These tanks, and adjacent soils, were removed in 1993. Post-excavation soil samples were collected and petroleum constituents were not detected at levels of concern. Based on those analytical results, NYSDEC approved no further action (NFA) for the tank closures in 1994. In light of the prior soil findings and the Department's 1994 NFA approval, soil sampling was not necessary in this AOC. However, as discussed below under "AOC13" and "Ground Water", soil and ground water sampling was completed immediately southeast and downgradient of this AOC for other purposes. That sampling did not identify UST-related contamination, supporting the prior NFA approval.

13. AOC 13 – Former Coal Pile

AOC 13 is the location of the former coal pile located at the southeastern property corner. This pile is evident on Sanborn Fire Insurance maps dating from 1917 and 1937, and was associated with the coal-fired boilers shown on those maps. The location of this pile largely coincides with footprint of AOC 12, the two former 25,000-gallon No. 6 fuel oil USTs. As discussed above under "AOC 12", these tanks and adjacent soils were remediated in 1993, and the excavation backfilled with certified clean fill. Given that potential impacts,

if any, associated with former coal storage would be present in surface soils, the UST remedial action described above in AOC 12, would have adequately addressed any coal pile-related contamination existing within the excavation boundary. Accordingly, ENVIRON targeted only one location, beyond the boundary of the UST excavation, for soil sampling to evaluate soil quality within the former coal pile storage area.

Boring B1301 was completed within the footprint of the former coal pile. Two soil samples were obtained from this boring (1.5-2.0', the interval below crushed stone fill underlying the asphalt pavement, and 3.5-4.0') and analyzed for TCL VOCs and SVOCS, PPMs and barium. VOCs were not detected, and while certain SVOCs were identified in both samples, the reported concentrations, with only one exception, were less than 1 ppm. Appendix B provides the specific detected metals and SVOC concentrations.

14. AOC 14 – Former Caustic Release Area

AOC 14 is the on-Site portion of the former caustic release area. As discussed above, available documentation regarding that release indicates that the regulatory authorities were satisfied with the remedial action undertaken to address the release. However, sampling related to contemporaneous excavation of soils in this area identified other constituents (i.e., lead, bis(2-ethylhexyl)phthalate and PCBs) most likely related to other industrial activities. Additional soil sampling was completed to evaluate the nature and extent of those and other constituents. Specifically, ENVIRON completed four soil borings in August 2006 (B1401 through B1404). Soil samples were collected from each boring for TCL SVOC, PCB, PPM and barium analyses. These samples were obtained from the soil surface, with a sample also obtained an underlying six-inch interval at each boring, except B1403. ENVIRON also completed seven borings in October 2006 (B1405 through B1411). As with the initial borings, soil samples were collected from two depths, including the soil surface and a deeper interval between 3.5 and 4.0 feet. These samples were analyzed for SVOCs, PCBs, PPMs and barium. In addition, the soil samples from B1407, the westernmost of the AOC 14 sampling points, were also analyzed for VOCs to provide broader Site coverage for VOC analyses.

Only trace VOC concentrations (part-per-billion- level) were detected at B1407. Analytical results from these locations indicated that SVOCs were generally not detected, but where present, were at relatively minor concentrations of less than 1 ppm. Concentrations of phthalates exceeding 1 ppm were identified at borings B1403, B1407 and B1408. PAH concentrations above 1 ppm were also reported at B1407 and B1408. PCBs were also identified in soils at borings B1401, B1402, B1403, B1408 and B1410. Appendix B provides the specific detected metals, SVOC and PCB concentrations.

15. AOC 15 – Current Aboveground Acid Storage Tanks

AOC 15 is the location of the current acid ASTs adjacent to the western end of the Blue Wing. Based on information indicating that during a prior excavation related to the installation of these tanks, discolored soils were observed, two soil borings, B1501 and B1502, were completed in this area in October 2006. Two soil samples were obtained from each boring and analyzed for PPMs and barium. Appendix B provides the specific detected metals concentrations.

16. AOC 16 – Wastewater System

AOC 16 is the underground piping associated with the facility wastewater system, this system is distinct from the drainage system components specifically associated with the filter presses (i.e., features discussed under AOCs 10 and 11). Based on discussions with Sun Chemical regarding the wastewater system, ENVIRON identified certain areas where given prior underground wastewater line repairs or replacement, there were concerns regarding potential leakage. Three such areas were identified and were targeted for sampling to evaluate soil conditions. That sampling consisted of completing six soil borings (B1601, and B1603 through B1607). These areas, and the borings completed therein, included: (1) the original main wastewater discharge line located north of the Red Wing (B1601); (2) trenches in the refrigeration area where water seeped into the underlying basement (B1603, B1606 and B1607); and (3) wastewater lines north of Presses 60 and 61 on the western end of the Red Wing (B1604 and B1605).

At each of these locations, soil samples were collected from two depths, typically 2.0-2.5' (the approximate depth of piping inverts) and 3.5-4.0', for PPM and barium analysis. Based on observations made of the soil cores, ENVIRON did not note evidence of wastewater leakage (e.g., stained soils). Appendix B provides the specific detected metals concentrations.

17. AOC 17 – Current Aboveground Fuel Oil Storage Tank

AOC 17 is the location of the current fuel oil AST installed in 1993. This tank is contained within a secondary containment enclosure. Sun Chemical is not aware of any releases or other issues of potential concern associated with this AST. Accordingly, soil sampling was not performed at this AOC.

However, as a means to confirm the integrity of the secondary containment enclosure, MW4 was installed directly southeast of this AOC to conduct ground water sampling. . The results of that sampling, discussed below in Section III.D., indicated that petroleum constituents were not present in ground water at MW4 and therefore there is no evidence of releases from the tank.

D. Ground Water

A total of eight monitoring wells were installed at the Site. Initially, as part of the August 2006 sampling program, assuming, based on the Site topography and location of nearby surface water bodies to which shallow ground water at the Site likely discharges, a southeasterly ground water flow direction, ENVIRON installed wells MWs 1 through 5, including MWs 1 and 5 at the presumed upgradient and downgradient corners of the Site, respectively, and MWs 2, 3 and 4 near the main building. These wells were completed to monitor the first saturated zone, which given the Site topography was encountered at depths ranging from approximately 10 feet at MW5 to 35 feet at MW3.

Ground water samples were collected from MWs 1, 4 and 5 for TCL VOC, PPM and barium analyses on September 11, 2006. There was not enough water present in MWs 2 and 3 to enable sampling at that time. Analytical results from this sampling round identified scattered detections of VOCs, as shown in Appendix B. These VOCs were primarily chlorinated VOCs (CVOCs), present both at upgradient well MW1 and at downgradient well MW4. No VOCs were detected at MW5. Metals were typically detected at only trace concentrations, as shown on Table 2 in Appendix B.

Based on these data, ENVIRON installed three additional wells, including MWs 6 and 7 at the southwestern and northeastern corners of the Site, respectively, to better understand ground water quality upgradient of the Site (MW6) and at the downgradient corner of the Site where a well had not yet been installed (MW7). In addition, because MW5 was screened above a peat layer and could monitor a perched water interval, ENVIRON installed a deeper well, MW5D at this location. That deeper well was installed as a double-cased well, and was drilled with mud rotary drilling techniques.

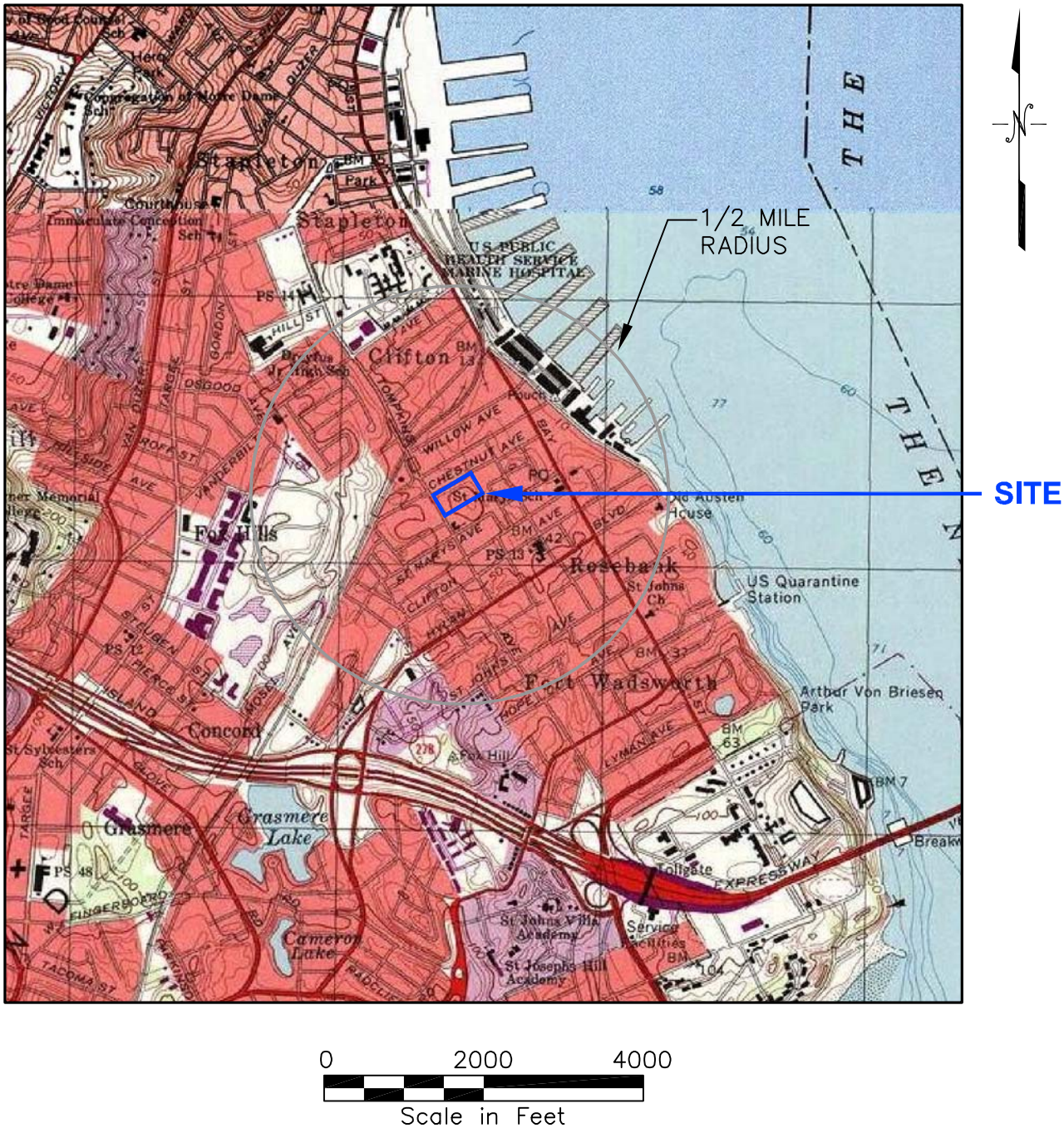
An additional ground water sampling round was completed on October 17, 2006 and including sampling at all eight wells for TCL VOCs, PPMs and barium. Only one metal, nickel, was present above Part 703 standards and at only one well, MW3. VOCs were not detected at MW6 and 7 but were identified at the other wells. The specific constituents included benzene and certain CVOCs at wells MWs 3 and 4, with lesser CVOC concentrations noted in MW5D. Because the CVOCs detected at the highest concentrations in the August and October 2006 samples were dichlorinated ethanes and ethenes, with the parent VOCs (e.g., trichloroethylene) largely degraded, it is likely that any release that may have resulted in the concentrations was not a recent event. As noted above, there was a Site-wide absence of any material VOC concentrations in soil, including at these wells, indicating that a residual soil source is likely not present. Table 2 in Appendix B provides summarized ground water quality data.

T A B L E

Table 1
Areas of Concern
Sun Chemical Corporation, Staten Island, New York

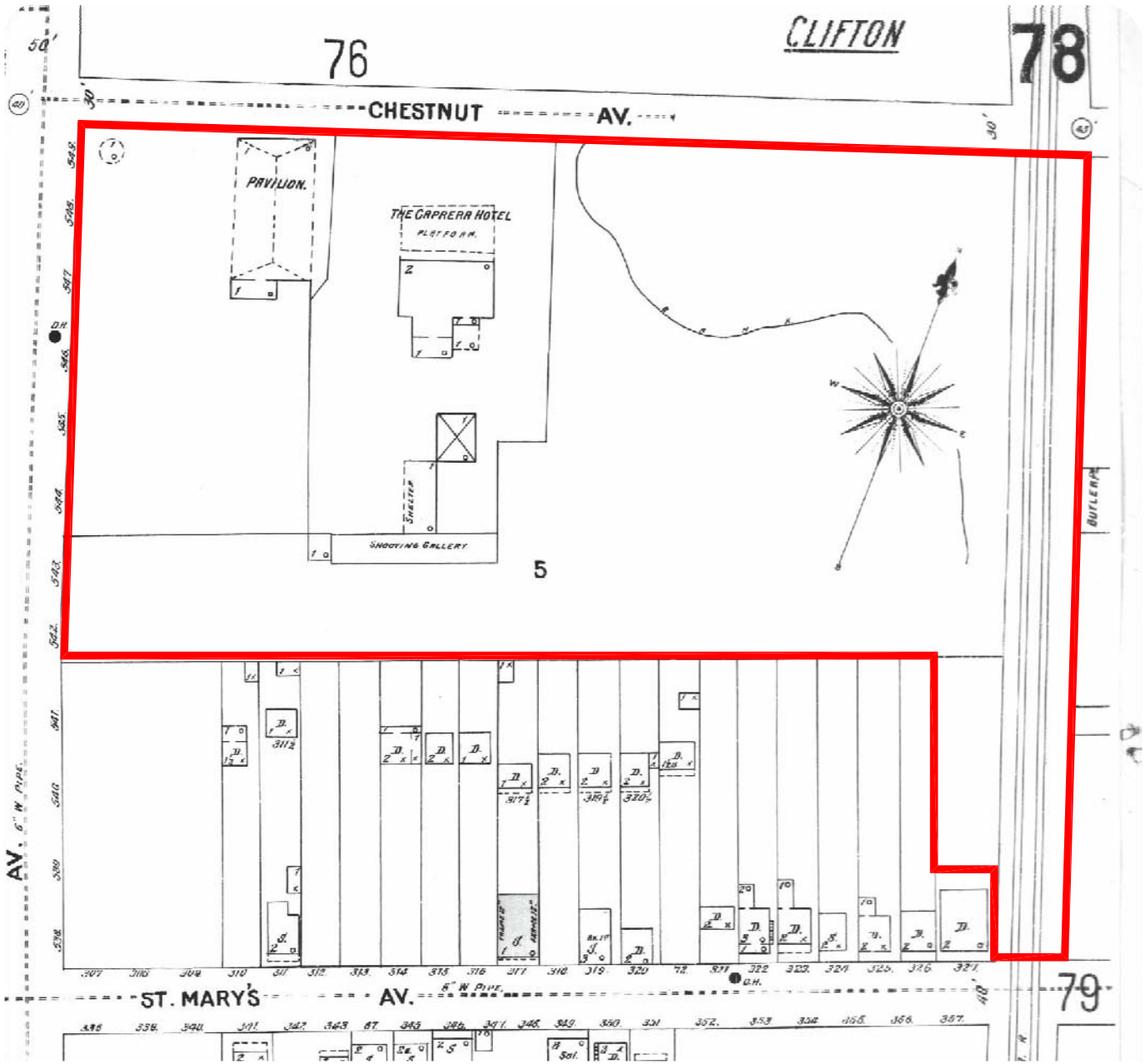
AOC	Rationale and Potential Concerns
AOC 1: Former shooting gallery	Potential residual metals impacts from ammunition (e.g., lead shot).
AOC 2: Former railroad tracks at eastern parking area	Potential impacts from loading and unloading operations, and general impacts associated with rail line activity.
AOC 3: Former blue pulp aboveground storage tank south of Blue Wing	Potential impacts from former liquid pigment storage.
AOC 4: Former bichromate aboveground storage tank south of Blue Wing	Potential impacts from former lead chromate pigment storage.
AOC 5: Former acid aboveground storage tank south of Blue Wing	Potential impacts from former acid storage.
AOC 6: Former acid aboveground storage tanks south of Red Wing	Potential impacts from former acid storage.
AOC 7: Former chrysophenine plant	Potential impacts from the former production of the pigment chrysophenine.
AOC 8: Former southern material storage area, located east of current machine and carpentry shop	Potential impacts from the former storage of raw materials and finished pigments.
AOC 9: Drum and bag storage area, including rainwater and spill containment sump. A portion of this area includes the location of two former caustic aboveground storage tanks.	Potential impacts from any releases of finished and/or off-spec pigment materials stored outside, and from any releases associated with the former caustic tank.
AOC 10: Underground wastewater conveyance components associated with the Blue Wing filter presses	Potential impacts to subsurface soils from any leaks of pigment-related materials from the wastewater system.
AOC 11: Underground wastewater conveyance components associated with the Red Wing filter presses	Potential impacts to subsurface soils from any leaks of pigment-related materials from the wastewater system.
AOC 12: Two former 25,000-gallon No. 6 fuel oil USTs near southeastern property corner	The NYSDEC approved no further action in 1994 for the tank removals such that additional sampling in this AOC was not considered necessary.
AOC 13: Former coal pile located at the southeastern property corner	Potential residual impacts from former coal storage, including PAHs and metals.
AOC 14: Former caustic release area (on-site only)	Further evaluation and delineation of concentrations of metals, PAHs and PCBs identified in soils following remediation of the 1988 incident.
AOC 15: Current aboveground acid storage tanks	Evaluation of discolored soils evident during excavation to install pads for these tanks
AOC 16: Wastewater system	Potential leakage in portions of the system.
AOC 17: Current aboveground fuel oil storage tank	Confirmation that the secondary containment at this tank has effectively precluded any petroleum impacts in the vicinity.

FIGURES



SOURCE: TOPO! MAP PRINTED ON 08/29/07 FROM "NORTHEASTERN.TPO" USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE, THE NARROWS, NY–NJ. MAP VERSION 1998. MAP CURRENT AS OF 1998.

ENVIRON		SITE LOCATION MAP SUN CHEMICAL CORPORATION 441 TOMPKINS AVENUE STATEN ISLAND, NEW YORK	FIGURE 1
DRAFTED BY: CAD/TSP	DATE: 12/4/07		21-16443AJ01



