



NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION



BROWNFIELD CLEANUP PROGRAM (BCP)

ECL ARTICLE 27 / TITLE 14

07/07

DEPARTMENT USE ONLY
BCP SITE #: _____

Section I. Requestor Information

NAME

ADDRESS

CITY/TOWN

ZIP CODE

PHONE

FAX

E-MAIL

NAME OF REQUESTOR'S REPRESENTATIVE

ADDRESS

CITY/TOWN

ZIP CODE

PHONE

FAX

E-MAIL

NAME OF REQUESTOR'S CONSULTANT

ADDRESS

CITY/TOWN

ZIP CODE

PHONE

FAX

E-MAIL

NAME OF REQUESTOR'S ATTORNEY

ADDRESS

CITY/TOWN

ZIP CODE

PHONE

FAX

E-MAIL

THE REQUESTOR MUST CERTIFY THAT HE/SHE IS EITHER A PARTICIPANT OR VOLUNTEER IN ACCORDANCE WITH ECL § 27-1405 (1) BY CHECKING ONE OF THE BOXES BELOW:

PARTICIPANT

A requestor who either 1) was the owner of the site at the time of the disposal of hazardous waste or discharge of petroleum or 2) is otherwise a person responsible for the contamination, unless the liability arises solely as a result of ownership, operation of, or involvement with the site subsequent to the disposal of hazardous waste or discharge of petroleum.

VOLUNTEER

A requestor other than a participant, including a requestor whose liability arises solely as a result of ownership, operation of or involvement with the site subsequent to the disposal of hazardous waste or discharge of petroleum.

NOTE: By checking this box, the requestor certifies that he/she has exercised appropriate care with respect to the hazardous waste found at the facility by taking reasonable steps to: i) stop any continuing discharge; ii) prevent any threatened future release; and iii) prevent or limit human, environmental, or natural resource exposure to any previously released hazardous waste.

Requestor Relationship to Property (check one):

Previous Owner

Current Owner

Potential /Future Purchaser

Other _____

If requestor is not the site owner, requestor will have access to the property throughout the BCP project.

Yes

No

(Note: proof of site access must be submitted for non-owners)

Section II. Property Information Summary Sheet

PROPERTY NAME: Sun Chemical Corporation

ADDRESS/LOCATION 441-443 Tompkins Avenue CITY/TOWN Staten Island

ZIP CODE 10305

MUNICIPALITY(IF MORE THAN ONE, LIST ALL):

Borough of Staten Island in the Rosebank neighborhood

COUNTY Richmond

SITE SIZE (ACRES) 5.196

LATITUDE (degrees/minutes/seconds) 40 ° 36 ' 55 "

LONGITUDE (degrees/minutes/seconds) 74 ° 04 ' 19 "

HORIZONTAL COLLECTION METHOD: ☒ SURVEY ☐ GPS ☐ MAP

HORIZONTAL REFERENCE DATUM: NAD82

FOR EACH PARCEL, FILL OUT THE FOLLOWING TAX MAP INFORMATION (if more than three parcels, attach additional information)

Parcel Address Parcel No. Section No. Block No. Lot No. Acreage

441-443 Tompkins Avenue 02846-0012 NA 2846 12 4.659

88 Chestnut Avenue 02846-0054 NA 2846 54 0.537

1. Do the property boundaries correspond to tax map metes and bounds?

☒ Yes ☐ No

If no, please attach a metes and bounds description of the property.

2. Is the required property map attached to the application? (application will not be processed without map)

☒ Yes ☐ No

3. Is the property part of a designated En-zone pursuant to Tax Law § 21(b)(6)?

☐ Yes ☒ NoFor more information go to: http://www.nylovesbiz.com/BrownField_Redevelopment/default.asp.

If yes, identify area (name) _____

☐ 50% ☐ 100% of the site is in the En-zone (check one)

PROPERTY DESCRIPTION NARRATIVE: The 5.196-acre property (the "Site" or the "Facility") was developed in ca. 1907 as a pigment production facility and has operated as such continuously. The Facility is scheduled to close during the first quarter of 2008. The Facility consists of a multi-story two-wing manufacturing building, support buildings (offices, warehouse laboratory, maintenance shop), exterior aboveground storage tanks and perimeter parking areas. The property is entirely paved except for minor landscaping. As part of future site redevelopment, it is anticipated that the site buildings and related structures will be demolished.

List of Existing Easements (type here or attach information)

Easement HolderDescription

None

List of Permits issued by the NYSDEC or USEPA Relating to the Proposed Site (type here or attach information)

TypeIssuing AgencyDescription

See attached permit list.

Initials of each Requestor: _____

Block 2345
Lot Area 29
Drop Lot 30

SEE PAGE 11

AVE.

SUN CHEMICAL CORPORATION
TAX BLOCK 2846, LOTS 12 AND 54

2846

12

54

ST. MARY'S

SEE PAGE 13

0 160
APPROXIMATE SCALE IN FEET

AVE.

ST.
BAY NEW YORK AVE.

ENVIRON

BROWNFIELD CLEANUP PROGRAM APPLICATION — SECTION II
SUN CHEMICAL CORPORATION
441 TOMPKINS AVENUE, STATEN ISLAND, NEW YORK

DRAFTED BY:KPM/KPM

DATE: 6/6/08

2116443AD01A

Section III. Current Site Owner/Operator Information

OWNER'S NAME (if different from requestor)

ADDRESS

CITY/TOWN

ZIP CODE

PHONE

FAX

E-MAIL

OPERATOR'S NAME (if different from requestor or owner)

ADDRESS

CITY/TOWN

ZIP CODE

PHONE

FAX

E-MAIL

Section IV. Requestor Eligibility Information (Please refer to ECL § 27-1407)

If answering "yes" to any of the following questions, please provide an explanation as an attachment.

- | | | |
|--|-----|----|
| 1. Are any enforcement actions pending against the requestor regarding this site? | Yes | No |
| 2. Is the requestor subject to an existing order relating to contamination at the site? | Yes | No |
| 3. Is the requestor subject to an outstanding claim by the Spill Fund for this site? | Yes | No |
| 4. Has the requestor been determined to have violated any provision of ECL Article 27? | Yes | No |
| 5. Has the requestor previously been denied entry to the BCP? | Yes | No |
| 6. Has the requestor been found in a civil proceeding to have committed a negligent or intentionally tortious act involving contaminants? | Yes | No |
| 7. Has the requestor been convicted of a criminal offense that involves a violent felony, fraud, bribery, perjury, theft, or offense against public administration? | Yes | No |
| 8. Has the requestor knowingly falsified or concealed material facts or knowingly submitted or made use of a false statement in a matter before the Department? | Yes | No |
| 9. Is the requestor an individual or entity of the type set forth in ECL 27-1407.8(f) that committed an act or failed to act, and such act or failure to act could be the basis for denial of a BCP application? | Yes | No |

Section V. Property Eligibility Information (Please refer to ECL § 27-1405)

- | | | |
|--|-----|----|
| 1. Is the property listed on the National Priorities List? | Yes | No |
| 2. Is the property listed on the NYS Registry of Inactive Hazardous Waste Disposal Sites?
If yes, please provide: Site # _____ Class # _____ | Yes | No |
| 3. Is the property subject to a permit under ECL Article 27, Title 9, other than an Interim Status facility?
If yes, please provide: Permit type: _____ EPA ID Number: _____
Date permit issued: _____ Permit expiration date: _____ | Yes | No |
| 4. Is the property subject to a cleanup order under navigation law Article 12 or ECL Article 17 Title 10?
If yes, please provide: Order # _____ | Yes | No |
| 5. Is the property subject to a state or federal enforcement action related to hazardous waste or petroleum?
If yes, please provide explanation as an attachment. | Yes | No |

Section VI. Project Description

What stage is the project starting at? investigation remediation

Please attach a description of the project which includes the following components:

- Purpose and scope of the project
- Estimated project schedule

Section VII. Property's Environmental History

To the extent that existing information/studies/reports are available to the requestor, please attach the following:

1. Environmental Reports

A phase I environmental site assessment report prepared in accordance with ASTM E 1527 (American Society for Testing and Materials: Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process), and all environmental reports related to contaminants on or emanating from the site.

If a final investigation report is included, indicate whether it meets the requirements of ECL Article 27-1415(2): Yes No

2. Sampling Data: Indicate known contaminants and the media which are known to have been affected:

Contaminant Category	Soil	Groundwater	Surface Water	Sediment	Soil Gas
Petroleum					
Chlorinated Solvents					
Other VOCs					
SVOCs					
Metals					
Pesticides					
PCBs					
Other*					

*Please describe: _____

3. Suspected Contaminants: Indicate suspected contaminants and the media which may have been affected:

Contaminant Category	Soil	Groundwater	Surface Water	Sediment	Soil Gas
Petroleum					
Chlorinated Solvents					
Other VOCs					
SVOCs					
Metals					
Pesticides					
PCBs					
Other*					

*Please describe: _____

4. INDICATE KNOWN OR SUSPECTED SOURCES OF CONTAMINANTS:

Above Ground Pipeline or Tank	Lagoons or Ponds	Underground Pipeline or Tank	Surface Spill or Discharge
Routine Industrial Operations	Dumping or Burial of Wastes	Septic tank/lateral field	Drums or Storage Containers
Adjacent Property	Seepage Pit or Dry Well	Foundry Sand	Electroplating
Coal Gas Manufacture	Industrial Accident	Unknown	
Other: _____			

5. INDICATE PAST LAND USES:

Coal Gas Manufacturing	Manufacturing	Agricultural Co-op	Dry Cleaner	Salvage Yard	Bulk Plant
Pipeline	Service Station	Landfill	Tannery	Electroplating	Unknown
Other: _____					

6. Owners

A list of previous owners with names, last known addresses and telephone numbers (describe requestor's relationship, if any, to each previous owner listed. If no relationship, put "none").

7. Operators

A list of previous operators with names, last known addresses and telephone number (describe requestor's relationship, if any, to each previous operator listed. If no relationship, put "none").

Section VIII. Contact List Information

Please attach, at a minimum, the names and addresses of the following:

1. The chief executive officer and planning board/dept. chair of each county, city, town and village in which the property is located.
2. Residents, owners, and occupants of the property and properties adjacent to the property.
3. Local news media from which the community typically obtains information.
4. The public water supplier which services the area in which the property is located.
5. Any person who has requested to be placed on the contact list.
6. The administrator of any school or day care facility located on or near the property.
7. The location of a document repository for the project (e.g., local library). In addition, attach a copy of a letter sent to the repository acknowledging that it agrees to act as the document repository for the property.

Section IX. Land Use Factors (Please refer to ECL § 27-1415(3))

Current Use: Residential Commercial Industrial Vacant Recreational (check all that apply)

Intended Use: Unrestricted Residential Commercial Industrial (check all that apply)

Please check the appropriate box and provide an explanation as an attachment if appropriate. Provide a copy of the local zoning classifications, comprehensive zoning plan designations, and/or current land use approvals.

Yes No

1. Do current historical and/or recent development patterns support the proposed use? (See #12 below re: discussion of area land uses)

2. Is the proposed use consistent with applicable zoning laws/maps?

3. Is the proposed use consistent with applicable comprehensive community master plans, local waterfront revitalization plans, designated Brownfield Opportunity Area plans, other adopted land use plans?

4. Are there any Environmental Justice Concerns? (See §27-1415(3)(p)).

5. Are there any federal or state land use designations relating to this site?

6. Do the population growth patterns and projections support the proposed use?

7. Is the property accessible to existing infrastructure?

8. Are there important cultural resources, including federal or state historic or heritage sites or Native American religious sites within ½ mile?

9. Are there important federal, state or local natural resources, including waterways, wildlife refuges, wetlands, or critical habitats of endangered or threatened species within ½ mile?

10. Are there floodplains within ½ mile?

11. Are there any institutional controls currently applicable to the property?

12. Describe on attachment the proximity to real property currently used for residential use, and to urban, commercial, industrial, agricultural, and recreational areas.

13. Describe on attachment the potential vulnerability of groundwater to contamination that might migrate from the property, including proximity to wellhead protection and groundwater recharge areas.

14. Describe on attachment the geography and geology of the site.

(By requestor who is an individual)

I hereby affirm that information provided on this form and its attachments is true and complete to the best of my knowledge and belief. I am aware that any false statement made herein is punishable as a Class A misdemeanor pursuant to section 210.45 of the Penal Law.

Date: _____ Signature: _____ Print Name: _____

(By an requestor other than an individual)

Sun Chemical Corporation, f/k/a Sun/DIC Acquisition Corp.

I hereby affirm that I am Sr. V.P. (title) of _____ (entity); that I am authorized by that entity to make this application; that this application was prepared by me or under my supervision and direction; and that information provided on this form and its attachments is true and complete to the best of my knowledge and belief. I am aware that any false statement made herein is punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

Date: June 5, 2008 Signature: Melvin M. Cox Print Name: Melvin M. Cox

SUBMITTAL INFORMATION:

Three (3) complete copies are required.

- Two (2) copies, one paper copy with original signatures and one electronic copy in Portable Document Format (PDF) on a CD or diskette, must be sent to:

Chief, Site Control Section
New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, NY 12233-7020

- One (1) paper copy must be sent to the DEC regional contact in the regional office covering the county in which the site is located. Please check our website for the address of our regional offices: <http://www.dec.ny.gov/about/776.html>

FOR DEPARTMENT USE ONLY

BCP SITE T&A CODE: _____ LEAD OFFICE: _____

ATTACHMENTS
BROWNFIELD CLEANUP PROGRAM APPLICATION
441-443 TOMPKINS AVENUE, STATEN ISLAND, NEW YORK

SECTION II

Listing of environmental permits issued by the NYSDEC or USEPA related to the proposed site.

Permit Type	Permit Number	Expiration	Issued Agency	Details
Air State Facility	2-6404-00016/00095 Mod 2	None	NYSDEC Division of Environmental Permits	Effective 8/4/05, modification No. 2 for addition of two generators
USEPA ID Number	NYD041972761	None		

SECTION IV

In this section regarding Requestor Eligibility, Question 1 requests information regarding any enforcement actions pending against the party completing the application. SUN/DIC Acquisition Corp. (SUN/DIC) is not aware of any pending enforcement actions related to the Site. However, there have been prior enforcement actions related to the Site, all of which have been closed. As recommended by NYSDEC during the December 5, 2007 pre-application conference, these prior enforcement actions are summarized below.

- NYSDEC performed an inspection of the Site on March 6 and March 8, 2000. As a result of these inspections, NYSDEC alleged that the facility had violated certain regulations. The alleged violations were generally associated with hazardous waste compliance and materials handling practices employed at the facility. On January 22, 2002, Sun Chemical Corporation (“Sun Chemical”) sent the executed Consent Order (CO 2-200000608-3283) to NYSDEC together with a check in the amount of \$28,000 representing payment of the civil penalty assessed under the order, thereby resolving this matter.
- NYSDEC performed an inspection of the Site on June 20, June 27 and July 19, 2002. As a result of these inspections, NYSDEC alleged that the facility had violated certain regulations. The alleged violations were generally associated with hazardous waste compliance and materials handling practices employed at the facility. On May 15, 2003, Sun Chemical sent the executed Consent Order (CO 2-20030206-13) to NYSDEC together with a check in the amount of \$1,500 representing payment of the civil penalty assessed under the order, thereby resolving this matter.

In addition, as NYSDEC also recommended during the December meeting, SUN/DIC has completed a search for environmental liens on the property. This search, conducted on January 23, 2008 by Environmental Data Resources, Inc. (EDR) of Milford, Connecticut, indicated that there were no environmental liens, or other activity and use limitations (AULs) on the property.