ENVIRON

DRAFTED BY: BJK / TSP | DATE: 12/12/07

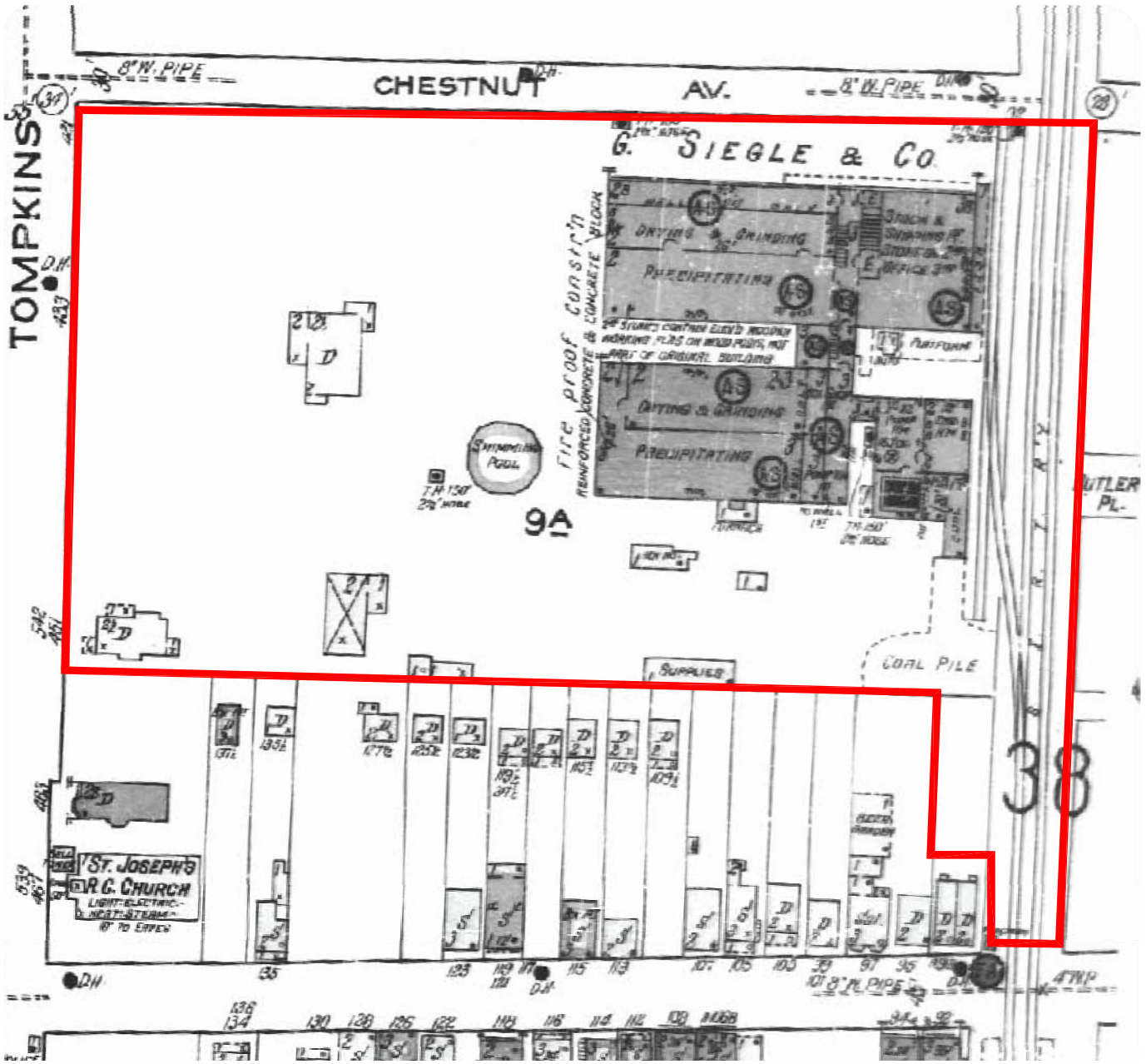
FACILITY LAYOUT ACCORDING TO 1898 SANBORN FIRE INSURANCE MAP

SUN CHEMICAL CORPORATION–ROSEBANK FACILITY

441 TOMPKINS AVE., STATEN ISLAND, NY

FIGURE 2

21-16443ASAN01



N

0 100
Scale In Feet

LEGEND

CURRENT PROPERTY BOUNDARY

ENVIRON

DRAFTED BY: BJK / TSP | DATE: 12/12/07

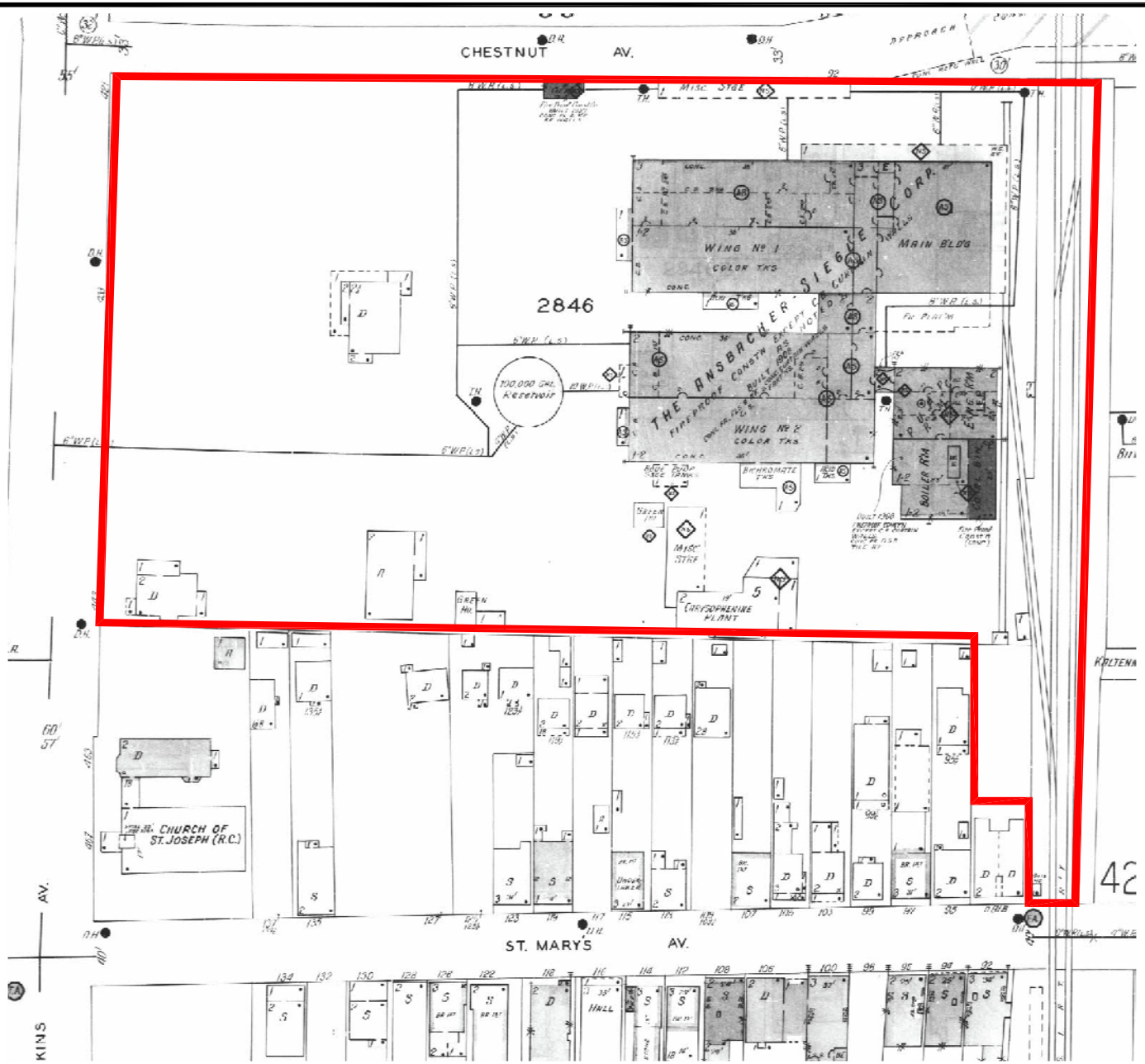
FACILITY LAYOUT ACCORDING TO 1917 SANBORN FIRE INSURANCE MAP

SUN CHEMICAL CORPORATION–ROSEBANK FACILITY

441 TOMPKINS AVE., STATEN ISLAND, NY

FIGURE 3

21-16443ASAN01



ENVIRON

DRAFTED BY: BJK / TSP | DATE: 12/12/07

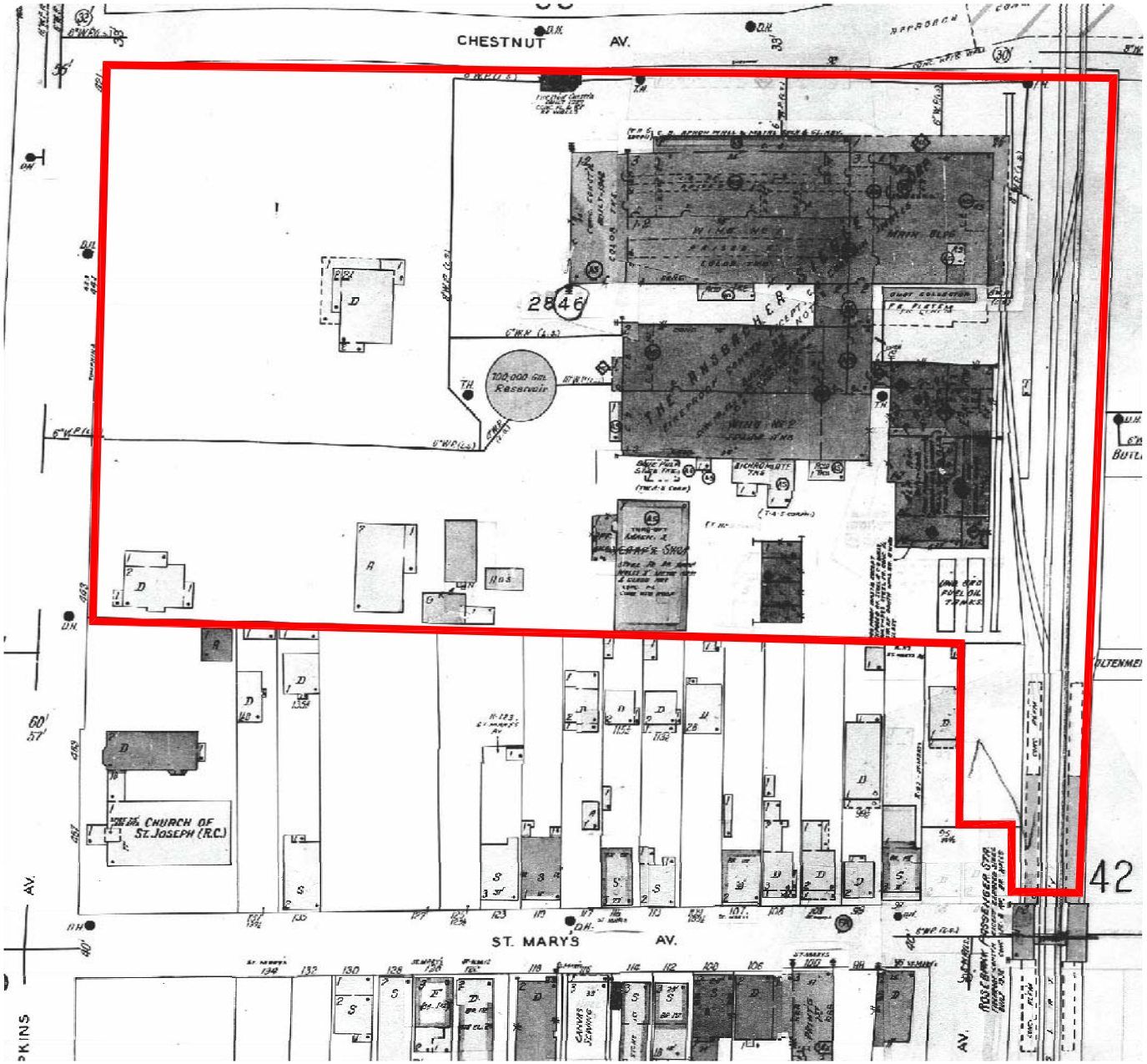
FACILITY LAYOUT ACCORDING TO 1937 SANBORN FIRE INSURANCE MAP

SUN CHEMICAL CORPORATION–ROSEBANK FACILITY

441 TOMPKINS AVE., STATEN ISLAND, NY

FIGURE 4

21-16443ASAN01



0 100
Scale In Feet

LEGEND

CURRENT PROPERTY BOUNDARY

ENVIRON

DRAFTED BY: BJK / TSP | DATE: 12/12/07

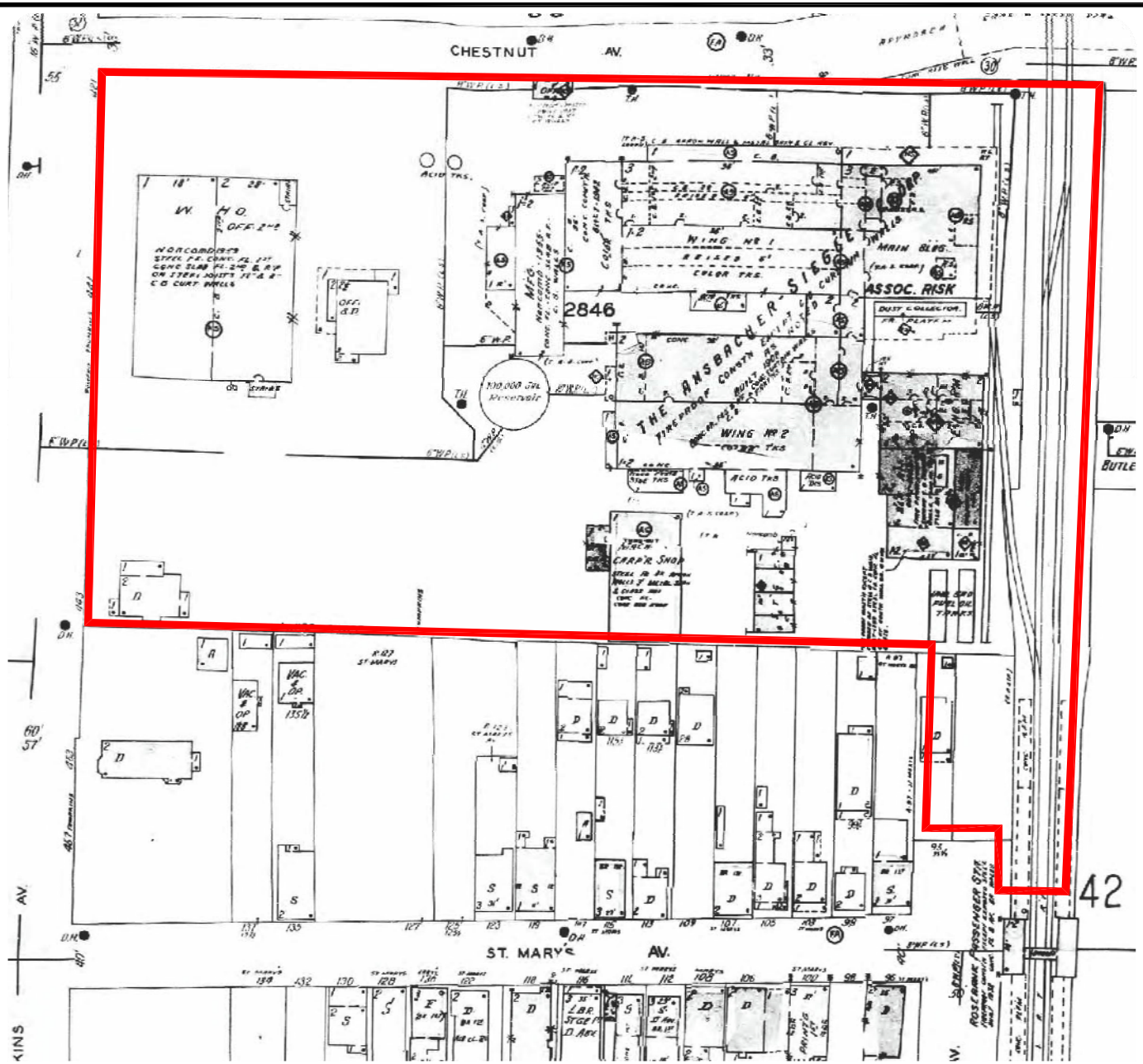
FACILITY LAYOUT ACCORDING TO 1950 SANBORN FIRE INSURANCE MAP

SUN CHEMICAL CORPORATION–ROSEBANK FACILITY

441 TOMPKINS AVE., STATEN ISLAND, NY

FIGURE 5

21-16443ASAN01



ENVIRON

DRAFTED BY: BJK / TSP | DATE: 12/12/07

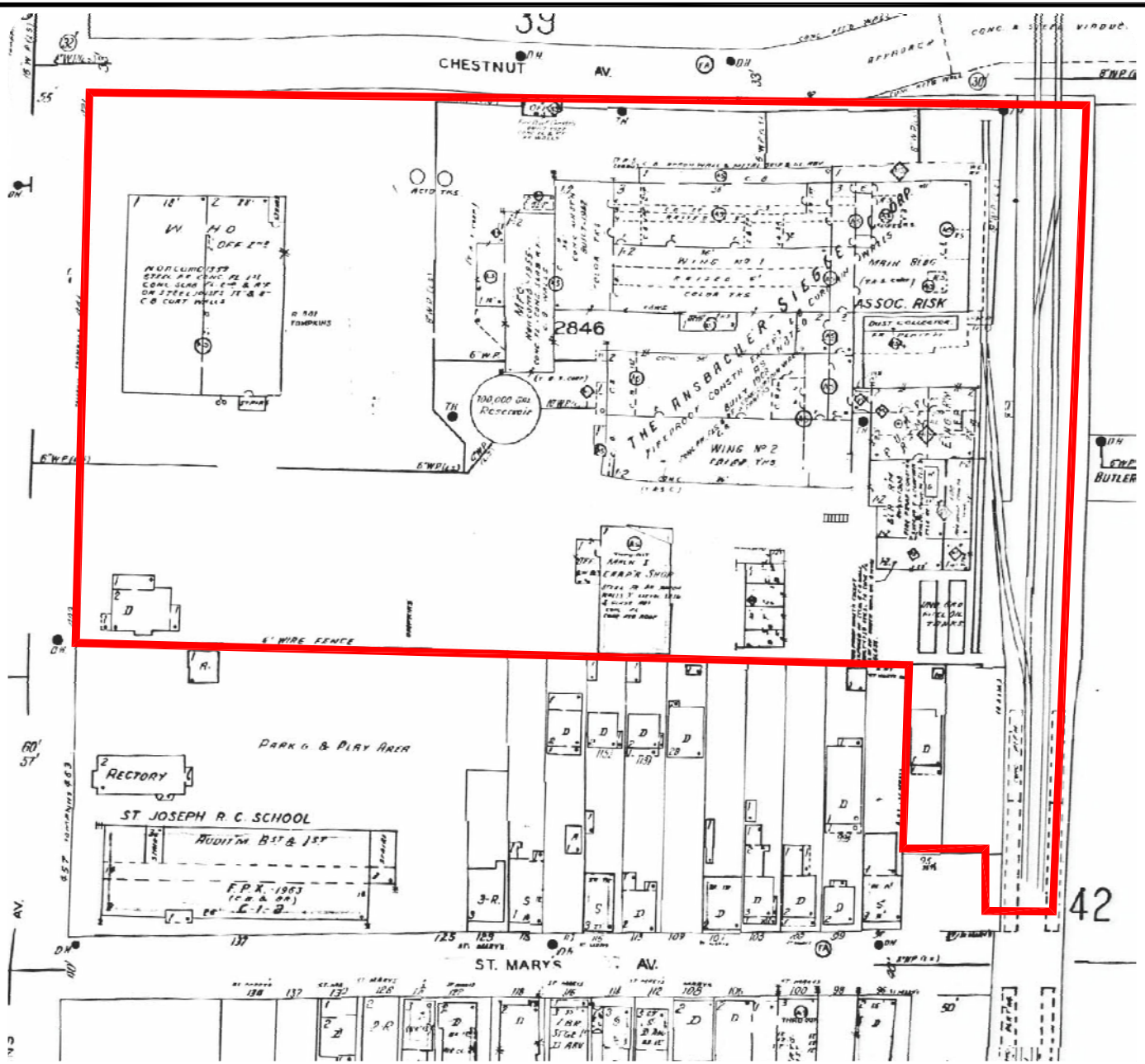
FACILITY LAYOUT ACCORDING TO 1962 SANBORN FIRE INSURANCE MAP

SUN CHEMICAL CORPORATION–ROSEBANK FACILITY

441 TOMPKINS AVE., STATEN ISLAND, NY

FIGURE 6

21-16443ASAN01



0 100
Scale In Feet

LEGEND

CURRENT PROPERTY BOUNDARY

ENVIRON

DRAFTED BY: BJK / TSP | DATE: 12/12/07

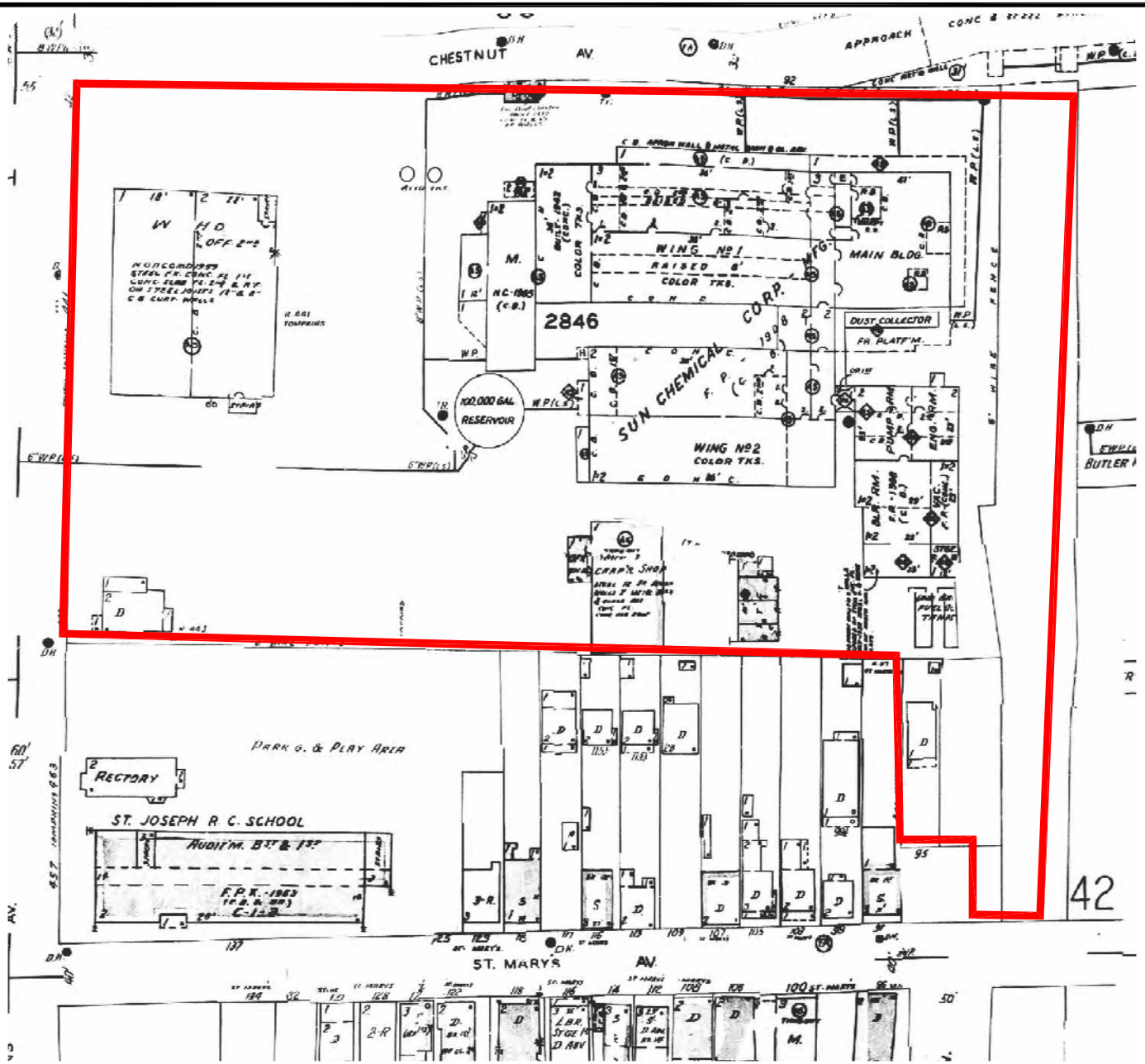
FACILITY LAYOUT ACCORDING TO 1977 SANBORN FIRE INSURANCE MAP

SUN CHEMICAL CORPORATION–ROSEBANK FACILITY

441 TOMPKINS AVE., STATEN ISLAND, NY

FIGURE 7

21-16443ASAN01



ENVIRON

DRAFTED BY: BJK / TSP | DATE: 12/12/07

FACILITY LAYOUT ACCORDING TO 1986 SANBORN FIRE INSURANCE MAP

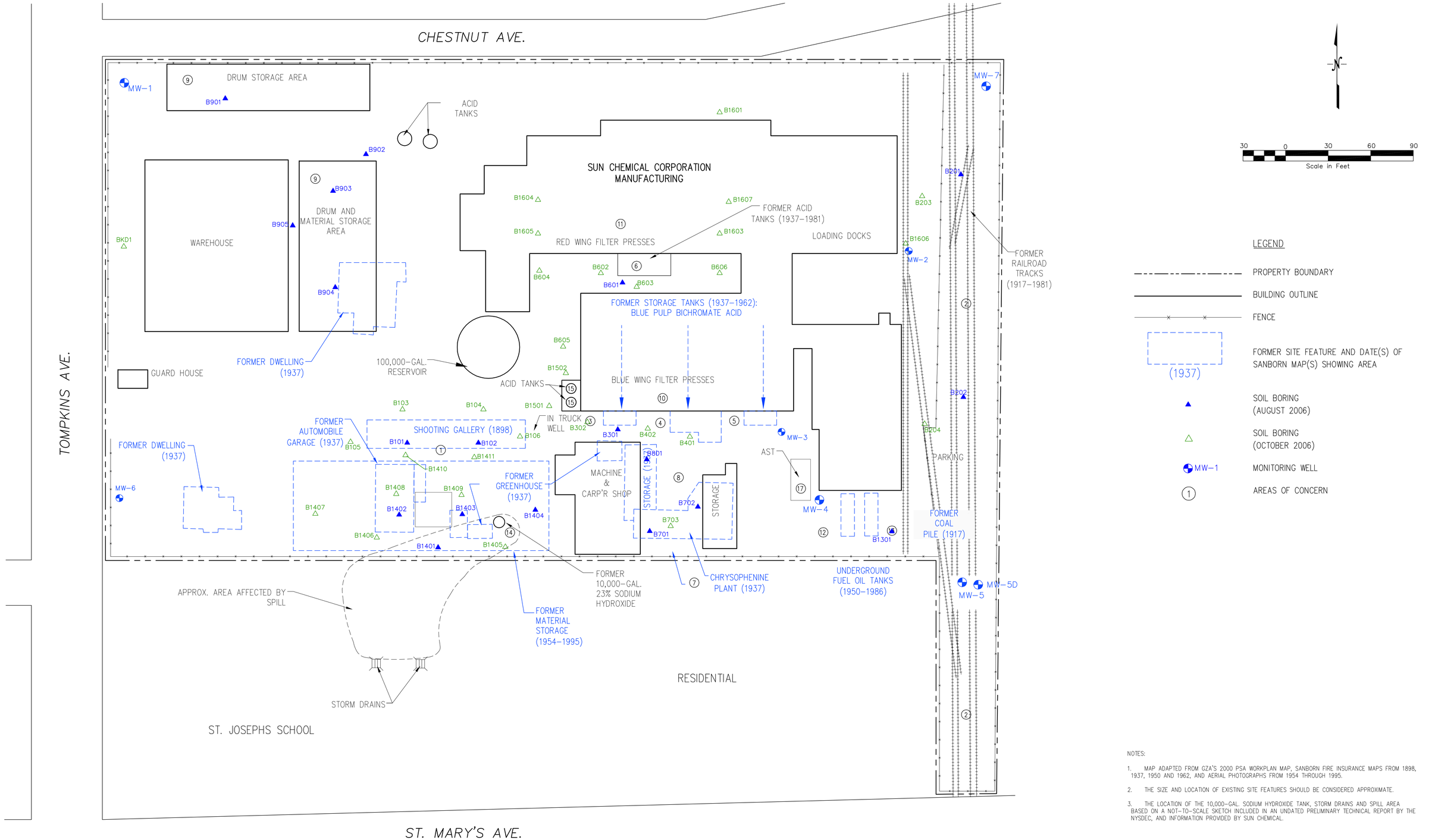
SUN CHEMICAL CORPORATION–ROSEBANK FACILITY

441 TOMPKINS AVE., STATEN ISLAND, NY

FIGURE 8

21-16443ASAN01

PLATES



NOTES:

1. MAP ADAPTED FROM GZA'S 2000 PSA WORKPLAN MAP, SANBORN FIRE INSURANCE MAPS FROM 1898, 1937, 1950 AND 1962, AND AERIAL PHOTOGRAPHS FROM 1954 THROUGH 1995.
2. THE SIZE AND LOCATION OF EXISTING SITE FEATURES SHOULD BE CONSIDERED APPROXIMATE.
3. THE LOCATION OF THE 10,000-GAL. SODIUM HYDROXIDE TANK, STORM DRAINS AND SPILL AREA BASED ON A NOT-TO-SCALE SKETCH INCLUDED IN AN UNDATED PRELIMINARY TECHNICAL REPORT BY THE NYSDEC, AND INFORMATION PROVIDED BY SUN CHEMICAL.

1 PLATE	HISTORICAL SITE FEATURES/ AREAS OF CONCERN AND ACTUAL SAMPLING LOCATIONS	ENVIRON 214 CARNEGIE CENTER, PRINCETON, NJ 08540 www.environcorp.com California, Illinois, Louisiana, Massachusetts, Missouri, Texas, Virginia, Wisconsin Asia Pacific, Europe, United Kingdom	
SUN CHEMICAL CORPORATION-ROSEBANK FACILITY 441 TOMPKINS AVE. STATEN ISLAND, NY	12/21/07 DATE	AS SHOWN SCALE	21-16443AS030 CADD FILE	12/21/07 PLOT DATE
	DESIGNED BY	TSP/PRM/ TSP DRAFTED BY	APPROVED BY	

A P P E N D I X A

Soil Boring Logs

BORING #:	B101
DATE:	8/28/06
START TIME:	1000
LOGGED BY:	Trevor Tompkins
DRILLING CO:	SGS Environmental Services, Inc.
DRILLER:	J. Rausa
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	8 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 1: Shooting Range

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	3.3	ND, ND, 9.7, 35.5, 94.6, 16.6	-B101-SS01 (0.5-1.0') for VOCs, PPMs and barium.	0.0 – 0.5 Asphalt and sub-base. 0.5 – 3.5 Brown sandy silt with little gravel, moist with petroleum hydrocarbon-like odor. Concrete from 1.0-1.5'.
4 – 8	NA	3.3	7.5, 2.3, ND	-B101-SS02 (2.5-3.0') for VOCs, PPMs and barium. -B101-SS03 (3.5-4.0') for VOCs, PPMs and barium.	3.5 – 4.0 Red-brown sandy silt with little gravel and brick fragments; moist. 4.0 – 8.0 Red silt with little to some sand; moist to wet with stiff consistency.

COMMENTS:

BORING #:	B102
DATE:	8/28/06
START TIME:	1117
LOGGED BY:	Trevor Tompkins
DRILLING CO:	SGS Environmental Services, Inc.
DRILLER:	J. Rausa
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	4 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 1: Shooting Range

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	3.0	ND	-B102-SS01 (0.5-1.0') for VOCs, PPMs and barium. -B102-SS02 (1.5-2.0') for VOCs, PPMs and barium. -B102-SS03 (3.5-4.0') for VOCs, PPMs and barium.	0.0 – 0.5 Asphalt and sub-base. 0.5 – 1.0 Light brown gravel and sand with little cinders; moist. 1.0 – 1.5 Brown silt with little sand and gravel; moist with stiff consistency. 1.5 – 3.8 Red-brown silt with some sand and little brick and gravel and trace cinders; moist with stiff consistency and low plasticity. 3.8 – 4.0 Brown silt with little sand and gravel – woody organics and 3.8'; moist with soft consistency.

COMMENTS:

BORING #:	B103
DATE:	10/4/06
START TIME:	1442
LOGGED BY:	Trevor Tompkins
DRILLING CO:	TPI Environmental Inc.
DRILLER:	B. Moriarty
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	2 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 1: Shooting Range

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 2	NA	1.5	ND	-B103-SS01 (1.5-2.0') for PPMs and barium.	0.0 – 0.5 Asphalt and sub-base. 0.5 – 2.0 Dark brown to brown silt with little gravel and sand; moist. Refusal at 2.0'.

COMMENTS:

BORING #:	B104
DATE:	10/4/06
START TIME:	1420
LOGGED BY:	Trevor Tompkins
DRILLING CO:	TPI Environmental Inc.
DRILLER:	B. Moriarty
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	8 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 1: Shooting Range

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	4.0	ND	-B104-SS01 (3.5-4.0') for PPMs and barium.	0.0 – 0.5 Asphalt and sub-base. 0.5 – 0.7 Brown silt with little sand and gravel; moist.
4 – 8	NA	4.0	ND	- B104-SS02 (6.0-6.5') for PPMs and barium.	0.7 – 1.0 Concrete fragments. 1.0 – 4.0 Red-brown silt with some clay, little sand and trace brick; moist with medium stiff consistency and low plasticity. 4.0 – 7.8 Red-brown silty clay with minor sand stringers throughout; medium soft consistency and medium plasticity. 7.8 – 8.0 Red-brown sand with little silt; moist.

COMMENTS:

BORING #:	B105
DATE:	10/4/06
START TIME:	1035
LOGGED BY:	Trevor Tompkins
DRILLING CO:	TPI Environmental Inc.
DRILLER:	B. Moriarty
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	8 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 1: Shooting Range

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	3.2	ND, 52.5, 77.0, 154.1, 121, 101.1	-B105-SS01 (1.5-2.0') for VOCs and PPMs and barium.	0.0 – 0.6 Asphalt and tar-like substance.
4 – 8	NA	1.9	61.3, 27.4, 5.7	- B105-SS02 (2.5-3.0') for VOCs and PPMs and barium.	0.6 – 1.5 Dark gray sand with some silt with little cinders and rock fragments from 1.0' to 1.3'; moist with petroleum hydrocarbon-like odor.
				-B105-SS03 (7.0-7.3) for VOCs and PPMs and barium.	1.5 – 3.5 Brown silt with trace organics and strong petroleum hydrocarbon-like odor; moist.
					3.5 – 4.0 Red-brown silt; moist with medium soft consistency and low plasticity.
					4.0 – 5.5 Brown sandy clay with little gravel; very moist to wet with soft consistency and high plasticity. Petroleum hydrocarbon-like odor.
					5.5 – 7.5 Red-brown silt with medium stiff consistency and high plasticity, moist with slight petroleum hydrocarbon-like odor.
					7.5 – 8.0 Brown silt and little sand; wet.

COMMENTS:

BORING #:	B106
DATE:	10/4/06
START TIME:	1341
LOGGED BY:	Trevor Tompkins
DRILLING CO:	TPI Environmental Inc.
DRILLER:	B. Moriarty
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	8 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 1: Shooting Range

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	3.6	ND	-B106-SS01 (1.5-2.0') for VOCs, PPMs, barium and SVOCs.	0.0 – 0.7 Asphalt underlain by tar-like substance.
4 – 8	NA	2.8	ND	- B106-SS02 (3.5-4.0') for VOCs, PPMs, barium and SVOCs.	0.7 – 1.5 Soft/uncured concrete with angular gravel or crushed concrete for base.
				-B106-SS03 (6.0 to 6.5) for VOCs, PPMs, barium and SVOCs.	1.5 – 4.0 Red Silt with very fine sand. Stiff consistency and low plasticity, sand zones from 3.0 to 3.2' and 3.5 to 3.7'; lower zone is wet.
					4.0 – 8.0 Red-brown clay with soft to very soft consistency and high plasticity. High water content.

COMMENTS:

BORING #:	B201
DATE:	8/30/06
START TIME:	0829
LOGGED BY:	Trevor Tompkins
DRILLING CO:	SGS Environmental Services, Inc.
DRILLER:	J. Rausa
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	4 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 2: Railroad Tracks

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 2.5	NA	2.3	ND	-B201-SS01 (0.2-0.7') for PPMs and barium. -B201-SS02 (1.5-2.0') for PPMs and barium.	0.0 – 0.2 Asphalt and sub-base. 0.2 – 0.8 Dark brown silt, sand and gravel with little cinders; moist. 0.8 – 1.0 Concrete fragments. 1.0 – 2.3 Brown silt with some sand and little fine gravel – trace brick – moist with medium stiff consistency and no plasticity. 2.3 – 2.5 Concrete. Refusal at 2.5'.

COMMENTS:

BORING #:	B202
DATE:	8/30/06
START TIME:	0850
LOGGED BY:	Trevor Tompkins
DRILLING CO:	SGS Environmental Services, Inc.
DRILLER:	J. Rausa
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	4 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 2: Railroad Tracks

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	2.8	ND	-B202-SS01 (0.2-0.7') for PPMs and barium. -B202-SS02 & B202-SS02D (1.5-2.0') for PPMs and barium. -B202-SS03 (3.5-4.0') for PPMs and barium.	0.0 – 0.2 Asphalt and sub-base. 0.2 – 0.5 Red-brown silt with some sand and little gravel; moist. 0.5 – 0.8 Dark gray silt with some sand and cinders. 0.8 – 0.9 Concrete. 0.9 – 1.5 Weathered schist. 1.5 – 4.0 Red silt with some sand and gravel – concrete from 3.2-3.5'; moist with stiff consistency and low plasticity.

COMMENTS:

BORING #:	B203
DATE:	10/5/06
START TIME:	1521
LOGGED BY:	Trevor Tompkins, Megan Utley
DRILLING CO:	TPI Environmental Inc.
DRILLER:	B. Moriarty
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	4 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 2 – Former Railroad Tracks at Eastern Parking Lot

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	3.0	ND	-B203-SS01 (0.5-1.0') for PPMs, barium and SVOCs. -B203-SS02 (1.5-2.0') for PPMs, barium and SVOCs.	0.0 – 0.5 Asphalt and sub-base. 0.5 – 1.5 Dark gray sand with little silt, cinders, and gravel; moist. 1.5 – 4.0 Brown to red-brown silt with some clay, little sand, gravel, and cinders.