SECTION VI

This section requests that the applicant provide in a separate attachment complete and detailed information about the project, including the purpose of the project, proposed use after remediation and the estimated project schedule.

Response:

Sun Chemical, the site operator, has ceased operations at the facility and the facility is undergoing demolition. In addition, the property is being marketed to potential developers with the future property use to be determined based on the outcome of those marketing efforts. An estimated schedule for completion of the facility demolition and site remediation is provided below. In light of the New York State Legislature's April 23, 2008 90-day moratorium on acceptance of sites into the BCP, the timing for the BCP process at the site is currently not well defined and thus, the schedule provided below is based on an uncertain start date. Schedule revisions may also be appropriate based on the outcome of ongoing marketing efforts for sale of the site, and the nature of confirmed redevelopment plans.

Estimated Schedule for Completion of BCP Activities	
Task/Activity	Estimated Completion Date (in months from submission of BCP Application)
Submission of BCP Application	May 7, 2008 (June 6, 2008 – revised application)
Acceptance into the BCP (including 30-day public comment period for BCP Application) and completion of Brownfield Cleanup Agreement (BCA)	Month 6
Submission and approval of a <i>Remedial Investigation Work Plan</i> (including required 30-day public comment period, revisions and discussions with NYSDEC)	Month 12
Implementation of <i>Remedial Investigation Work Plan</i> and preparation of a <i>Remedial Work Plan</i>	Month 14
Approval of a <i>Remedial Work Plan</i> (including required 45-day public comment period, revisions and discussions with NYSDEC)	Month 28
Implementation of approved <i>Remedial Work Plan</i> and preparation for <i>Final Engineering Report</i>	Month 26
Approval of <i>Final Engineering Report</i> and issuance of Certificate of Completion	Month 32

SECTION VII.1

Environmental Reports

The application requests a summary of the results of all previous environmental studies, including any Phase I or Phase II investigations, as well as any associated maps and data. The summary should include information concerning past uses, known or suspected contamination, and the names of any known primary contaminants to be addressed. Copies of all environmental reports and assessments must be included. The application must also identify the standard used to prepare such reports (e.g., ASTM E 1527 [American Society for Testing and Materials: Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process]).

Response:

Sun Chemical and its consultant ENVIRON International Corporation (ENVIRON) have evaluated the history of Site development, industrial operations and activities of potential environmental concern in a manner largely consistent with the December 2002 New York State Department of Environmental Conservation Division of Environmental Remediation (DER) Draft *Technical Guidance for Site Investigation and Remediation*, also known as DER-10. That guidance describes the staged process by which a responsible party should evaluate historical Site activities, identify areas of concern (AOCs), and complete appropriate investigations to define and delineate any adverse impacts. In 2001, ENVIRON completed a diligent evaluation of potential areas of environmental concern based on the ownership and operational history of the Site, 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"). Based on the findings of that evaluation, Sun Chemical subsequently completed a Site Assessment of soil and ground water quality in August-October 2006. In addition, ENVIRON supplemented its 2001 evaluation through review of additional historical documents in 2007.

SUN/DIC has prepared the following summary of the scope and results of investigations completed to date under the following subheadings: (a) review of Site development and operational history; (b) summary of 1988 soils investigation; (c) summary of the 1994 study by NYSDEC; (d) summary of the 2001 Preliminary Site Assessment; and (e) summary of 2006 Site Assessment.

A. Review of Site Development and Operational History

As an initial step in developing an understanding of environmental conditions at the Site, ENVIRON reviewed historical Site information, including that available electronically from EDR. The specific resources reviewed by ENVIRON include:

- Sanborn Fire Insurance maps from 1898, 1917, 1937, 1950, 1962, 1977, 1981, 1983 and 1986 through 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. As noted elsewhere in this application, the Site comprises two tax lots in Tax Block 2846, including: (1) Lot 12, the majority of the property and the land on which manufacturing operations have occurred; and (2) Lot 54, designated in tax records as 88 Chestnut Avenue, located east of Lot 12 and formerly a portion of a passenger and freight railroad. For purposes of this summary of Site history, responses reference the specific lots as appropriate. Significant historical Site features are shown in blue on Figure VII.1. Figures VII.2 through VII.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.

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 (the furnaces were presumably coal-fired at this time). Interior features include two precipitation and drying/grinding areas. Exterior features include a furnace, a swimming 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 now entering Lot 12 along its eastern perimeter and extending to the northeastern corner of the Site.

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 a parcel 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) about 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 swimming 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. Lot 54 is 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.

1954 (Aerial Photograph)

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

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. Lot 54 is 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 the “drum and bag storage area” in the July 2000 Preliminary Site Assessment Work Plan it prepared for NYSDEC. 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 exterior materials storage north of the warehouse appears to have been eliminated; 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 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 the two 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 (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.

1988 (Sun Chemical)

According to documentation provided by Sun Chemical, in February 1988, a bulk raw material storage tank west of the machine and carpentry shop was overfilled resulting in the discharge of approximately 545 gallons of a 25% sodium hydroxide solution to the exposed soil surface. Additional information regarding this incident is provided below in Section B below.

1990 (City Directory)

The Site address, with the street name compressed to “Tm pkns 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-gallon UST was then reportedly installed for No. 2 fuel oil storage. (This tank, actually an aboveground storage tank within a secondary containment structure, remains on-site.)

1994 (Sun Chemical)

It is Sun Chemical’s understanding that in 1994, NYSDEC began a Hazardous Substances Disposal Site Study (the “Study”). Based on NYSDEC’s review of the Sun Chemical facility’s historical data evaluated as part of the Study, and on the data obtained by Sun Chemical, NYSDEC identified the following three contaminants of concern (provided with maximum concentrations) in soil at the Site: lead (3,020 ppm), bis(2-ethylhexyl)phthalate (BEHP) (400 ppm) and PCBs (15 ppm). NYSDEC included the Site on a list of 612 sites identified by the Study. The other parameters tested for were either not detected or were identified at levels below NYSDEC soil cleanup objectives (SCOs)¹ or below other levels of potential concern (e.g., USEPA Preliminary Remediation Goals for soils).

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.

B. Summary of 1988 Soil Investigation

Based on internal Sun Chemical documentation, discussions with Sun Chemical personnel and correspondence submitted by Sun Chemical to regulatory agencies and related correspondence, on February 17, 1988 a bulk raw material storage tank was overfilled resulting in the discharge of approximately 545 gallons of a 25% sodium hydroxide solution to the

¹ Recommended soil cleanup objectives are provided in the April 1995 *Technical and Administrative Guidance Memorandum* “Determination of Soil Cleanup Objectives and Cleanup Levels” (TAGM-4046). {These SCOs were developed for State Superfund and Responsible Party sites (i.e., inactive hazardous waste sites) where cleanup to predisposal conditions is determined by the NYSDEC to be not possible or feasible.}

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 Chemical 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) 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 the EP Toxicity method, total cyanide, total phenols, and priority pollutant metals (PPMs), 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 many of the parameters were not present at the Site or were present below their respective NYSDEC soil cleanup objectives (SCOs). Specifically, pesticides and acid extractable compounds were not detected. In addition, only three VOCs (acetone, methylene chloride and toluene) were detected, all at levels well below their respective SCOs. 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 levels were detected but not above applicable criteria. Lead, PCBs and one base/neutral extractable organic compound (BN), di-octyl phthalate, were detected above SCOs 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.

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

In a December 28, 1994 letter to Sun Chemical (attached), 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). As indicated in the preceding subsection, other parameters for which analyses were conducted in 1988 were either not detected or were identified at levels below NYSDEC (SCOs) or below other levels of potential concern (e.g., USEPA Preliminary Remediation Goals for soils). 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 (attached) 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 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.

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 Chemical could take the lead in completing a PSA specifically targeting the former caustic release area. Based on Sun Chemical taking the lead, the prior TAMS/GZA Work Plan was not implemented.

D. 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 St. Mary’s 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 suggestion that the acidic and basic wastewaters released to the floor may be 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 submitted by Sun Chemical was not implemented, and there was no further interaction between ENVIRON and NYSDEC related to soil and ground water conditions on the Site.

E. Summary of 2006 Site Assessment

In light of the Site history information described above, and in preparation for cessation of operations and sale of the property, Sun Chemical and ENVIRON developed and implemented a two-stage Site Assessment in August-October 2006. The Site Assessment consisted of site-wide ground water sampling and soil sampling targeted to areas of potential environmental concern. ENVIRON developed this scope of work consistent with the DER-10 to evaluate both former and current industrial features of potential concern. Table VII-2 identifies the specific areas of concern identified at the Site, the basis for conducting sampling in those areas, and the scope of sampling conducted therein. The sampling locations are shown on Plate 1.

In the initial sampling program, completed in August 2006, soil sampling was targeted to those constituents considered to be potentially associated with the former or current industrial activities of concern. Given the nearly 100-year history of pigment production, analyses for Priority Pollutant Metals (PPMs) and barium were included as the primary markers for potential adverse impacts from former Site operations. Other analytes were included in the sampling program in areas where they were of potential concern, including Target Compound List (TCL) volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) and polychlorinated biphenyls (PCBs). The specific rationale for including these analytes is provided on Table VII-2.

Soil sampling was also performed in October 2006, primarily for delineation purposes and therefore focused on a targeted suite of constituents for each AOC in which additional sampling was performed.

Sun Chemical's January 2008 *Site Characterization and Remedial Investigation Report* (including a CD-ROM of the associated laboratory data reports) is being submitted concurrent with this application. That report describes in detail the scope and results of the soil and ground water sampling program. Analytical results of the two-phase sampling program are summarized on Table VII-3 (soil) and Table VII-4 (ground water), excerpts from the January 2008 report. Laboratory reports for these sampling programs are also attached, and include reports prepared by Severn-Trent Laboratories, Inc. of Edison, New Jersey.

ENVIRON and Sun Chemical evaluated the soil analytical results relative to NYSDEC's Soil Cleanup Objectives (SCOs) for the Brownfield Cleanup Program promulgated by NYSDEC in December 2006 (Subpart 375-6). Specifically, the data were initially compared to the unrestricted residential SCOs, and also to the restricted-use residential, commercial and industrial SCOs. Constituent concentrations above each specific set of SCOs are identified by color on Table VII-3.

The soil data comparison indicated that VOCs and constituents in the acid-extractable fraction of the SVOCs were either not detected, or where present, were at concentrations well below the most restrictive SCOs. On the other hand, eight metals (i.e., arsenic, barium, cadmium, chromium, copper, lead, mercury and nickel) were detected above certain SCOs. There were also sporadic exceedance of BNs and PCBs identified, typically collated with metals impacts. The locations at which constituents were present above commercial-use SCOs, and the specific suite of constituents above those objectives, are identified on Plate 2.

ENVIRON evaluated the specific constituents detected above SCOs to determine if those exceedances resulted from production operations or other Site activities. For example, the metals data were reviewed to identify any locations where pigment-related metals were detected at concentrations indicative of pigment raw material or finished product releases. For each constituent, ENVIRON and Sun Chemical believe that there is evidence that the contamination resulted from Site operations, as follows:

- The presence and distribution of metals at concentrations above commercial-use SCOs is indicative of on-site sources. In particular, the highest concentrations of these metals

were generally reported in the uppermost sampling interval, a pattern consistent with industrially derived impacts. For example, many of the highest concentrations of arsenic, barium and lead (the three metals detected most frequently above SCO) were found in surface soils in AOCs 3, 4 and 5, areas of long-term pigment handling south of the Blue Wing, including in former pigment storage tanks, and in AOC 6, a former aboveground storage tank location south of the Red Wing. Arsenic exceedances were also reported in surface soils in AOC 13, a former coal storage location, and at certain borings in AOC 14, another long-term material storage area. In light of these data, including the detection of metals contamination primarily in surface/near-surface soils, and the historical use of this portion of the Site, Sun Chemical believes that these metal impacts result from industrial operations.

- Additionally, the elevated concentrations of SVOCs, as well as metals, primarily in near-surface soils at boring 203 in AOC 2 are associated with the former railroad siding, with pigment handling also a likely source of certain metals, including barium, chromium and lead.
- PCB and SVOC contamination in AOC 14, detected in 2006 as well as in prior sampling in this area in 1988, is likely related to historical equipment storage activities in this area. As noted above, this area appears to have been used for storage since the mid-1950s, if not earlier. Further, elevated PCB concentrations were typically only detected in the upper sampling interval, consistent with an industrial source.

Ground water data were compared to NYSDEC Part 703 ground water quality standards. Constituent concentrations above these standards are indicated on Table VII-4, and include certain chlorinated VOCs primarily in wells MWs 3 and 4, with much lower concentrations noted in MW1, the upgradient well, and MW5D. The VOCs detected at the highest concentrations in the August and October 2006 samples were dichlorinated ethanes and ethenes, with the parent VOCs (e.g., tetrachloroethylene [PCE] and trichloroethylene [TCE]) largely degraded, it is likely that any release that may have resulted in the concentrations was not a recent event. The distribution of these VOC concentrations indicates that the impacts likely resulted from on-site activities. In particular, the concentrations of chlorinated VOCs were markedly higher at MW3 compared to those at downgradient well MW4. This suggests that the source of those VOC impacts is near or upgradient of MW3. Although there is no specific information indicating that chlorinated VOCs were used at the Site, given the ubiquity with which those chemicals (particularly PCE and TCE) were historically used in industrial and maintenance applications, the presence of these impacts at a facility with a lengthy industrial history, as this Site, is not unusual. However, 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.

SECTION VII.2

Summarized Environmental Media Sampling Data

The application requests a table of known contaminants (from sampling and analysis) at the property with the maximum concentration detected and the media in which each contaminant was detected. This response should also reference and include laboratory reports.

Response:

Tabulated data from the August and October 2006 sampling programs are provided in the response to Section VII.1. As noted therein, these summary data tables are excerpted from a January 2008 *Site Characterization and Remedial Investigation Report* prepared by ENVIRON. As these data indicate, certain constituents were detected in soils at concentrations exceeding NYSDEC's Part 375 Soil Cleanup Objectives for commercial use, including three metals (i.e., arsenic, lead and mercury), certain BNs, and PCBs.

The presence of this contamination will materially complicate the planned Site redevelopment. Specifically, based on Sun Chemical's recent discussions with potential purchasers/developers of the Site, the real estate market seeks demolition and remediation prior to sale of the property to a developer. These developers have indicated that it would not be feasible to reuse the buildings and other physical features as part of redevelopment plans, and consequently, the property is much less saleable with the existing features. Sun Chemical has also been advised by potential Site developers that any on-site contamination would need to first be addressed and regulatory closure approval obtained. As such, remediation of the Site under the Brownfields Cleanup Program is a pre-requisite for Site redevelopment, a complication that would not exist if contaminated soils did not exist at the Site.

In light of the above, Sun Chemical intends to begin preparing the Site through the demolition of all buildings, removal of all foundations and other support structures, removal of all pavement and rough regrading. As previously indicated to NYSDEC, Sun Chemical intends to complete these activities in Summer 2008.

Given Site topography, soil remediation would be necessary to enable completion of the building demolition. As discussed with NYSDEC during the December 5, 2007 pre-application meeting, the Sun Chemical facility was constructed on a hill with areas of relatively steep topography, such that several interior retaining walls were required to enable construction of the main building. These interior retaining walls are located within the northern and portions of the Red Wing, and the eastern section of the Blue Wing, areas where constituents have been detected above commercial-use SCOs. As part of Sun Chemical's planned activities to prepare the Site for redevelopment, those retaining walls would need to be removed to enable the Site to be rough-graded for proper storm water drainage and other purposes. This regrading therefore necessitates the prior remediation of impacted soils to prevent that contamination from being disturbed and spread. Sun Chemical would likely address this soil contamination via an Interim Remedial Measure (IRM) concurrent with the demolition activities.

In addition, certain VOCs were identified in ground water at the Site at concentrations exceeding NYSDEC ground water criteria per NYCRR Part 703. The specific constituents primarily consisted of dichlorinated VOCs, with lesser detections of benzene, chloroform and 1,1,1-trichloroethane. The results of that sampling are described in detail in the response to Section VII.1.E.

SECTION VII.3**Suspected Contaminants**

The application requests identification of suspected contaminants and the media potentially affected.

Response:

Based on the soil and ground water data discussed above in the response to Section VII.1, and presented in Tables VII.1 and VII.4, ENVIRON and Sun Chemical believe that the 2006 remedial investigation identified all Site contaminants and evaluated all environmental media of potential concern, except that the presence of chlorinated VOCs in ground water near the southern property boundary, albeit at relatively low concentrations, may warrant additional evaluation.

During the December 5, 2007 pre-application meeting, NYSDEC indicated that pursuant to Part 375 and consistent with the technical guidance of DER-10, the Certificate of Completion that NYSDEC would ultimately issue upon completion of remedial actions at the Site would certify that those actions addressed all Part 375-regulated constituents. As discussed with NYSDEC at that time, analyses for certain constituents (e.g., pesticides) were not completed during the 2006 sampling programs because there is no information available indicating that those compounds were handled at the Site. Nonetheless, in light of its policies, NYSDEC indicated that sampling must be completed to evaluate potential impacts of that full suite of constituents. Accordingly, limited additional soil sampling would be required to confirm that constituent concentrations above SCOs are not present for those Part 375-regulated constituents for which samples have not yet been analyzed. These constituents include pesticides, total cyanide, hexavalent chromium and manganese. Sun Chemical believes that this sampling would be most appropriately completed prior to any soil remediation to be conducted as part of the Site decommissioning/demolition discussed elsewhere in this application. Rather than being conducted on a random basis (e.g., a grid-based sampling program), ENVIRON and Sun Chemical believe that targeted additional sampling will address NYSDEC requirements in this regard. The basis for and specific scope of additional sampling recommended to characterize the full suite of Part 375 constituents follows.

- Based on the review of historical Site operations, a greenhouse was formerly located on-site, within the boundaries of the current machine and carpentry shop proximate to prior soil boring 301, as shown on Plate 1. Although the greenhouse appears to have been associated with a former residence present at that time, rather than a commercial operation, it is possible that pesticides may have been handled in the greenhouse. In addition, elevated concentrations of arsenic and lead were reported in surface soils at nearby borings 301, 302 and 401; lead arsenate was a pesticide historically used in the early part of the 20th century, primarily in orchards. Accordingly, soil samples would be obtained from Boring 303 proximate to the former greenhouse location and these prior borings. Additionally, soil sampling would be completed to evaluate potential pesticide concentrations at proposed boring 205 in AOC 2 near boring 203 and at proposed boring 1412 in AOC 14 near boring 1408, where elevated arsenic and lead concentrations were also identified. Two soil samples will be collected from each of these three proposed borings (from 0-0.5' and 1.5-2.0') for pesticide analyses by USEPA Method 8081A.
- Analyses for metals completed to date at the Site have targeted all metals that were considered potentially handled at the Site as part of former pigment production activities. To complete the evaluation of Part 375 metals, however, analyses for hexavalent chromium would be conducted at select locations where total chromium impacts have been identified above SCOs. For example, analyses for hexavalent

chromium would be completed at the locations where the two highest total chromium concentrations were identified in 2006 (and the only two occurrences above the restricted-use SCO of 180 mg/kg), including boring 102 (total chromium at 511 ppm) and boring 1606 (total chromium at 449 ppm). As indicated in Table VII.3, there were other instances where total chromium was detected above the unrestricted SCO of 36 ppm. Accordingly, to determine if those exceedance include a component of hexavalent chromium impact above its unrestricted use SCO of 22 ppm, two other soil borings will be completed proximate to the borings where the next two highest total chromium concentrations had been detected, including in AOC 3 at boring 301 (total chromium at 138 ppm) and AOC 6 at boring 601 (total chromium at 329 ppm). These borings include locations where bichromate storage tanks had been located (AOCs 3 and 4) and where acids may have been released to the soils (AOC 6). Samples collected from borings 205 and 1412 will also be analyzed for hexavalent chromium to provide data in other portions of the Site where total chromium concentrations were detected above the 36-ppm SCO. The depth intervals for the recommended hexavalent chromium sampling at these six locations would be the same as those at which the metals impacts have been detected at each of the prior locations.

- Analyses for manganese would be completed for the soil samples to be collected from each of the six locations targeted for hexavalent chromium testing.
- Although there is no information indicating that cyanide was handled on-site as part of industrial operations, concentrations of reactive cyanide (albeit below RCRA threshold concentration) were reported in waste classification samples collected by Sun Chemical in 1988 as part of remedial actions undertaken to address the caustic solution release. In light of those historical data, Sun Chemical proposes to collect additional samples from AOC 14 for total cyanide analyses near location 1412, as well as from locations 205 and 303 to provide a broader evaluation of potential cyanide concentrations.

Sun Chemical may also complete additional delineation soil sampling, beyond that described above, to more fully define the extent of soil impacts requiring remediation. However, additional ground water sampling for these constituents is not considered necessary at this time. The need for further ground water sampling would be evaluated following receipt of the additional soils analytical data and comparison of those results to SCO for protection of ground water.

SECTION VII.4

Known or Suspected Sources of Contaminants

The application requests identification of known or suspected sources of the contamination specified in the response to Section VII.1.

Response:

Based on its understanding of the Facility and a diligent evaluation of the history of Site development and industrial operations, ENVIRON and Sun Chemical believe that the soil and ground water impacts identified above may have resulted from one or more of the following

current and former Site features: routine industrial operations, aboveground storage tanks and piping, underground pipeline, surface spills/discharges, activities at an adjacent property, and/or other presently unknown activities.

SECTION VII.5

The application requests identification of past land uses.

Response:

As detailed in the comprehensive review of Site history provided in the response to Section VII.1, prior to 1908 the Site was used for residential, lodging and entertainment purposes. In 1908, the Site was developed for industrial operations, and has operated in that capacity without material changes since that time. At least one residence, used for employee housing, remained on the property until at least the 1960s.

SECTION VII.6

Property Owner History

The application requests the names, address and phone numbers of all previous owners, including a statement as to any relationship of the requestor to any prior owner(s).

Available operation information is provided below for both lots that comprise the current property. This information was obtained from titles for the referenced lots, and from historical documentation (deed information prior to Sun Chemical's ownership is not currently available). Prior owners are not related to SUN/DIC Acquisition Corp. or Sun Chemical Corporation, the Site operator. Additionally, SUN/DIC Acquisition Corp. and Sun Chemical Corporation do not have contact information for any of the prior owners.

Block 2846 Lot 12

Owner	Date	Information Sources
Caprera Hotel and private property owner(s)	Pre-1898 to 1908	Sanborn Fire Insurance map
G. Siegle & Co. Color Works, and private property owner(s)	1908 to pre-1937	Sanborn Fire Insurance maps
The Ansbacher-Siegle Corp., and private property owner(s)	Pre-1937 to December 2, 1957	Sanborn Fire Insurance maps and Deed
Sun Chemical Corporation	December 2, 1957 to December 31, 1986	Deed
SUN/DIC Acquisition Corp.	December 31, 1986 to present	Deed

Block 2846 Lot 54

Owner	Date	Information Sources
Staten-Island South Beach, Inc.	Unknown to June 19, 1984 (Note below that this lot was operated by the Staten Island Rapid Transit Railroad prior to 1898 until ca. 1980.)	Deed and Sanborn Fire Insurance maps
Sun Chemical Corporation	June 19, 1984 to December 31, 1986	Deed
SUN/DIC Acquisition Corp.	December 31, 1986 to present	Deed

SECTION VII.7**Property Operator History**

The application requests the names, address and phone numbers of all previous operators, including a statement as to any relationship of the requestor to any prior operator(s).

Sun Chemical has developed the following operation history from information contained on the Deeds for the Site, as well as from Sanborn Fire Insurance maps and City Directory information provided by EDR on November 9, 2007. Prior operators are not related to Sun Chemical Corporation nor does Sun Chemical Corporation have current addresses and telephone numbers, or other contact information, for any of the prior operators.

Block 2846 Lot 12

Operator	Date	Information Sources
Caprera Hotel and undeveloped	Pre-1898 to 1908	Sanborn Fire Insurance map
G. Siegle & Co. Color Works, and residential (likely employee housing)	1908 to pre-1937	Sanborn Fire Insurance maps
The Ansbacher-Siegle Corp., and residential (employee housing)	Pre-1937 to December 2, 1957	Deed, Sanborn Fire Insurance maps and Sun Chemical
Sun Chemical Corporation and residential until ca. 1980 (employee housing)	December 2, 1957 to present	Deed, Sanborn Fire Insurance maps and Sun Chemical

Block 2846 Lot 54

Operator	Date	Information Sources
Staten Island Rapid Transit Railroad	Pre-1898 to ca. 1980	Sanborn Fire Insurance maps
Sun Chemical Corporation (undeveloped then parking area)	Ca. 1980 to present	Deed, aerial photographs and Sanborn Fire Insurance maps

SECTION VIII**Site Contact List Information**

The application requests the names and addresses of the parties on the Site Contact List (SCL). The SCL consists of i) the chief executive officer and planning board/dept., chairperson of each county, city, town, and village in which the site is located; ii) residents, owners, and occupants of the site and properties immediately adjacent to the site; iii) local news media from which the community typically obtains information; iv) the public water supplier which services the area in which the site is located; v) any person who has requested to be placed on the SCL; and, vi) the administrator of any school or day care facility located on or near the site. Also, provide the name and address of a document repository, along with a copy of a letter sent to the repository acknowledging that it agrees to act as the document repository for the site.

Contact Type	Contact Information
CEO/Planning Board Chairperson	Mr. Len Garcia-Duran Director Department of City Planning Staten Island Office 130 Stuyvesant Place, 6th Floor. Staten Island, NY 10301-2511 718-556-7240
Adjacent Property Owners/Occupants	Jimmy J. Ni 55 Chestnut Avenue, Staten Island, NY 10305 Nelson Perez 70 Chestnut Avenue, Staten Island, NY 10305 Slawomir Blaszyk 84 Chestnut Avenue, Staten Island, NY 10305 Lee Fisher 95 St. Mary's Avenue, Staten Island, NY 10305 F. Carullo 97-101 St. Mary's Avenue, Staten Island, NY 10305

Contact Type	Contact Information
Adjacent Property Owners/Occupants (continued)	<p>Padma Nagesar 103 St. Mary's Avenue, Staten Island, NY 10305</p> <p>Frank S. Fertitta, Jr. 105 St. Mary's Avenue, Staten Island, NY 10305</p> <p>Nicholas J. Statile 107 St. Mary's Avenue, Staten Island, NY 10305</p> <p>Kujtim Demirovic 109 St. Mary's Avenue, Staten Island, NY 10305</p> <p>Remedios De Los Reyes 113 St. Mary's Avenue, Staten Island, NY 10305</p> <p>Victoria M. Lovari 114 St. Mary's Avenue, Staten Island, NY 10305</p> <p>James Nadaramia 117 St. Mary's Avenue, Staten Island, NY 10305</p>
Local News Media Outlets	<p>Staten Island Advance 950 Fingerboard Rd. Staten Island, New York 10305</p>
Public Water Supplier	<p>City of New York Bureau of Water Supply c/o City of New York Department of Environmental Protection 59-17 Junction Boulevard, 13th Floor Flushing, NY 11373</p>
Other Persons Requested to be on SCL	None at this time
Administrator of Nearby School/Day Care Facilities	<p>Monsignor John Servodido, Church Pastor St. Joseph's Parochial School Hall 139 St. Mary's Avenue Staten Island, NY 10305 (718) 816-0047</p>
Document Repository	<p>St. George Library Center 5 Central Avenue Staten Island, NY 10301 (718) 442-8560</p>

SECTION IX

Current Site Use Summary

The applicant should identify the current use category and attach a summary of current business operations or uses, with an emphasis on identifying possible contaminant source areas. If operations or uses have ceased, the cessation date should be provided.

ATTACHMENT B

SECTION VIII

Site Contact List Information

The application requests the names and addresses of the parties on the Site Contact List (SCL). The SCL consists of i) the chief executive officer and planning board/dept., chairperson of each county, city, town, and village in which the site is located; ii) residents, owners, and occupants of the site and properties immediately adjacent to the site; iii) local news media from which the community typically obtains information; iv) the public water supplier which services the area in which the site is located; v) any person who has requested to be placed on the SCL; and, vi) the administrator of any school or day care facility located on or near the site. Also, provide the name and address of a document repository, along with a copy of a letter sent to the repository acknowledging that it agrees to act as the document repository for the site.

The following SCL was prepared in accordance with above, as well as incorporate additional contacts pursuant to comments to the June 6, 2008 Revised BCP Application received from NYSDEC Region 2 on August 7, 2008.