COMMENTS:

BORING #:	B204
DATE:	10/6/06
START TIME:	0821
LOGGED BY:	Trevor Tompkins, Megan Utley
DRILLING CO:	TPI Environmental Inc.
DRILLER:	B. Moriarty
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	4 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 2 – Former Railroad Tracks at Eastern Parking Lot

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	3.5	ND	-B204-SS01 (1.0-1.5') for PPMs, barium and SVOCs. -B204-SS02 (2.0-2.5') for PPMs, barium and SVOCs. -B204-SS03 (3.5-4.0') for PPMs, barium and SVOCs.	0.0 – 1.0 Asphalt and sub-base. 1.0 – 2.0 Dark gray sand with coal, brick, and cinders; moist. 2.0 – 4.0 Red-brown clay and silt with sand and gravel; moist.

COMMENTS:

BORING #:	B301
DATE:	8/30/06
START TIME:	1108
LOGGED BY:	Trevor Tompkins
DRILLING CO:	SGS Environmental Services, Inc.
DRILLER:	J. Rausa
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	4 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 3: Former Blue Pulp Aboveground Storage Tank South of the Blue Wing

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	3.0	ND	-B301-SS01 (0.3-0.8') for PPMs and barium. -B301-SS02 (2.0-2.5') for PPMs and barium.	0.0 – 0.3 Asphalt and gravel sub-base. 0.3 – 1.3 Brown silt, sand and gravel with zone of blue-green staining from 0.5-0.7'; moist. 1.3 – 4.0 Red-brown silt with little sand and gravel with trace cinders and brick; moist with medium stiff consistency and low plasticity.

COMMENTS:

BORING #:	B302
DATE:	10/5/06
START TIME:	0807
LOGGED BY:	Trevor Tompkins, Megan Utley
DRILLING CO:	TPI Environmental Inc.
DRILLER:	B. Moriarty
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	4 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 3: Former blue pulp aboveground storage tank south of Blue Wing

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	3.7	ND, 2.2, ND, ND, ND, ND, ND	-B302-SS01 (1.0-1.5') for PPMs and barium. -B302-SS02 (2.0-2.5') for PPMs and barium.	0.0 – 0.3 Asphalt. 0.3 – 0.9 Crushed concrete sub-base. 0.9 – 1.3 Dark gray sand with little cinders and silt, blue-green staining; moist. 1.3 – 2.0 Brown clay and silt, medium consistency and plasticity; moist. 2.0 – 4.0 Red-brown clay and fine to coarse sand with large fragments of siltstone; moist.

COMMENTS:

BORING #:	B401
DATE:	10/4/06
START TIME:	1517
LOGGED BY:	Trevor Tompkins
DRILLING CO:	TPI Environmental Inc.
DRILLER:	B. Moriarty
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	2 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 4: Former bichromate aboveground storage tank south of Blue Wing

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 2	NA	1.9	ND	-B401-SS01 (1.5-2.0') for PPMs and barium.	0.0 – 0.2 Asphalt. 0.2 – 1.5 Red clay with some gravel. Medium soft consistency and high plasticity, staining (blue-green) in upper 2". Refusal at 2.0'

COMMENTS:

BORING #:	B402
DATE:	10/5/06
START TIME:	0751
LOGGED BY:	Trevor Tompkins, Megan Utley
DRILLING CO:	TPI Environmental Inc.
DRILLER:	B. Moriarty
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	4 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 4: Former bichromate aboveground storage tank south of Blue Wing

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	4.0	ND, 8.2, 0.7, 0.1, ND, ND, ND, ND	-B402-SS01 (1.0-1.5') for PPMs and barium. -B402-SS02 (2.0-2.5') for PPMs and barium.	0.0 – 0.5 Asphalt. 0.5 – 1.0 Crushed concrete sub-base. 1.0 – 2.0 Red-brown clay and sand with little gravel and cinders; moist. 2.0 – 4.0 Red-brown clay with medium soft to medium stiff consistency, high plasticity.

COMMENTS:

BORING #:	B601
DATE:	8/28/06
START TIME:	1402
LOGGED BY:	Trevor Tompkins
DRILLING CO:	SGS Environmental Services, Inc.
DRILLER:	J. Rausa
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	2 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 6: Former Acid Aboveground Storage Tanks South of Red Wing

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 2	NA	2.0	ND, 16.6, ND, ND	-B601-SS02 (1.8-2.0') for PPMs and barium.	0.0 – 0.2 Asphalt. 0.2 – 1.8 Concrete. 1.8 – 2.0 Orange silt with little sand and trace cinders. Refusal at 2.0'.

COMMENTS:

BORING #:	B602
DATE:	10/5/06
START TIME:	1025
LOGGED BY:	Trevor Tompkins, Megan Utley
DRILLING CO:	TPI Environmental Inc.
DRILLER:	B. Moriarty
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	4 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 6: Former acid aboveground storage tanks south of Red Wing

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	3.2	ND	-B602-SS01 (2.0-2.5') for PPMs and barium. -B605-SS02 (3.5-4.0') for PPMs and barium.	0.0 – 1.0 Concrete. 1.0 – 2.0 Sub-base (crushed concrete and gravel). 2.0 – 4.0 Dark brown clay and silt with some coarse grains and gravel at 2.0 to 2.5, slag, brick and cinders; moist.

COMMENTS:

BORING #:	B603
DATE:	10/5/06
START TIME:	0935
LOGGED BY:	Trevor Tompkins, Megan Utley
DRILLING CO:	TPI Environmental Inc.
DRILLER:	B. Moriarty
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	4 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 6: Former acid aboveground storage tanks south of Red Wing

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	2.8	ND	-B603-SS01 (1.0-1.5') for PPMs and barium. -B603-SS02 (3.5-4.0') for PPMs and barium.	0.0 – 0.5 Concrete. 0.5 – 1.5 Dark gray sand with slag, cinders, and brick; moist. 1.5 – 4.0 Brown clay and silt with few coarse grains; moist.

COMMENTS:

BORING #:	B604
DATE:	10/5/06
START TIME:	1045
LOGGED BY:	Trevor Tompkins, Megan Utley
DRILLING CO:	TPI Environmental Inc.
DRILLER:	B. Moriarty
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	8 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 6: Former acid aboveground storage tanks south of Red Wing

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	2.8	ND, 0.3, 22.0, 54.3, 60.6, 36.6	-B604-SS01 (1.5-2.0') for PPMs, barium, OCs, SVOCs.	0.0 – 0.3 Concrete. 0.3 – 0.5 Brick.
4 – 8	NA	2.8	34.8, 14.1, 3.8, 3.3, 3.2	-B604-SS02 (3.5-4.0') for PPMs, barium, VOCs and SVOCs. -B604-SS03 (4.5-5.0') for PPMs, barium, VOCs and SVOCs. -B604-SS04 (7.5-8.0') for PPMs, barium, VOCs and SVOCs.	0.5 – 6.0 Brown silt and clay with few coarse grains, soft; moist. Dark stains with gasoline odor. 6.0 – 8.0 Red-brown clay with some silt, medium stiff consistency; moist. Gasoline odor.

COMMENTS:

BORING #:	B605
DATE:	10/5/06
START TIME:	0903
LOGGED BY:	Trevor Tompkins, Megan Utley
DRILLING CO:	TPI Environmental Inc.
DRILLER:	B. Moriarty
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	8 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 6: Former acid aboveground storage tanks south of Red Wing

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	3.2	ND	-B605-SS01 (1.5-2.0') for PPMs and barium.	0.0 – 0.5 Asphalt. 0.5 – 1.6 Sub-base. May have hit a layer of concrete.
4 – 8	NA	3.5	ND	-B605-SS02 (3.5-4.0') for PPMs and barium.	1.6 – 3.3 Light brown clay with some sand, medium stiff consistency, plastic; moist. 3.3 – 4.0 Red-brown clay and sand with siltstone fragments; moist. 4.0 – 8.0 Red-brown clay and silt with few coarse grains; moist.

COMMENTS:

BORING #:	B606
DATE:	10/5/06
START TIME:	0948
LOGGED BY:	Trevor Tompkins, Megan Utley
DRILLING CO:	TPI Environmental Inc.
DRILLER:	B. Moriarty
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	4 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 6: Former acid aboveground storage tanks south of Red Wing

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	3.0	ND	-B606-SS01 (1.5-2.0') for PPMs and barium. -B606-SS02 (3.5-4.0') for PPMs and barium.	0.0 – 0.5 Concrete. 0.5 – 2.0 Red-brown silt and sand with slag and cinders; moist. 2.0 – 4.0 Red-brown clay with some silt; moist.

COMMENTS:

BORING #:	B701
DATE:	8/28/06
START TIME:	1451
LOGGED BY:	Trevor Tompkins
DRILLING CO:	SGS Environmental Services, Inc.
DRILLER:	J. Rausa
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	4 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 7: Chrysophenine Plant

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	2.3	ND	-B701-SS01 (0.5-1.0') for PPMs and barium. -B701-SS02 (1.5-2.0') for VOCs and (2.0-2.5') for PPMs and barium.	0.0 – 0.5 Asphalt and sub-base. 0.5 – 1.0 Brown silt, sand and fine gravel with trace cinders; moist. 1.0 – 2.0 Red sandy silt with little fine gravel; moist with medium stiff consistency and medium plasticity. 2.0 – 3.0 Dark gray coarse sand with cinders and glass; moist to wet. 3.0 – 4.0 Red sandy silt with little fine gravel; moist with medium stiff consistency and medium plasticity.

COMMENTS:

BORING #:	B702
DATE:	8/28/06
START TIME:	1507
LOGGED BY:	Trevor Tompkins
DRILLING CO:	SGS Environmental Services, Inc.
DRILLER:	J. Rausa
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	4 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 7: Chrysophenine Plant

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	3.2	ND	-B702-SS01 (0.5-1.0') for PPMs and barium. -B702-SS02 (2.0-2.5') for VOCs, PPMs and barium.	0.0 – 0.2 Asphalt. 0.2 – 0.5 Brown silt, sand and gravel; moist. 0.5 – 4.0 Red silt with stiff consistency and low plasticity; moist with little sand with zone of red fine to medium sand from 1.5-1.7' and 2.5-3.0'.

COMMENTS:

BORING #:	B703
DATE:	10/4/06
START TIME:	1500
LOGGED BY:	Trevor Tompkins
DRILLING CO:	TPI Environmental Inc.
DRILLER:	B. Moriarty
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	4 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 7: Former chrysophenine plant

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	3.2	ND	-B703-SS01 (0.5-1.0') for PPMs and barium. -B703-SS02 (1.5-2.0') for PPMs and barium.	0.0 – 0.5 Asphalt and sub-base. 0.5 – 1.0 Brown sand and silt with little gravel; moist. 1.0 – 4.0 Red-brown silt/clay with medium stiff consistency and medium plasticity with zones of sand from 2.6 to 3.0' and 3.5 to 3.7'.

COMMENTS:

BORING #:	B801
DATE:	8/28/06
START TIME:	1425
LOGGED BY:	Trevor Tompkins
DRILLING CO:	SGS Environmental Services, Inc.
DRILLER:	J. Rausa
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	4 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 8: Southern Material Storage Area

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	2.5	ND	-B801-SS01 (0.5-1.0') for PPMs and barium. -B801-SS02 (2.0-2.5') for VOCs, PPMs and barium.	0.0 – 0.3 Concrete. 0.3 – 4.0 Red silt; moist with medium soft consistency and medium plasticity.

COMMENTS:

BORING #:	B901
DATE:	8/28/06
START TIME:	0909
LOGGED BY:	Trevor Tompkins
DRILLING CO:	SGS Environmental Services, Inc.
DRILLER:	J. Rausa
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	4 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 9: Drum Storage Area

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	2.8	ND	-B901-SS01 (0.5-1.0') for PPMs and barium and (1.5-2.0') for VOCs. -B901-SS02 (2.0-2.5') for PPMs and barium and (3.0-3.5') for VOCs.	0.0 – 0.5 Asphalt and sub-base. 0.5 – 4.0 Red-brown to brown sandy silt with little gravel and brick; moist with medium stiff consistency and low plasticity.

COMMENTS:

BORING #:	B902
DATE:	8/28/06
START TIME:	0832
LOGGED BY:	Trevor Tompkins
DRILLING CO:	SGS Environmental Services, Inc.
DRILLER:	J. Rausa
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	4 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 9: Drum Storage Area

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	3.8	ND	-B902-SS01 (0.2-0.7') for PPMs and barium and (1.5-2.0') for VOCs. -B902-SS02 (2.0-2.5') for PPMs and barium and (3.0-3.5') for VOCs.	0.0 – 0.2 Asphalt and sub-base. 0.2 – 4.0 Red-brown sandy silt with little gravel; moist with medium stiff consistency and low plasticity.

COMMENTS:

BORING #:	B903
DATE:	8/28/06
START TIME:	0801
LOGGED BY:	Trevor Tompkins
DRILLING CO:	SGS Environmental Services, Inc.
DRILLER:	J. Rausa
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	4 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 9: Drum Storage Area

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	2.9	ND	-B903-SS0 (0.3-0.8') for VOCs, PPMs and barium. -B903-SS02 (2.0-2.5') for VOCs, PPMs and barium.	0.0 – 0.3 Asphalt and sub-base. 0.3 – 4.0 Red-brown silt and sand with little gravel; moist.

COMMENTS:

BORING #:	B904
DATE:	8/28/06
START TIME:	0929
LOGGED BY:	Trevor Tompkins
DRILLING CO:	SGS Environmental Services, Inc.
DRILLER:	J. Rausa
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	4 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 9: Drum Storage Area

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	3.2	ND	-B904-SS01 & B904-SS01D (0.3-0.8') for PPMs and barium and (1.5-2.0') for VOCs. -B904-SS02 (2.0-2.5') for PPMs and barium and (3.0-3.5') for VOCs.	0.0 – 0.3 Asphalt and sub-base. 0.3 – 4.0 Brown silt with some sand and little gravel, brick and asphalt fragments throughout; moist with medium soft consistency and low plasticity.

COMMENTS:

BORING #:	B905
DATE:	8/28/06
START TIME:	0852
LOGGED BY:	Trevor Tompkins
DRILLING CO:	SGS Environmental Services, Inc.
DRILLER:	J. Rausa
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	4 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 9: Drum Storage Area

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	3.3	ND	-B905-SS0 (1.5-2.0') for VOCs, PPMs and barium. -B905-SS02 (3.0-3.5') for VOCs, PPMs and barium.	0.0 – 1.5 Asphalt and sub-base. 1.5 – 3.0 Brown silt with some brick and little asphalt; moist. 3.0 – 4.0 Brown silt with some sand and little organics; moist with soft consistency and low plasticity.

COMMENTS:

BORING #:	B1301
DATE:	8/30/06
START TIME:	0755
LOGGED BY:	Trevor Tompkins
DRILLING CO:	SGS Environmental Services, Inc.
DRILLER:	J. Rausa
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	4 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 13: Former Coal Pile

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	3.6	0.4, ND	-B1301-SS01 (1.5-2.0') for VOCs, SVOCs, PPMs and barium. -B1301-SS02 (3.5-4.0') for VOCs, SVOCs, PPMs and barium.	0.0 – 0.5 Asphalt and sub-base. 0.5 – 1.0 Brown silt and sand with some gravel and trace cinders and brick. 1.0 – 2.0 Dark gray silt and sand with some gravel and cinders; moist. 2.0 – 4.0 Red brown silt with some sand and little gravel; moist with medium stiff consistency and low plasticity. Orange rust color from 2.0-3.0' with little cinders within that interval.

COMMENTS:

BORING #:	B1401
DATE:	8/28/06
START TIME:	1039
LOGGED BY:	Trevor Tompkins
DRILLING CO:	SGS Environmental Services, Inc.
DRILLER:	J. Rausa
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	4 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 14: Former Caustic Release Area

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	3.0	ND	-B1401-SS01 (0.5-1.0') for PPMs and barium, SVOCs and PCBs. -B1401-SS02 (3.5-4.0') for PPMs and barium, SVOCs and PCBs.	0.0 – 0.5 Asphalt and sub-base. 0.5 – 2.0 Brown silt with little gravel; moist with stiff consistency and low plasticity. 2.0 – 2.2 Brown fine gravel. 2.2 – 4.0 Brown silt with trace ceramics and brick from 2.5-3.0'; moist with medium soft consistency and medium plasticity.

COMMENTS:

BORING #:	B1402
DATE:	8/28/06
START TIME:	1051
LOGGED BY:	Trevor Tompkins
DRILLING CO:	SGS Environmental Services, Inc.
DRILLER:	J. Rausa
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	8 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 14: Former Caustic Release Area

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	2.7	ND	-B1402-SS01 (0.5-1.0') for PPMs and barium, SVOCs and PCBs.	0.0 – 0.2 Asphalt and sub-base.
4 – 8	NA	2.2	ND	-B1402-SS02 (6.0-6.5') for PPMs and barium, SVOCs and PCBs.	0.2 – 0.7 Brown sand and gravel with green substance at 0.7 feet. 0.7 – 1.0 Black tar-like substance with gravel. 1.0 – 3.0 Dark brown silt with little sand and gravel (one chunk of concrete); moist with zones of dark gray coloration. 3.0 – 3.8 Red-brown silt with some sand and little gravel; moist. 3.8 – 4.0 Dark gray to dark brown silt, sand and gravel; moist. 4.0 – 8.0 Red-brown silt with some sand and little gravel; zone of moist to wet brown coarse sand from 5.0-5.5'.

COMMENTS:

BORING #:	B1403
DATE:	8/28/06
START TIME:	1205
LOGGED BY:	Trevor Tompkins
DRILLING CO:	SGS Environmental Services, Inc.
DRILLER:	J. Rausa
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	2 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 14: Former Caustic Release Area

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 2	NA	1.7	ND, 3.2, 4.3	-B1403-SS01 (1.5-2.0') for PPMs and barium, SVOCs and PCBs.	0.0 – 0.3 Asphalt and sub-base. 0.3 – 2.0 Fill: Brown silt with sand, gravel, cinders and brick; moist with mothball-like odor. Refusal at 2.0'

COMMENTS:

BORING #:	B1404
DATE:	8/28/06
START TIME:	1241
LOGGED BY:	Trevor Tompkins
DRILLING CO:	SGS Environmental Services, Inc.
DRILLER:	J. Rausa
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	8 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 14: Former Caustic Release Area

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	3.0	ND, ND, 10.3, 2.2, ND, ND	-B1404-SS01 (1.5-2.0') for PPMs and barium, SVOCs and PCBs.	0.0 – 0.5 Asphalt and gravel sub-base.
4 – 8	NA	2.5	ND	-B1404-SS02 (6.0-6.5') for PPMs and barium, SVOCs and PCBs.	0.5 – 2.5 Concrete with slight mothball-like odor. 2.5 – 4.0 Red-brown to dark gray sandy silt with little gravel; moist with medium stiff consistency and low plasticity. 4.0 – 8.0 Red-brown with zones of gray, sandy silt with little gravel; moist with medium stiff consistency and medium plasticity. Brick fragments from 4.0-6.0'.

COMMENTS:

BORING #:	B1405
DATE:	10/4/06
START TIME:	1209
LOGGED BY:	Trevor Tompkins
DRILLING CO:	TPI Environmental Inc.
DRILLER:	B. Moriarty
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	8 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 14: Former Caustic Release Area

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	3.5	ND	-B1405-SS01 (1.5-2.0') for PCBs, PPMs, barium and SVOCs.	0.0 – 0.7 Asphalt and sub-base with tar-like substance.
4 – 8	NA	2.6	ND	- B1405-SS02 (3.5-4.0') for PCBs, PPMs, barium and SVOCs.	0.7 – 3.0 Light brown silt with trace brick and cinders; dry.
				-B1405-SS03 (6.0-6.5) for PCBs, PPMs, barium and SVOCs.	3.0 – 4.0 Red-brown silt with rock fragments from 3.0-3.2', little sand and gravel; dry.
					4.0 – 6.5 Red-brown fine sand with some silt; dry and loose.
					6.5 – 6.7 Rock fragments.
					6.7 – 7.0 Red very fine sand; moist.

COMMENTS:

BORING #:	B1406
DATE:	10/4/06
START TIME:	1226
LOGGED BY:	Trevor Tompkins
DRILLING CO:	TPI Environmental Inc.
DRILLER:	B. Moriarty
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	8 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 14: Former Caustic Release Area

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	2.1	ND	-B1406-SS01 (0.5-1.0') for PCBs, PPMs, barium and SVOCs.	0.0 – 0.3 Asphalt.
4 – 8	NA	0.4	ND	- B1406-SS02 (2.5-3.0') for PCBs, PPMs, barium and SVOCs.	0.3 – 1.0 Red-brown silt with little sand and clay. Trace cinders and brick. 1.0 – 2.0 Light brown sand and gray angular gravel with rock fragments from 1.8 to 2.0'. 2.0 – 3.0 Green-blue stained silt with some sand and one cobble; wet. 3.0 – 4.4 Brown sand and clay; wet.

COMMENTS:

BORING #:	B1407
DATE:	10/4/06
START TIME:	1007
LOGGED BY:	Trevor Tompkins
DRILLING CO:	TPI Environmental Inc.
DRILLER:	B. Moriarty
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	8 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 14: Former Caustic Release Area

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	3.9	8.8, 65.7, 46.6, 7.3, 0.5, 0.1, ND	-B1407-SS01 (0.5-1.0') for VOCs, SVOCs, PPMs, barium and PCBs.	0.0 – 0.5 Asphalt and black tar-like substance.
4 – 8	NA	2.2	ND	- B1407-SS02 (3.5-4.0') for VOCs, SVOCs, PPMs, barium and PCBs.	0.5 – 1.5 Dark gray sand with some silt and little gravel and cinders; moist with petroleum hydrocarbon-like odor.
				-B1407-SS03 (6.0-6.5) for VOCs, SVOCs, PPMs, barium and PCBs.	1.5 – 3.5 Red-brown silt with little sand and gravel; trace brick.
					3.5 – 4.0 Brown sandy clay with trace gravel; very moist with soft consistency and high plasticity.
					4.0 – 8.0 Red-brown silty sand with trace gravel; soils wet at 6.5'.

COMMENTS:

BORING #:	B1408
DATE:	10/4/06
START TIME:	1150
LOGGED BY:	Trevor Tompkins
DRILLING CO:	TPI Environmental Inc.
DRILLER:	B. Moriarty
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	8 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 14: Former Caustic Release Area

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	3.3	ND, ND, 5.1, 3.6, ND, ND	-B1408-SS01 (1.0-1.5') for PCBs, PPMs, barium and SVOCs.	0.0 – 0.2 Asphalt and sub-base.
4 – 8	NA	2.5	ND	- B1408-SS02 (3.5-4.0') for PCBs, PPMs, barium and SVOCs.	0.2 – 0.7 Brown silt and sand with some gravel; moist.
				-B1408-SS03 (6.0-6.5) for PCBs, PPMs, barium and SVOCs.	0.7 – 1.0 Tar-like substance and gravel.
					1.0 – 1.5 Dark gray silt and gravel with little gravel.
					1.5 – 1.7 Concrete fragments.
					1.7 – 6.0 Brown clay with some silt and sand. Soft consistency and high plasticity; wet at 4.0'.
					6.0 – 8.0 Red brown clay with medium stiff consistency and medium plasticity; very moist to wet.
					* ~3" of wet sand from 5.7 to 6.0' another wet sand stringer 7.0 to 7.2'.

COMMENTS:

BORING #:	B1410
DATE:	10/4/06
START TIME:	1054
LOGGED BY:	Trevor Tompkins
DRILLING CO:	TPI Environmental Inc.
DRILLER:	B. Moriarty
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	8 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 14: Former Caustic Release Area

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	2.7	ND	-B1410-SS01 (1.5-2.0') for PCBs, PPMs, barium and SVOCs.	0.0 – 0.2 Asphalt and sub-base.
4 – 8	NA	2.7	ND	- B1410-SS02 (3.5-4.0') for PCBs, PPMs, barium and SVOCs.	0.2 – 1.0 Light brown silt, gray fine angular gravel.
				-B1410-SS03 (6.0-6.5) for PCBs, PPMs, barium and SVOCs.	1.0 – 4.0 Brown to red-brown silty clay with little sand and gravel; moist with medium stiff consistency and medium to high plasticity.
					4.0 – 8.0 Red-brown silt with medium stiff consistency and low plasticity with little to some sand and trace gravel; moist with perched water at 7.0'.

COMMENTS:

BORING #:	B1411
DATE:	10/4/06
START TIME:	1328
LOGGED BY:	Trevor Tompkins
DRILLING CO:	TPI Environmental Inc.
DRILLER:	B. Moriarty
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	8 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 14: Former Caustic Release Area

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	3.4	ND	-B1411-SS01 (1.5-2.0') for PCBs, PPMs, barium and SVOCs.	0.0 – 0.5 Asphalt and sub-base.
4 – 8	NA	2.8	ND	- B1411-SS02 (2.5-3.0') for PCBs, PPMs, barium and SVOCs.	0.5 – 1.5 Light brown/gray soft/uncured concrete with angular gravel; moist. 1.5 – 3.5 Red-brown silt with little sand and gravel and trace brick. 3.5 – 5.0 Red-brown very fine sand with some clay and trace gravel; very moist to wet. 5.0 – 8.0 Red-brown clay with medium soft consistency and high plasticity.
				-B1411-SS03 (6.0 to 6.5') for PCBs, PPMs, barium and SVOCs.	

COMMENTS:

BORING #:	B1501
DATE:	10/5/06
START TIME:	0820
LOGGED BY:	Trevor Tompkins, Megan Utley
DRILLING CO:	TPI Environmental Inc.
DRILLER:	B. Moriarty
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	8 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 15: Current aboveground acid storage tanks

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (ppm)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	4.0	ND	-B1501-SS01 (1.0-1.5') for PPMs and barium.	0.0 – 0.5 Asphalt. 0.5 – 1.0 Sub-base.
4 – 8	NA	2.9	ND	-B1501-SS02 (3.0-3.5') for PPMs and barium. -B1501-SS03 (6.0-6.5') for PPMs and barium.	1.0 – 1.2 Dark gray sand with little cinders and silt; moist 1.2 – 2.9 Orange-brown clay and silt, progressively more clay toward bottom; moist. 2.9 – 8.0 Red-brown clay and fine to medium sand with large siltstone fragments; moist. Slightly coarser from 4.0 to 8.0' with increased sand content from 7.0 to 8.0'.

COMMENTS:

BORING #:	B1502
DATE:	10/5/06
START TIME:	0845
LOGGED BY:	Trevor Tompkins, Megan Utley
DRILLING CO:	TPI Environmental Inc.
DRILLER:	B. Moriarty
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	8 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 15: Current aboveground acid storage tanks

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	4.0	ND	-B1502-SS01 (1.0-1.5') for PPMs and barium.	0.0 – 0.5 Asphalt. 0.5 – 1.2 Sub-base.
4 – 8	NA	4.0	ND	-B1502-SS02 (3.5-4.0') for PPMs and barium. -B1502-SS03 (6.0-6.5') for PPMs and barium.	1.2 – 2.2 Red-brown clay and fine sand; moist. 2.2 – 4.0 Gray and orange mottled clay, medium soft to medium stiff consistency; moist. Layer of fine to medium gravel 3.2 to 3.4', higher sand content 3.4 to 4.0'. 4.0 – 8.0 Red-brown fine sand and silt with little clay; moist.

COMMENTS:

BORING #:	B1601
DATE:	10/5/06
START TIME:	1505
LOGGED BY:	Trevor Tompkins, Megan Utley
DRILLING CO:	TPI Environmental Inc.
DRILLER:	B. Moriarty
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	4 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 16 – Wastewater system

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	3.2	ND	-B1601-SS01 (2.0-2.5') for PPMs, barium and pH. -B1601-SS02 (3.5-4.0') for PPMs, barium and pH.	0.0 – 0.5 Asphalt and sub-base. 0.5 – 4.0 Red-brown silt with some clay and sand progressing down to silty clay with little sand; moist. Some gravel.

COMMENTS:

BORING #:	B1603
DATE:	10/5/06
START TIME:	1322
LOGGED BY:	Trevor Tompkins, Megan Utley
DRILLING CO:	TPI Environmental Inc.
DRILLER:	B. Moriarty
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	4 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 16 – Wastewater system

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	2.9	ND	-B1603-SS01 (2.0-2.5') for PPMs, barium and pH. -B1603-SS02 (3.5-4.0') for PPMs, barium and pH.	0.0 – 0.5 Concrete. 0.5 – 4.0 Red-brown clay with some silt and sand with little medium to coarse rounded gravel; moist with medium soft consistency and medium plasticity.

COMMENTS:

BORING #:	B1604
DATE:	10/5/06
START TIME:	1231
LOGGED BY:	Trevor Tompkins, Megan Utley
DRILLING CO:	TPI Environmental Inc.
DRILLER:	B. Moriarty
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	4 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 16 – Wastewater system

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	3.6	ND	-B1604-SS01 (2.0-2.5') for PPMs, barium and pH. -B1605-SS02 (3.5-4.0') for PPMs, barium and pH.	0.0 – 0.5 Concrete. 0.5 – 0.7 Coarse sand (white/gray) and gravel. 0.7 – 4.0 Red-brown fine to medium sand and wilt with few coarse grains.

COMMENTS:

BORING #:	B1605
DATE:	10/5/06
START TIME:	1215
LOGGED BY:	Trevor Tompkins, Megan Utley
DRILLING CO:	TPI Environmental Inc.
DRILLER:	B. Moriarty
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	4 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 16 – Wastewater system

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	4.0	ND	-B1605-SS01 (2.0-2.5') for PPMs, barium and pH. -B1605-SS02 (3.5-4.0') for PPMs, barium and pH.	0.0 – 0.5 Concrete. 0.5 – 0.8 Dark gray coarse sand with coarse gravel and cinders; moist. 0.8 – 2.0 Light brown clay with little silt; moist. 2.0 – 4.0 Brown silt and fine sand with some coarse grains; moist.

COMMENTS:

BORING #:	B1606
DATE:	10/5/06
START TIME:	1525
LOGGED BY:	Trevor Tompkins, Megan Utley
DRILLING CO:	TPI Environmental Inc.
DRILLER:	B. Moriarty
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	4 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 16 – Wastewater system

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	3.1	ND	-B1606-SS01 (2.0-2.5') for PPMs, barium and pH. -B1606-SS02 (3.5-4.0') for PPMs, barium and pH.	0.0 – 0.5 Asphalt and sub-base. 0.5 – 3.0 Dark gray to brown sand with some silt, cinders, and gravel; moist. 3.0 – 4.0 Red-brown silty clay with little gravel and sand, medium soft consistency, medium plasticity; moist.

COMMENTS:

BORING #:	B1607
DATE:	10/5/06
START TIME:	1404
LOGGED BY:	Trevor Tompkins, Megan Utley
DRILLING CO:	TPI Environmental Inc.
DRILLER:	B. Moriarty
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	4 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 16 – Wastewater system

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	2.0	ND	-B1607-SS01 (2.0-2.5') for PPMs, barium and pH. -B1607-SS02 (3.5-4.0') for PPMs, barium and pH.	0.0 – 0.5 Cement. 0.5 – 2.0 Brown silt with medium to coarse sand with clay and some pebbles; moist. 2.0 – 4.0 Red-brown silt and clay, medium soft consistency, some fine to coarse sand and pebbles; moist.

COMMENTS:

BORING #:	MW01
DATE:	8/29/06
START TIME:	1017
LOGGED BY:	Trevor Tompkins, Megan Utley
DRILLING CO:	TPI Environmental Inc.
DRILLER:	B. Moriarty
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	30 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (ppm)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 2	7, 23, 23, 34	1.3	ND		0.0 – 0.7 Dark brown sandy silt with little gravel, grass and roots; moist.
5 – 7	7, 14, 11, 12	2.0	ND		0.7 – 2.0 Red-brown silt with some sand and little gravel; slightly moist to dry.
10 – 12	26, 26, 30, 33	1.9	ND		5.0 – 7.0 Red-brown sandy silt with little to some medium gravel; moist with stiff consistency and low plasticity.
15 – 17	17, 36, 40, 45	1.4	ND		10.0 – 12.0 Red brown silt with some sand, little gravel; moist with medium stiff consistency, low plasticity, shale fragments at 11.8'.
20 – 22	45, 45, 46, 50	0.0	ND		15.0 – 15.8 Red-brown silt with some gravel and sand; moist with medium stiff consistency and low plasticity.
25 – 27	17, 30, 31, 31	1.9	ND		15.8 – 16.2 Gray rock fragments.
28 – 30	30, 46, 50, 50/5	1.8	ND		16.2 – 17.0 Red-brown sand an silt with some gravel; moist.
					*cuttings between 20 and 25' came up wet.
					25.0 – 27.0 Red-brown silt with little gravel and sand; moist with medium stiff consistency and low plasticity. No sign of water.
					28.0 – 29.9 Red-brown silt with little sand and gravel. Rock fragments at 29.0 and 29.6'. Red shale fragments in end of spoon. Appears to be top of bedrock. Soils are moist with stiff consistency and low plasticity.

COMMENTS:

BORING #:	MW2
DATE:	8/28/06
START TIME:	1347
LOGGED BY:	Trevor Tompkins
DRILLING CO:	SGS Environmental Services, Inc.
DRILLER:	J. Rausa
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	7.8 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 6: Former Acid Aboveground Storage Tanks South of Red Wing

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	3.3	ND	-MW2-SS01 (2.0-2.5') for PPMs and barium.	0.0 – 0.2 Asphalt.
					0.2 – 2.0 Concrete.
4 – 8	NA	3.5	ND	-MW2-SS02 (4.0-4.5') for PPMs and barium.	2.0 – 2.2 Black cinders from 2.0-2.2' with red and yellow coloring.
					2.2 - 4.0 Red-brown silt with little sand and gravel; moist with stiff consistency and low plasticity.
					4.0 – 7.8 Red-brown silt with little to some sand and little gravel; moist with medium stiff consistency and low plasticity.
					Refusal at 7.8'.

COMMENTS:

BORING #:	MW-2
DATE:	10/6/06
START TIME:	0740
LOGGED BY:	Trevor Tompkins, Megan Utley
DRILLING CO:	TPI Environmental Inc.
DRILLER:	B. Moriarty
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	19 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 6: Former acid aboveground storage tanks south of Red Wing

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	3.8	ND	-MW02-SS01 (1.5-2.0') for PPMs and barium.	0.0 – 0.5 Asphalt and sub-base.
4 – 8	NA	3.6	ND	-MW02-SS02 (3.5-4.0') for PPMs and barium.	0.5 – 1.0 Red to light brown to dark gray silt and sand with little sand and gravel; moist.
8 – 12	NA	4.0	ND		1.0 – 1.2 Rock fragments.
12 – 16	NA	3.5	ND		1.2 – 16.0 Red-brown silty clay with little to some sand and gravel; moist with medium stiff consistency and medium plasticity. Higher gravel and cobble content at 16.5', potential perched layer at 16-16.8'.
16 - 20	NA	2.8	ND		*Refusal at 19' with cobble/gravel in toe of macrocore

COMMENTS:

BORING #:	MW3
DATE:	8/28/06
START TIME:	1521
LOGGED BY:	Trevor Tompkins
DRILLING CO:	SGS Environmental Services, Inc.
DRILLER:	J. Rausa
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	16 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 5: Former Acid Aboveground Storage Tanks South of Blue Wing

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	2.5	ND	-MW3-SS01 (0.2-0.7') for PPMs and barium.	0.0 – 0.2 Concrete.
4 – 8	NA	3.3	ND	-MW3-SS02 (1.5-2.0') for PPMs and barium.	0.2 – 0.7 Blue-green stained sand with some silt and gravel; moist.
8 – 12	NA	3.1	ND		0.7 – 12.0 Red silt with little to some sand and little gravel; moist with stiff consistency and low plasticity. Zones of sand from 7.5-7.7', 8.5-9.0', 9.2-9.4' and 10.0-10.3'.
12 – 16	NA	2.0	ND		12.0 – 16.0 Red silt with some sand and medium to coarse gravel; moist with stiff consistency and low plasticity – Black shale fragments from 13.5-14.0'. Water on piece of gravel in toe of macrocore sampler.

COMMENTS:

BORING #:	MW4
DATE:	8/30/06
START TIME:	1143
LOGGED BY:	Trevor Tompkins
DRILLING CO:	SGS Environmental Services, Inc.
DRILLER:	J. Rausa
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	20 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 15: Current Aboveground Storage Tank

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	3.6	ND	-MW4-SS01 (1.0-1.5') for VOCs and SVOCs.	0.0 – 0.3 Asphalt and sub-base.
4 – 8	NA	3.2	ND	-MW4-SS02 (4.5-5.0') for VOCs and SVOCs.	0.3 – 2.0 Brown silt with little sand, gravel, cinders and brick; moist with stiff consistency and low plasticity.
8 – 12	NA	3.1	ND		2.0 – 4.0 Red-brown silt with little sand and gravel with trace cinders and brick; moist with stiff consistency and low plasticity.
12 – 16	NA	4.0	ND		4.0 – 16.0 Red-brown silt with some sand and gravel; moist with medium stiff consistency and low plasticity. Rock fragments at 6.8, 7.5, 8.5 and from 14.5 to 15.0 feet. Zone of loose silt, sand and gravel that is wet from 13.0-14.5'.
16 – 20	NA	4.0	ND		16.0 – 20.0 Red-brown silt with little sand and gravel; moist with stiff consistency and low plasticity. Zone of loose silt, sand and gravel from that is wet from 17.0-18.0'.

COMMENTS:

BORING #:	MW5
DATE:	8/30/06
START TIME:	0921
LOGGED BY:	Trevor Tompkins
DRILLING CO:	SGS Environmental Services, Inc.
DRILLER:	J. Rausa
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	12 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 2: Railroad Tracks

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	4.0	ND	-MW5-SS01 (0.5-1.0') for PPMs and barium.	0.0 – 0.5 Asphalt and sub-base.
4 – 8	NA	4.0	ND	-MW5-SS02 (1.5-2.0') for PPMs and barium.	0.5 – 2.0 Brown silt with little sand, gravel, cinders and brick; moist with concrete chunk at 1.5'.
8 – 12	NA	3.5	ND	-MW5-SS03 (3.5-4.0') for PPMs and barium.	2.0 – 6.5 Red-brown silt with some sand, little gravel and trace cinders and slag; moist with stiff consistency and low plasticity. 6.5 – 7.8 Brown silt and sand with some gravel; moist to nearly wet at 7.5'. 7.8 – 8.0 Black cinders with some green glass; wet. 8.0 – 10.0 Brown silt and sand; wet. 10.0 – 12.0 Brown to dark gray peat; moist. Roots, twigs and leaves observed in peat.

COMMENTS:

BORING #:	MW-05D
DATE:	10/6/06
START TIME:	0949
LOGGED BY:	Trevor Tompkins, Megan Utley
DRILLING CO:	TPI Environmental Inc.
DRILLER:	B. Moriarty
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	20 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 2 – Former Railroad Tracks at Eastern Parking Lot

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
12 – 16	NA	2.0	ND	.	0.0 – 0.5 Asphalt and sub-base. 0.5 – 2.0 Brown silt with little sand, gravel, cinders and brick; moist with concrete chunk at 1.5'.
16 - 20	NA	1.0	ND		2.0 – 6.5 Red-brown silt with some sand, little gravel and trace cinders and slag; moist with stiff consistency and low plasticity. 6.5 – 7.8 Brown silt and sand with some gravel; moist to nearly wet at 7.5'. 7.8 – 8.0 Black cinders with some green glass; wet. 8.0 – 10.0 Brown silt and sand; wet. 10.0 – 12.0 Brown to dark gray peat; moist. Roots, twigs and leaves observed in peat. 12.0 – 14.0 Gray clay with fine sand stringers. High plasticity, soft consistency. 14.0 – 16.0 Red-brown silt with some and little gravel. Gravel unit 15.5 to 15.7; very moist to nearly saturated at 16.0'. 16.0 – 20.0 Red brown silty clay with little sand and gravel; moist to wet.

COMMENTS:

BORING #:	MW06
DATE:	10/6/06
START TIME:	1030
LOGGED BY:	Trevor Tompkins, Megan Utley
DRILLING CO:	TPI Environmental Inc.
DRILLER:	B. Moriarty
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	16 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (ppm)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	4.0	ND		0.0 – 1.0 Asphalt and sub-base. 1.0 – 6.0 Brown to red-brown silt with some clay, little sand and gravel, trace brick; moist, no plasticity, medium stiff consistency.
4 – 8	NA	2.9	ND		6.0 – 8.0 Gray clay, soft consistency, high plasticity, little organics; moist.
8 – 12	NA	NA	ND		8.0 – 11.5 Soft consistency, high plasticity, few organics; moist.
12 – 16	NA	3.4	NA		11.5 – 13.5 Red clay with very soft consistency, high plasticity; saturated at 11.8'. 13.5 – 15.0 Red-brown medium sand with some silt; wet. 15.0 – 16.0 Red-brown silt with little sand and gravel; moist

COMMENTS:

BORING #:	MW-07
DATE:	10/6/06
START TIME:	0841
LOGGED BY:	Trevor Tompkins, Megan Utley
DRILLING CO:	TPI Environmental Inc.
DRILLER:	B. Moriarty
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	16 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

AOC 2 – Former Railroad Tracks at Eastern Parking Lot

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	4.0	ND	.	0.0 – 0.5 Asphalt and sub-base. 0.5 – 3.5 Brown silt with some sand and little gravel and brick. Zone of muscovite from 2.5 to 2.7'. 3.5 – 4.0 Concrete fragments.
4 – 8	NA	3.5	ND		
8 – 12	NA	3.2	ND		4.0 – 10.0 Brown to red-brown silt and clay with medium soft consistency and medium to low plasticity. Wet sand lens from 7.0 to 7.1, with underlying very moist clay.
12 – 16	NA	2.4	ND		10.0 – 16.0 Red-brown silty clay with little sand and gravel; moist with medium stiff consistency, medium plasticity. *Water present at 7.5 – 8.0'.

COMMENTS:

BORING #:	BKD1
DATE:	10/5/06
START TIME:	1432
LOGGED BY:	Trevor Tompkins, Megan Utley
DRILLING CO:	TPI Environmental Inc.
DRILLER:	B. Moriarty
RIG:	Geoprobe Truck-Mounted
SAMPLING METHOD:	Direct-Push
BORING DIA:	2-Inch
BORING DEPTH	8 Feet
ORGANIC VAPOR EQUIPMENT	PID (10.8 eV)

ENVIRON

BORING LOG

PROJECT: Sun Chemical: Rosebank
Staten Island, New York

CASE # 21-16443A

COMMENTS:

Background

DEPTH (feet)	BLOW COUNTS	RECOVERY (feet)	ORGANIC VAPORS (PPMs)	SAMPLE(S) DESIGNATION	DESCRIPTION
0 – 4	NA	3.0	ND	-BKD1-SS01 (0.0-0.5') for PPMs and barium.	0.0 – 0.4 Brown silt and clay with little sand and organics (grass and roots); moist.
4 – 8	NA	4.0	ND	-BKD1-SS02 (1.5-2.0') for PPMs and barium.	0.4 – 1.5 Light brown silty clay; moist with medium stiff consistency and medium plasticity.
				-BKD1-SS03 (3.5-4.0') for PPMs and barium.	1.5 – 4.0 Red-brown silty clay with medium stiff consistency and medium plasticity with little sand and trace gravel; moist.
				-BKD1-SS04 (6.0-6.5') for PPMs and barium.	4.0 – 8.0 Red-brown silt and clay with little sand and gravel with medium stiff consistency and medium plasticity; moist.

COMMENTS:

A P P E N D I X B

Summary Soil Data Tables

TABLE 1
Summarized Analytical Results for August-October 2006 Soil Sampling Program - Sun Chemical, Staten Island, New York

Area Of Concern	AOC 01	AOC 01	AOC 01	AOC 01	AOC 01	AOC 01	AOC 01	AOC 01	AOC 01	AOC 01	AOC 01	AOC 01	AOC 01	AOC 02
Location	B101	B101	B101	B102	B102	B102	B103	B104	B104	B105	B105	B106	B106	B201
ENVIRON Sample ID	B101-SS01	B101-SS02	B101-SS03	B102-SS01	B102-SS02	B102-SS03	B103-SS01	B104-SS01	B104-SS02	B105-SS01	B105-SS02	B106-SS01	B106-SS02	B201-SS01
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Collection Method	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore
Collection Date	8/28/2006	8/28/2006	8/28/2006	8/28/2006	8/28/2006	8/28/2006	10/4/2006	10/4/2006	10/4/2006	10/4/2006	10/4/2006	10/4/2006	10/4/2006	8/30/2006
Collection Depth (ft)	0.5 - 1	2.5 - 3	3.5 - 4	0.5 - 1	1.5 - 2	3.5 - 4	1.5 - 2	3.5 - 4	6 - 6.5	1.5 - 2	2.5 - 3	1.5 - 2	3.5 - 4	0.2 - 0.7
Comments														
VOC														
Acetone	U (0.57)	U (0.54)	0.1 (0.0069)	0.047 (0.0055)	0.035 (0.0054)	0.1 (0.0058)				0.056 B (0.0055)	0.07 B (0.0059)	0.024 B (0.0054)	U (0.0047)	
Benzene	U (0.11)	U (0.11)	U (0.0014)	U (0.0011)	U (0.0011)	U (0.0012)				0.0053 (0.0011)	0.002 (0.0012)	0.0022 (0.0011)	0.0008 J (0.0009)	
2-Butanone	U (0.57)	U (0.54)	U (0.0069)	U (0.0055)	U (0.0054)	0.011 (0.0058)				U (0.0055)	U (0.0059)	U (0.0054)	U (0.0047)	
Carbon Disulfide	U (0.57)	U (0.54)	U (0.0069)	U (0.0055)	U (0.0054)	0.0012 J (0.0058)				U (0.0055)	U (0.0059)	U (0.0054)	U (0.0047)	
Chlorobenzene	U (0.57)	U (0.54)	U (0.0069)	U (0.0055)	U (0.0054)	U (0.0058)				U (0.0055)	U (0.0059)	0.0017 J (0.0054)	U (0.0047)	
1,1-Dichloroethane	U (0.57)	U (0.54)	U (0.0069)	U (0.0055)	U (0.0054)	U (0.0058)				0.0042 J (0.0055)	0.0012 J (0.0059)	U (0.0054)	U (0.0047)	
1,2-Dichloroethane	U (0.23)	U (0.22)	U (0.0027)	U (0.0022)	U (0.0021)	U (0.0023)				U (0.0022)	U (0.0024)	U (0.0022)	U (0.0019)	
cis-1,2-Dichloroethene	U (0.57)	U (0.54)	U (0.0069)	U (0.0055)	U (0.0054)	U (0.0058)				U (0.0055)	U (0.0059)	U (0.0054)	U (0.0047)	
Ethylbenzene	0.27 J (0.46)	U (0.43)	U (0.0055)	U (0.0044)	U (0.0043)	U (0.0046)				0.0025 J (0.0044)	0.0023 J (0.0047)	0.012 (0.0043)	U (0.0037)	
Tetrachloroethene	U (0.11)	U (0.11)	U (0.0014)	U (0.0011)	U (0.0011)	U (0.0012)				U (0.0011)	U (0.0012)	0.0029 (0.0011)	U (0.0009)	
Toluene	U (0.57)	U (0.54)	U (0.0069)	U (0.0055)	U (0.0054)	U (0.0058)				0.0009 J (0.0055)	U (0.0059)	0.0046 J (0.0054)	U (0.0047)	
1,1,1-Trichloroethane	U (0.57)	U (0.54)	U (0.0069)	U (0.0055)	U (0.0054)	U (0.0058)				U (0.0055)	U (0.0059)	0.0012 J (0.0054)	U (0.0047)	
Trichloroethene	U (0.11)	U (0.11)	U (0.0014)	U (0.0011)	U (0.0011)	U (0.0012)				U (0.0011)	U (0.0012)	0.0008 J (0.0011)	U (0.0009)	
Xylene (Total)	0.74 (0.57)	U (0.54)	U (0.0069)	U (0.0055)	U (0.0054)	U (0.0058)				0.012 (0.0055)	0.0093 (0.0059)	0.095 (0.0054)	0.0012 J (0.0047)	
SVOC														
Acenaphthene												U (0.38)	U (0.39)	
Acenaphthylene												U (0.38)	U (0.39)	
Anthracene												U (0.38)	U (0.39)	
Benzo(a)anthracene												U (0.038)	U (0.039)	
Benzo(a)pyrene												U (0.038)	U (0.039)	
Benzo(b)fluoranthene												0.01 J (0.038)	U (0.039)	
Benzo(g,h,i)perylene												U (0.38)	U (0.39)	
Benzo(k)fluoranthene												U (0.038)	U (0.039)	
bis(2-Ethylhexyl)phthalate												7.1 (0.38)	U (0.39)	
Carbazole												U (0.38)	U (0.39)	
4-Chloroaniline												U (0.38)	U (0.39)	
Chrysene												U (0.38)	U (0.39)	
Dibenz(a,h)anthracene												U (0.038)	U (0.039)	
Dibenzofuran												U (0.38)	U (0.39)	
1,2-Dichlorobenzene												U (0.38)	U (0.39)	
1,4-Dichlorobenzene												U (0.38)	U (0.39)	
3,3'-Dichlorobenzidine												U (0.75)	U (0.78)	
Dimethylphthalate												U (0.38)	U (0.39)	
Di-n-butylphthalate												U (0.38)	U (0.39)	
Fluoranthene												0.014 J (0.38)	U (0.39)	
Fluorene												U (0.38)	U (0.39)	
Hexachlorobenzene												U (0.038)	U (0.039)	
Indeno(1,2,3-cd)pyrene												U (0.038)	U (0.039)	
2-Methylnaphthalene												0.0087 J (0.38)	U (0.39)	
Naphthalene												0.011 J (0.38)	U (0.39)	
3-Nitroaniline												U (0.75)	U (0.78)	
4-Nitroaniline												U (0.75)	U (0.78)	

TABLE 1
Summarized Analytical Results for August-October 2006 Soil Sampling Program - Sun Chemical, Staten Island, New York

	Area Of Concern	AOC 01	AOC 01	AOC 01	AOC 01	AOC 01	AOC 01	AOC 01	AOC 01	AOC 01	AOC 01	AOC 01	AOC 01	AOC 01	AOC 02
	Location	B101	B101	B101	B102	B102	B102	B103	B104	B104	B105	B105	B106	B106	B201
	ENVIRON Sample ID	B101-SS01	B101-SS02	B101-SS03	B102-SS01	B102-SS02	B102-SS03	B103-SS01	B104-SS01	B104-SS02	B105-SS01	B105-SS02	B106-SS01	B106-SS02	B201-SS01
	Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	Collection Method	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore
	Collection Date	8/28/2006	8/28/2006	8/28/2006	8/28/2006	8/28/2006	8/28/2006	10/4/2006	10/4/2006	10/4/2006	10/4/2006	10/4/2006	10/4/2006	10/4/2006	8/30/2006
	Collection Depth (ft)	0.5 - 1	2.5 - 3	3.5 - 4	0.5 - 1	1.5 - 2	3.5 - 4	1.5 - 2	3.5 - 4	6 - 6.5	1.5 - 2	2.5 - 3	1.5 - 2	3.5 - 4	0.2 - 0.7
	Comments														
	Nitrobenzene												U (0.038)	U (0.039)	
	Phenanthrene												0.011 J (0.38)	U (0.39)	
	Pyrene												0.014 J (0.38)	U (0.39)	
	1,2,4-Trichlorobenzene												U (0.038)	U (0.039)	
PCB															
	PCBs (total)														
	Aroclor-1248														
	Aroclor-1254														
	Aroclor-1268														
INORG															
	Antimony	3.6 (1.1)	1.7 B (1.1)	U (1.1)	2.6 (1.1)	U (1.3)	2.8 (1.4)	U (1.1)	U (1.1)	U (1.2)	U (1.2)	U (1.2)	U (1.1)	U (1.1)	U (1.1)
	Arsenic	10.2 (1)	9.6 (1)	4.7 (1)	5.4 (1)	2.2 (0.73)	6.5 (0.75)	3.5 (1)	3.9 (1)	2.7 (1.1)	7.6 (1.1)	5.8 (1.1)	3.4 (1)	4.3 (1)	3.8 (0.63)
	Barium	213 (0.3)	127 (0.3)	69.6 (0.3)	153 (0.29)	46.2 (0.39)	48.6 (0.4)	73.2 (0.29)	76.2 (0.3)	42.7 B (0.31)	177 (0.32)	80.4 (0.32)	49.4 (0.29)	44.2 B (0.3)	
	Beryllium	0.44 B (0.023)	0.49 (0.023)	0.65 (0.023)	0.43 (0.022)	0.51 (0.068)	0.81 (0.071)	0.31 B (0.022)	0.79 (0.023)	0.53 (0.024)	0.44 B (0.025)	0.68 (0.025)	0.64 (0.023)	0.69 (0.023)	0.26 B (0.059)
	Cadmium	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.091)	1.8 (0.094)	0.16 B (0.11)	0.16 B (0.12)	U (0.12)	1 B (0.12)	0.35 B (0.12)	0.15 B (0.11)	0.17 B (0.12)	0.17 B (0.079)
	Chromium	84 (0.64)	84.5 (0.64)	72.2 (0.64)	70.9 (0.63)	40.1 (0.36)	511 (0.38)	29.8 (0.63)	63.7 (0.65)	49.6 (0.66)	53.1 (0.69)	57.5 (0.69)	40.5 (0.63)	38.5 (0.65)	21.6 (0.32)
	Copper	121 (0.71)	76.2 (0.71)	46.6 (0.71)	55.5 (0.7)	23.8 (0.84)	41.6 (0.87)	21.8 (0.69)	23.9 (0.72)	16.2 (0.73)	123 (0.76)	47.7 (0.76)	26 (0.7)	29 (0.72)	32.4 (0.73)
	Lead	290 (0.51)	317 (0.5)	61.9 (0.5)	126 (0.49)	22.8 (0.61)	182 (0.64)	109 (0.49)	9.5 (0.51)	7.1 (0.52)	244 (0.54)	110 (0.54)	9.1 (0.5)	7.7 (0.51)	80.9 (0.53)
	Mercury	0.32 (0.019)	0.24 (0.016)	0.06 (0.019)	0.26 (0.019)	0.08 (0.019)	0.14 (0.02)	0.09 (0.016)	U (0.019)	U (0.017)	0.18 (0.021)	0.06 (0.018)	0.02 B (0.019)	U (0.019)	0.07 (0.018)
	Nickel	100 (0.9)	135 (0.89)	156 (0.89)	116 (0.88)	162 (0.54)	173 (0.57)	41.1 (0.87)	226 (0.91)	229 (0.92)	85.1 (0.96)	131 (0.96)	134 (0.88)	139 (0.91)	28.9 (0.47)
	Selenium	U (1.1)	U (1.1)	U (1.1)	U (1.1)	U (0.95)	U (0.99)	1.6 (1.1)	1.6 (1.1)	U (1.1)	1.8 (1.2)	1.7 (1.2)	U (1.1)	1.5 (1.1)	U (0.83)
	Silver	U (0.28)	U (0.27)	U (0.27)	U (0.27)	U (0.32)	U (0.33)	U (0.27)	U (0.28)	U (0.28)	U (0.3)	U (0.3)	U (0.27)	U (0.28)	0.35 B (0.28)
	Zinc	118 (1.3)	81.8 (1.3)	86.9 (1.3)	110 (1.3)	40.4 (1.3)	685 (1.4)	96.8 (1.3)	63.3 (1.4)	34.8 (1.4)	189 (1.4)	100 (1.4)	34.4 (1.3)	37.9 (1.3)	77.4 (1.1)

Notes:

1 All concentrations are presented in mg/kg (ppm).

2 Only compounds with at least one detection are shown.

Abbreviations:

U -- Not Detected.

J -- Estimated Concentration.

( ) -- Detection Limit.