Contact Type	Contact Information
CEO/Planning Board Chairperson	Mr. Len Garcia-Duran, Director Department of City Planning Staten Island Office 130 Stuyvesant Place, 6th Floor. Staten Island, NY 10301-2511 718-556-7240 Amanda Burden Director New York City Department of Planning 22 Reade Street New York, NY 10007 Tel: (212) 720-3300 Fax: (212) 720-3219
Other Elected Officials	Mayor Michael R. Bloomberg City Hall, New York, NY 10007 Tel.: 311 (212-NEW-YORK outside NYC) Fax: 212-788-2460 Hon. Michael E. McMahon NYC Council member 130 Stuyvesant Place, 6th Floor Staten Island, NY 10301 Tel: (718) 556-7370 Fax: (718) 556-7389 Email: mcmahon@council.nyc.ny.us Hon. Matthew Titone NYS Assembly member 853 Forest Avenue Staten Island, NY 10310 Tel: (718) 442-9932 Email: titonem@assembly.state.ny.us

	<p>Hon. Diane J. Savino NYS Senator 36 Richmond Terrace Staten Island, NY 10301 Tel: (718) 727-9406 Fax: (718) 727-9426 Email: savino@senate.state.ny.us</p> <p>Hon. Vito J. Fossella US House of Representatives 4434 Amboy Road, 2nd Floor Tel: (718) 356-8400 Fax: (718) 356-1928 Email: vito.fossella@mail.house.gov</p> <p>Hon. Janele Hyer-Spencer NYS Assembly member 586 Midland Avenue, S-1B Staten Island, NY 10306 Tel: (718) 667-5891 Fax: (718) 667-5879 Email: HyerSpencer@assembly.state.ny.us</p>
Local News Media Outlets	<p>Staten Island Advance 950 Fingerboard Rd. Staten Island, New York 10305</p> <p>New York Daily News 450 West 33rd Street New York, NY 10001 Tel: (212) 210-2100</p> <p>New York Post 1211 Avenue of the Americas New York, NY 10036 Tel: (212) 930-8000</p> <p>New York 1 News Attn: Ms. Bree Driscoll 75 Ninth Avenue, 6th Floor New York, NY 10011 Tel: (212) 379-3306 Fax: (212) 379-3583 Email: bree.driscoll@ny1news.com</p>

Public Water Supplier	<p>New York City Department of Environmental Protection Bureau of Water Supply 465 Columbus Avenue Valhalla, NY 10595</p> <p>New York City Department of Environmental Protection Bureau of Water and Sewer Operations 96-05 Horace Harding Expressway Flushing, NY 11373</p>
Local Community/Neighborhood Association/Board	<p>Mr. John Guzzo, Chairperson Joseph Carroll, District Manager Staten Island Community Board 1 Rosebank, Ft. Wadsworth and Shore Acres Area Committee 1 Edgewater Plaza, Suite 217 Staten Island, NY 10305 Tel: (718) 981-6900 Fax: (718) 720-1342 Email: sicb1@si.rr.com</p>
Civic, Community, Educational and Religious Institutions	<p>Garibaldi Meucci Museum 420 Tompkins Ave. Staten Island, NY 10305</p> <p>Salve Regina Inc. 195 Saint Mary's Ave. Staten Island, NY 10305</p> <p>American Legion 174 Saint Mary's Ave Staten Island, NY 10305</p>
Other Persons Requested to be on SCL	None at this time
Administrator of Nearby School/Day Care Facilities	<p>Monsignor John Servodido, Church Pastor St. Joseph's Parochial School Hall 139 St. Mary's Avenue Staten Island, NY 10305 (718) 816-0047</p> <p>P.S. 13 - Margaret L. Lindenmeyer School 191 Vermont Avenue Staten Island, NY 10305 718-447-1462 Principal: Constance Montijo</p> <p>St. Mary School 1124 Bay Street Staten Island, NY 10305 718-447-1842</p>

Document Repository	<p>St. George Library Center 5 Central Avenue Staten Island, NY 10301 (718) 442-8560</p> <p>Staten Island Community Board 1 Rosebank, Ft. Wadsworth and Shore Acres Area Committee 1 Edgewater Plaza, Suite 217 Staten Island, NY 10305 Tel: (718) 981-6900 Fax: (718) 720-1342</p>
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Adjacent Property		Owners/Occupants
Tax Block	Tax Lot	
2844	1	Kenneth Parker 409 Tompkins Avenue, Staten Island, NY 10305
2844	15	Lynhurst Realty LLC 172 Lynhurst Avenue, Staten Island, NY 10305
2844	127	Jose Hernandez/Lucy DeJesus 87 Chestnut Avenue, Staten Island, NY 10305
2844	128	Jin Tang/Zhong Zhi 89 Chestnut Avenue, Staten Island, NY 10305
2844	129	New York State P S C Chestnut Avenue, Staten Island, NY 10305
2844	135/136	Gladys Roldan 103 Chestnut Avenue, Staten Island, NY 10305
2844	138	Chestnut Homes, Inc. 105 Chestnut Avenue, Staten Island, NY 10305
2844	139	Marek Sugier 107 Chestnut Avenue, Staten Island, NY 10305
2844	140	Chestnut Homes, Inc. 109 Chestnut Avenue, Staten Island, NY 10305
2844	141	Jonathan and Juan Garcia 111 Chestnut Avenue, Staten Island, NY 10305
2844	142	Susana Cornali 113 Chestnut Avenue, Staten Island, NY 10305
2844	143	Robert Bacant 113A Chestnut Avenue, Staten Island, NY 10305
2844	144	Javier Cruz 115 Chestnut Avenue, Staten Island, NY 10305
2844	145	Fernley and Josephine Edmund 117 Chestnut Avenue, Staten Island, NY 10305
2844	146	Jose Concepcion 119 Chestnut Avenue, Staten Island, NY 10305
2844	147	Arocho Caarmen 121 Chestnut Avenue, Staten Island, NY 10305
2844	148	Brian Duboulay 123 Chestnut Avenue, Staten Island, NY 10305
2844	149	Roberto Funes 125 Chestnut Avenue, Staten Island, NY 10305
2844	155	Lynhurst Avenue Property Management 137 Chestnut Avenue, Staten Island, NY 10305
2846	56	Slawomir Blaszyk 84 Chestnut Avenue, Staten Island, NY 10305
2846	115	Ashraful Alam 61 Butler Place, Staten Island, NY 10305

2846	175	Government owned. Further details not available.
2846	244, 247, 249	New York State Public Service Commission Empire State Plaza – Agency Building 3 Albany, NY 12223-1350
2846	250	Matteo Nicolosi 97-99 St. Mary's Avenue, Staten Island, NY 10305
2846	252	Padma Nagesar 103 St. Mary's Avenue, Staten Island, NY 10305
2846	253	Frank S. Fertitta, Jr. 105 St. Mary's Avenue, Staten Island, NY 10305
2846	254	Nicholas J. Statile 107 St. Mary's Avenue, Staten Island, NY 10305
2846	255	Kujtim and Drita Demirovic 109 St. Mary's Avenue, Staten Island, NY 10305
2846	256, 400	Remedios De Los Reyes 113 St. Mary's Avenue, Staten Island, NY 10305
2846	257	Victoria M. Lovari 114 St. Mary's Avenue, Staten Island, NY 10305
2846	258	James Nadaramia 117 St. Mary's Avenue, Staten Island, NY 10305
2846	259	St. Joseph's Roman Catholic Church 119 St. Mary's Avenue, Staten Island, NY 10305
2846	260	Eddie Martinez 123 St. Mary's Avenue, Staten Island, NY 10305
2846	300	No records found
2846	315	Lee Fisher 95 St. Mary's Avenue, Staten Island, NY 10305
2966	32	Sons of Italy Foundation 420 Tompkins Avenue, Staten Island, NY 10305
2967	1	St. Joseph's Roman Catholic Church 171 St. Mary's Avenue, Staten Island, NY 10305
2967	116	Parks and Recreation, West Arsenal Tompkins Avenue, Staten Island, NY 10305
2967	122	Karen Carlson 440 Tompkins Avenue, Staten Island, NY 10305
2967	123	Theresa Valentine 442 Tompkins Avenue, Staten Island, NY 10305
2967	125	Gregory Albert, Jr. 446 Tompkins Avenue, Staten Island, NY 10305
2967	126	Meriam Sales 450 Tompkins Avenue, Staten Island, NY 10305
2967	127	Lim Prospero 452 Tompkins Avenue, Staten Island, NY 10305

Response:

Sun Chemical ceased industrial operations at the Site in February 2008. The Site had been used for industrial purposes, operated by Sun Chemical for the production of non-toxic pigments for ink, plastics, coatings and cosmetics preparations. These were produced as pH-buffered aqueous slurries in various aboveground tanks/reactors located in the Red Wing and Blue Wing of the main manufacturing building (see the detailed interior plan provided in the Appendix for Section VII.1). The slurries were filtered in 19 filter presses to remove the majority of the free liquids, which were either acidic or basic depending on the specific pigment being produced. Wastewater generated during the filtering process drained to the floor beneath the presses and was directed by gravity flow to the facility's industrial sewer system for pretreatment (neutralization) prior to a permitted discharge to the sanitary sewer system. The filter cake was removed from the presses for drying and grinding, prior to being packaged in bags or plastic-lined fiber drums for shipment to customers.

Intended Site Use Summary

The applicant should identify the use category post-remediation and attach a statement detailing the specific proposed use.

Response:

The property is being marketed to potential developers. Future property use will be determined based on the outcome of those marketing efforts. Sun Chemical will provide additional relevant information in response to this question as redevelopment plans are confirmed.

SECTION IX.1**Historical/Current Development Patterns**

Do historical and/or recent development patterns in the neighborhood support the proposed use? (See Section IX.12 below re: discussion of area land uses).

Response:

Sun Chemical will provide relevant information in response to this question as redevelopment plans are confirmed.

SECTION IX.2**Applicable Zoning Laws/Maps**

Is the proposed use consistent with applicable zoning laws/maps? The applicant should provide relevant documentation supporting the consistency.

Response:

Sun Chemical will provide relevant information in response to this question as redevelopment plans are confirmed. However, based on the current Staten Island zoning map, prepared following rezoning activities in 1998-2003, the majority of the Site (Block 2846 Lot 12) is zoned M3-1 (Manufacturing), with Block 2846 Lot 54 zoned as R3A (residential area with detached

single- or two-family homes only), a relatively low-density designation with a dwelling unit factor of 710. According to the New York City Planning Commission, M3 zoning, also defined as Use Group 18, consists of heavier manufacturing activities, although these areas might also include commercial and other non-manufacturing activities. Despite this zoning, however, as evident from Figure IX.1, an enlarged section of the New York City Planning Commission Zoning Map for Staten Island (Map 21d), the Site is also bordered to the east, west and south by properties zoned as R3A. As such, the immediately surrounding properties are largely zoned for middle-income residential uses, consistent with the majority of actual neighboring property uses. Nonetheless, the New York City Zoning Resolution indicates that residential development is prohibited in M3 zones. A zoning variance would therefore be required to pursue any residential Site use.

SECTION IX.3

Comprehensive Plans

Is the proposed use consistent with applicable comprehensive community master plans, local waterfront revitalization plans, designated Brownfield Opportunity Area plans, other adopted land use plans?

Response:

Sun Chemical will provide relevant information in response to this question as redevelopment plans are confirmed.

SECTION IX.4

Environmental Justice Concerns

Are there any Environmental Justice Concerns? (See §27-1415(3)(p)).

Response:

Sun Chemical is not aware of any environmental justice concerns related to the Site.

SECTION IX.5

Federal and State Designations

Are there any federal or state land use designations relating to this site?

Response:

Sun Chemical is not aware of any federal or state land use designations relating to this Site.

SECTION IX.6

Population Growth Patterns

Do the population growth patterns and projections support the proposed use? The applicant can obtain information on demographics at:

http://www.nylovesbiz.com/Workforce_and_Demographics/workforce_by_region_flash.asp

Response:

Sun Chemical will provide relevant information in response to this question as redevelopment plans are confirmed.

SECTION IX.7

Existing Infrastructure

Is the property accessible to existing infrastructure (highways, utilities, sewer and water lines, etc.)?

Response:

The property is currently serviced by all major utilities, including sanitary sewer, water, electricity and natural gas. The Facility is along a municipal roadway that has storm water drainage lines. The Site is located approximately ¼ mile north of the intersection of Tompkins Avenue and Hylan Boulevard, which provides ready access to Interstate 278 and the Verrazano Narrows Bridge and bridges to New Jersey.

SECTION IX.8

Cultural Resources

Are there important cultural resources, including federal or state historic or heritage sites or Native American religious sites within ½ mile?

Response:

Sun Chemical is not aware of any important cultural resources, or historic or heritage sites, within ½ mile of the Site, with the exception of the following:

1. The Garibaldi-Meucci Museum, located at 420 Tompkins Avenue, across from the Site.
2. The Alice Austen House Museum and Park, located at 2 Hylan Boulevard approximately ¼ mile southeast of the Site.

According to a search of federal and state databases completed by Environmental Data Resources, Inc. (EDR) on November 9, 2007 and information available online, there are no Native American religious or other heritage sites within ½ mile of the Site.

SECTION IX.9

Natural Resources

Are there important federal, state or local natural resources, including waterways, wildlife refuges, wetlands, or critical habitats of endangered or threatened species within ½ mile?

Response:

Sun Chemical is not aware of any wildlife refuges or critical habitats within ½ mile of the Site. Confirmatory information regarding critical habitats of endangered or threatened species has been requested from the New York Natural Heritage Program; a response to that request is pending. In addition, the applicant has identified the following important federal, state and local natural resources, waterways and wetlands within ½ mile of the Site:

1. Upper New York Bay is located approximately 1,200 feet northeast of the Site. The portion of Upper New York Bay within ½ mile of the Site is identified on the online National Wetlands Inventory (NWI) map for The Narrows quadrangle as estuarine/marine deep water. The EDR database search report noted in the immediately preceding response to Section IX.8 indicated that there are wetlands present along the shore of Upper New York Bay within ½ mile of the Site. However, no wetlands were reported in the NWI.
2. Eibs Pond Park Preserve, a 39-acre New York City park containing Eibs Pond, is located approximately 1,700 feet southwest of the Site. According to the New York City Parks Department, Eibs Pond Park Preserve features grassland and freshwater wetlands habitats. Additionally, the NWI for The Narrows quadrangle indicates that the Eibs Pond Park Preserve include a freshwater pond and freshwater emergent wetlands.
3. The NWI also identified a freshwater forested/shrub wetlands located at the western terminus of Donley Avenue, adjacent to the eastern side of the Staten Island Railway, approximately ½ south-southwest of the Site.

SECTION IX.10

Flood Plains

Are there floodplains within ½ mile of the site?

Response:

According to the Federal Emergency Management Association (FEMA) Flood Insurance Rate Map (FIRM) for New York City (Panel 0327F), there are two floodplains within ½ mile of the Site:

1. Upper New York Bay, flood zones being approximately 600 to 1,100 feet to the northeast and including floodplains designated as Zones X, AE and VE.

2. Eibs Pond located approximately 1,700 feet southwest of the Site and including Zone AE floodplains.

SECTION IX.11

Institutional Controls for Remedial Program

Are there any institutional controls currently applicable to the property that were imposed as part of a remedial program? If yes, describe the controls and the remedial program under which the controls were imposed.

Response:

There are no institutional controls currently applicable to the property.

SECTION IX.12

Surrounding Site Use Summary

The applicant should describe on an attachment the proximity to real property currently used for residential use, and to urban, commercial, industrial, agricultural and recreational areas.

There are no agricultural areas in proximity to the Site. Other neighboring property uses are summarized in the following table, and are indicated on Figure IX.12.

Direction from Site	Site Use(s)
North	Single-family row homes along the block of Chestnut Avenue across from the Site to the north, except for D&L Wholesale, a commercial establishment, located at 170 Lynhurst Avenue, fronting Tompkins between Lynhurst and Chestnut Avenues. Manufacturing and/or commercial facilities are located slightly farther to the north, between the row homes noted above and Lynhurst Avenue. The Staten Island Railroad (freight transport only) is located two blocks to the north, beyond Willow Avenue.
East	Two single-family homes are adjacent to the eastern property boundary. Additional single-family homes are located east, northeast and southeast of the Site, beyond the parking lot that forms the eastern portion of the property.
South	St. Joseph's Parochial School and single-family homes are located bordering the Site to the south. The St. Joseph's Parochial School property is asphalt-paved, other than minor landscaped areas around the school building. Primarily single-family homes are located beyond the school to the south.
West	The Garibaldi-Meucci Museum and the associated partially wooded Nicholas De Matti Playground, as well as single-family residences, are located west of the Site. A coffee shop is located opposite Tompkins Avenue from the southwestern corner of the Site.

SECTION IX.13

Ground Water Setting and Potential Receptors

Describe on attachment the potential vulnerability of groundwater to contamination that might migrate from the property, including proximity to wellhead protection and ground water recharge areas, and other areas identified by the Department and the State's Comprehensive Groundwater Remediation and Protection Program.

Response:

Saturated conditions were first encountered at the Site at depths of 10 to 15 feet in a silty glacial till. This surficial till unit appeared to be absent in the extreme southeastern corner of the Site, where the ground surface elevation is also the lowest on-site. In that area, silty soil fill extended to a depth of 10 feet, underlain by a peat unit with abundant organic matter, possibly the bedding of a former marshy area. Soils beneath this unit were fine to medium silty sands, consistent with till observed at higher elevations on the property. Based on the ground water elevations measured at a well pair installed in October 2006 in the southeastern corner of the Site, it appears that the unit beneath the clay layer is under partially confined conditions. That deeper zone has not been encountered in other portions of the Site.

Pumping and water-level recovery rates during monitoring well development and purging completed in 2006 document a relatively low hydraulic conductivity in this surficial saturated zone. Based on ground water elevations obtained during the 2006 remedial investigation, ground water flow at the Site is to the south, consistent with local topography.

In general, receptors that are of potential concern relative to contaminated ground water include: (1) surface water bodies and wetlands that may receive ground water discharges; (2) domestic and industrial water supplies when ground water is withdrawn for consumption; (3) indoor air in occupied dwellings and other buildings that may be adversely impacted via vapor intrusion from underlying plumes containing volatile organic compounds.

Surface Water Bodies and Wetlands

There are no surface water bodies or wetlands on the Site or in its immediate vicinity. The closest major water body is Upper New York Bay, located approximately ½ mile to the northeast. Three ponds are located approximately ⅓ mile to the southwest, in the Eibs Pond Park Preserve, a partially wooded and wetlands area immediately south of a large subdivision. These ponds may flow to the south into Grasmere Lake and Cameron Lake, situated more than 1 mile south of the Site. In light of the Site setting, overall southerly/southeasterly ground water flow direction, and minimal ground water impacts, impacts to surface water and wetlands receptors are considered highly unlikely.

Ground Water Withdrawals

The Site is located in an area where surficial ground water is not used for domestic purposes nor would that zone be appropriate for that use given its relatively low hydraulic conductivity. According to database records searched by EDR, there are no public supply wells within one mile of the Site.

Vapor Intrusion

Available ground water quality data for the Site has identified several volatile organic compounds (VOCs) in shallow ground water in wells at the northwestern (MW1) and southeastern (MWs 4 and 5D) corners of the Site above NYSDEC Part 703 ground water criteria, including the following (with maximum concentrations): benzene (2.5 µg/l); trichloroethene (6.2 µg/l); 1,1,1-trichloroethane (10 µg/l); 1,1-dichloroethene (29 µg/l); 1,2-dichloroethane (41 µg/l); 1,1-dichloroethane (31 µg/l); and chloroform (10 µg/l).

According to the October 2006 New York State Department of Health, Bureau of Environmental Exposure Investigation's "Guidance for Evaluating Soil Vapor Intrusion in the State of New York", New York does not have specific concentrations for the screening of VOCs in ground water to evaluate potential vapor intrusion concerns. Rather, that guidance recommends that the soil vapor intrusion pathway be evaluated at sites with subsurface source areas or confirmed ground water contamination, or when existing or proposed buildings are located near a subsurface source area. In light of the presence of VOCs in shallow ground water, the vapor intrusion pathway is of potential concern related to the Site. Accordingly, as part of future remediation activities, Sun Chemical will complete additional evaluations to further characterize ground water quality at the Site and determine whether any investigation of soil vapor conditions is required.

SECTION IX.14

Site Geography and Geology

Describe in general terms on an attachment the geography and geology of the site.

A. Site Geography

The Site is located in the moderately hilly Rosebank section of Staten Island. The Site vicinity has been entirely urbanized, with no significant open spaces or other undeveloped properties evident. The property has a maximum elevation of 56 feet ASML, as shown on Figure IX.14, a portion of the 7.5-minute Staten Island, New York USGS quadrangle map. The main production building was constructed on the highest portion of the property, with ground surface elevations decreasing in all cardinal directions to approximately 30 to 35 feet ASML at the property boundaries.

There are no surface water bodies on the property or in its immediate vicinity. The Upper New York Bay, the closest major waterway, is located approximately ½ mile to the northeast. Three ponds in the Eibs Pond Park Preserve are located approximately ⅓ mile to the southwest, in a partially wooded area immediately south of a large subdivision. These water bodies may flow south into Grasmere Lake and Cameron Lake, situated more than 1 mile south of the Site.

B. Site Geology

Based on observations made during the August-October 2006 Site Assessment described elsewhere in this application, soils at the Site consist of unstratified silt with a relatively minor sand and gravel fraction. These deposits represent Wisconsin-age glacial till deposited over the northeastern portion of the island. This till unit extends to the Cretaceous-Age Raritan Formation, which includes layers of clay, sand and gravel lying conformably on the sandstone

and arkose bedrock of the Stockton Formation of the Newark Group. Basement bedrock of schists and gneisses include the Manhattan Schist and the Hartland Formation.

In addition to the till unit, a peat layer was encountered at a depth of 10 feet during drilling of a monitoring well in the southeastern corner of the Site, with a minor interval of cinder fill evident above the peat. The peat was not encountered at other locations at the property, suggesting that it is likely absent in areas of higher elevation.

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T A B L E S

TABLE VII-2
Summarized Sampling Locations, Intervals and Analyses
August-October 2006 Soils and Ground Water Evaluation
Sun Chemical Corporation – Rosebank Facility, Staten Island, New York

Area of Concern		Sampling Locations and Intervals	Analyses
1	Shooting Gallery: Sampling was proposed in this area to evaluate potential residual metals impacts from ammunition (e.g., lead shot).	B101 and B102 <ul style="list-style-type: none"> • 0.0-0.5 feet • 1.5-2.0 feet • 3.5-4.0 feet B103 & B105 <ul style="list-style-type: none"> • 0.5-1.0 feet • 2.5-3.0 feet • 3.5-4.0 feet (Hold) B104 <ul style="list-style-type: none"> • 3.5-4.0 feet • 6.0-6.5 feet 	PPMs
2	Railroad Tracks at eastern parking area: Sampling was proposed in this area to evaluate potential impacts from loading and unloading operations, and general impacts associated with rail line activity.	B201, B202 and MW5 <ul style="list-style-type: none"> • 0.0-0.5 feet • 1.5-2.0 feet • 3.5-4.0 feet B201 & B202 <ul style="list-style-type: none"> • 0.0-0.5 feet • 1.5-2.0 feet • 3.5-4.0 feet (Hold) B203 & B204 <ul style="list-style-type: none"> • 0.0-0.5 feet • 1.5-2.0 feet • 3.5-4.0 feet (Hold) 	PPMs and SVOCs
3	Former blue pulp aboveground storage tank south of Blue Wing: Sampling was proposed in this area to evaluate potential impacts from former liquid pigment storage.	B301 <ul style="list-style-type: none"> • 0.0-0.5 feet • 2.0-2.5 feet B302 <ul style="list-style-type: none"> • 0.0-0.5 feet • 2.0-2.5 feet (Hold) 	PPMs

TABLE VII-2
Summarized Sampling Locations, Intervals and Analyses
August-October 2006 Soils and Ground Water Evaluation
Sun Chemical Corporation – Rosebank Facility, Staten Island, New York

Area of Concern		Sampling Locations and Intervals	Analyses
4	Former bichromate aboveground storage tank south of Blue Wing: Sampling was proposed in this area to evaluate potential impacts from former lead chromate pigment storage.	B401 <ul style="list-style-type: none"> • 0.0-0.5 feet • 2.0-2.5 feet B401 <ul style="list-style-type: none"> • 0.0-0.5 feet • 2.0-2.5 feet 	PPMs
5	Former acid aboveground storage tank south of Blue Wing: Sampling was proposed in this area to evaluate potential impacts from former acid storage.	MW3 <ul style="list-style-type: none"> • 0.0-0.5 feet • 2.0-2.5 feet MW3 <ul style="list-style-type: none"> • 3.5-4.0 feet 	PPMs
6	Former acid aboveground storage tanks south of Red Wing: Sampling was proposed in this area to evaluate potential impacts from former acid storage.	B601 and MW2 <ul style="list-style-type: none"> • 0.0-0.5 feet • 2.0-2.5 feet B602 through B605 <ul style="list-style-type: none"> • 1.5-2.0 feet • 3.5-4.0 feet (Hold) 	PPMs
7	Chrysophenine plant: Sampling was proposed in this area to evaluate potential impacts from the former production of the pigment chrysophenine.	B701 and B702 <ul style="list-style-type: none"> • 0.0-0.5 feet • 1.5-2.0 feet B703 <ul style="list-style-type: none"> • 0.5-1.0 feet • 1.5-2.0 feet (Hold) 	PPMs VOCs (deeper interval only)
8	Southern material storage area, located east of current machine and carpentry shop: Sampling was proposed in this area to evaluate potential impacts from the former storage of raw materials and finished pigments.	B801 <ul style="list-style-type: none"> • 0.0-0.5 feet • 1.5-2.0 feet 	PPMs and VOCs (deeper interval only)

TABLE VII-2
Summarized Sampling Locations, Intervals and Analyses
August-October 2006 Soils and Ground Water Evaluation
Sun Chemical Corporation – Rosebank Facility, Staten Island, New York

Area of Concern		Sampling Locations and Intervals	Analyses
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. Sampling was proposed in this area to evaluate potential impacts from any releases of finished and/or off-spec pigment materials stored outside, and from any releases associated with the caustic tank.	B901 through B905 <ul style="list-style-type: none"> 0.0-0.5 feet 2.0-2.5 feet 	PPMs and VOCs
10	Underground wastewater conveyance components associated with the Blue Wing filter presses: Sampling was proposed in this area to evaluate any impacts to subsurface soils from potential leaks of pigment-related materials from the wastewater system.	MW3 (soils addressed by B301, B401 and MW3) MW3 (soils addressed by B301, B302, B401 and MW3)	PPMs and VOCs (ground water)
11	Underground wastewater conveyance components associated with the Red Wing filter presses: Sampling was proposed in this area to evaluate any impacts to subsurface soils from potential leaks of pigment-related materials from the wastewater system.	MW2 (soils addressed under AOC 6) MW2 (soils addressed under AOC 6)	PPMs and VOCs (soils and ground water)
12	Two former 25,000-gallon No. 6 fuel oil USTs near southeastern property corner. Ground water sampling was proposed in this area because it is located at the downgradient corner of the site and to confirm that former oil storage did not result in impacts beyond the immediate vicinity of the former tank. Soil sampling was not conducted given that the NYSDEC approved NFA in 1994 for the tank removals.	MW5 (soils addressed under AOC 2) MW5D <ul style="list-style-type: none"> Double-cased monitoring well screened beneath peat layer. 	PPMs and VOCs (ground water)
13	Former coal pile located at the southeastern property corner: Sampling was proposed in this area to evaluate any residual impacts from former coal storage.	B1301 <ul style="list-style-type: none"> 6-inch interval within excavation backfill, biased to any evidence of potential contamination 0.0-0.5 feet below excavation backfill	PPMs, VOCs and SVOCs

TABLE VII-2
Summarized Sampling Locations, Intervals and Analyses
August-October 2006 Soils and Ground Water Evaluation
Sun Chemical Corporation – Rosebank Facility, Staten Island, New York

Area of Concern		Sampling Locations and Intervals	Analyses
14	Former caustic release area (on-site only). Sampling was proposed in this area to further evaluate and delineate concentrations of metals and PCBs identified in soils following remediation of the 1988 incident.	B1401 through B1404 <ul style="list-style-type: none"> • 6-inch interval from 0-2 feet biased to any evidence of potential contamination • underlying interval with no evidence of contamination B1406, B1407 and B1408 <ul style="list-style-type: none"> • 0.5-1.0 feet • 3.5-4.0 feet • 6.0-6.5 feet (Hold) B1405, 1409-1411 <ul style="list-style-type: none"> • 1.5-2.0 feet • 3.5-4.0 feet • 6.0-6.5 feet (Hold) 	PCBs, PPMs, SVOCs
15	Current aboveground storage fuel oil tank: Sampling was proposed in this area to confirm that the secondary containment at this tank has effectively precluded any petroleum impacts in the vicinity.	MW4 <ul style="list-style-type: none"> • 6-inch interval from 0-2 feet biased to any evidence of potential contamination • underlying interval with no evidence of contamination B1501 and B1502 <ul style="list-style-type: none"> • 0.0-0.5 feet • 3.5-4.0 feet • 6.0-6.5 feet (Hold) 	VOCs, SVOCs (soil and ground water)
16	Facility wastewater system: Sampling was proposed in this area to evaluate any impacts to subsurface soils from potential leaks of pigment-related materials from the wastewater system.	B1601 through B1606 (depths measured from piping invert) <ul style="list-style-type: none"> • 0.0-0.5 feet • 1.5-2.0 feet 	PPMs, pH

TABLE VII-2
Summarized Sampling Locations, Intervals and Analyses
August-October 2006 Soils and Ground Water Evaluation
Sun Chemical Corporation – Rosebank Facility, Staten Island, New York

Area of Concern		Sampling Locations and Intervals	Analyses
--	Upgradient ground water quality	MW1	PPMs and VOCs
--	Background soil quality	BKD1 <ul style="list-style-type: none"> • 0.0-0.5 feet • 1.5-2.0 feet • 3.5-4.0 feet • 6.0-6.5 feet 	PPMs
--	Site wide ground water quality	MW6 & MW7	PPMs and VOCs
Analyses: PCBs: Polychlorinated biphenyls PPMs: Priority Pollutant metals SVOCs: Priority Pollutant SVOCs by USEPA Method 8270C VOCs: Priority Pollutant VOCs by USEPA Method 8260B			

TABLE VII-3
Summarized Analytical Results for August-October 2006 Soil Sampling Program - Sun Chemical, Staten Island, New York

Area Of Concern Location ENVIRON Sample ID Matrix Collection Method Collection Date Collection Depth (ft) Comments	AOC 01 B101 B101-SS01 Soil Macrocore 8/28/2006 0.5 - 1	AOC 01 B101 B101-SS02 Soil Macrocore 8/28/2006 2.5 - 3	AOC 01 B101 B101-SS03 Soil Macrocore 8/28/2006 3.5 - 4	AOC 01 B102 B102-SS01 Soil Macrocore 8/28/2006 0.5 - 1	AOC 01 B102 B102-SS02 Soil Macrocore 8/28/2006 1.5 - 2	AOC 01 B102 B102-SS03 Soil Macrocore 8/28/2006 3.5 - 4	AOC 01 B103 B103-SS01 Soil Macrocore 10/4/2006 1.5 - 2	AOC 01 B104 B104-SS01 Soil Macrocore 10/4/2006 3.5 - 4	AOC 01 B104 B104-SS02 Soil Macrocore 10/4/2006 6 - 6.5	AOC 01 B105 B105-SS01 Soil Macrocore 10/4/2006 1.5 - 2	AOC 01 B105 B105-SS02 Soil Macrocore 10/4/2006 2.5 - 3	AOC 01 B106 B106-SS01 Soil Macrocore 10/4/2006 1.5 - 2	AOC 01 B106 B106-SS02 Soil Macrocore 10/4/2006 3.5 - 4	AOC 02 B201 B201-SS01 Soil Macrocore 8/30/2006 0.2 - 0.7
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)	
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.
3 Concentrations that exceed the Part 375-6 Industrial are **boldfaced**.
4 Concentrations that exceed the Part 375-6 Industrial are **boldfaced**.
5 Concentrations that exceed the Part 375-6 Industrial are **boldfaced**.
Abbreviations:
U -- Not Detected.
J -- Estimated Concentration.
() -- Detection Limit.

TABLE VII-3
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	AOC 02
Location	B201	B201	B201	B202	B202	B202	B202	B202	B202	B202	B203	B203	B204	B204	B204	B205	B205	B205
ENVIRON Sample ID	B201-SS01	B201-SS01	B201-SS02	B202-SS01	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	MW5-SS03
Matrix	Soil	Soil	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	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	8/30/2006	10/5/2006	10/5/2006	10/6/2006	10/6/2006	10/6/2006	8/30/2006	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	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	3.5 - 4
Comments									Field 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)		
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)	
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)	2.1 (0.71)	8.7 (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)
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)	0.5 (0.089)
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)
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)
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)
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)
Nickel		98.5 (0.54)			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)
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)
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 (0.31)	0.42 B (0.31)
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)

Notes:
1 All concentrations are presented in mg/kg (ppm).
2 Only compounds with at least one detection are shown.
3 Concentrations that exceed the Part 375-6 Industrial are **boldfaced**.
4 Concentrations that exceed the Part 375-6 Industrial are **boldfaced**.
5 Concentrations that exceed the Part 375-6 Industrial are **boldfaced**.