TABLE 1
Summarized Analytical Results for August-October 2006 Soil Sampling Program - Sun Chemical, Staten Island, New York

Area Of Concern	AOC 02	AOC 02	AOC 02	AOC 02	AOC 02	AOC 02	AOC 02	AOC 02	AOC 02	AOC 02	AOC 02	AOC 02	AOC 02	AOC 02	AOC 02	AOC 02	AOC 02
Location	B201	B201	B201	B202	B202	B202	B202	B202	B202	B202	B203	B203	B204	B204	B204	MW05	MW05
ENVIRON Sample ID	B201-SS01	B201-SS02	B201-SS02	B202-SS01	B202-SS01	B202-SS02	B202-SS02	B202-SS02D	B202-SS03	B203-SS01	B203-SS02	B204-SS01	B204-SS01D	B204-SS02	MW5-SS01	MW5-SS02
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Collection Method	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore
Collection Date	8/30/2006	8/30/2006	8/30/2006	8/30/2006	8/30/2006	8/30/2006	8/30/2006	8/30/2006	8/30/2006	10/5/2006	10/5/2006	10/6/2006	10/6/2006	10/6/2006	8/30/2006	8/30/2006
Collection Depth (ft)	0.2 - 0.7	1.5 - 2	1.5 - 2	0.2 - 0.7	0.2 - 0.7	1.5 - 2	1.5 - 2	1.5 - 2	3.5 - 4	0.5 - 1	1.5 - 2	1 - 1.5	1 - 1.5	2 - 2.5	0.5 - 1	1.5 - 2
Comments								Duplicate					Duplicate			
VOC																
Acetone																
Benzene																
2-Butanone																
Carbon Disulfide																
Chlorobenzene																
1,1-Dichloroethane																
1,2-Dichloroethane																
cis-1,2-Dichloroethene																
Ethylbenzene																
Tetrachloroethene																
Toluene																
1,1,1-Trichloroethane																
Trichloroethene																
Xylene (Total)																
SVOC																
Acenaphthene	0.045 J (1.8)		0.017 J (0.37)		0.058 J (1.8)		0.054 J (0.38)			0.43 J (1.9)	U (0.38)	0.033 J (0.38)	0.014 J (0.38)	U (0.37)		
Acenaphthylene	U (1.8)		0.071 J (0.37)		0.18 J (1.8)		0.43 (0.38)			0.15 J (1.9)	U (0.38)	0.091 J (0.38)	0.11 J (0.38)	U (0.37)		
Anthracene	U (1.8)		0.082 J (0.37)		0.33 J (1.8)		0.34 J (0.38)			1.7 J (1.9)	U (0.38)	0.15 J (0.38)	0.12 J (0.38)	U (0.37)		
Benzo(a)anthracene	0.2 (0.18)		0.31 (0.037)		1.5 (0.18)		1 (0.038)			4.3 (0.19)	U (0.038)	0.41 (0.038)	0.26 (0.038)	U (0.037)		
Benzo(a)pyrene	U (0.18)		0.3 (0.037)		1.5 (0.18)		1.1 (0.038)			4.3 (0.19)	U (0.038)	0.46 (0.038)	0.32 (0.038)	U (0.037)		
Benzo(b)fluoranthene	U (0.18)		0.36 (0.037)		1.1 (0.18)		1.8 (0.038)			4.2 (0.19)	U (0.038)	0.59 (0.038)	0.45 (0.038)	U (0.037)		
Benzo(g,h,i)perylene	U (1.8)		0.09 J (0.37)		0.32 J (1.8)		0.33 J (0.38)			1 J (1.9)	U (0.38)	U (0.38)	U (0.38)	U (0.37)		
Benzo(k)fluoranthene	U (0.18)		U (0.037)		1.6 (0.18)		2 (0.038)			4.8 (0.19)	U (0.038)	0.49 (0.038)	0.31 (0.038)	U (0.037)		
bis(2-Ethylhexyl)phthalate	1.1 J (1.8)		0.44 (0.37)		U (1.8)		0.12 J (0.38)			U (1.9)	U (0.38)	U (0.38)	0.096 J (0.38)	U (0.37)		
Carbazole	U (1.8)		0.031 J (0.37)		U (1.8)		0.16 J (0.38)			0.23 J (1.9)	U (0.38)	0.049 J (0.38)	0.026 J (0.38)	U (0.37)		
4-Chloroaniline	U (1.8)		U (0.37)		U (1.8)		U (0.38)			U (1.9)	U (0.38)	U (0.38)	U (0.38)	U (0.37)		
Chrysene	0.35 J (1.8)		0.33 J (0.37)		1.4 J (1.8)		1.5 (0.38)			4.7 (1.9)	U (0.38)	0.5 (0.38)	0.34 J (0.38)	U (0.37)		
Dibenz(a,h)anthracene	U (0.18)		U (0.037)		U (0.18)		0.17 (0.038)			U (0.19)	U (0.038)	U (0.038)	U (0.038)	U (0.037)		
Dibenzofuran	0.037 J (1.8)		0.018 J (0.37)		U (1.8)		0.091 J (0.38)			0.17 J (1.9)	U (0.38)	0.06 J (0.38)	0.043 J (0.38)	U (0.37)		
1,2-Dichlorobenzene	U (1.8)		U (0.37)		U (1.8)		U (0.38)			U (1.9)	U (0.38)	U (0.38)	U (0.38)	U (0.37)		
1,4-Dichlorobenzene	U (1.8)		U (0.37)		U (1.8)		U (0.38)			U (1.9)	U (0.38)	U (0.38)	U (0.38)	U (0.37)		
3,3'-Dichlorobenzidine	U (3.6)		0.09 J (0.74)		U (3.6)		U (0.77)			U (3.8)	U (0.76)	U (0.77)	U (0.77)	U (0.74)		
Dimethylphthalate	U (1.8)		U (0.37)		U (1.8)		U (0.38)			U (1.9)	U (0.38)	U (0.38)	U (0.38)	U (0.37)		
Di-n-butylphthalate	U (1.8)		U (0.37)		U (1.8)		U (0.38)			U (1.9)	U (0.38)	U (0.38)	U (0.38)	U (0.37)		
Fluoranthene	0.23 J (1.8)		0.42 (0.37)		1.8 J (1.8)		1.7 (0.38)			8.1 (1.9)	U (0.38)	0.94 (0.38)	0.35 J (0.38)	U (0.37)		
Fluorene	0.064 J (1.8)		0.021 J (0.37)		0.06 J (1.8)		0.059 J (0.38)			0.42 J (1.9)	U (0.38)	0.035 J (0.38)	0.029 J (0.38)	U (0.37)		
Hexachlorobenzene	U (0.18)		U (0.037)		U (0.18)		U (0.038)			U (0.19)	U (0.038)	U (0.038)	U (0.038)	U (0.037)		
Indeno(1,2,3-cd)pyrene	U (0.18)		0.074 (0.037)		0.35 (0.18)		0.4 (0.038)			1.2 (0.19)	U (0.038)	U (0.038)	U (0.038)	U (0.037)		
2-Methylnaphthalene	0.17 J (1.8)		0.025 J (0.37)		U (1.8)		0.11 J (0.38)			0.12 J (1.9)	U (0.38)	0.082 J (0.38)	0.063 J (0.38)	U (0.37)		
Naphthalene	0.11 J (1.8)		0.035 J (0.37)		U (1.8)		0.22 J (0.38)			0.3 J (1.9)	U (0.38)	0.1 J (0.38)	0.086 J (0.38)	U (0.37)		
3-Nitroaniline	U (3.6)		U (0.74)		U (3.6)		U (0.77)			U (3.8)	U (0.76)	U (0.77)	U (0.77)	U (0.74)		
4-Nitroaniline	U (3.6)		U (0.74)		U (3.6)		U (0.77)			0.74 J (3.8)	U (0.76)	U (0.77)	U (0.77)	U (0.74)		

TABLE 1
Summarized Analytical Results for August-October 2006 Soil Sampling Program - Sun Chemical, Staten Island, New York

	Area Of Concern	AOC 02	AOC 02	AOC 02	AOC 02	AOC 02	AOC 02	AOC 02	AOC 02	AOC 02	AOC 02	AOC 02	AOC 02	AOC 02	AOC 02	AOC 02	AOC 02
	Location	B201	B201	B201	B202	B202	B202	B202	B202	B202	B202	B203	B203	B204	B204	B204	MW05	MW05
	ENVIRON Sample ID	B201-SS01	B201-SS02	B201-SS02	B202-SS01	B202-SS01	B202-SS02	B202-SS02	B202-SS02D	B202-SS03	B203-SS01	B203-SS02	B204-SS01	B204-SS01D	B204-SS02	MW5-SS01	MW5-SS02
	Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	Collection Method	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore
	Collection Date	8/30/2006	8/30/2006	8/30/2006	8/30/2006	8/30/2006	8/30/2006	8/30/2006	8/30/2006	8/30/2006	10/5/2006	10/5/2006	10/6/2006	10/6/2006	10/6/2006	8/30/2006	8/30/2006
	Collection Depth (ft)	0.2 - 0.7	1.5 - 2	1.5 - 2	0.2 - 0.7	0.2 - 0.7	1.5 - 2	1.5 - 2	1.5 - 2	3.5 - 4	0.5 - 1	1.5 - 2	1 - 1.5	1 - 1.5	2 - 2.5	0.5 - 1	1.5 - 2
	Comments								Duplicate					Duplicate			
	Nitrobenzene	U (0.18)		U (0.037)		U (0.18)		U (0.038)			0.36 (0.19)	U (0.038)	U (0.038)	U (0.038)	U (0.037)		
	Phenanthrene	0.31 J (1.8)		0.28 J (0.37)		0.84 J (1.8)		0.8 (0.38)			6.5 (1.9)	0.025 J (0.38)	0.56 (0.38)	0.22 J (0.38)	U (0.37)		
	Pyrene	0.51 J (1.8)		0.63 (0.37)		3.2 (1.8)		1.8 (0.38)			12 (1.9)	U (0.38)	0.92 (0.38)	0.59 (0.38)	U (0.37)		
	1,2,4-Trichlorobenzene	U (0.18)		0.022 J (0.037)		U (0.18)		U (0.038)			U (0.19)	U (0.038)	U (0.038)	U (0.038)	U (0.037)		
PCB																	
	PCBs (total)																
	Aroclor-1248																
	Aroclor-1254																
	Aroclor-1268																
INORG																	
	Antimony		U (1.3)		U (1.3)		U (1.3)		U (1.2)	U (1.2)	4.5 (1.3)	U (1.3)	U (1.3)	1.4 B (1.3)	U (1.3)	U (1.3)	U (1.3)
	Arsenic		5.8 (0.72)		8.2 (0.71)		2.2 (0.72)		2.8 (0.65)	2 (0.67)	31.4 (0.74)	1.5 (0.73)	8 (0.74)	5.8 (0.74)	2.1 (0.71)	8.7 (0.72)	9.7 (0.72)
	Barium										3780 (0.39)	41.9 B (0.39)	193 (0.39)	165 (0.39)	36.5 B (0.38)		
	Beryllium		0.49 (0.068)		0.43 (0.067)		0.54 (0.067)		0.5 (0.061)	0.53 (0.063)	0.43 B (0.069)	0.39 B (0.068)	0.4 B (0.069)	0.36 B (0.069)	0.5 (0.066)	0.48 (0.067)	0.51 (0.068)
	Cadmium		0.6 B (0.091)		U (0.089)		U (0.09)		U (0.081)	U (0.084)	3.7 (0.092)	U (0.091)	0.09 B (0.092)	0.1 B (0.093)	U (0.089)	0.13 B (0.089)	0.19 B (0.09)
	Chromium		57.4 (0.36)		26.1 (0.35)		26.3 (0.36)		25.9 (0.32)	21.2 (0.34)	1060 (0.37)	47.7 (0.36)	28.3 (0.37)	22.7 (0.37)	38.9 (0.35)	35.4 (0.36)	28.5 (0.36)
	Copper		55.4 (0.84)		61.1 (0.82)		24.6 (0.83)		29 (0.75)	21.5 (0.78)	154 (0.85)	19.4 (0.84)	56.2 (0.85)	37.8 (0.86)	26.7 (0.82)	53.4 (0.83)	51.5 (0.84)
	Lead		268 (0.61)		130 (0.6)		11.3 (0.61)		9.1 (0.55)	6.8 (0.57)	10300 (3.1)	57.2 (0.61)	237 (0.62)	177 (0.63)	21.1 (0.6)	147 (0.6)	287 (0.61)
	Mercury		0.36 (0.019)		0.57 (0.018)		0.24 (0.019)		0.19 (0.019)	U (0.019)	1.6 (0.019)	0.07 (0.019)	0.38 (0.019)	0.2 (0.019)	0.03 B (0.018)	0.27 (0.019)	0.83 (0.019)
	Nickel		98.5 (0.54)		80.9 (0.53)		121 (0.54)		143 (0.49)	38.9 (0.5)	57.7 (0.55)	157 (0.54)	28.8 (0.55)	28.2 (0.56)	341 (0.53)	116 (0.54)	123 (0.54)
	Selenium		U (0.95)		U (0.93)		U (0.94)		U (0.85)	U (0.88)	3.9 (0.97)	1 B (0.95)	1.1 (0.97)	1.6 (0.97)	U (0.93)	U (0.94)	U (0.95)
	Silver		0.41 B (0.32)		0.39 B (0.31)		U (0.31)		0.4 B (0.28)	U (0.29)	U (0.32)	U (0.32)	U (0.32)	U (0.32)	U (0.31)	0.42 B (0.31)	0.62 B (0.32)
	Zinc		125 (1.3)		113 (1.3)		43.5 (1.3)		81 (1.2)	35.4 (1.2)	336 (1.3)	34.3 (1.3)	205 (1.3)	163 (1.3)	88.9 (1.3)	164 (1.3)	157 (1.3)

Notes:

1 All concentrations are presented in mg/kg (ppm).

2 Only compounds with at least one detection are shown.

Abbreviations:

U -- Not Detected.

J -- Estimated Concentration.

( ) -- Detection Limit.

TABLE 1
Summarized Analytical Results for August-October 2006 Soil Sampling Program - Sun Chemical, Staten Island, New York

Area Of Concern		AOC 02	AOC 02	AOC 03	AOC 03	AOC 03	AOC 04	AOC 04	AOC 04	AOC 05	AOC 05	AOC 06	AOC 06	AOC 06	AOC 06	AOC 06
Location		MW05	MW05	B301	B301	B302	B401	B402	B402	MW03	MW03	B601	B602	B603	B604	B604
ENVIRON Sample ID		MW5-SS03	MW5-SS03D	B301-SS01	B301-SS02	B302-SS01	B401-SS01	B402-SS01	B402-SS02	MW3-SS01	MW3-SS02	B601-SS01	B602-SS01	B603-SS01	B604-SS01	B604-SS02
Matrix		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Collection Method		Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore
Collection Date		8/30/2006	8/30/2006	8/30/2006	8/30/2006	10/5/2006	10/4/2006	10/5/2006	10/5/2006	8/28/2006	8/28/2006	8/28/2006	10/5/2006	10/5/2006	10/5/2006	10/5/2006
Collection Depth (ft)		3.5 - 4	3.5 - 4	0.3 - 0.8	2 - 2.5	1 - 1.5	1.5 - 2	1 - 1.5	2 - 2.5	0.2 - 0.7	1.5 - 2	1.8 - 2	2 - 2.5	1 - 1.5	1.5 - 2	3.5 - 4
Comments			Duplicate													
VOC																
	Acetone														U (0.59)	U (0.53)
	Benzene														U (0.12)	U (0.11)
	2-Butanone														U (0.59)	U (0.53)
	Carbon Disulfide														U (0.59)	U (0.53)
	Chlorobenzene														U (0.59)	U (0.53)
	1,1-Dichloroethane														U (0.59)	U (0.53)
	1,2-Dichloroethane														U (0.24)	U (0.21)
	cis-1,2-Dichloroethene														U (0.59)	U (0.53)
	Ethylbenzene														U (0.47)	U (0.43)
	Tetrachloroethene														U (0.12)	U (0.11)
	Toluene														U (0.59)	U (0.53)
	1,1,1-Trichloroethane														U (0.59)	U (0.53)
	Trichloroethene														U (0.12)	U (0.11)
	Xylene (Total)														U (0.59)	U (0.53)
SVOC																
	Acenaphthene														U (0.41)	U (0.41)
	Acenaphthylene														U (0.41)	U (0.41)
	Anthracene														U (0.41)	U (0.41)
	Benzo(a)anthracene														U (0.041)	U (0.041)
	Benzo(a)pyrene														U (0.041)	U (0.041)
	Benzo(b)fluoranthene														U (0.041)	U (0.041)
	Benzo(g,h,i)perylene														U (0.41)	U (0.41)
	Benzo(k)fluoranthene														U (0.041)	U (0.041)
	bis(2-Ethylhexyl)phthalate														0.84 (0.41)	1.9 (0.41)
	Carbazole														U (0.41)	U (0.41)
	4-Chloroaniline														U (0.41)	U (0.41)
	Chrysene														U (0.41)	U (0.41)
	Dibenz(a,h)anthracene														U (0.041)	U (0.041)
	Dibenzofuran														U (0.41)	U (0.41)
	1,2-Dichlorobenzene														U (0.41)	U (0.41)
	1,4-Dichlorobenzene														U (0.41)	U (0.41)
	3,3'-Dichlorobenzidine														U (0.81)	U (0.83)
	Dimethylphthalate														U (0.41)	U (0.41)
	Di-n-butylphthalate														U (0.41)	U (0.41)
	Fluoranthene														U (0.41)	U (0.41)
	Fluorene														U (0.41)	U (0.41)
	Hexachlorobenzene														U (0.041)	U (0.041)
	Indeno(1,2,3-cd)pyrene														U (0.041)	U (0.041)
	2-Methylnaphthalene														U (0.41)	U (0.41)
	Naphthalene														U (0.41)	U (0.41)
	3-Nitroaniline														U (0.81)	U (0.83)
	4-Nitroaniline														U (0.81)	U (0.83)

TABLE 1
Summarized Analytical Results for August-October 2006 Soil Sampling Program - Sun Chemical, Staten Island, New York

	Area Of Concern	AOC 02	AOC 02	AOC 03	AOC 03	AOC 03	AOC 04	AOC 04	AOC 04	AOC 05	AOC 05	AOC 06	AOC 06	AOC 06	AOC 06	AOC 06
	Location	MW05	MW05	B301	B301	B302	B401	B402	B402	MW03	MW03	B601	B602	B603	B604	B604
	ENVIRON Sample ID	MW5-SS03	MW5-SS03D	B301-SS01	B301-SS02	B302-SS01	B401-SS01	B402-SS01	B402-SS02	MW3-SS01	MW3-SS02	B601-SS01	B602-SS01	B603-SS01	B604-SS01	B604-SS02
	Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	Collection Method	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore
	Collection Date	8/30/2006	8/30/2006	8/30/2006	8/30/2006	10/5/2006	10/4/2006	10/5/2006	10/5/2006	8/28/2006	8/28/2006	8/28/2006	10/5/2006	10/5/2006	10/5/2006	10/5/2006
	Collection Depth (ft)	3.5 - 4	3.5 - 4	0.3 - 0.8	2 - 2.5	1 - 1.5	1.5 - 2	1 - 1.5	2 - 2.5	0.2 - 0.7	1.5 - 2	1.8 - 2	2 - 2.5	1 - 1.5	1.5 - 2	3.5 - 4
	Comments		Duplicate													
	Nitrobenzene														U (0.041)	U (0.041)
	Phenanthrene														U (0.41)	U (0.41)
	Pyrene														U (0.41)	U (0.41)
	1,2,4-Trichlorobenzene														U (0.041)	U (0.041)
PCB																
	PCBs (total)															
	Aroclor-1248															
	Aroclor-1254															
	Aroclor-1268															
INORG																
	Antimony	U (1.3)	U (1.3)	6.2 (1.4)	U (1.3)	14.4 (1.2)	2.1 B (1.5)	1.1 B (1.1)	U (1.2)	U (1.4)	U (1.3)	7.5 (1.4)	U (1.1)	U (1.1)	U (1.2)	U (1.2)
	Arsenic	4.4 (0.72)	3.5 (0.72)	44.4 (0.76)	10.4 (0.73)	188 (1.1)	30.8 (0.8)	559 (1)	97.5 (1.1)	4 (0.75)	4 (0.74)	8.9 (0.77)	5.1 (1)	1.4 (1)	3.8 (1.1)	4.5 (1.1)
	Barium					584 (0.32)	1250 (0.43)	175 (0.3)	87.3 (0.31)	1320 (0.4)	594 (0.39)	2280 (0.41)	1420 (0.3)	1800 (0.29)	54.2 (0.32)	52.9 (0.32)
	Beryllium	0.53 (0.067)	0.48 (0.067)	0.4 B (0.071)	0.56 (0.069)	0.12 B (0.024)	0.14 B (0.075)	0.33 B (0.023)	0.32 B (0.023)	0.14 B (0.071)	0.29 B (0.069)	0.47 (0.072)	0.51 (0.023)	0.16 B (0.023)	0.31 B (0.024)	0.35 B (0.025)
	Cadmium	U (0.09)	0.17 B (0.09)	1.4 (0.095)	0.23 B (0.092)	1.3 (0.12)	U (0.1)	0.2 B (0.11)	0.29 B (0.12)	0.09 B (0.094)	U (0.092)	5 (0.097)	5.8 (0.11)	0.6 B (0.11)	0.13 B (0.12)	0.17 B (0.12)
	Chromium	29.9 (0.36)	26.1 (0.36)	138 (0.38)	74.9 (0.37)	146 (0.68)	144 (0.4)	265 (0.64)	67.5 (0.66)	109 (0.38)	41.2 (0.37)	329 (0.39)	545 (0.64)	15.3 (0.63)	25.7 (0.68)	25.6 (0.7)
	Copper	33 (0.83)	30.1 (0.83)	101 (0.88)	70 (0.85)	165 (0.75)	48.7 (0.93)	164 (0.71)	45.7 (0.73)	52.8 (0.87)	25.4 (0.85)	50.5 (0.89)	28.1 (0.71)	34.6 (0.7)	13 (0.76)	13.1 (0.77)
	Lead	61 (0.61)	22.3 (0.61)	1120 (0.64)	178 (0.62)	1420 (0.53)	1460 (0.68)	681 (0.5)	28.9 (0.52)	970 (0.64)	75.4 (0.62)	2060 (0.65)	1490 (0.5)	191 (0.5)	9.5 (0.54)	11.3 (0.55)
	Mercury	0.12 (0.019)	0.06 (0.016)	0.89 (0.02)	0.24 (0.019)	0.51 (0.02)	0.44 (0.021)	0.08 (0.019)	U (0.02)	0.07 (0.02)	0.05 (0.016)	0.6 (0.02)	0.11 (0.019)	0.06 (0.019)	0.02 B (0.02)	0.04 (0.018)
	Nickel	139 (0.54)	150 (0.54)	36.4 (0.57)	186 (0.55)	33.5 (0.95)	49 (0.6)	96 (0.89)	124 (0.92)	25.3 (0.57)	63.1 (0.55)	84.4 (0.58)	94.9 (0.89)	10.5 (0.88)	41.6 (0.95)	43.4 (0.97)
	Selenium	U (0.94)	U (0.94)	U (1)	U (0.96)	6.1 (1.2)	U (1.1)	U (1.1)	U (1.1)	1.1 B (0.99)	U (0.97)	U (1)	1.1 (1.1)	1.8 (1.1)	U (1.2)	1.4 (1.2)
	Silver	U (0.31)	0.57 B (0.31)	0.51 B (0.33)	0.42 B (0.32)	U (0.29)	U (0.35)	U (0.27)	U (0.28)	U (0.33)	U (0.32)	U (0.34)	U (0.27)	U (0.27)	U (0.29)	U (0.3)
	Zinc	54.6 (1.3)	66.6 (1.3)	330 (1.4)	243 (1.3)	75.1 (1.4)	37.4 (1.5)	49.6 (1.3)	34.3 (1.4)	41.8 (1.4)	31 (1.3)	152 (1.4)	240 (1.3)	38.7 (1.3)	34.8 (1.4)	34.8 (1.4)

Notes:

1 All concentrations are presented in mg/kg (ppm).

2 Only compounds with at least one detection are shown.

Abbreviations:

U -- Not Detected.

J -- Estimated Concentration.

( ) -- Detection Limit.

TABLE 1
Summarized Analytical Results for August-October 2006 Soil Sampling Program - Sun Chemical, Staten Island, New York

Area Of Concern	AOC 06	AOC 06	AOC 06	AOC 06	AOC 06	AOC 06	AOC 06	AOC 06	AOC 07	AOC 07	AOC 07	AOC 07	AOC 07	AOC 08	AOC 08	AOC 09
Location	B604	B605	B606	B606	MW02	MW02	MW02	MW02	B701	B701	B702	B702	B703	B801	B801	B901
ENVIRON Sample ID	B604-SS03	B605-SS01	B606-SS01	B606-SS01D	MW2-SS01	MW2-SS02	MW02-SS01	MW02-SS01D	B701-SS01	B701-SS02	B702-SS01	B702-SS02	B703-SS01	B801-SS01	B801-SS02	B901-SS01
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Collection Method	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore
Collection Date	10/5/2006	10/5/2006	10/5/2006	10/5/2006	8/28/2006	8/28/2006	10/6/2006	10/6/2006	8/28/2006	8/28/2006	8/28/2006	8/28/2006	10/4/2006	8/28/2006	8/28/2006	8/28/2006
Collection Depth (ft)	4.5 - 5	1.5 - 2	1.5 - 2	1.5 - 2	2 - 2.5	4 - 4.5	1.5 - 2	1.5 - 2	0.5 - 1	1.5 - 2	0.5 - 1	2 - 2.5	0.5 - 1	0.5 - 1	2 - 2.5	0.5 - 1
Comments				Duplicate				Duplicate								
VOC																
Acetone	U (0.58)									U (0.0055)		U (0.0043)			U (0.0057)	0.019 B (0.0046)
Benzene	U (0.12)									U (0.0011)		U (0.0009)			U (0.0011)	0.0008 J (0.0009)
2-Butanone	U (0.58)									U (0.0055)		U (0.0043)			U (0.0057)	U (0.0046)
Carbon Disulfide	U (0.58)									U (0.0055)		U (0.0043)			U (0.0057)	U (0.0046)
Chlorobenzene	U (0.58)									U (0.0055)		U (0.0043)			U (0.0057)	U (0.0046)
1,1-Dichloroethane	U (0.58)									U (0.0055)		U (0.0043)			U (0.0057)	U (0.0046)
1,2-Dichloroethane	U (0.23)									U (0.0022)		U (0.0017)			U (0.0023)	U (0.0018)
cis-1,2-Dichloroethene	U (0.58)									U (0.0055)		U (0.0043)			U (0.0057)	U (0.0046)
Ethylbenzene	U (0.46)									U (0.0044)		U (0.0034)			U (0.0045)	U (0.0037)
Tetrachloroethene	U (0.12)									U (0.0011)		U (0.0009)			U (0.0011)	U (0.0009)
Toluene	U (0.58)									U (0.0055)		U (0.0043)			U (0.0057)	U (0.0046)
1,1,1-Trichloroethane	U (0.58)									U (0.0055)		U (0.0043)			U (0.0057)	U (0.0046)
Trichloroethene	U (0.12)									U (0.0011)		U (0.0009)			U (0.0011)	U (0.0009)
Xylene (Total)	U (0.58)									U (0.0055)		U (0.0043)			U (0.0057)	U (0.0046)
SVOC																
Acenaphthene	U (0.41)															
Acenaphthylene	U (0.41)															
Anthracene	U (0.41)															
Benzo(a)anthracene	U (0.041)															
Benzo(a)pyrene	U (0.041)															
Benzo(b)fluoranthene	U (0.041)															
Benzo(g,h,i)perylene	U (0.41)															
Benzo(k)fluoranthene	U (0.041)															
bis(2-Ethylhexyl)phthalate	0.58 (0.41)															
Carbazole	U (0.41)															
4-Chloroaniline	U (0.41)															
Chrysene	U (0.41)															
Dibenz(a,h)anthracene	U (0.041)															
Dibenzofuran	U (0.41)															
1,2-Dichlorobenzene	U (0.41)															
1,4-Dichlorobenzene	U (0.41)															
3,3'-Dichlorobenzidine	U (0.83)															
Dimethylphthalate	U (0.41)															
Di-n-butylphthalate	U (0.41)															
Fluoranthene	U (0.41)															
Fluorene	U (0.41)															
Hexachlorobenzene	U (0.041)															
Indeno(1,2,3-cd)pyrene	U (0.041)															
2-Methylnaphthalene	U (0.41)															
Naphthalene	U (0.41)															
3-Nitroaniline	U (0.83)															
4-Nitroaniline	U (0.83)															

TABLE 1
Summarized Analytical Results for August-October 2006 Soil Sampling Program - Sun Chemical, Staten Island, New York