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

TABLE VII-3
Summarized Analytical Results for August-October 2006 Soil Sampling Program - Sun Chemical, Staten Island, New York

Area Of Concern	AOC 02	AOC 03	AOC 03	AOC 03	AOC 04	AOC 04	AOC 04	AOC 04	AOC 05	AOC 05	AOC 06	AOC 06	AOC 06	AOC 06	AOC 06	AOC 06	AOC 06	AOC 06
Location	MW05	B301	B301	B302	B401	B402	B402	MW03	MW03	MW03	B601	B602	B603	B604	B604	B604	B605	B606
ENVIRON Sample ID	MW5-SS03D	B301-SS01	B301-SS02	B302-SS01	B401-SS01	B402-SS01	B402-SS02	MW3-SS01	MW3-SS02	MW3-SS02	B601-SS01	B602-SS01	B603-SS01	B604-SS01	B604-SS02	B604-SS03	B605-SS01	B606-SS01
Matrix	Soil	Soil	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	Macrocore	Macrocore
Collection Date	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	8/28/2006	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	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	4.5 - 5	1.5 - 2	1.5 - 2	1.5 - 2
Comments	Field Duplicate																	
VOC																		
Acetone															U (0.59)	U (0.53)	U (0.58)	
Benzene															U (0.12)	U (0.11)	U (0.12)	
2-Butanone															U (0.59)	U (0.53)	U (0.58)	
Carbon Disulfide															U (0.59)	U (0.53)	U (0.58)	
Chlorobenzene															U (0.59)	U (0.53)	U (0.58)	
1,1-Dichloroethane															U (0.59)	U (0.53)	U (0.58)	
1,2-Dichloroethane															U (0.24)	U (0.21)	U (0.23)	
cis-1,2-Dichloroethene															U (0.59)	U (0.53)	U (0.58)	
Ethylbenzene															U (0.47)	U (0.43)	U (0.46)	
Tetrachloroethene															U (0.12)	U (0.11)	U (0.12)	
Toluene															U (0.59)	U (0.53)	U (0.58)	
1,1,1-Trichloroethane															U (0.59)	U (0.53)	U (0.58)	
Trichloroethene															U (0.12)	U (0.11)	U (0.12)	
Xylene (Total)															U (0.59)	U (0.53)	U (0.58)	
SVOC																		
Acenaphthene															U (0.41)	U (0.41)	U (0.41)	
Acenaphthylene															U (0.41)	U (0.41)	U (0.41)	
Anthracene															U (0.41)	U (0.41)	U (0.41)	
Benzo(a)anthracene															U (0.041)	U (0.041)	U (0.041)	
Benzo(a)pyrene															U (0.041)	U (0.041)	U (0.041)	
Benzo(b)fluoranthene															U (0.041)	U (0.041)	U (0.041)	
Benzo(g,h,i)perylene															U (0.41)	U (0.41)	U (0.41)	
Benzo(k)fluoranthene															U (0.041)	U (0.041)	U (0.041)	
bis(2-Ethylhexyl)phthalate															0.84 (0.41)	1.9 (0.41)	0.58 (0.41)	
Carbazole															U (0.41)	U (0.41)	U (0.41)	
4-Chloroaniline															U (0.41)	U (0.41)	U (0.41)	
Chrysene															U (0.41)	U (0.41)	U (0.41)	
Dibenz(a,h)anthracene															U (0.041)	U (0.041)	U (0.041)	
Dibenzofuran															U (0.41)	U (0.41)	U (0.41)	
1,2-Dichlorobenzene															U (0.41)	U (0.41)	U (0.41)	
1,4-Dichlorobenzene															U (0.41)	U (0.41)	U (0.41)	
3,3'-Dichlorobenzidine															U (0.81)	U (0.83)	U (0.83)	
Dimethylphthalate															U (0.41)	U (0.41)	U (0.41)	
Di-n-butylphthalate															U (0.41)	U (0.41)	U (0.41)	
Fluoranthene															U (0.41)	U (0.41)	U (0.41)	
Fluorene															U (0.41)	U (0.41)	U (0.41)	
Hexachlorobenzene															U (0.041)	U (0.041)	U (0.041)	
Indeno(1,2,3-cd)pyrene															U (0.041)	U (0.041)	U (0.041)	
2-Methylnaphthalene															U (0.41)	U (0.41)	U (0.41)	
Naphthalene															U (0.41)	U (0.41)	U (0.41)	
3-Nitroaniline															U (0.81)	U (0.83)	U (0.83)	
4-Nitroaniline															U (0.81)	U (0.83)	U (0.83)	
Nitrobenzene															U (0.041)	U (0.041)	U (0.041)	
Phenanthrene															U (0.41)	U (0.41)	U (0.41)	
Pyrene															U (0.41)	U (0.41)	U (0.41)	
1,2,4-Trichlorobenzene															U (0.041)	U (0.041)	U (0.041)	
PCB																		
PCBs (total)																		
Aroclor-1248																		
Aroclor-1254																		
Aroclor-1268																		
INORG																		
Antimony	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)	U (1.2)	U (1.1)	2.1 B (1.2)	
Arsenic	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)	5.2 (1.1)	4.4 (1)	34.8 (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)	63 (0.32)	31.9 B (0.3)	1940 (0.31)	
Beryllium	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)	0.69 (0.025)	0.48 (0.023)	0.4 B (0.024)	
Cadmium	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)	0.56 B (0.12)	0.28 B (0.12)	0.55 B (0.12)	
Chromium	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)	47.1 (0.69)	27.6 (0.65)	75.4 (0.67)	
Copper	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)	30.8 (0.77)	31.2 (0.72)	75.9 (0.74)	
Lead	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)	11.9 (0.55)	18.8 (0.51)	230 (0.52)	
Mercury	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)	0.05 (0.021)	0.05 (0.019)	8.9 (0.2)	
Nickel	150 (0.54)	36.4 (0.57)	96 (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)	122 (0.97)	54 (0.9)	146 (0.93)	
Selenium	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)	1.4 (1.2)	U (1.1)	1.8 (1.1)	
Silver	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)	U (0.28)	U (0.28)	U (0.29)	
Zinc	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)	44.9 (1.4)	30.2 (1.3)	68.6 (1.4)	

Notes:
1 All concentrations are presented in mg/kg (ppm).
2 Only compounds with at least one detection are shown.
3 Concentrations that exceed the Part 375-6 Industrial are **boldfaced**.
4 Concentrations that exceed the Part 375-6 Industrial are **boldfaced**.
5 Concentrations that exceed the Part 375-6 Industrial are **boldfaced**.
Abbreviations:
U -- Not Detected.
J -- Estimated Concentration.
() -- Detection Limit.

TABLE VII-3
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 07	AOC 07	AOC 07	AOC 07	AOC 07	AOC 07	AOC 08	AOC 08	AOC 09	AOC 09	AOC 09	AOC 09	AOC 09
Location	B606	MW02	MW02	MW02	MW02	B701	B701	B702	B702	B703	B703	B801	B801	B901	B901	B902	B902	B903
ENVIRON Sample ID	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	B901-SS02	B902-SS01	B902-SS02	B903-SS01	
Matrix	Soil	Soil	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	Macrocore	Macrocore
Collection Date	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	8/28/2006	8/28/2006	8/28/2006	8/28/2006	8/28/2006
Collection Depth (ft)	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	2 - 2.5	0.2 - 0.7	2 - 2.5	0.3 - 0.8	
Comments	Duplicate				Duplicate													
VOC																		
Acetone								U (0.0055)		U (0.0043)			U (0.0057)	0.019 B (0.0046)	0.021 B (0.0046)	0.021 B (0.0046)	U (0.0048)	U (0.0043)
Benzene								U (0.0011)		U (0.0009)			U (0.0011)	0.0008 J (0.0009)	U (0.0009)	U (0.0009)	U (0.001)	U (0.0009)
2-Butanone								U (0.0055)		U (0.0043)			U (0.0057)	U (0.0046)	U (0.0046)	U (0.0046)	U (0.0048)	U (0.0043)
Carbon Disulfide								U (0.0055)		U (0.0043)			U (0.0057)	U (0.0046)	U (0.0046)	U (0.0046)	U (0.0048)	U (0.0043)
Chlorobenzene								U (0.0055)		U (0.0043)			U (0.0057)	U (0.0046)	U (0.0046)	U (0.0046)	U (0.0048)	U (0.0043)
1,1-Dichloroethane								U (0.0055)		U (0.0043)			U (0.0057)	U (0.0046)	U (0.0046)	U (0.0046)	U (0.0048)	U (0.0043)
1,2-Dichloroethane								U (0.0022)		U (0.0017)			U (0.0023)	U (0.0018)	U (0.0018)	U (0.0018)	U (0.0019)	U (0.0017)
cis-1,2-Dichloroethene								U (0.0055)		U (0.0043)			U (0.0057)	U (0.0046)	U (0.0046)	U (0.0046)	U (0.0048)	U (0.0043)
Ethylbenzene								U (0.0044)		U (0.0034)			U (0.0045)	U (0.0037)	U (0.0036)	U (0.0037)	U (0.0038)	U (0.0034)
Tetrachloroethene								U (0.0011)		U (0.0009)			U (0.0011)	U (0.0009)	U (0.0009)	U (0.0009)	U (0.001)	U (0.0009)
Toluene								U (0.0055)		U (0.0043)			U (0.0057)	U (0.0046)	U (0.0046)	U (0.0046)	U (0.0048)	U (0.0043)
1,1,1-Trichloroethane								U (0.0055)		U (0.0043)			U (0.0057)	U (0.0046)	U (0.0046)	U (0.0046)	U (0.0048)	U (0.0043)
Trichloroethene								U (0.0011)		U (0.0009)			U (0.0011)	U (0.0009)	U (0.0009)	U (0.0009)	U (0.001)	U (0.0009)
Xylene (Total)								U (0.0055)		U (0.0043)			U (0.0057)	U (0.0046)	U (0.0046)	U (0.0046)	0.0008 J (0.0048)	U (0.0043)
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																		
Nitrobenzene																		
Phenanthrene																		
Pyrene																		
1,2,4-Trichlorobenzene																		
PCB																		
PCBs (total)																		
Aroclor-1248																		
Aroclor-1254																		
Aroclor-1268																		
INORG																		
Antimony	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)	U (1.1)	U (1.1)	U (1.1)	U (1.1)	U (1.1)
Arsenic	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)	2.9 (1)	1.2 (1)	3.6 (1)	3 (1)	3 (1)
Barium	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)	63.8 (0.29)	58.6 (0.29)	39.1 B (0.3)	49.9 (0.29)	49.9 (0.29)
Beryllium	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)	0.6 (0.023)	0.41 B (0.022)	0.85 (0.023)	0.51 (0.023)	0.51 (0.023)
Cadmium	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)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)
Chromium	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)	29.7 (0.63)	26.4 (0.62)	30.4 (0.64)	39.2 (0.63)	39.2 (0.63)
Copper	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)	42.6 (0.7)	12.8 (0.69)	24 (0.71)	45.9 (0.7)	45.9 (0.7)
Lead	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)	79.6 (0.5)	9.4 (0.49)	8.5 (0.5)	41.7 (0.5)	41.7 (0.5)
Mercury	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)	0.29 (0.019)	0.03 B (0.019)	0.02 B (0.016)	0.16 (0.019)	0.16 (0.019)
Nickel	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)	130 (0.88)	118 (0.87)	234 (0.89)	160 (0.88)	160 (0.88)
Selenium	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)	U (1.1)	U (1.1)	U (1.1)	U (1.1)	U (1.1)
Silver	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)	U (0.27)	U (0.27)	U (0.27)	U (0.27)	U (0.27)
Zinc	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)	57.6 (1.3)	30.1 (1.3)	52.8 (1.3)	68.8 (1.3)	68.8 (1.3)

Notes:
1 All concentrations are presented in mg/kg (ppm).
2 Only compounds with at least one detection are shown.
3 Concentrations that exceed the Part 375-6 Industrial are **boldfaced**.
4 Concentrations that exceed the Part 375-6 Industrial are **boldfaced**.
5 Concentrations that exceed the Part 375-6 Industrial are **boldfaced**.