	Area Of Concern	AOC 06	AOC 06	AOC 06	AOC 06	AOC 06	AOC 06	AOC 06	AOC 06	AOC 07	AOC 07	AOC 07	AOC 07	AOC 07	AOC 08	AOC 08	AOC 09
	Location	B604	B605	B606	B606	MW02	MW02	MW02	MW02	B701	B701	B702	B702	B703	B801	B801	B901
	ENVIRON Sample ID	B604-SS03	B605-SS01	B606-SS01	B606-SS01D	MW2-SS01	MW2-SS02	MW02-SS01	MW02-SS01D	B701-SS01	B701-SS02	B702-SS01	B702-SS02	B703-SS01	B801-SS01	B801-SS02	B901-SS01
	Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	Collection Method	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore
	Collection Date	10/5/2006	10/5/2006	10/5/2006	10/5/2006	8/28/2006	8/28/2006	10/6/2006	10/6/2006	8/28/2006	8/28/2006	8/28/2006	8/28/2006	10/4/2006	8/28/2006	8/28/2006	8/28/2006
	Collection Depth (ft)	4.5 - 5	1.5 - 2	1.5 - 2	1.5 - 2	2 - 2.5	4 - 4.5	1.5 - 2	1.5 - 2	0.5 - 1	1.5 - 2	0.5 - 1	2 - 2.5	0.5 - 1	0.5 - 1	2 - 2.5	0.5 - 1
	Comments				Duplicate				Duplicate								
	Nitrobenzene	U (0.041)															
	Phenanthrene	U (0.41)															
	Pyrene	U (0.41)															
	1,2,4-Trichlorobenzene	U (0.041)															
PCB																	
	PCBs (total)																
	Aroclor-1248																
	Aroclor-1254																
	Aroclor-1268																
INORG																	
	Antimony	U (1.2)	U (1.1)	2.1 B (1.2)	1.4 B (1.2)	U (1.4)	U (1.3)	U (1.3)	U (1.3)	9.6 (1.4)	2.7 (1.5)	U (1.3)	U (1.3)	10.8 (1.3)	U (1.4)	U (1.4)	U (1.1)
	Arsenic	5.2 (1.1)	4.4 (1)	34.8 (1.1)	18.3 (1.1)	11.6 (0.77)	2.6 (0.73)	4.4 (0.72)	2.9 (0.72)	7.3 (0.76)	6.9 (0.82)	1.6 (0.71)	1.5 (0.7)	6.7 (0.72)	4.1 (0.78)	2.2 (0.78)	3.9 (0.99)
	Barium	63 (0.32)	31.9 B (0.3)	1940 (0.31)	985 (0.31)	102 (0.41)	54.6 (0.39)	47.7 (0.38)	64.4 (0.38)	428 (0.4)	164 (0.44)	29.9 B (0.38)	27 B (0.37)	243 (0.38)	64.8 (0.41)	56.1 (0.41)	59.4 (0.29)
	Beryllium	0.69 (0.025)	0.48 (0.023)	0.4 B (0.024)	0.4 B (0.024)	1.4 (0.072)	0.45 (0.068)	0.64 (0.067)	0.59 (0.068)	0.25 B (0.071)	0.31 B (0.077)	0.45 (0.067)	0.33 B (0.066)	0.51 (0.068)	0.75 (0.073)	0.61 (0.073)	0.5 (0.022)
	Cadmium	0.56 B (0.12)	0.28 B (0.12)	0.55 B (0.12)	0.5 B (0.12)	U (0.097)	U (0.091)	0.17 B (0.09)	0.47 B (0.09)	0.13 B (0.094)	0.27 B (0.1)	U (0.089)	U (0.088)	0.45 B (0.09)	U (0.097)	U (0.097)	U (0.11)
	Chromium	47.1 (0.69)	27.6 (0.65)	75.4 (0.67)	53.8 (0.67)	113 (0.39)	29.3 (0.36)	63 (0.36)	47.7 (0.36)	45 (0.38)	45 (0.41)	37.3 (0.36)	26.3 (0.35)	62.8 (0.36)	54.7 (0.39)	56.3 (0.39)	29.7 (0.62)
	Copper	30.8 (0.77)	31.2 (0.72)	75.9 (0.74)	69.5 (0.74)	87 (0.89)	17.6 (0.84)	34.8 (0.83)	40.2 (0.83)	94.9 (0.87)	124 (0.95)	16.1 (0.82)	17.4 (0.81)	105 (0.83)	24.9 (0.9)	17.3 (0.9)	29.3 (0.68)
	Lead	11.9 (0.55)	18.8 (0.51)	230 (0.52)	175 (0.53)	20.5 (0.65)	6.3 (0.61)	22.6 (0.61)	40.1 (0.61)	884 (0.64)	139 (0.69)	14.3 (0.6)	5.2 (0.59)	1000 (0.61)	10.4 (0.66)	7.7 (0.66)	61.1 (0.49)
	Mercury	0.05 (0.021)	0.05 (0.019)	8.9 (0.2)	2.8 (0.06)	U (0.02)	U (0.016)	0.07 (0.016)	0.03 (0.019)	0.76 (0.02)	0.28 (0.018)	0.03 B (0.018)	U (0.018)	0.37 (0.019)	U (0.02)	U (0.017)	0.19 (0.018)
	Nickel	122 (0.97)	54 (0.9)	146 (0.93)	163 (0.94)	623 (0.58)	218 (0.54)	89.9 (0.54)	68.5 (0.54)	75.3 (0.57)	203 (0.62)	181 (0.53)	247 (0.53)	146 (0.54)	278 (0.58)	265 (0.58)	145 (0.86)
	Selenium	1.4 (1.2)	U (1.1)	1.8 (1.1)	U (1.2)	U (1)	U (0.95)	U (0.94)	U (0.95)	1.5 (0.99)	1.2 B (1.1)	U (0.93)	U (0.92)	U (0.95)	U (1)	U (1)	U (1.1)
	Silver	U (0.3)	U (0.28)	U (0.29)	U (0.29)	U (0.34)	U (0.32)	U (0.31)	U (0.32)	U (0.33)	U (0.36)	U (0.31)	U (0.31)	U (0.32)	U (0.34)	U (0.34)	U (0.26)
	Zinc	44.9 (1.4)	30.2 (1.3)	68.6 (1.4)	69.7 (1.4)	49.2 (1.4)	33.4 (1.3)	64.2 (1.3)	104 (1.3)	85.7 (1.4)	105 (1.5)	45.5 (1.3)	53.4 (1.3)	339 (1.3)	55 (1.4)	44.6 (1.4)	72 (1.3)

Notes:

1 All concentrations are presented in mg/kg (ppm).

2 Only compounds with at least one detection are shown.

Abbreviations:

U -- Not Detected.

J -- Estimated Concentration.

( ) -- Detection Limit.

TABLE 1
Summarized Analytical Results for August-October 2006 Soil Sampling Program - Sun Chemical, Staten Island, New York

Area Of Concern	AOC 09	AOC 09	AOC 09	AOC 09	AOC 09	AOC 09	AOC 09	AOC 09	AOC 09	AOC 09	AOC 13	AOC 13	AOC 14	AOC 14
Location	B901	B902	B902	B903	B903	B904	B904	B904	B905	B905	B1301	B1301	B1401	B1401
ENVIRON Sample ID	B901-SS02	B902-SS01	B902-SS02	B903-SS01	B903-SS02	B904-SS01	B904-SS01D	B904-SS02	B905-SS01	B905-SS02	B1301-SS01	B1301-SS02	B1401-SS01	B1401-SS02
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Collection Method	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore
Collection Date	8/28/2006	8/28/2006	8/28/2006	8/28/2006	8/28/2006	8/28/2006	8/28/2006	8/28/2006	8/28/2006	8/28/2006	8/30/2006	8/30/2006	8/28/2006	8/28/2006
Collection Depth (ft)	2 - 2.5	0.2 - 0.7	2 - 2.5	0.3 - 0.8	2 - 2.5	0.3 - 0.8	0.3 - 0.8	2 - 2.5	1.5 - 2	3 - 3.5	1.5 - 2	3.5 - 4	0.5 - 1	3.5 - 4
Comments							Field Duplicate							
VOC														
Acetone	0.021 B (0.0046)	0.021 B (0.0046)	U (0.0048)	U (0.0043)	U (0.0046)	0.032 B (0.0054)	0.028 B (0.005)	0.032 B (0.0046)	0.04 B (0.0048)	0.022 B (0.005)	U (0.62)	U (0.0053)		
Benzene	U (0.0009)	U (0.0009)	U (0.001)	U (0.0009)	U (0.0009)	U (0.0011)	U (0.001)	U (0.0009)	U (0.001)	U (0.001)	U (0.12)	U (0.001)		
2-Butanone	U (0.0046)	U (0.0046)	U (0.0048)	U (0.0043)	U (0.0046)	U (0.0054)	U (0.005)	U (0.0046)	U (0.0048)	U (0.005)	U (0.62)	U (0.0053)		
Carbon Disulfide	U (0.0046)	U (0.0046)	U (0.0048)	U (0.0043)	U (0.0046)	U (0.0054)	U (0.005)	U (0.0046)	0.0006 J (0.0048)	U (0.005)	U (0.62)	U (0.0053)		
Chlorobenzene	U (0.0046)	U (0.0046)	U (0.0048)	U (0.0043)	U (0.0046)	U (0.0054)	U (0.005)	U (0.0046)	U (0.0048)	U (0.005)	U (0.62)	U (0.0053)		
1,1-Dichloroethane	U (0.0046)	U (0.0046)	U (0.0048)	U (0.0043)	U (0.0046)	U (0.0054)	U (0.005)	U (0.0046)	U (0.0048)	U (0.005)	U (0.62)	U (0.0053)		
1,2-Dichloroethane	U (0.0018)	U (0.0018)	U (0.0019)	U (0.0017)	U (0.0018)	U (0.0022)	U (0.002)	U (0.0018)	U (0.0019)	U (0.002)	U (0.25)	U (0.0021)		
cis-1,2-Dichloroethene	U (0.0046)	U (0.0046)	U (0.0048)	U (0.0043)	U (0.0046)	U (0.0054)	U (0.005)	U (0.0046)	U (0.0048)	U (0.005)	U (0.62)	U (0.0053)		
Ethylbenzene	U (0.0036)	U (0.0037)	U (0.0038)	U (0.0034)	U (0.0037)	U (0.0043)	U (0.004)	U (0.0037)	U (0.0038)	U (0.004)	U (0.5)	U (0.0042)		
Tetrachloroethene	U (0.0009)	U (0.0009)	U (0.001)	U (0.0009)	U (0.0009)	U (0.0011)	U (0.001)	U (0.0009)	U (0.001)	U (0.001)	U (0.12)	U (0.001)		
Toluene	U (0.0046)	U (0.0046)	U (0.0048)	U (0.0043)	U (0.0046)	U (0.0054)	U (0.005)	U (0.0046)	U (0.0048)	U (0.005)	U (0.62)	U (0.0053)		
1,1,1-Trichloroethane	U (0.0046)	U (0.0046)	U (0.0048)	U (0.0043)	U (0.0046)	U (0.0054)	U (0.005)	U (0.0046)	U (0.0048)	U (0.005)	U (0.62)	U (0.0053)		
Trichloroethene	U (0.0009)	U (0.0009)	U (0.001)	U (0.0009)	U (0.0009)	U (0.0011)	U (0.001)	U (0.0009)	U (0.001)	U (0.001)	U (0.12)	U (0.001)		
Xylene (Total)	U (0.0046)	U (0.0046)	0.0008 J (0.0048)	U (0.0043)	U (0.0046)	U (0.0054)	U (0.005)	0.0014 J (0.0046)	U (0.0048)	U (0.005)	U (0.62)	U (0.0053)		
SVOC														
Acenaphthene											0.032 J (0.75)	U (0.38)	0.014 J (0.38)	U (0.4)
Acenaphthylene											0.043 J (0.75)	U (0.38)	U (0.38)	0.082 J (0.4)
Anthracene											0.1 J (0.75)	U (0.38)	0.048 J (0.38)	0.15 J (0.4)
Benzo(a)anthracene											0.47 (0.075)	U (0.038)	0.23 (0.038)	0.57 (0.04)
Benzo(a)pyrene											0.54 (0.075)	U (0.038)	0.18 (0.038)	0.54 (0.04)
Benzo(b)fluoranthene											0.64 (0.075)	U (0.038)	0.16 (0.038)	0.39 (0.04)
Benzo(g,h,i)perylene											0.26 J (0.75)	U (0.38)	0.058 J (0.38)	0.15 J (0.4)
Benzo(k)fluoranthene											0.76 (0.075)	U (0.038)	0.15 (0.038)	0.46 (0.04)
bis(2-Ethylhexyl)phthalate											1.2 (0.75)	U (0.38)	0.16 J (0.38)	0.087 J (0.4)
Carbazole											0.047 J (0.75)	U (0.38)	U (0.38)	0.041 J (0.4)
4-Chloroaniline											U (0.75)	U (0.38)	U (0.38)	U (0.4)
Chrysene											0.74 J (0.75)	U (0.38)	0.22 J (0.38)	0.52 (0.4)
Dibenz(a,h)anthracene											U (0.075)	U (0.038)	U (0.038)	U (0.04)
Dibenzofuran											0.048 J (0.75)	U (0.38)	U (0.38)	U (0.4)
1,2-Dichlorobenzene											0.032 J (0.75)	U (0.38)	U (0.38)	U (0.4)
1,4-Dichlorobenzene											0.019 J (0.75)	U (0.38)	U (0.38)	U (0.4)
3,3'-Dichlorobenzidine											U (1.5)	U (0.77)	U (0.77)	U (0.8)
Dimethylphthalate											U (0.75)	U (0.38)	U (0.38)	U (0.4)
Di-n-butylphthalate											U (0.75)	U (0.38)	U (0.38)	U (0.4)
Fluoranthene											0.81 (0.75)	U (0.38)	0.33 J (0.38)	0.86 (0.4)
Fluorene											0.042 J (0.75)	U (0.38)	U (0.38)	0.032 J (0.4)
Hexachlorobenzene											U (0.075)	U (0.038)	U (0.038)	U (0.04)
Indeno(1,2,3-cd)pyrene											0.25 (0.075)	U (0.038)	0.063 (0.038)	0.17 (0.04)
2-Methylnaphthalene											0.19 J (0.75)	U (0.38)	U (0.38)	U (0.4)
Naphthalene											0.13 J (0.75)	U (0.38)	U (0.38)	U (0.4)
3-Nitroaniline											U (1.5)	U (0.77)	U (0.77)	U (0.8)
4-Nitroaniline											U (1.5)	U (0.77)	U (0.77)	U (0.8)

TABLE 1
Summarized Analytical Results for August-October 2006 Soil Sampling Program - Sun Chemical, Staten Island, New York

	Area Of Concern	AOC 09	AOC 09	AOC 09	AOC 09	AOC 09	AOC 09	AOC 09	AOC 09	AOC 09	AOC 09	AOC 13	AOC 13	AOC 14	AOC 14
	Location	B901	B902	B902	B903	B903	B904	B904	B904	B905	B905	B1301	B1301	B1401	B1401
	ENVIRON Sample ID	B901-SS02	B902-SS01	B902-SS02	B903-SS01	B903-SS02	B904-SS01	B904-SS01D	B904-SS02	B905-SS01	B905-SS02	B1301-SS01	B1301-SS02	B1401-SS01	B1401-SS02
	Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	Collection Method	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore
	Collection Date	8/28/2006	8/28/2006	8/28/2006	8/28/2006	8/28/2006	8/28/2006	8/28/2006	8/28/2006	8/28/2006	8/28/2006	8/30/2006	8/30/2006	8/28/2006	8/28/2006
	Collection Depth (ft)	2 - 2.5	0.2 - 0.7	2 - 2.5	0.3 - 0.8	2 - 2.5	0.3 - 0.8	0.3 - 0.8	2 - 2.5	1.5 - 2	3 - 3.5	1.5 - 2	3.5 - 4	0.5 - 1	3.5 - 4
	Comments							Field Duplicate							
	Nitrobenzene											0.019 J (0.075)	U (0.038)	U (0.038)	U (0.04)
	Phenanthrene											0.56 J (0.75)	U (0.38)	0.22 J (0.38)	0.55 (0.4)
	Pyrene											1.5 (0.75)	U (0.38)	0.35 J (0.38)	0.81 (0.4)
	1,2,4-Trichlorobenzene											U (0.075)	U (0.038)	U (0.038)	U (0.04)
PCB															
	PCBs (total)													3.3 (0.39)	U (0.067)
	Aroclor-1248													3.3 (0.39)	U (0.067)
	Aroclor-1254													U (0.39)	U (0.067)
	Aroclor-1268													U (0.39)	U (0.067)
INORG															
	Antimony	U (1.1)	U (1.1)	U (1.1)	U (1.1)	U (1.1)	U (1.1)	U (1.1)	U (1.1)	U (1)	U (1.1)	U (1.3)	U (1.3)	U (1)	U (1.2)
	Arsenic	2.9 (1)	1.2 (1)	3.6 (1)	3 (1)	2.8 (1)	3.7 (1.1)	3.7 (1)	5.1 (1)	6.1 (0.92)	2.3 (1)	33.4 (0.72)	30.3 (0.74)	70.4 (0.94)	4.1 (1.1)
	Barium	63.8 (0.29)	58.6 (0.29)	39.1 B (0.3)	49.9 (0.29)	60.5 (0.29)	58.6 (0.3)	57.6 (0.3)	91.4 (0.3)	105 (0.26)	83.3 (0.3)			81.8 (0.27)	48.4 (0.31)
	Beryllium	0.6 (0.023)	0.41 B (0.022)	0.85 (0.023)	0.51 (0.023)	0.59 (0.023)	0.56 (0.023)	0.53 (0.023)	0.59 (0.023)	0.52 (0.02)	0.52 (0.023)	0.52 (0.068)	0.32 B (0.069)	0.57 (0.021)	0.47 (0.024)
	Cadmium	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.12)	U (0.12)	U (0.11)	0.13 B (0.1)	U (0.11)	0.58 B (0.09)	U (0.092)	U (0.1)	U (0.12)
	Chromium	29.7 (0.63)	26.4 (0.62)	30.4 (0.64)	39.2 (0.63)	46.2 (0.63)	37.5 (0.65)	37.3 (0.65)	37.5 (0.64)	34.8 (0.57)	29.4 (0.64)	46.7 (0.36)	61 (0.37)	49.7 (0.59)	27.3 (0.67)
	Copper	42.6 (0.7)	12.8 (0.69)	24 (0.71)	45.9 (0.7)	43.7 (0.7)	39.2 (0.72)	36.2 (0.72)	54 (0.71)	37 (0.63)	56.8 (0.71)	109 (0.84)	24.8 (0.85)	46.7 (0.65)	20 (0.75)
	Lead	79.6 (0.5)	9.4 (0.49)	8.5 (0.5)	41.7 (0.5)	49.9 (0.5)	85.2 (0.51)	82.8 (0.51)	144 (0.51)	121 (0.45)	65.6 (0.5)	288 (0.61)	6.8 (0.62)	172 (0.46)	59 (0.53)
	Mercury	0.29 (0.019)	0.03 B (0.019)	0.02 B (0.016)	0.16 (0.019)	0.17 (0.019)	0.19 (0.019)	0.2 (0.019)	0.17 (0.019)	0.17 (0.019)	0.24 (0.019)	0.28 (0.019)	U (0.019)	0.14 (0.016)	0.28 (0.02)
	Nickel	130 (0.88)	118 (0.87)	234 (0.89)	160 (0.88)	175 (0.88)	156 (0.91)	153 (0.9)	174 (0.9)	167 (0.79)	149 (0.89)	58.9 (0.54)	280 (0.55)	81.2 (0.82)	57 (0.94)
	Selenium	U (1.1)	U (1.1)	U (1.1)	U (1.1)	U (1.1)	U (1.1)	U (1.1)	U (1.1)	U (0.98)	U (1.1)	2.3 (0.95)	U (0.97)	U (1)	U (1.2)
	Silver	U (0.27)	U (0.27)	U (0.27)	U (0.27)	U (0.27)	U (0.28)	U (0.28)	U (0.28)	U (0.24)	U (0.27)	0.53 B (0.32)	0.38 B (0.32)	U (0.25)	U (0.29)
	Zinc	57.6 (1.3)	30.1 (1.3)	52.8 (1.3)	68.8 (1.3)	56.6 (1.3)	67.8 (1.4)	65.5 (1.3)	99.3 (1.3)	116 (1.2)	130 (1.3)	112 (1.3)	39.7 (1.3)	60.6 (1.2)	75.1 (1.4)

Notes:

1 All concentrations are presented in mg/kg (ppm).

2 Only compounds with at least one detection are shown.

Abbreviations:

U -- Not Detected.

J -- Estimated Concentration.

( ) -- Detection Limit.

TABLE 1
Summarized Analytical Results for August-October 2006 Soil Sampling Program - Sun Chemical, Staten Island, New York

Area Of Concern	AOC 14	AOC 14	AOC 14	AOC 14	AOC 14	AOC 14	AOC 14	AOC 14	AOC 14	AOC 14	AOC 14	AOC 14	AOC 14	AOC 14	AOC 14
Location	B1402	B1402	B1403	B1404	B1404	B1405	B1405	B1406	B1406	B1407	B1407	B1408	B1408	B1408	B1410
ENVIRON Sample ID	B1402-SS01	B1402-SS02	B1403-SS01	B1404-SS01	B1404-SS02	B1405-SS01	B1405-SS02	B1406-SS01	B1406-SS02	B1407-SS01	B1407-SS02	B1408-SS01	B1408-SS02	B1408-SS02D	B1410-SS01
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Collection Method	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore
Collection Date	8/28/2006	8/28/2006	8/28/2006	8/28/2006	8/28/2006	10/4/2006	10/4/2006	10/4/2006	10/4/2006	10/4/2006	10/4/2006	10/4/2006	10/4/2006	10/4/2006	10/4/2006
Collection Depth (ft)	0.5 - 1	6 - 6.5	1.5 - 2	1.5 - 2	6 - 6.5	1.5 - 2	3.5 - 4	0.5 - 1	2.5 - 3	0.5 - 1	3.5 - 4	1 - 1.5	3.5 - 4	3.5 - 4	1.5 - 2
Comments														Duplicate	
VOC															
Acetone										0.066 B (0.0051)	U (0.0046)				
Benzene										0.0024 (0.001)	U (0.0009)				
2-Butanone										U (0.0051)	U (0.0046)				
Carbon Disulfide										U (0.0051)	U (0.0046)				
Chlorobenzene										U (0.0051)	U (0.0046)				
1,1-Dichloroethane										U (0.0051)	U (0.0046)				
1,2-Dichloroethane										U (0.002)	U (0.0018)				
cis-1,2-Dichloroethene										0.014 (0.0051)	U (0.0046)				
Ethylbenzene										0.0078 (0.0041)	U (0.0036)				
Tetrachloroethene										0.0009 J (0.001)	U (0.0009)				
Toluene										0.003 J (0.0051)	U (0.0046)				
1,1,1-Trichloroethane										U (0.0051)	U (0.0046)				
Trichloroethene										0.0009 J (0.001)	U (0.0009)				
Xylene (Total)										0.11 (0.0051)	U (0.0046)				
SVOC															
Acenaphthene		U (0.4)	U (3.8)	U (3.7)	U (0.4)	0.012 J (0.37)	U (0.37)	U (0.38)	0.036 J (0.81)	U (1800)	0.44 (0.39)	5.6 J (20)	0.011 J (0.4)	0.016 J (0.4)	0.011 J (0.38)
Acenaphthylene		U (0.4)	U (3.8)	U (3.7)	U (0.4)	0.13 J (0.37)	U (0.37)	0.015 J (0.38)	U (0.81)	U (1800)	0.035 J (0.39)	3.9 J (20)	0.02 J (0.4)	0.024 J (0.4)	0.034 J (0.38)
Anthracene		U (0.4)	U (3.8)	U (3.7)	U (0.4)	0.075 J (0.37)	U (0.37)	0.024 J (0.38)	0.083 J (0.81)	U (1800)	0.86 (0.39)	41 (20)	0.024 J (0.4)	0.021 J (0.4)	0.041 J (0.38)
Benzo(a)anthracene		U (0.04)	U (0.38)	U (0.37)	U (0.04)	1.1 (0.037)	U (0.037)	0.11 (0.038)	0.29 (0.081)	U (180)	2.1 (0.039)	93 (2)	0.11 (0.04)	0.12 (0.04)	0.2 (0.038)
Benzo(a)pyrene		U (0.04)	U (0.38)	U (0.37)	U (0.04)	0.58 (0.037)	U (0.037)	0.12 (0.038)	0.34 (0.081)	U (180)	1.7 (0.039)	74 (2)	0.1 (0.04)	0.14 (0.04)	0.21 (0.038)
Benzo(b)fluoranthene		U (0.04)	U (0.38)	U (0.37)	U (0.04)	0.57 (0.037)	U (0.037)	0.15 (0.038)	0.34 (0.081)	U (180)	1.3 (0.039)	60 (2)	0.096 (0.04)	U (0.04)	0.23 (0.038)
Benzo(g,h,i)perylene		U (0.4)	U (3.8)	U (3.7)	U (0.4)	0.17 J (0.37)	U (0.37)	U (0.38)	0.1 J (0.81)	U (1800)	0.42 (0.39)	26 (20)	0.057 J (0.4)	0.064 J (0.4)	0.073 J (0.38)
Benzo(k)fluoranthene		U (0.04)	U (0.38)	U (0.37)	U (0.04)	0.62 (0.037)	U (0.037)	0.16 (0.038)	0.47 (0.081)	U (180)	1.5 (0.039)	89 (2)	0.11 (0.04)	U (0.04)	0.31 (0.038)
bis(2-Ethylhexyl)phthalate		U (0.4)	5 (3.8)	U (3.7)	U (0.4)	0.13 J (0.37)	0.08 J (0.37)	4.7 (0.38)	7.8 (0.81)	20000 (1800)	0.83 (0.39)	7.7 J (20)	0.12 J (0.4)	0.21 J (0.4)	0.49 (0.38)
Carbazole		U (0.4)	U (3.8)	U (3.7)	U (0.4)	0.037 J (0.37)	U (0.37)	0.012 J (0.38)	0.044 J (0.81)	U (1800)	0.022 J (0.39)	7.5 J (20)	0.012 J (0.4)	0.015 J (0.4)	0.037 J (0.38)
4-Chloroaniline		U (0.4)	U (3.8)	U (3.7)	U (0.4)	U (0.37)	U (0.37)	0.032 J (0.38)	U (0.81)	U (1800)	U (0.39)	U (20)	U (0.4)	U (0.4)	U (0.38)
Chrysene		U (0.4)	U (3.8)	U (3.7)	U (0.4)	0.52 (0.37)	U (0.37)	0.13 J (0.38)	0.38 J (0.81)	U (1800)	2.8 (0.39)	83 (20)	0.14 J (0.4)	0.15 J (0.4)	0.25 J (0.38)
Dibenz(a,h)anthracene		U (0.04)	U (0.38)	U (0.37)	U (0.04)	0.079 (0.037)	U (0.037)	U (0.038)	U (0.081)	U (180)	0.23 (0.039)	13 (2)	0.017 J (0.04)	U (0.04)	U (0.038)
Dibenzofuran		U (0.4)	U (3.8)	U (3.7)	U (0.4)	0.0095 J (0.37)	U (0.37)	U (0.38)	0.019 J (0.81)	U (1800)	U (0.39)	7.2 J (20)	U (0.4)	U (0.4)	0.01 J (0.38)
1,2-Dichlorobenzene		U (0.4)	U (3.8)	U (3.7)	U (0.4)	U (0.37)	U (0.37)	U (0.38)	U (0.81)	U (1800)	U (0.39)	U (20)	U (0.4)	U (0.4)	U (0.38)
1,4-Dichlorobenzene		U (0.4)	U (3.8)	U (3.7)	U (0.4)	U (0.37)	U (0.37)	U (0.38)	U (0.81)	U (1800)	U (0.39)	U (20)	U (0.4)	U (0.4)	U (0.38)
3,3'-Dichlorobenzidine		U (0.8)	U (7.6)	U (7.4)	U (0.8)	U (0.74)	U (0.74)	0.066 J (0.76)	U (1.6)	U (3600)	U (0.78)	U (39)	U (0.79)	U (0.8)	0.044 J (0.77)
Dimethylphthalate		U (0.4)	27 (3.8)	U (3.7)	U (0.4)	U (0.37)	U (0.37)	0.32 J (0.38)	U (0.81)	U (1800)	U (0.39)	U (20)	U (0.4)	U (0.4)	U (0.38)
Di-n-butylphthalate		U (0.4)	33 (3.8)	6.2 (3.7)	U (0.4)	U (0.37)	U (0.37)	U (0.38)	U (0.81)	U (1800)	U (0.39)	U (20)	U (0.4)	U (0.4)	U (0.38)
Fluoranthene		U (0.4)	U (3.8)	U (3.7)	U (0.4)	0.79 (0.37)	U (0.37)	0.18 J (0.38)	0.58 J (0.81)	U (1800)	2.4 (0.39)	190 (20)	0.21 J (0.4)	0.21 J (0.4)	0.45 (0.38)
Fluorene		U (0.4)	U (3.8)	U (3.7)	U (0.4)	U (0.37)	U (0.37)	U (0.38)	0.028 J (0.81)	U (1800)	0.27 J (0.39)	14 J (20)	U (0.4)	0.0094 J (0.4)	0.015 J (0.38)
Hexachlorobenzene		U (0.04)	U (0.38)	U (0.37)	U (0.04)	U (0.037)	U (0.037)	U (0.038)	0.087 (0.081)	U (180)	U (0.039)	U (2)	U (0.04)	U (0.04)	U (0.038)
Indeno(1,2,3-cd)pyrene		U (0.04)	U (0.38)	U (0.37)	U (0.04)	0.19 (0.037)	U (0.037)	U (0.038)	0.11 (0.081)	U (180)	0.37 (0.039)	29 (2)	0.064 (0.04)	0.061 (0.04)	0.055 (0.038)
2-Methylnaphthalene		U (0.4)	U (3.8)	U (3.7)	U (0.4)	0.01 J (0.37)	U (0.37)	U (0.38)	0.055 J (0.81)	U (1800)	0.098 J (0.39)	1.1 J (20)	0.012 J (0.4)	0.016 J (0.4)	0.12 J (0.38)
Naphthalene		U (0.4)	U (3.8)	U (3.7)	U (0.4)	0.028 J (0.37)	U (0.37)	0.013 J (0.38)	0.04 J (0.81)	U (1800)	0.026 J (0.39)	1.2 J (20)	0.031 J (0.4)	0.037 J (0.4)	0.073 J (0.38)
3-Nitroaniline		U (0.8)	U (7.6)	U (7.4)	U (0.8)	U (0.74)	U (0.74)	0.04 J (0.76)	U (1.6)	U (3600)	U (0.78)	U (39)	U (0.79)	U (0.8)	U (0.77)
4-Nitroaniline		U (0.8)	U (7.6)	U (7.4)	U (0.8)	U (0.74)	U (0.74)	U (0.76)	U (1.6)	U (3600)	U (0.78)	U (39)	U (0.79)	U (0.8)	U (0.77)