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

TABLE VII-3
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 13	AOC 13	AOC 14	AOC 14	AOC 14	AOC 14	AOC 14	AOC 14	AOC 14	AOC 14	AOC 14
Location	B903	B904	B904	B904	B905	B905	B1301	B1301	B1401	B1402	B1402	B1402	B1402	B1403	B1404	B1405	B1405
ENVIRON Sample ID	B903-SS02	B904-SS01	B904-SS01D	B904-SS02	B905-SS01	B905-SS02	B1301-SS01	B1301-SS02	B1401-SS01	B1401-SS02	B1402-SS01	B1402-SS02	B1402-SS01	B1402-SS02	B1403-SS01	B1404-SS01	B1404-SS02
Matrix	Soil	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	Macrocore
Collection Date	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	8/28/2006	8/28/2006	8/28/2006	8/28/2006	8/28/2006	8/28/2006	10/4/2006
Collection Depth (ft)	2 - 2.5	0.3 - 0.8	0.3 - 0.8	0.3 - 0.8	1.5 - 2	3 - 3.5	1.5 - 2	3.5 - 4	0.5 - 1	3.5 - 4	0.5 - 1	6 - 6.5	1.5 - 2	1.5 - 2	6 - 6.5	1.5 - 2	3.5 - 4
Comments	Field Duplicate																
VOC																	
Acetone	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 (0.0011)	U (0.001)	U (0.0009)	U (0.001)	U (0.001)	U (0.12)	U (0.001)									
2-Butanone	U (0.0046)	U (0.0054)	U (0.005)	U (0.0046)	U (0.0048)	U (0.005)	U (0.62)	U (0.0053)									
Carbon Disulfide	U (0.0046)	U (0.0054)	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 (0.0054)	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 (0.0054)	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 (0.0022)	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 (0.0054)	U (0.005)	U (0.0046)	U (0.0048)	U (0.005)	U (0.62)	U (0.0053)									
Ethylbenzene	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 (0.0011)	U (0.001)	U (0.0009)	U (0.001)	U (0.001)	U (0.12)	U (0.001)									
Toluene	U (0.0046)	U (0.0054)	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 (0.0054)	U (0.005)	U (0.0046)	U (0.0048)	U (0.005)	U (0.62)	U (0.0053)									
Trichloroethene	U (0.0009)	U (0.0011)	U (0.001)	U (0.0009)	U (0.001)	U (0.001)	U (0.12)	U (0.001)									
Xylene (Total)	U (0.0046)	U (0.0054)	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)		U (0.4)	U (3.8)	U (3.7)	U (0.4)	0.012 J (0.37)	U (0.37)
Acenaphthylene							0.043 J (0.75)	U (0.38)	U (0.38)	0.082 J (0.4)	U (0.4)	U (3.8)	U (3.7)	U (0.4)	U (0.4)	0.13 J (0.37)	U (0.37)
Anthracene							0.1 J (0.75)	U (0.38)	0.048 J (0.38)	0.15 J (0.4)	U (0.4)	U (3.8)	U (3.7)	U (0.4)	U (0.4)	0.075 J (0.37)	U (0.37)
Benzo(a)anthracene							0.47 (0.075)	U (0.038)	0.23 (0.038)	0.57 (0.04)	U (0.04)	U (0.38)	U (0.37)	U (0.04)	U (0.04)	1.1 (0.037)	U (0.037)
Benzo(a)pyrene							0.54 (0.075)	U (0.038)	0.18 (0.038)	0.54 (0.04)	U (0.04)	U (0.38)	U (0.37)	U (0.04)	U (0.04)	0.58 (0.037)	U (0.037)
Benzo(b)fluoranthene							0.64 (0.075)	U (0.038)	0.16 (0.038)	0.39 (0.04)	U (0.04)	U (0.38)	U (0.37)	U (0.04)	U (0.04)	0.57 (0.037)	U (0.037)
Benzo(g,h,i)perylene							0.26 J (0.75)	U (0.38)	0.058 J (0.38)	0.15 J (0.4)	U (0.4)	U (3.8)	U (3.7)	U (0.4)	U (0.4)	0.17 J (0.37)	U (0.37)
Benzo(k)fluoranthene							0.76 (0.075)	U (0.038)	0.15 (0.038)	0.46 (0.04)	U (0.04)	U (0.38)	U (0.37)	U (0.04)	U (0.04)	0.62 (0.037)	U (0.037)
bis(2-Ethylhexyl)phthalate							1.2 (0.75)	U (0.38)	0.16 J (0.38)	0.087 J (0.4)	U (0.4)	5 (3.8)	U (3.7)	U (0.4)	U (0.4)	0.13 J (0.37)	0.08 J (0.37)
Carbazole							0.047 J (0.75)	U (0.38)	U (0.38)	0.041 J (0.4)	U (0.4)	U (3.8)	U (3.7)	U (0.4)	U (0.4)	0.037 J (0.37)	U (0.37)
4-Chloroaniline							U (0.75)	U (0.38)	U (0.38)	U (0.4)	U (0.4)	U (3.8)	U (3.7)	U (0.4)	U (0.4)	U (0.37)	U (0.37)
Chrysene							0.74 J (0.75)	U (0.38)	0.22 J (0.38)	0.52 (0.4)	U (0.4)	U (3.8)	U (3.7)	U (0.4)	U (0.4)	0.52 (0.37)	U (0.37)
Dibenz(a,h)anthracene							U (0.075)	U (0.038)	U (0.038)	U (0.04)	U (0.04)	U (0.38)	U (0.37)	U (0.04)	U (0.04)	0.079 (0.037)	U (0.037)
Dibenzofuran							0.048 J (0.75)	U (0.38)	U (0.38)	U (0.4)	U (0.4)	U (3.8)	U (3.7)	U (0.4)	U (0.4)	0.0095 J (0.37)	U (0.37)
1,2-Dichlorobenzene							0.032 J (0.75)	U (0.38)	U (0.38)	U (0.4)	U (0.4)	U (3.8)	U (3.7)	U (0.4)	U (0.4)	U (0.37)	U (0.37)
1,4-Dichlorobenzene							0.019 J (0.75)	U (0.38)	U (0.38)	U (0.4)	U (0.4)	U (3.8)	U (3.7)	U (0.4)	U (0.4)	U (0.37)	U (0.37)
3,3'-Dichlorobenzidine							U (1.5)	U (0.77)	U (0.77)	U (0.8)	U (0.8)	U (7.6)	U (7.4)	U (0.8)	U (0.8)	U (0.74)	U (0.74)
Dimethylphthalate							U (0.75)	U (0.38)	U (0.38)	U (0.4)	U (0.4)	27 (3.8)	U (3.7)	U (0.4)	U (0.4)	U (0.37)	U (0.37)
Di-n-butylphthalate							U (0.75)	U (0.38)	U (0.38)	U (0.4)	U (0.4)	33 (3.8)	6.2 (3.7)	U (0.4)	U (0.4)	U (0.37)	U (0.37)
Fluoranthene							0.81 (0.75)	U (0.38)	0.33 J (0.38)	0.86 (0.4)	U (0.4)	U (3.8)	U (3.7)	U (0.4)	U (0.4)	0.79 (0.37)	U (0.37)
Fluorene							0.042 J (0.75)	U (0.38)	U (0.38)	0.032 J (0.4)	U (0.4)	U (3.8)	U (3.7)	U (0.4)	U (0.4)	U (0.37)	U (0.37)
Hexachlorobenzene							U (0.075)	U (0.038)	U (0.038)	U (0.04)	U (0.04)	U (0.38)	U (0.37)	U (0.04)	U (0.04)	U (0.037)	U (0.037)
Indeno(1,2,3-cd)pyrene							0.25 (0.075)	U (0.038)	0.063 (0.038)	0.17 (0.04)	U (0.04)	U (0.38)	U (0.37)	U (0.04)	U (0.04)	0.19 (0.037)	U (0.037)
2-Methylnaphthalene							0.19 J (0.75)	U (0.38)	U (0.38)	U (0.4)	U (0.4)	U (3.8)	U (3.7)	U (0.4)	U (0.4)	0.01 J (0.37)	U (0.37)
Naphthalene							0.13 J (0.75)	U (0.38)	U (0.38)	U (0.4)	U (0.4)	U (3.8)	U (3.7)	U (0.4)	U (0.4)	0.028 J (0.37)	U (0.37)
3-Nitroaniline							U (1.5)	U (0.77)	U (0.77)	U (0.8)	U (0.8)	U (7.6)	U (7.4)	U (0.8)	U (0.8)	U (0.74)	U (0.74)
4-Nitroaniline							U (1.5)	U (0.77)	U (0.77)	U (0.8)	U (0.8)	U (7.6)	U (7.4)	U (0.8)	U (0.8)	U (0.74)	U (0.74)
Nitrobenzene							0.019 J (0.075)	U (0.038)	U (0.038)	U (0.04)	U (0.04)	U (0.38)	U (0.37)	U (0.04)	U (0.04)	U (0.037)	U (0.037)
Phenanthrene							0.56 J (0.75)	U (0.38)	0.22 J (0.38)	0.55 (0.4)	U (0.4)	U (3.8)	U (3.7)	U (0.4)	U (0.4)	0.26 J (0.37)	U (0.37)
Pyrene							1.5 (0.75)	U (0.38)	0.35 J (0.38)	0.81 (0.4)	U (0.4)	U (3.8)	U (3.7)	U (0.4)	U (0.4)	0.8 (0.37)	U (0.37)
1,2,4-Trichlorobenzene							U (0.075)	U (0.038)	U (0.038)	U (0.04)	U (0.04)	U (0.38)	U (0.37)	U (0.04)	U (0.04)	U (0.037)	U (0.037)
PCB																	
PCBs (total)									3.3 (0.39)	U (0.067)	5.4 (0.14)	U (0.067)	14 (0.77)	U (0.067)	U (0.067)	U (0.074)	U (0.074)
Aroclor-1248									3.3 (0.39)	U (0.067)	2 (0.14)	U (0.067)	14 (0.77)	U (0.067)	U (0.067)	U (0.074)	U (0.074)
Aroclor-1254									U (0.39)	U (0.067)	2.3 (0.14)	U (0.067)	U (0.77)	U (0.067)	U (0.067)	U (0.074)	U (0.074)
Aroclor-1268									U (0.39)	U (0.067)	1.1 (0.14)	U (0.067)	U (0.77)	U (0.067)	U (0.067)	U (0.074)	U (0.074)
INORG																	
Antimony	U (

TABLE VII-3
Summarized Analytical Results for August-October 2006 Soil Sampling Program - Sun Chemical, Staten Island, New York

Area Of Concern	AOC 14 B1406	AOC 14 B1406	AOC 14 B1407	AOC 14 B1407	AOC 14 B1408	AOC 14 B1408	AOC 14 B1408	AOC 14 B1410	AOC 14 B1410	AOC 14 B1411	AOC 14 B1411	AOC 15 B1501	AOC 15 B1501	AOC 15 B1502	AOC 15 B1502	AOC 15 MW04	AOC 15 MW04
ENVIRON Sample ID	B1406-SS01	B1406-SS02	B1407-SS01	B1407-SS02	B1408-SS01	B1408-SS02	B1408-SS02D	B1410-SS01	B1410-SS02	B1411-SS01	B1411-SS02	B1501-SS01	B1501-SS02	B1502-SS01	B1502-SS02	MW4-SS01	MW4-SS02
Matrix	Soil	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	Macrocore
Collection Date	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	10/4/2006	10/5/2006	10/5/2006	10/5/2006	10/5/2006	8/30/2006	8/30/2006
Collection Depth (ft)	0.5 - 1	2.5 - 3	0.5 - 1	3.5 - 4	1 - 1.5	3.5 - 4	3.5 - 4	1.5 - 2	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
Comments							Duplicate										
VOC																	
Acetone			0.066 B (0.0051)	U (0.0046)											0.022 B (0.0046)	0.01 B (0.0043)	
Benzene			0.0024 (0.001)	U (0.0009)											U (0.0009)	U (0.0009)	
2-Butanone			U (0.0051)	U (0.0046)											U (0.0046)	U (0.0043)	
Carbon Disulfide			U (0.0051)	U (0.0046)											U (0.0046)	U (0.0043)	
Chlorobenzene			U (0.0051)	U (0.0046)											U (0.0046)	U (0.0043)	
1,1-Dichloroethane			U (0.0051)	U (0.0046)											U (0.0046)	U (0.0043)	
1,2-Dichloroethane			U (0.002)	U (0.0018)											0.002 (0.0018)	0.0007 J (0.0017)	
cis-1,2-Dichloroethene			0.014 (0.0051)	U (0.0046)											U (0.0046)	U (0.0043)	
Ethylbenzene			0.0078 (0.0041)	U (0.0036)											U (0.0037)	U (0.0035)	
Tetrachloroethene			0.0009 J (0.001)	U (0.0009)											U (0.0009)	U (0.0009)	
Toluene			0.003 J (0.0051)	U (0.0046)											U (0.0046)	U (0.0043)	
1,1,1-Trichloroethane			U (0.0051)	U (0.0046)											U (0.0046)	U (0.0043)	
Trichloroethene			0.0009 J (0.001)	U (0.0009)											U (0.0009)	U (0.0009)	
Xylene (Total)			0.11 (0.0051)	U (0.0046)											U (0.0046)	U (0.0043)	
SVOC																	
Acenaphthene	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)	0.029 J (0.39)	U (0.36)	U (0.38)				0.024 J (0.38)	U (0.38)	
Acenaphthylene	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)	0.036 J (0.39)	U (0.36)	U (0.38)				0.021 J (0.38)	U (0.38)	
Anthracene	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)	0.12 J (0.39)	U (0.36)	U (0.38)				0.036 J (0.38)	U (0.38)	
Benzo(a)anthracene	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)	0.5 (0.039)	U (0.036)	U (0.038)				0.15 (0.038)	U (0.038)	
Benzo(a)pyrene	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)	0.47 (0.039)	U (0.036)	U (0.038)				0.16 (0.038)	U (0.038)	
Benzo(b)fluoranthene	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)	0.33 (0.039)	0.0097 J (0.036)	U (0.038)				0.17 (0.038)	U (0.038)	
Benzo(g,h,i)perylene	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)	0.19 J (0.39)	U (0.36)	U (0.38)				0.048 J (0.38)	U (0.38)	
Benzo(k)fluoranthene	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)	0.47 (0.039)	U (0.036)	U (0.038)				0.18 (0.038)	U (0.038)	
bis(2-Ethylhexyl)phthalate	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)	0.1 J (0.39)	7.5 (0.36)	0.32 J (0.38)				0.18 J (0.38)	U (0.38)	
Carbazole	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)	0.063 J (0.39)	U (0.36)	U (0.38)				0.024 J (0.38)	U (0.38)	
4-Chloroaniline	0.032 J (0.38)	U (0.81)	U (1800)	U (0.39)	U (20)	U (0.4)	U (0.4)	U (0.38)	U (0.39)	U (0.36)	U (0.38)				0.0079 J (0.38)	U (0.38)	
Chrysene	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)	0.56 (0.39)	U (0.36)	U (0.38)				0.18 J (0.38)	U (0.38)	
Dibenz(a,h)anthracene	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)	0.061 (0.039)	U (0.036)	U (0.038)				U (0.038)	U (0.038)	
Dibenzofuran	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)	0.02 J (0.39)	U (0.36)	U (0.38)				0.015 J (0.38)	U (0.38)	
1,2-Dichlorobenzene	U (0.38)	U (0.81)	U (1800)	U (0.39)	U (20)	U (0.4)	U (0.4)	U (0.38)	U (0.39)	U (0.36)	U (0.38)				U (0.38)	U (0.38)	
1,4-Dichlorobenzene	U (0.38)	U (0.81)	U (1800)	U (0.39)	U (20)	U (0.4)	U (0.4)	U (0.38)	U (0.39)	U (0.36)	U (0.38)				U (0.38)	U (0.38)	
3,3'-Dichlorobenzidine	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)	U (0.79)	U (0.73)	U (0.77)				0.054 J (0.76)	U (0.77)	
Dimethylphthalate	0.32 J (0.38)	U (0.81)	U (1800)	U (0.39)	U (20)	U (0.4)	U (0.4)	U (0.38)	U (0.39)	U (0.36)	U (0.38)				0.098 J (0.38)	U (0.38)	
Di-n-butylphthalate	U (0.38)	U (0.81)	U (1800)	U (0.39)	U (20)	U (0.4)	U (0.4)	U (0.38)	U (0.39)	U (0.36)	U (0.38)				U (0.38)	U (0.38)	
Fluoranthene	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)	0.9 (0.39)	0.02 J (0.36)	U (0.38)				0.29 J (0.38)	U (0.38)	
Fluorene	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)	0.033 J (0.39)	U (0.36)	U (0.38)				0.029 J (0.38)	U (0.38)	
Hexachlorobenzene	U (0.038)	0.087 (0.081)	U (180)	U (0.039)	U (2)	U (0.04)	U (0.04)	U (0.038)	U (0.039)	U (0.036)	U (0.038)				U (0.038)	U (0.038)	
Indeno(1,2,3-cd)pyrene	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)	0.18 (0.039)	U (0.036)	U (0.038)				0.051 (0.038)	U (0.038)	
2-Methylnaphthalene	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)	0.014 J (0.39)	0.024 J (0.36)	U (0.38)				0.026 J (0.38)	U (0.38)	
Naphthalene	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)	0.029 J (0.39)	0.026 J (0.36)	U (0.38)				0.042 J (0.38)	U (0.38)	
3-Nitroaniline	0.04 J (0.76)	U (1.6)	U (3600)	U (0.78)	U (39)	U (0.79)	U (0.8)	U (0.77)	U (0.79)	U (0.73)	U (0.77)				U (0.76)	U (0.77)	
4-Nitroaniline	U (0.76)	U (1.6)	U (3600)	U (0.78)	U (39)	U (0.79)	U (0.8)	U (0.77)	U (0.79)	U (0.73)	U (0.77)				0.048 J (0.76)	U (0.77)	
Nitrobenzene	U (0.038)	U (0.081)	U (180)	U (0.039)	U (2)	U (0.04)	U (0.04)	U (0.038)	U (0.039)	U (0.036)	U (0.038)				U (0.038)	U (0.038)	
Phenanthrene	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)	0.54 (0.39)	0.016 J (0.36)	U (0.38)				0.18 J (0.38)	U (0.38)	
Pyrene	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 (0.39)	0.019 J (0.36)	U (0.38)				0.27 J (0.38)	U (0.38)	
1,2,4-Trichlorobenzene	U (0.038)	U (0.081)	U (180)	U (0.039)	U (2)	U (0.04)	U (0.04)	U (0.038)	U (0.039)	U (0.036)	U (0.038)				0.025 J (0.038)	U (0.038)	
PCB																	
PCBs (total)	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)	U (0.079)	U (0.074)	U (0.077)						
Aroclor-1248	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)	U (0.079)	U (0.074)	U (0.077)						
Aroclor-1254	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)	U (0.079)	U (0.074)	U (0.077)						
Aroclor-1268	U (0.076)	U (0.4)	U (0.073)	U (0.078)	U (0.4)	U (0.08)	U (0.08)	U (0.15)	U (0.079)	U (0.074)	U (0.077)						
INORG																	
Antimony	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)	U (1.2)	U (1.1)	U (1.1)	4.3 (1.1)	U (1.1)	U (1.1)	U (1.1)	U (1.1)	
Arsenic	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)	7.4 (1.1)	3.1 (0.99)	2.2 (1)	7.3 (1)	5.4 (1)	4.1 (1)	6.2 (1)		
Barium	155 (0.3)	1060 (0.31)	637 (0.28)	103 (0.3)	280 (0.31)	158 (0.31)	157 (0.31)	156 (0.3)	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)		
Beryllium	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)	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)		
Cadmium	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)	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)		
Chromium	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)	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)		
Copper	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)	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)		
Lead	111 (0.5)	268 (0.53)	113 (0.48)	227 (0.52)	552 (0.52)	175 (0.52)	175 (0.53)	139 (0.51)	488 (0.52)	9 (0.48)	6.6 (0.51)	1430 (0.5)	11 (0.5)	51.5 (0.49)	9.4 (0.51)		
Mercury	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)	0.26 (0.02)	U (0.018)	U (0.016)	0.23 (0.019)	U (0.019)	0.07 (0.019)	U (0.019)		
Nickel	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)	158 (0.92)	116 (0.86)	117 (0.9)	79.4 (0.88)	175 (0.89)	66.7 (0.87)	124 (0.9)		
Selenium	U (1.1)	1.6 (1.2)	U (1)	1.1 (1.1)													