TABLE 1
Summarized Analytical Results for August-October 2006 Soil Sampling Program - Sun Chemical, Staten Island, New York

	Area Of Concern	AOC 14	AOC 14	AOC 14	AOC 14	AOC 14	AOC 14	AOC 14	AOC 14	AOC 14	AOC 14	AOC 14	AOC 14	AOC 14	AOC 14	AOC 14
	Location	B1402	B1402	B1403	B1404	B1404	B1405	B1405	B1406	B1406	B1407	B1407	B1408	B1408	B1408	B1410
	ENVIRON Sample ID	B1402-SS01	B1402-SS02	B1403-SS01	B1404-SS01	B1404-SS02	B1405-SS01	B1405-SS02	B1406-SS01	B1406-SS02	B1407-SS01	B1407-SS02	B1408-SS01	B1408-SS02	B1408-SS02D	B1410-SS01
	Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	Collection Method	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore
	Collection Date	8/28/2006	8/28/2006	8/28/2006	8/28/2006	8/28/2006	10/4/2006	10/4/2006	10/4/2006	10/4/2006	10/4/2006	10/4/2006	10/4/2006	10/4/2006	10/4/2006	10/4/2006
	Collection Depth (ft)	0.5 - 1	6 - 6.5	1.5 - 2	1.5 - 2	6 - 6.5	1.5 - 2	3.5 - 4	0.5 - 1	2.5 - 3	0.5 - 1	3.5 - 4	1 - 1.5	3.5 - 4	3.5 - 4	1.5 - 2
	Comments														Duplicate	
	Nitrobenzene		U (0.04)	U (0.38)	U (0.37)	U (0.04)	U (0.037)	U (0.037)	U (0.038)	U (0.081)	U (180)	U (0.039)	U (2)	U (0.04)	U (0.04)	U (0.038)
	Phenanthrene		U (0.4)	U (3.8)	U (3.7)	U (0.4)	0.26 J (0.37)	U (0.37)	0.086 J (0.38)	0.31 J (0.81)	U (1800)	4.6 (0.39)	160 (20)	0.11 J (0.4)	0.081 J (0.4)	0.23 J (0.38)
	Pyrene		U (0.4)	U (3.8)	U (3.7)	U (0.4)	0.8 (0.37)	U (0.37)	0.24 J (0.38)	0.57 J (0.81)	U (1800)	4.8 (0.39)	160 (20)	0.2 J (0.4)	0.2 J (0.4)	0.53 (0.38)
	1,2,4-Trichlorobenzene		U (0.04)	U (0.38)	U (0.37)	U (0.04)	U (0.037)	U (0.037)	U (0.038)	U (0.081)	U (180)	U (0.039)	U (2)	U (0.04)	U (0.04)	U (0.038)
PCB																
	PCBs (total)	5.4 (0.14)	U (0.067)	14 (0.77)	U (0.067)	U (0.067)	U (0.074)	U (0.074)	0.3 (0.076)	10.6 (0.4)	1.46 (0.073)	U (0.078)	9.9 (0.4)	0.16 (0.08)	U (0.08)	4.2 (0.15)
	Aroclor-1248	2 (0.14)	U (0.067)	14 (0.77)	U (0.067)	U (0.067)	U (0.074)	U (0.074)	0.2 (0.076)	7 (0.4)	0.96 (0.073)	U (0.078)	6.6 (0.4)	0.16 (0.08)	U (0.08)	2.9 (0.15)
	Aroclor-1254	2.3 (0.14)	U (0.067)	U (0.77)	U (0.067)	U (0.067)	U (0.074)	U (0.074)	0.28 (0.076)	3.6 (0.4)	0.5 (0.073)	U (0.078)	3.3 (0.4)	U (0.08)	U (0.08)	1.3 (0.15)
	Aroclor-1268	1.1 (0.14)	U (0.067)	U (0.77)	U (0.067)	U (0.067)	U (0.074)	U (0.074)	U (0.076)	U (0.4)	U (0.073)	U (0.078)	U (0.4)	U (0.08)	U (0.08)	U (0.15)
INORG																
	Antimony	U (1.1)	U (1.2)	U (1.3)	U (1.3)	U (1.4)	U (1.1)	U (1.1)	U (1.1)	14.6 (1.2)	U (1.1)	U (1.1)	18.7 (1.2)	17.5 (1.2)	15.5 (1.2)	U (1.1)
	Arsenic	9.2 (0.96)	4.2 (1.1)	12.5 (0.73)	2.3 (0.71)	2.9 (0.77)	67.4 (1)	7.5 (0.99)	3.5 (1)	3.5 (1.1)	5.9 (0.98)	2.3 (1.1)	20.7 (1.1)	4 (1.1)	5.9 (1.1)	6 (1)
	Barium	114 (0.28)	51.2 (0.31)	139 (0.39)	35.8 B (0.38)	71.1 (0.41)	210 (0.29)	39.4 B (0.29)	155 (0.3)	1060 (0.31)	637 (0.28)	103 (0.3)	280 (0.31)	158 (0.31)	157 (0.31)	156 (0.3)
	Beryllium	0.25 B (0.021)	0.69 (0.024)	0.5 (0.069)	0.21 B (0.067)	0.71 (0.072)	0.44 B (0.022)	0.83 (0.022)	0.33 B (0.023)	0.23 B (0.024)	0.27 B (0.022)	0.49 (0.023)	0.52 (0.024)	0.51 (0.024)	0.59 (0.024)	0.54 (0.023)
	Cadmium	0.11 B (0.11)	U (0.12)	0.62 B (0.092)	U (0.089)	U (0.096)	0.68 B (0.11)	0.11 B (0.11)	0.39 B (0.11)	0.25 B (0.12)	0.46 B (0.11)	U (0.12)	1.2 (0.12)	0.49 B (0.12)	0.44 B (0.12)	0.25 B (0.12)
	Chromium	19.6 (0.6)	51.1 (0.67)	72.4 (0.37)	24.6 (0.36)	67 (0.38)	43.3 (0.62)	35.9 (0.62)	26.1 (0.64)	45.7 (0.68)	21 (0.61)	26.6 (0.66)	52.3 (0.66)	33.6 (0.67)	36.3 (0.67)	45.5 (0.65)
	Copper	65.1 (0.66)	28.2 (0.74)	159 (0.85)	7.7 (0.82)	20.4 (0.89)	98.6 (0.69)	28.8 (0.68)	40.2 (0.71)	1010 (0.75)	99.7 (0.67)	40.2 (0.73)	131 (0.73)	42.1 (0.74)	43.8 (0.74)	57.8 (0.72)
	Lead	116 (0.47)	10.9 (0.53)	305 (0.62)	3.3 (0.6)	7.9 (0.65)	411 (0.49)	20 (0.49)	111 (0.5)	268 (0.53)	113 (0.48)	227 (0.52)	552 (0.52)	175 (0.52)	175 (0.53)	139 (0.51)
	Mercury	0.06 (0.018)	U (0.017)	0.65 (0.019)	U (0.018)	U (0.02)	0.74 (0.018)	U (0.018)	0.24 (0.019)	0.7 (0.02)	0.22 (0.018)	0.37 (0.02)	0.33 (0.017)	0.26 (0.02)	0.18 (0.02)	0.21 (0.019)
	Nickel	18.5 (0.84)	224 (0.93)	87.3 (0.55)	12.8 (0.53)	273 (0.58)	83.2 (0.86)	197 (0.86)	75 (0.89)	64.2 (0.94)	22.7 (0.85)	72 (0.91)	99.8 (0.92)	86.8 (0.93)	98.6 (0.94)	176 (0.9)
	Selenium	U (1)	U (1.1)	U (0.96)	U (0.93)	U (1)	1.4 (1.1)	1.5 (1.1)	U (1.1)	1.6 (1.2)	U (1)	1.1 (1.1)	1.8 (1.1)	1.7 (1.1)	1.2 B (1.2)	U (1.1)
	Silver	U (0.26)	U (0.29)	U (0.32)	U (0.31)	U (0.34)	U (0.27)	U (0.26)	U (0.27)	U (0.29)	U (0.26)	U (0.28)	0.27 B (0.28)	0.35 B (0.29)	U (0.29)	U (0.28)
	Zinc	79.2 (1.2)	56.1 (1.4)	201 (1.3)	13.5 (1.3)	57.8 (1.4)	166 (1.3)	45.9 (1.3)	96.2 (1.3)	79.7 (1.4)	72 (1.3)	50.6 (1.4)	221 (1.4)	139 (1.4)	134 (1.4)	80.6 (1.3)

Notes:

1 All concentrations are presented in mg/kg (ppm).

2 Only compounds with at least one detection are shown.

Abbreviations:

U -- Not Detected.

J -- Estimated Concentration.

( ) -- Detection Limit.

TABLE 1
Summarized Analytical Results for August-October 2006 Soil Sampling Program - Sun Chemical, Staten Island, New York

Area Of Concern	AOC 14	AOC 14	AOC 14	AOC 15	AOC 15	AOC 15	AOC 15	AOC 15	AOC 15	AOC 16	AOC 16	AOC 16	AOC 16	AOC 16	AOC 16
Location	B1410	B1411	B1411	B1501	B1501	B1502	B1502	MW04	MW04	B1601	B1601	B1603	B1603	B1603	B1604
ENVIRON Sample ID	B1410-SS02	B1411-SS01	B1411-SS02	B1501-SS01	B1501-SS02	B1502-SS01	B1502-SS02	MW4-SS01	MW4-SS02	B1601-SS01	B1601-SS02	B1603-SS01	B1603-SS01D	B1603-SS02	B1604-SS01
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Collection Method	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore
Collection Date	10/4/2006	10/4/2006	10/4/2006	10/5/2006	10/5/2006	10/5/2006	10/5/2006	8/30/2006	8/30/2006	10/5/2006	10/5/2006	10/5/2006	10/5/2006	10/5/2006	10/5/2006
Collection Depth (ft)	3.5 - 4	1.5 - 2	3.5 - 4	1 - 1.5	3 - 3.5	1 - 1.5	3.5 - 4	1 - 1.5	4.5 - 5	2 - 2.5	3.5 - 4	2 - 2.5	2 - 2.5	3.5 - 4	2 - 2.5
Comments													Duplicate		
VOC															
Acetone								0.022 B (0.0046)	0.01 B (0.0043)						
Benzene								U (0.0009)	U (0.0009)						
2-Butanone								U (0.0046)	U (0.0043)						
Carbon Disulfide								U (0.0046)	U (0.0043)						
Chlorobenzene								U (0.0046)	U (0.0043)						
1,1-Dichloroethane								U (0.0046)	U (0.0043)						
1,2-Dichloroethane								0.002 (0.0018)	0.0007 J (0.0017)						
cis-1,2-Dichloroethene								U (0.0046)	U (0.0043)						
Ethylbenzene								U (0.0037)	U (0.0035)						
Tetrachloroethene								U (0.0009)	U (0.0009)						
Toluene								U (0.0046)	U (0.0043)						
1,1,1-Trichloroethane								U (0.0046)	U (0.0043)						
Trichloroethene								U (0.0009)	U (0.0009)						
Xylene (Total)								U (0.0046)	U (0.0043)						
SVOC															
Acenaphthene	0.029 J (0.39)	U (0.36)	U (0.38)					0.024 J (0.38)	U (0.38)						
Acenaphthylene	0.036 J (0.39)	U (0.36)	U (0.38)					0.021 J (0.38)	U (0.38)						
Anthracene	0.12 J (0.39)	U (0.36)	U (0.38)					0.036 J (0.38)	U (0.38)						
Benzo(a)anthracene	0.5 (0.039)	U (0.036)	U (0.038)					0.15 (0.038)	U (0.038)						
Benzo(a)pyrene	0.47 (0.039)	U (0.036)	U (0.038)					0.16 (0.038)	U (0.038)						
Benzo(b)fluoranthene	0.33 (0.039)	0.0097 J (0.036)	U (0.038)					0.17 (0.038)	U (0.038)						
Benzo(g,h,i)perylene	0.19 J (0.39)	U (0.36)	U (0.38)					0.048 J (0.38)	U (0.38)						
Benzo(k)fluoranthene	0.47 (0.039)	U (0.036)	U (0.038)					0.18 (0.038)	U (0.038)						
bis(2-Ethylhexyl)phthalate	0.1 J (0.39)	7.5 (0.36)	0.32 J (0.38)					0.18 J (0.38)	U (0.38)						
Carbazole	0.063 J (0.39)	U (0.36)	U (0.38)					0.024 J (0.38)	U (0.38)						
4-Chloroaniline	U (0.39)	U (0.36)	U (0.38)					0.0079 J (0.38)	U (0.38)						
Chrysene	0.56 (0.39)	U (0.36)	U (0.38)					0.18 J (0.38)	U (0.38)						
Dibenz(a,h)anthracene	0.061 (0.039)	U (0.036)	U (0.038)					U (0.038)	U (0.038)						
Dibenzofuran	0.02 J (0.39)	U (0.36)	U (0.38)					0.015 J (0.38)	U (0.38)						
1,2-Dichlorobenzene	U (0.39)	U (0.36)	U (0.38)					U (0.38)	U (0.38)						
1,4-Dichlorobenzene	U (0.39)	U (0.36)	U (0.38)					U (0.38)	U (0.38)						
3,3'-Dichlorobenzidine	U (0.79)	U (0.73)	U (0.77)					0.054 J (0.76)	U (0.77)						
Dimethylphthalate	U (0.39)	U (0.36)	U (0.38)					0.098 J (0.38)	U (0.38)						
Di-n-butylphthalate	U (0.39)	U (0.36)	U (0.38)					U (0.38)	U (0.38)						
Fluoranthene	0.9 (0.39)	0.02 J (0.36)	U (0.38)					0.29 J (0.38)	U (0.38)						
Fluorene	0.033 J (0.39)	U (0.36)	U (0.38)					0.029 J (0.38)	U (0.38)						
Hexachlorobenzene	U (0.039)	U (0.036)	U (0.038)					U (0.038)	U (0.038)						
Indeno(1,2,3-cd)pyrene	0.18 (0.039)	U (0.036)	U (0.038)					0.051 (0.038)	U (0.038)						
2-Methylnaphthalene	0.014 J (0.39)	0.024 J (0.36)	U (0.38)					0.026 J (0.38)	U (0.38)						
Naphthalene	0.029 J (0.39)	0.026 J (0.36)	U (0.38)					0.042 J (0.38)	U (0.38)						
3-Nitroaniline	U (0.79)	U (0.73)	U (0.77)					U (0.76)	U (0.77)						
4-Nitroaniline	U (0.79)	U (0.73)	U (0.77)					0.048 J (0.76)	U (0.77)						

TABLE 1
Summarized Analytical Results for August-October 2006 Soil Sampling Program - Sun Chemical, Staten Island, New York

	Area Of Concern	AOC 14	AOC 14	AOC 14	AOC 15	AOC 15	AOC 15	AOC 15	AOC 15	AOC 15	AOC 16	AOC 16	AOC 16	AOC 16	AOC 16	AOC 16
	Location	B1410	B1411	B1411	B1501	B1501	B1502	B1502	MW04	MW04	B1601	B1601	B1603	B1603	B1603	B1604
	ENVIRON Sample ID	B1410-SS02	B1411-SS01	B1411-SS02	B1501-SS01	B1501-SS02	B1502-SS01	B1502-SS02	MW4-SS01	MW4-SS02	B1601-SS01	B1601-SS02	B1603-SS01	B1603-SS01D	B1603-SS02	B1604-SS01
	Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	Collection Method	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore
	Collection Date	10/4/2006	10/4/2006	10/4/2006	10/5/2006	10/5/2006	10/5/2006	10/5/2006	8/30/2006	8/30/2006	10/5/2006	10/5/2006	10/5/2006	10/5/2006	10/5/2006	10/5/2006
	Collection Depth (ft)	3.5 - 4	1.5 - 2	3.5 - 4	1 - 1.5	3 - 3.5	1 - 1.5	3.5 - 4	1 - 1.5	4.5 - 5	2 - 2.5	3.5 - 4	2 - 2.5	2 - 2.5	3.5 - 4	2 - 2.5
	Comments													Duplicate		
	Nitrobenzene	U (0.039)	U (0.036)	U (0.038)					U (0.038)	U (0.038)						
	Phenanthrene	0.54 (0.39)	0.016 J (0.36)	U (0.38)					0.18 J (0.38)	U (0.38)						
	Pyrene	1 (0.39)	0.019 J (0.36)	U (0.38)					0.27 J (0.38)	U (0.38)						
	1,2,4-Trichlorobenzene	U (0.039)	U (0.036)	U (0.038)					0.025 J (0.038)	U (0.038)						
PCB																
	PCBs (total)	U (0.079)	U (0.074)	U (0.077)												
	Aroclor-1248	U (0.079)	U (0.074)	U (0.077)												
	Aroclor-1254	U (0.079)	U (0.074)	U (0.077)												
	Aroclor-1268	U (0.079)	U (0.074)	U (0.077)												
INORG																
	Antimony	U (1.2)	U (1.1)	U (1.1)	4.3 (1.1)	U (1.1)	U (1.1)	U (1.1)			U (1.3)	U (1.2)	U (1.3)	U (1.3)	9.7 (1.4)	U (1.1)
	Arsenic	7.4 (1.1)	3.1 (0.99)	2.2 (1)	7.3 (1)	5.4 (1)	4.1 (1)	6.2 (1)			1.7 (0.71)	1 B (0.65)	2.6 (0.72)	2.6 (0.73)	2.4 (0.77)	3.6 (1)
	Barium	275 (0.31)	39.1 B (0.29)	31.3 B (0.3)	191 (0.29)	60.7 (0.3)	42.2 B (0.29)	123 (0.3)			39.1 B (0.38)	37.9 B (0.34)	262 (0.38)	261 (0.39)	280 (0.41)	71.3 (0.29)
	Beryllium	0.57 (0.024)	0.57 (0.022)	0.51 (0.023)	0.47 (0.023)	0.74 (0.023)	0.46 (0.022)	0.76 (0.023)			0.44 (0.067)	0.44 (0.061)	0.58 (0.068)	0.6 (0.068)	0.58 (0.072)	0.57 (0.022)
	Cadmium	0.3 B (0.12)	U (0.11)	U (0.12)	0.43 B (0.11)	0.24 B (0.11)	0.16 B (0.11)	0.35 B (0.12)			U (0.089)	U (0.081)	U (0.09)	U (0.091)	U (0.096)	0.21 B (0.11)
	Chromium	59.4 (0.66)	41.1 (0.61)	51.7 (0.65)	97.5 (0.63)	56.4 (0.64)	29.7 (0.63)	34.9 (0.65)			29 (0.35)	23.7 (0.32)	29.9 (0.36)	28.4 (0.36)	31.6 (0.39)	85.5 (0.62)
	Copper	77.8 (0.73)	32.6 (0.68)	32.2 (0.72)	67.3 (0.7)	31.2 (0.71)	19.2 (0.7)	29.6 (0.71)			227 (0.82)	16 (0.75)	28.8 (0.84)	38.4 (0.84)	31.6 (0.89)	116 (0.69)
	Lead	488 (0.52)	9 (0.48)	6.6 (0.51)	1430 (0.5)	11 (0.5)	51.5 (0.49)	9.4 (0.51)			6.3 (0.6)	6.6 (0.55)	10.5 (0.61)	10.4 (0.62)	51.9 (0.65)	6.5 (0.49)
	Mercury	0.26 (0.02)	U (0.018)	U (0.016)	0.23 (0.019)	U (0.019)	0.07 (0.019)	U (0.019)			U (0.018)	U (0.019)	U (0.019)	U (0.016)	U (0.02)	U (0.018)
	Nickel	158 (0.92)	116 (0.86)	117 (0.9)	79.4 (0.88)	175 (0.89)	66.7 (0.87)	124 (0.9)			215 (0.53)	191 (0.49)	113 (0.54)	112 (0.55)	110 (0.58)	411 (0.86)
	Selenium	2.1 (1.1)	2 (1.1)	U (1.1)	1.1 B (1.1)	1.8 (1.1)	1.1 (1.1)	1.5 (1.1)			0.9 B (0.93)	U (0.85)	1.1 (0.95)	U (0.96)	1.1 B (1)	U (1.1)
	Silver	0.91 B (0.28)	U (0.26)	U (0.28)	0.33 B (0.27)	U (0.27)	U (0.27)	U (0.28)			U (0.31)	U (0.28)	U (0.32)	U (0.32)	U (0.34)	U (0.27)
	Zinc	157 (1.4)	32.3 (1.3)	38 (1.3)	94.4 (1.3)	61.2 (1.3)	40.5 (1.3)	45.6 (1.3)			32.3 (1.3)	35.3 (1.2)	85.9 (1.3)	112 (1.3)	50.2 (1.4)	43.2 (1.3)

Notes:

1 All concentrations are presented in mg/kg (ppm).

2 Only compounds with at least one detection are shown.

Abbreviations:

U -- Not Detected.

J -- Estimated Concentration.

( ) -- Detection Limit.

TABLE 1
Summarized Analytical Results for August-October 2006 Soil Sampling Program - Sun Chemical, Staten Island, New York

Area Of Concern	AOC 16	AOC 16	AOC 16	AOC 16	AOC 16	AOC 16	AOC 16	AOC 16	D	D	D	D	D
Location	B1604	B1605	B1605	B1605	B1606	B1606	B1607	B1607	BKD1	BKD1	BKD1	BKD1	BKD1
ENVIRON Sample ID	B1604-SS02	B1605-SS01	B1605-SS02	B1605-SS02D	B1606-SS01	B1606-SS02	B1607-SS01	B1607-SS02	BKD1-SS01	BKD1-SS02	BKD1-SS03	BKD1-SS03D	BKD1-SS04
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Collection Method	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore
Collection Date	10/5/2006	10/5/2006	10/5/2006	10/5/2006	10/5/2006	10/5/2006	10/5/2006	10/5/2006	10/5/2006	10/5/2006	10/5/2006	10/5/2006	10/5/2006
Collection Depth (ft)	3.5 - 4	2 - 2.5	3.5 - 4	3.5 - 4	2 - 2.5	3.5 - 4	2 - 2.5	3.5 - 4	0 - 0.5	1.5 - 2	3.5 - 4	3.5 - 4	6 - 6.5
Comments				Duplicate								Duplicate	
VOC													
Acetone													
Benzene													
2-Butanone													
Carbon Disulfide													
Chlorobenzene													
1,1-Dichloroethane													
1,2-Dichloroethane													
cis-1,2-Dichloroethene													
Ethylbenzene													
Tetrachloroethene													
Toluene													
1,1,1-Trichloroethane													
Trichloroethene													
Xylene (Total)													
SVOC													
Acenaphthene													
Acenaphthylene													
Anthracene													
Benzo(a)anthracene													
Benzo(a)pyrene													
Benzo(b)fluoranthene													
Benzo(g,h,i)perylene													
Benzo(k)fluoranthene													
bis(2-Ethylhexyl)phthalate													
Carbazole													
4-Chloroaniline													
Chrysene													
Dibenz(a,h)anthracene													
Dibenzofuran													
1,2-Dichlorobenzene													
1,4-Dichlorobenzene													
3,3'-Dichlorobenzidine													
Dimethylphthalate													
Di-n-butylphthalate													
Fluoranthene													
Fluorene													
Hexachlorobenzene													
Indeno(1,2,3-cd)pyrene													
2-Methylnaphthalene													
Naphthalene													
3-Nitroaniline													
4-Nitroaniline													

TABLE 1
Summarized Analytical Results for August-October 2006 Soil Sampling Program - Sun Chemical, Staten Island, New York

Area Of Concern	AOC 16	AOC 16	AOC 16	AOC 16	AOC 16	AOC 16	AOC 16	AOC 16	D	D	D	D	D
Location	B1604	B1605	B1605	B1605	B1606	B1606	B1607	B1607	BKD1	BKD1	BKD1	BKD1	BKD1
ENVIRON Sample ID	B1604-SS02	B1605-SS01	B1605-SS02	B1605-SS02D	B1606-SS01	B1606-SS02	B1607-SS01	B1607-SS02	BKD1-SS01	BKD1-SS02	BKD1-SS03	BKD1-SS03D	BKD1-SS04
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Collection Method	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore	Macrocore
Collection Date	10/5/2006	10/5/2006	10/5/2006	10/5/2006	10/5/2006	10/5/2006	10/5/2006	10/5/2006	10/5/2006	10/5/2006	10/5/2006	10/5/2006	10/5/2006
Collection Depth (ft)	3.5 - 4	2 - 2.5	3.5 - 4	3.5 - 4	2 - 2.5	3.5 - 4	2 - 2.5	3.5 - 4	0 - 0.5	1.5 - 2	3.5 - 4	3.5 - 4	6 - 6.5
Comments				Duplicate								Duplicate	
Nitrobenzene													
Phenanthrene													
Pyrene													
1,2,4-Trichlorobenzene													
PCB													
PCBs (total)													
Aroclor-1248													
Aroclor-1254													
Aroclor-1268													
INORG													
Antimony	U (1.1)	U (1.2)	U (1.1)	U (1.1)	8.9 (1.4)	U (1.2)	U (1.3)	U (1.3)	U (1.4)	U (1.4)	U (1.3)	U (1.3)	U (1.3)
Arsenic	2.9 (0.99)	5.8 (1.1)	4.1 (1)	3.7 (1)	13.4 (0.78)	1.6 (0.65)	1.5 (0.73)	1.8 (0.73)	5.7 (0.75)	5.2 (0.75)	1.1 B (0.71)	0.76 B (0.71)	3.1 (0.73)
Barium	61.9 (0.29)	32.9 B (0.31)	33.2 B (0.3)	58.3 (0.3)	598 (0.42)	38.6 B (0.34)	1610 (0.39)	3910 (0.39)	56.4 (0.4)	51.3 (0.4)	28.9 B (0.38)	27.7 B (0.38)	66 (0.39)
Beryllium	0.46 (0.022)	0.67 (0.024)	0.66 (0.023)	0.64 (0.023)	0.58 (0.074)	0.46 (0.061)	0.45 (0.069)	0.44 B (0.069)	0.52 (0.071)	0.53 (0.07)	0.47 (0.067)	0.45 (0.067)	0.69 (0.068)
Cadmium	0.3 B (0.11)	13.5 (0.12)	20.8 (0.11)	18.9 (0.12)	1.2 B (0.098)	U (0.081)	U (0.092)	U (0.092)	U (0.094)	U (0.094)	U (0.089)	U (0.089)	U (0.091)
Chromium	54.9 (0.62)	35.5 (0.66)	34.6 (0.64)	31.4 (0.64)	449 (0.39)	34 (0.32)	30.5 (0.37)	38.8 (0.37)	41.7 (0.38)	31.1 (0.38)	24.9 (0.36)	23.8 (0.35)	64.5 (0.36)
Copper	261 (0.69)	16.4 (0.73)	17.6 (0.71)	16 (0.71)	172 (0.91)	18.8 (0.75)	37.4 (0.85)	21.9 (0.85)	34.5 (0.87)	30 (0.87)	19.3 (0.82)	16.5 (0.82)	20.3 (0.84)
Lead	6.5 (0.49)	10 (0.52)	8 (0.5)	7.6 (0.51)	1300 (0.66)	16.2 (0.55)	20.7 (0.62)	20.5 (0.62)	124 (0.64)	64.6 (0.63)	6.6 (0.6)	6.4 (0.6)	8.5 (0.61)
Mercury	U (0.018)	U (0.017)	U (0.016)	U (0.016)	1.2 (0.02)	U (0.019)	0.03 B (0.019)	0.02 B (0.019)	0.15 (0.02)	0.13 (0.02)	U (0.019)	U (0.018)	U (0.019)
Nickel	269 (0.86)	51.8 (0.92)	113 (0.89)	74.8 (0.9)	82 (0.59)	190 (0.49)	96 (0.55)	102 (0.55)	138 (0.57)	85.8 (0.56)	83.4 (0.53)	67.5 (0.53)	521 (0.54)
Selenium	U (1.1)	U (1.1)	1.1 (1.1)	1.3 (1.1)	2 (1)	1 B (0.85)	1.4 (0.96)	U (0.96)	1.4 (0.99)	U (0.99)	U (0.93)	U (0.93)	U (0.95)
Silver	U (0.27)	U (0.28)	U (0.27)	U (0.28)	U (0.34)	U (0.28)	U (0.32)	U (0.32)	U (0.33)	U (0.33)	U (0.31)	U (0.31)	U (0.32)
Zinc	32.4 (1.3)	41.9 (1.4)	36.8 (1.3)	34.8 (1.3)	245 (1.4)	35.6 (1.2)	81.8 (1.3)	75.8 (1.3)	87.8 (1.4)	64 (1.4)	39 (1.3)	36.7 (1.3)	48.1 (1.3)

Notes:

1 All concentrations are presented in mg/kg (ppm).

2 Only compounds with at least one detection are shown.

Abbreviations:

U -- Not Detected.

J -- Estimated Concentration.

( ) -- Detection Limit.

TABLE 2

Summarized Analytical Results for September-October 2006 Ground Water Sampling Porgrams, Sun Chemical Corporation, Staten Island, New York

Area Of Concern			AOC 06	AOC 05	AOC 05	AOC 15	AOC 15	AOC 02	AOC 02	AOC 02	AOC 02	
Location	MW01	MW01	MW02	MW03	MW03	MW04	MW04	MW05	MW05	MW05	MW05D	MW06
ENVIRON Sample ID	MW01-060911	MW01-061017	MW02-061017	MW03-061017	MW03-061017D	MW04-060911	MW04-061017	MW05-060911	MW05-060911D	MW05-061017	MW05D-061017	MW06-061017
Collection Method	Bailer	TB/Pump	TB/Pump	TB/Pump	TB/Pump	Bailer	TB/Pump	Bailer	Bailer	TB/Pump	TB/Pump	TB/Pump
Comments					Duplicate				Duplicate			
VOC												
Benzene	U (1)	U (1)	U (1)	18 (5)	20 (5)	2.5 (1)	1.5 (1)	U (1)	U (1)	U (1)	U (1)	U (1)
Bromodichloromethane	U (1)	U (1)	U (1)	U (5)	U (5)	U (1)	U (1)	U (1)	U (1)	U (1)	0.7 J (1)	U (1)
Carbon Disulfide	1.2 J (5)	U (5)	U (5)	U (25)	U (25)	0.4 J (5)	4.6 J (5)	U (5)	U (5)	U (5)	U (5)	U (5)
Chloroform	U (5)	U (5)	U (5)	20 J (25)	21 J (25)	1.3 J (5)	0.8 J (5)	U (5)	U (5)	U (5)	10 (5)	U (5)
1,1-Dichloroethane	15 (5)	2.5 J (5)	0.6 J (5)	520 (25)	540 (25)	31 (5)	22 (5)	U (5)	U (5)	U (5)	U (5)	U (5)
1,2-Dichloroethane	U (2)	U (2)	U (2)	540 (10)	550 (10)	41 (2)	26 (2)	U (2)	U (2)	U (2)	1.3 J (2)	U (2)
1,1-Dichloroethene	U (2)	U (2)	U (2)	150 (10)	160 (10)	29 (2)	15 (2)	U (2)	U (2)	U (2)	U (2)	U (2)
cis-1,2-Dichloroethene	U (5)	U (5)	U (5)	U (25)	U (25)	0.5 J (5)	U (5)	U (5)	U (5)	U (5)	U (5)	U (5)
1,2-Dichloropropane	U (1)	U (1)	U (1)	6.7 (5)	7.1 (5)	U (1)	U (1)	U (1)	U (1)	U (1)	U (1)	U (1)
Methylene Chloride	U (3)	U (3)	U (3)	30 (15)	32 (15)	U (3)	U (3)	U (3)	U (3)	U (3)	U (3)	U (3)
1,1,1-Trichloroethane	2.1 J (5)	U (5)	1.3 J (5)	9.8 J (25)	11 J (25)	10 (5)	4.6 J (5)	U (5)	U (5)	U (5)	U (5)	U (5)
1,1,2-Trichloroethane	U (3)	U (3)	U (3)	3.6 J (15)	3.1 J (15)	1 J (3)	0.9 J (3)	U (3)	U (3)	U (3)	U (3)	U (3)
Trichloroethene	U (1)	U (1)	U (1)	U (5)	U (5)	6.2 (1)	4.2 (1)	U (1)	U (1)	0.7 J (1)	U (1)	U (1)
Vinyl Chloride	U (5)	U (5)	U (5)	5.7 J (25)	5.8 J (25)	U (5)	U (5)	U (5)	U (5)	U (5)	U (5)	U (5)
SVOC												
INORG												
Arsenic	U (3.2)	U (4.5)	U (4.5)	5 B (4.5)	U (4.5)	U (3.2)	U (4.5)	5 B (3.2)	4.1 B (3.2)	17.7 (4.5)	U (4.5)	U (4.5)
Barium		66.4 B (1.3)	261 (1.3)	72.2 B (1.3)	73.4 B (1.3)		91.5 B (1.3)			239 (1.3)	623 (1.3)	164 B (1.3)
Beryllium	U (0.3)	U (0.1)	0.24 B (0.1)	U (0.1)	U (0.1)	U (0.3)	U (0.1)	U (0.3)	U (0.3)	U (0.1)	0.57 B (0.1)	U (0.1)
Chromium	10.3 (1.6)	5.7 B (2.8)	33.9 (2.8)	21.3 (2.8)	22.2 (2.8)	9.2 B (1.6)	3.2 B (2.8)	5.8 B (1.6)	5.1 B (1.6)	5.2 B (2.8)	15.5 (2.8)	4.9 B (2.8)
Copper	4.5 B (3.7)	8.2 B (3.1)	22.2 B (3.1)	15.2 B (3.1)	14.3 B (3.1)	9.4 B (3.7)	5.8 B (3.1)	3.7 B (3.7)	4.1 B (3.7)	9.7 B (3.1)	33.8 (3.1)	5.6 B (3.1)
Lead	3.2 B (2.7)	U (2.2)	18.5 (2.2)	U (2.2)	U (2.2)	7.8 (2.7)	2.9 B (2.2)	14.1 (2.7)	13.1 (2.7)	20.6 (2.2)	12.6 (2.2)	U (2.2)
Mercury	U (0.1)	U (0.1)	U (0.1)	U (0.1)	U (0.1)	U (0.1)	U (0.1)	U (0.1)	0.12 B (0.1)	U (0.1)	U (0.1)	U (0.1)
Nickel	38.2 B (2.4)	20.6 B (3.9)	70.3 (3.9)	330 (3.9)	319 (3.9)	96.2 (2.4)	91.9 (3.9)	28.9 B (2.4)	29 B (2.4)	32.5 B (3.9)	41.7 (3.9)	98.5 (3.9)
Selenium	U (4.2)	4.9 B (4.8)	U (4.8)	U (4.8)	U (4.8)	U (4.2)	U (4.8)	U (4.2)	U (4.2)	6.5 (4.8)	5.4 (4.8)	U (4.8)
Zinc	17.2 B (5.8)	15.4 B (5.8)	34.6 (5.8)	19.7 B (5.8)	19.7 B (5.8)	35.4 (5.8)	9.9 B (5.8)	53.1 (5.8)	62.5 (5.8)	24.1 B (5.8)	34.7 (5.8)	10 B (5.8)

Notes:

1 All concentrations are presented in ug/L (ppb).

2 Only compounds with at least one detection are shown.

Abbreviations:

U -- Not Detected.

J -- Estimated Concentration.

( ) -- Detection Limit.

TABLE 2
Summarized Analytical Results for September-October 2006 Ground Water Sampling Porgrams, Sun Chemical Corporation, Staten Island, New York

Area Of Concern	
Location	**MW07**
ENVIRON Sample ID	**MW07-061017**
Collection Method	**TB/Pump**
Comments	
VOC	
Benzene	U (1)
Bromodichloromethane	U (1)
Carbon Disulfide	U (5)
Chloroform	U (5)
1,1-Dichloroethane	U (5)
1,2-Dichloroethane	U (2)
1,1-Dichloroethene	U (2)
cis-1,2-Dichloroethene	U (5)
1,2-Dichloropropane	U (1)
Methylene Chloride	U (3)
1,1,1-Trichloroethane	U (5)
1,1,2-Trichloroethane	U (3)
Trichloroethene	U (1)
Vinyl Chloride	U (5)
SVOC	
INORG	
Arsenic	U (4.5)
Barium	173 B (1.3)
Beryllium	0.23 B (0.1)
Chromium	14.9 (2.8)
Copper	12.7 B (3.1)
Lead	4.8 (2.2)
Mercury	U (0.1)
Nickel	84.1 (3.9)
Selenium	U (4.8)
Zinc	23.2 B (5.8)

Notes:

1 All concentrations are presented in ug/L (ppb).

2 Only compounds with at least one detection are shown.

Abbreviations:

U -- Not Detected.
J -- Estimated Concentration.
( ) -- Detection Limit.

TABLE 3

Summarized Analytical Results for QA/QC Samples, Sun Chemical Corporation, Staten Island, New York

Area Of Concern	QAQC	QAQC	QAQC	QAQC
Location	QAQC	QAQC	QAQC	QAQC
ENVIRON Sample ID	FB-060911	TB-060911	FB-061017	TB-061017
Collection Method	Bailer	Bailer	TB	
Comments	Field Blank	Trip Blank	Field Blank	Trip Blank
VOC	U	U	U	U
SVOC	U	NA	NA	NA
INORG	U	NA	U	NA

Notes:

1 All concentrations are presented in ug/L (ppb).

2 Only compounds with at least one detection are shown.

Abbreviations:

U -- Not Detected.

NA - Not Analyzed.

( ) -- Detection Limit.

A T T A C H M E N T A

Regulatory Correspondence Related to 1988 Caustic Solution Release Remediation

CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS MATERIALS PROGRAMS
OFFICE OF EMERGENCY RESPONSE AND TECHNICAL ASSESSMENT

Technical Report
(Preliminary)

SRR# 880217/7/0084

Subject: Chemical Spill
Sun Chemical Corporation
441 Tompkins Avenue
Rosebank, Staten Island 10305

Introduction:

On Wednesday, February 17, 1988, at approximately 2:30 PM, the Division of Hazardous Materials Programs (DHMP) received an anonymous telephone call asking that "If a chemical company has a chemical spill and the material enters a school yard, are they required to notify the DEP".

The caller also stated that a spill occured at the Sun Chemical Corporation located in Rosebank, Staten Island.

Hazardous Materials Specialist Ted Nabavi immediately contacted Alan Shearer (Operations Manager) of Sun Chemical and requested an investigation as to the validity of the anonymous complaint. Mr. Shearer provided DHMP with the following summary and information:

At approximately 9:00 AM on February 17, 1988, an employee of Sun Chemical discovered that a 2" pipe from a 10,000 gallon 23% caustic solution feeder tank had ruptured and released an unknown quantity of the caustic soda solution onto the Sun Chemical property and a school yard adjacent to Sun Chemical.

- This school yard is part of the St. Joseph Roman Catholic School which abutts the Sun Chemical plant.

Mr. Shearer believes that the quantity of spilled material effected the school yard was approximately 50-100 gallons. He estimated that the total amount spilled was approximately [illegible].

- Mr. Shearer [illegible] by the Sun Chemical plant [illegible] 10:00 AM on 2/17/88. At [illegible] Shearer, notified the NRC, and [illegible] Mr. Shearer

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ALL

also stated that he had reported the spill to the principal of St. Joseph's school, and advised him to keep all children away from the school yard.

DHMP then requested an explanation of any remedial actions being taken by Sun Chemical.

- Mr. Shearer said that Sun Chemical employees were washing the residual material present on the school yard property and were cleaning the affected areas on the Sun Chemical property.

- DHMP advised Mr. Shearer that a Hazardous Materials Specialist would respond to assess the spill and the remedial actions being under taken by Sun Chemical.

At approximately 3:00 PM on 2/17/88, DHMP received a telephone call from the superintendent, Mr. Sandy Lisa, of St. Joseph Roman Catholic school. DHMP asked Mr. Lisa to explain what was occuring at that time on the school property. Mr. Lisa stated that several Sun Chemical employees were washing the material present on the school yard property and there was also a back-hoe on the school yard performing excavation. Based upon Mr. Lisa's information, DHMP immediately responded to the Sun Chemical facility.

Preliminary Investigation and Observations:

Upon arrival (approximately 4:00 PM), DHMP (Mr. Nabavi) met with Mr. Shearer and conducted an investigation of the spilled material and the extent of contamination involved. The following are the details of the DHMP investigation and actions taken:

- DHMP observed Sun Chemical employees washing the school yard using a spray nozzle on 4" diameter water-hose.

- The run-off from the washing operation was entering two (2) storm yard drains on the school yard property (see attached map).

- In addition, there was a back-hoe performing excavation at the area of the separating-wall between Sun Chemical and the school yard.

- Using lithmus paper, DHMP tested the run-off water in the school yard and found it to be a pH of >12, i.e., corrosive.

Action Taken:

At this time, DHMP advised Mr. Shearer to stop washing the school yard. Mr. Shearer agreed to the DHMP request. In addition, the contractor performing the excavation was not a hazardous waste contractor, therefore, DHMP requested that no further excavation be performed. Mr. Shearer again agreed to the DHMP request. DHMP then inspected the Sun Chemical facility, and discovered Sun Chemical employees excavating (using shovels) contaminated soil and storing the soil in 55 gallon drums. DHMP requested this action to cease and Mr. Shearer agreed to do so.

DHMP spoke to Rt. Rev. Msgr. John Servodidio, the pastor for St. Joseph's parish via telephone. DHMP requested that the pastor allow DHMP to close-off all access to the school yard, and explained the results of the DHMP preliminary investigation. The pastor had no problem with the request, but requested DHMP to also notify Mr. Paul Henry (attorney for the parish) of the DHMP actions. DHMP agreed to do so.

DHMP asked Mr. Shearer to retain a hazardous waste contractor to respond and conduct all the remedial steps necessary. Mr. Shearer contacted Mr. Robert Sharkey (Safety and Environmental Manager, Sun Chemical) in Cincinnati, Ohio and explained the situation and DHMP's request. Mr. Shearer was notified at approximately 6:00 PM by Mr. Sharkey that OH Materials of New Jersey was responding to the Sun Chemical facility. Mr. Sharkey explained that Sun Chemical has a national contract with OH Materials for hazardous materials emergencies.

Mr. Nabavi contacted Cyprian Cox, Director Office of Emergency Response and Technical Assessment, on the status of the DHMP investigation and actions taken.

OH Materials arrived at Sun Chemical at approximately 8:00 PM. At this time, DHMP requested that OH Materials pump out all visible liquids "pools" using a Vac-truck.

- OH Materials started the excavation on the Sun Chemical property of all visible contaminated areas (using earth moving equipment).

- DHMP contacted Mr. Henry at 1:30 AM on 2/18/88 and requested permission to excavate the black-top of the school yard since pH testing showed contamination at surface and sub-surface locations. Mr. Henry approved the DHMP request. DHMP agreed to contact the Msgr. as to any further actions necessary to remediate the contamination.

- Will Stephan, DHMP Hazardous Materials Specialist, supervised the cleanup activities throughout the night.

- DHMP tested the pH at two (2) sewer locations (2 manholes) to identify whether storm drains [illegible] at the school yard were impacting on the NYC [illegible] System. The sewer at St. Mary Avenue showed a pH of 7 and the sewer on Tompkins Avenue also indicated a pH of 7. The pH was tested using litmus paper.

2/18/88
Time: 7:30 AM

- DHMP (James Alexander, Director of Operations; Mr. Cox and Mr. Nabavi; met with Msgr. Servodidio and Mr. Robert Edelman (School Prinicpal) on the details of the cleanup and all the actions necessary to complete the cleanup. This included the school yard being closed until all cleanup activities are completed and removing the black-top on the school yard. Sun Chemical assured DHMP that they would replace and repair all affected areas as a result of the cleanup activity.

- The pastor and the principal decided to keep the school open and issued a letter to the parents explaining the spill and cleanup activities being performed.

- DHMP determined that the storm-drains of the school yard discharge into the school's house trap. A sample was taken and found to have a pH >12.

- DHMP also found that one of the storm drains in school yard was clogged. Therefore, the lines were cleaned/flushed. The pH was retested and found to be 7. This action was performed by OH Materials under DHMP supervision.

- DHMP notified Robert Cage, Director of the Bureau of Environmental Investigation and Surveillance of NYC Department of Health and requested DOH to respond to the site.

- DHMP contacted Con-Ed, BUGCO and DEP/BWS to respond and identify all existing utility lines on the school yard property. This action was necessary prior to conducting borings. All utilities responded and indicated that there were no utility lines present in the areas of concern.

- OH Materials then proceeded to conduct ... sub-surface assessments.
- The results showed that ... school yard ... also spilled ... subsurface ...
- Mr. Shearer ... DHMP that Sun Chem ... conducted several calculations and ... the quantity of the spill released from ... containment dike was approximately 545 gallons.

Conclusions:

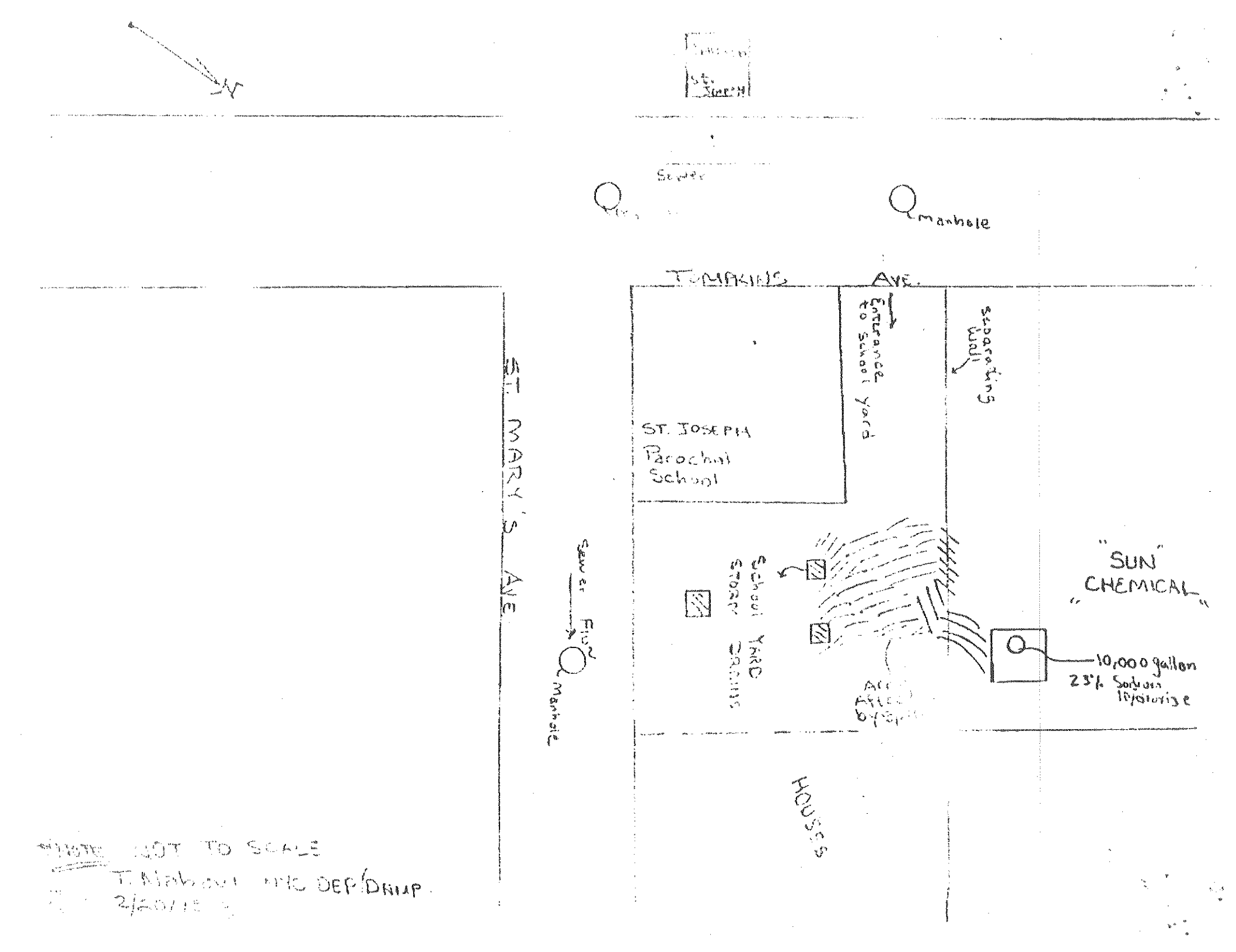
Based upon the extent of contamination, the cleanup activities ... and the emergency remediation was completed during ... of March, 1988. However, analyses ... al property revealed other ... associated with the spill which occured on ... 1988. The contaminants included lead, di-... phthalate and an Aroclor (PCB). DHMP has advised Sun Chem... to address the environmental and occupational health impact of these contaminants on the Sun Chemical property.

Ted R. Nab...
... R. Nabavi,
Hazardous Materials ... ecialist

Dated: March 29, 1988

TN: jl

cc: M. Barer
J. Alexander
C. Cox
W. Stephan
R. Fornino
Msgr. Selvodino (St. Joseph's R.C. Church)
P. Henry (St. Joseph's R.C. Church)
A. Shearer (Sun Chemical)
F. Parker (OH Materials)
A. Colucci (... DA's Office)
K. Ford (DEP/...)
R. LaGrotta (DEP/IWCS)
C. Ash (NYC/DEP)
B. Gage (DOH)
R. Austin (DEC)
Lt. Kearney (USCG)
R. Evers (USCG)
J. Logigian (USEPA)


N
St. Street
Sewer
Manhole
TOMPKINS AVE.
Entrance to School yard
Separating Wall
ST. JOSEPH
Parochial
School
School Yard Storm Drains
"SUN"
CHEMICAL
10,000 gallon
23% Sodium Hydroxide
Area filled by Sun
Sewer Flow
Manhole
ST. MARY'S AVE.
HOUSES
NOTE: NOT TO SCALE
T. Nishkian NYC DEP/DNUP
2/6/01

CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
2358 MUNICIPAL BUILDING, NEW YORK, N.Y. 10007
(212) 669-8200

HARVEY W. SCHULTZ
Commissioner

April 14, 1988

Ms. Carol Ash
Regional Director
NYS Department of Environmental
Conservation, Region II
47-40 21st Street, Room 210
Long Island City, NY 11101

RE: Sun Chemical Corp.
441 Tompkins Avenue
Rosebank, S.I. 10305
SRR# 880217/7/0084

Dear Ms. Ash:

The NYC Department of Environmental Protection, Division of Hazardous Materials Programs (DHMP), responded to an emergency involving a causic solution spill at the above chemical company on 2/17/88 (attached is the Technical Report). The NYS DEC was notified of the incident by Sun Chemical and Region II personnel responded on 2/17/88 and 2/18/88.

Since that time, the spill and contaminated areas have been sucessfully remediated for effects of the caustic spill. However, as a result of the incident, extensive sampling and analysis were conducted on the Sun Chemical Property (attached are results of the sampling & analysis). The sampling results show contaimination present on the Sun Chemical Property. The contaminants involved are lead, di-octyl phthalate and the Aroclor 1248 (PCB). Based on the analytical results, DHMP has advised Sun Chemical to conduct and environmental and worker exposure assessment of the contaminants, to determine if any mitigative actions are needed to reduce the level of these contaminants.

Therefore, DEP/DHMP is referring this situation to your office for any further actions you may deem necessary, and we would like to be informed of your actions.

If you have any further questions regarding this letter, please feel free to call me.

Sincerely,

Mira Barer/cjl

Mira Barer
Deputy Commissioner

cc: E. Sullivan
J. Alexander
C. Cox
T. Nabavi
T. McDonald
A. Shearer (Sun Chemical)

enc.

MB/ws

A T T A C H M E N T B

NYSDEC Correspondence Related to the 1994 Hazardous Substances Disposal Site Study

New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Hazardous Site Control, Room 252
50 Wolf Road, Albany, New York 12233-7010
Phone: (518) 457-8807 FAX: (518) 457-8989

John P. Cahill
Commissioner

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Sun/Dic Acquisition Company
441 Tompkins Ave.
Staten Island, NY 10305

Dear Sir or Madam:

Re: Preliminary Site Assessment at Hazardous Substance Sites

The New York State Department of Environmental Conservation (NYSDEC) is investigating sites suspected or known to contain hazardous substances. The property described below is listed in the "Addendum to the Hazardous Substance Waste Disposal Site Study, dated December 1, 1998" and we have received information which leads us to suspect that hazardous substances have been disposed of at this location:

Site Name: SUN Chemical Corp.
Site Address: 441 Tompkins Ave. Staten Island, NY
Tax Map No.: Block 2846 Lot 12
DEC Site No.: 02-43-024, HS2042

This investigation is being conducted in accordance with Environmental Conservation Law (Title 3, Section 3-0301. General functions, powers and duties of the department and the commissioner). This law directs the Department to enter and inspect any property or premises for the purpose of investigating either actual or suspected sources of pollution or contamination or for the purpose of ascertaining compliance or noncompliance with any law, rule or regulation which may be promulgated pursuant to this chapter(of the law). Any information relating to secret processes or methods of manufacture shall be kept confidential.

This letter constitutes notification of the New York State Department of Environmental Conservation's intention to investigate the validity of this suspicion of Hazardous Substance deposition at this property. The purpose of the investigation, called a Preliminary Site Assessment (PSA), is to familiarize ourselves with the site and the immediate site vicinity. Conceptually, the PSA could involve the collection of all available information, a site inspection including photographs, a geophysical survey to collect stratigraphic data; a soil gas study to search for underlying soil and groundwater contamination; collection of samples; the installation of monitoring wells; laboratory analyses of samples collected from groundwater, surface water, soil, air, and waste material to determine the presence of hazardous substances and significance of contamination. The proposed study for your site may include some or all of the above items.

Since a final determination has not been made on the specific needs of this study, we are unable to give a cost estimate at this time.

This PSA will be performed over a one-year period. In order to take such samples, the DEC may use consultants, contractor or other person so authorized to enter the site and areas near such site and inspect and take samples of wastes, soils, air, surface water and groundwater or cause to be used such sampling methods as it determines to be necessary, including, but not limited to, soil borings and monitoring wells.

We also request that you provide all currently available information which would be helpful in our investigation work. This information includes the following:

a. all generators of wastes deposited at the site;
b. types and quantities of such wastes;
c. period of time site was operated;
d. description of site operational practices;
e. description of any known health or environmental problems at the site; and
f. any other information which may assist NYSDEC or its consultant to evaluate the public health or environmental significance of this site.

The NYSDEC or its consultant will be contacting you in the near future to mutually agree upon a time and place to collect this information and obtain copies of any documents from which this information was derived.

If you have any questions in connection with this matter, please contact me, at (518) 457-0639.

Sincerely,

John Swartwout

John Swartwout
Chief
Eastern Investigation Section

Encl.

A T T A C H M E N T C

CD-ROM with STL Laboratory Reports for the August-October 2006 Sampling Program