TABLE VII-3
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	AOC 16	AOC 16	AOC 16	AOC 16	AOC 16	AOC 16	AOC 16	BACKGROUND	BACKGROUND	BACKGROUND
Location	B1601	B1601	B1603	B1603	B1603	B1603	B1604	B1604	B1605	B1605	B1605	B1606	B1606	B1607	B1607	BKD1	BKD1	BKD1
ENVIRON Sample ID	B1601-SS01	B1601-SS02	B1603-SS01	B1603-SS01D	B1603-SS02	B1604-SS01	B1604-SS02	B1605-SS01	B1605-SS02	B1605-SS02	B1605-SS02D	B1606-SS01	B1606-SS02	B1607-SS01	B1607-SS02	BKD1-SS01	BKD1-SS02	BKD1-SS03
Matrix	Soil	Soil	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	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	10/5/2006	10/5/2006	10/5/2006	10/5/2006	10/5/2006
Collection Depth (ft)	2 - 2.5	3.5 - 4	2 - 2.5	2 - 2.5	3.5 - 4	2 - 2.5	3.5 - 4	2 - 2.5	3.5 - 4	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
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																	
	Nitrobenzene																	
	Phenanthrene																	
	Pyrene																	
	1,2,4-Trichlorobenzene																	
PCB	PCBs (total)																	
	Aroclor-1248																	
	Aroclor-1254																	
	Aroclor-1268																	
INORG	Antimony	U (1.3)	U (1.2)	U (1.3)	U (1.3)	9.7 (1.4)	U (1.1)	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)
	Arsenic	1.7 (0.71)	1 B (0.65)	2.6 (0.72)	2.6 (0.73)	2.4 (0.77)	3.6 (1)	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)
	Barium	39.1 B (0.38)	37.9 B (0.34)	262 (0.38)	261 (0.39)	280 (0.41)	71.3 (0.29)	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)
	Beryllium	0.44 (0.067)	0.44 (0.061)	0.58 (0.068)	0.6 (0.068)	0.58 (0.072)	0.57 (0.022)	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)
	Cadmium	U (0.089)	U (0.081)	U (0.09)	U (0.091)	U (0.096)	0.21 B (0.11)	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)
	Chromium	29 (0.35)	23.7 (0.32)	29.9 (0.36)	28.4 (0.36)	31.6 (0.39)	85.5 (0.62)	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)
	Copper	227 (0.82)	16 (0.75)	28.8 (0.84)	38.4 (0.84)	31.6 (0.89)	116 (0.69)	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)
	Lead	6.3 (0.6)	6.6 (0.55)	10.5 (0.61)	10.4 (0.62)	51.9 (0.65)	6.5 (0.49)	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)
	Mercury	U (0.018)	U (0.019)	U (0.019)	U (0.016)	U (0.02)	U (0.018)	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)
	Nickel	215 (0.53)	191 (0.49)	113 (0.54)	112 (0.55)	110 (0.58)	411 (0.86)	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)
	Selenium	0.9 B (0.93)	U (0.85)	1.1 (0.95)	U (0.96)	1.1 B (1)	U (1.1)	U (1.1)	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 (0.93)
	Silver	U (0.31)	U (0.28)	U (0.32)	U (0.32)	U (0.34)	U (0.27)	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)
	Zinc	32.3 (1.3)	35.3 (1.2)	85.9 (1.3)	112 (1.3)	50.2 (1.4)	43.2 (1.3)	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)

Notes:
1 All concentrations are presented in mg/kg (ppm).
2 Only compounds with at least one detection are shown.
3 Concentrations that exceed the Part 375-6 Industrial are **boldfaced**.
4 Concentrations that exceed the Part 375-6 Industrial are **boldfaced**.
5 Concentrations that exceed the Part 375-6 Industrial are **boldfaced**.
Abbreviations:
U -- Not Detected.
J -- Estimated Concentration.
() -- Detection Limit.

TABLE VII-3
Summarized Analytical Results for August-October 2006 Soil Sampling Program - Sun Chemical, Staten Island, New York

Area Of Concern Location ENVIRON Sample ID Matrix Collection Method Collection Date Collection Depth (ft) Comments	BACKGROUND BKD1 BKD1-SS03D Soil Macrocore 10/5/2006 3.5 - 4 Duplicate	BACKGROUND BKD1 BKD1-SS04 Soil Macrocore 10/5/2006 6 - 6.5
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	
	Nitrobenzene	
	Phenanthrene	
	Pyrene	
	1,2,4-Trichlorobenzene	
PCB		
	PCBs (total)	
	Aroclor-1248	
	Aroclor-1254	
	Aroclor-1268	
INORG		
	Antimony	U (1.3)
	Arsenic	0.76 B (0.71)
	Barium	27.7 B (0.38)
	Beryllium	0.45 (0.067)
	Cadmium	U (0.089)
	Chromium	23.8 (0.35)
	Copper	16.5 (0.82)
	Lead	6.4 (0.6)
	Mercury	U (0.018)
	Nickel	67.5 (0.53)
	Selenium	U (0.93)
	Silver	U (0.31)
	Zinc	36.7 (1.3)

- Notes:
- 1 All concentrations are presented in mg/kg (ppm).
 - 2 Only compounds with at least one detection are shown.
 - 3 Concentrations that exceed the Part 375-6 Industrial are **boldfaced**.
 - 4 Concentrations that exceed the Part 375-6 Industrial are **boldfaced**.
 - 5 Concentrations that exceed the Part 375-6 Industrial are **boldfaced**.

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

TABLE VII-3
Summarized Analytical Results for August-October 2006 Soil Sampling Program - Sun Chemical, Staten Island, New York

Area Of Concern						AOC 06	AOC 05	AOC 05	AOC 15	AOC 15	AOC 02	AOC 02	AOC 02				
Location				MW01	MW01	MW02	MW03	MW03	MW04	MW04	MW05	MW05	MW05	MW05D	MW06	MW07	
ENVIRON Sample ID		TAGM GW	NYCRR Part 703	MW01-060911	MW01-061017	MW02-061017	MW03-061017	MW03-061017D	MW04-060911	MW04-061017	MW05-060911	MW05-060911D	MW05-061017	MW05D-061017	MW06-061017	MW07-061017	
Collection Method				Bailer	TB/Pump	TB/Pump	TB/Pump	TB/Pump	Bailer	TB/Pump	Bailer	Bailer	TB/Pump	TB/Pump	TB/Pump	TB/Pump	
Comments								Duplicate				Duplicate					
VOC	Benzene	0.7	1	20	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			0.7	U (1)	U (1)	U (1)	U (5)	U (5)	U (1)	U (1)	U (1)	U (1)	0.7 J (1)	U (1)	U (1)	
	Carbon Disulfide	50		4.6	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	7	7	21	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	5	5	540	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	5	0.6	550	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	5	5	160	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			0.5	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			7.1	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	5	5	32	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	5	5	11	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			3.6	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	5	5	6.2	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	2	2	5.8	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		50	17.7	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		2000	623		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		11	0.57	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)	0.23 B (0.1)	
	Chromium		50	33.9	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		1000	33.8	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		50	20.6	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		0.7	0.12	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		200	330	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		20	6.5	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		5000	62.5	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)	

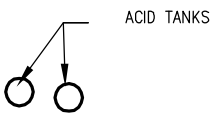
Notes:
1 All concentrations are presented in ug/L (ppb).
2 Only compounds with at least one detection are shown.
3 Concentrations that exceed the TAGM GW are **boldfaced**.
4 Concentrations that exceed the NYCRR Part 703 are double underlined.

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

FIGURES

TOMPKINS AVE.

CHESTNUT AVE.



ACID TANKS

⑨ DRUM STORAGE AREA

WAREHOUSE

⑨ DRUM AND MATERIAL STORAGE AREA

SUN CHEMICAL CORPORATION
MANUFACTURING

⑪

RED WING FILTER PRESSES

FORMER ACID
TANKS (1937-1981)

LOADING DOCKS

⑥

FORMER STORAGE TANKS (1937-1962):
BLUE PULP BICHROMATE ACID

BLUE WING FILTER PRESSES

⑩

③

④

⑤

FORMER DWELLING
(1937)

100,000-GAL.
RESERVOIR

FORMER DWELLING
(1937)

FORMER
AUTOMOBILE
GARAGE (1937)

SHOOTING GALLERY (1898)

①

FORMER
GREENHOUSE
(1937)

MACHINE
&
CARP'R SHOP

⑧

CHRYSOPTERINE
PLANT (1937)

STORAGE

AST

⑮

FORMER
COAL
PILE (1917)

PARKING

②

UNDERGROUND
FUEL OIL TANKS
(1950-1986)

⑫

⑬

APPROX. AREA AFFECTED BY
SPILL

STORM DRAINS

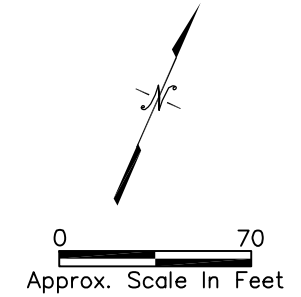
FORMER
MATERIAL
STORAGE
(1954-1995)

FORMER
10,000-GAL.
23% SODIUM
HYDROXIDE

RESIDENTIAL

ST. JOSEPHS SCHOOL

ST. MARY'S AVE.



LEGEND

--- PROPERTY BOUNDARY

— BUILDING OUTLINE

— FENCE

① FORMER SITE FEATURE AND
DATE(S) OF SANBORN
MAP(S) SHOWING AREA

① AREAS OF CONCERN

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.

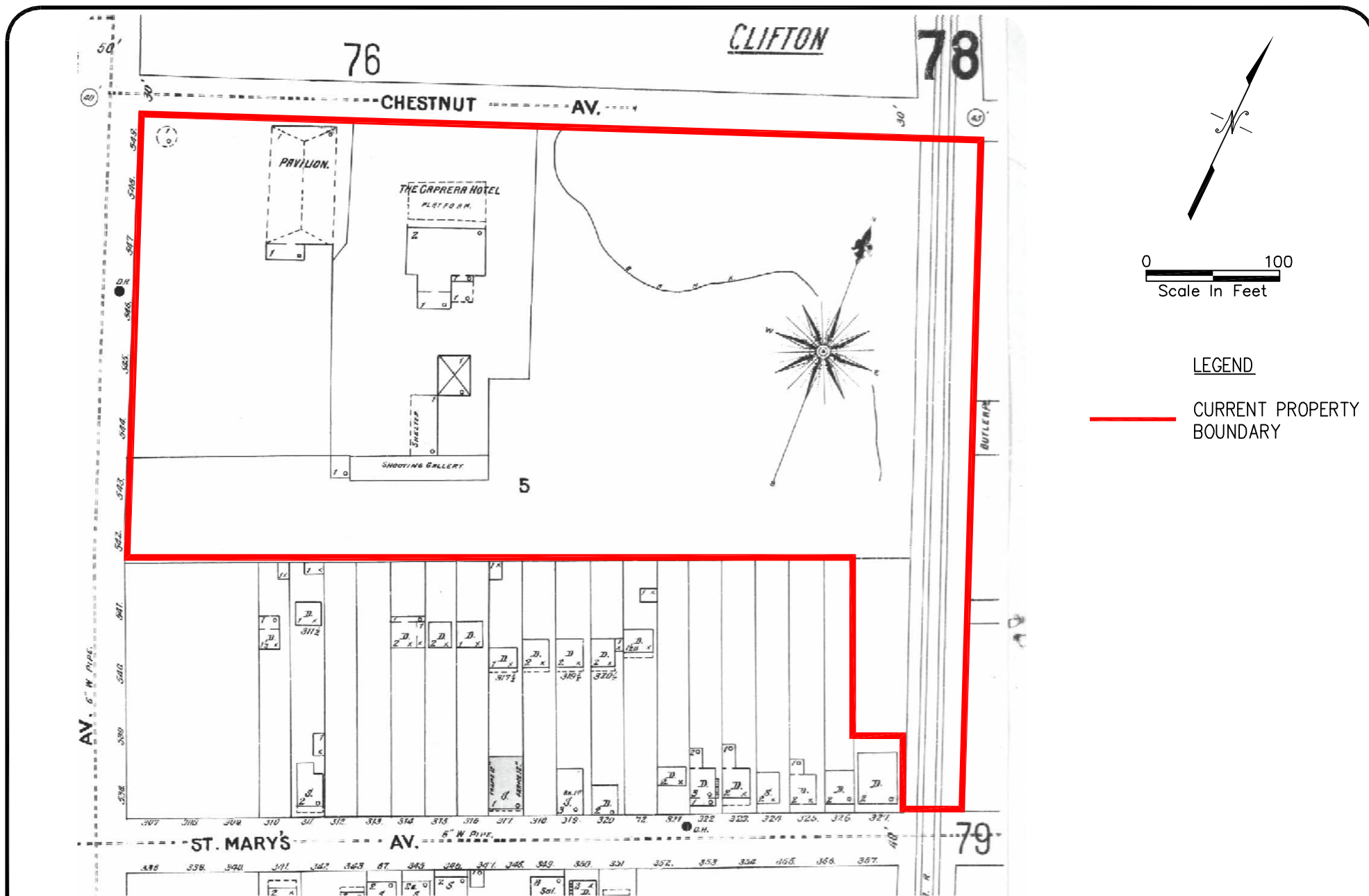
ENVIRON

DRAFTED BY: TSP\ TSP DATE: 8/30/07

HISTORICAL SITE FEATURES/AREAS OF CONCERN
SUN CHEMICAL CORPORATION-ROSEBANK FACILITY
441 TOMPKINS AVE., STATEN ISLAND, NY

FIGURE
VII-1

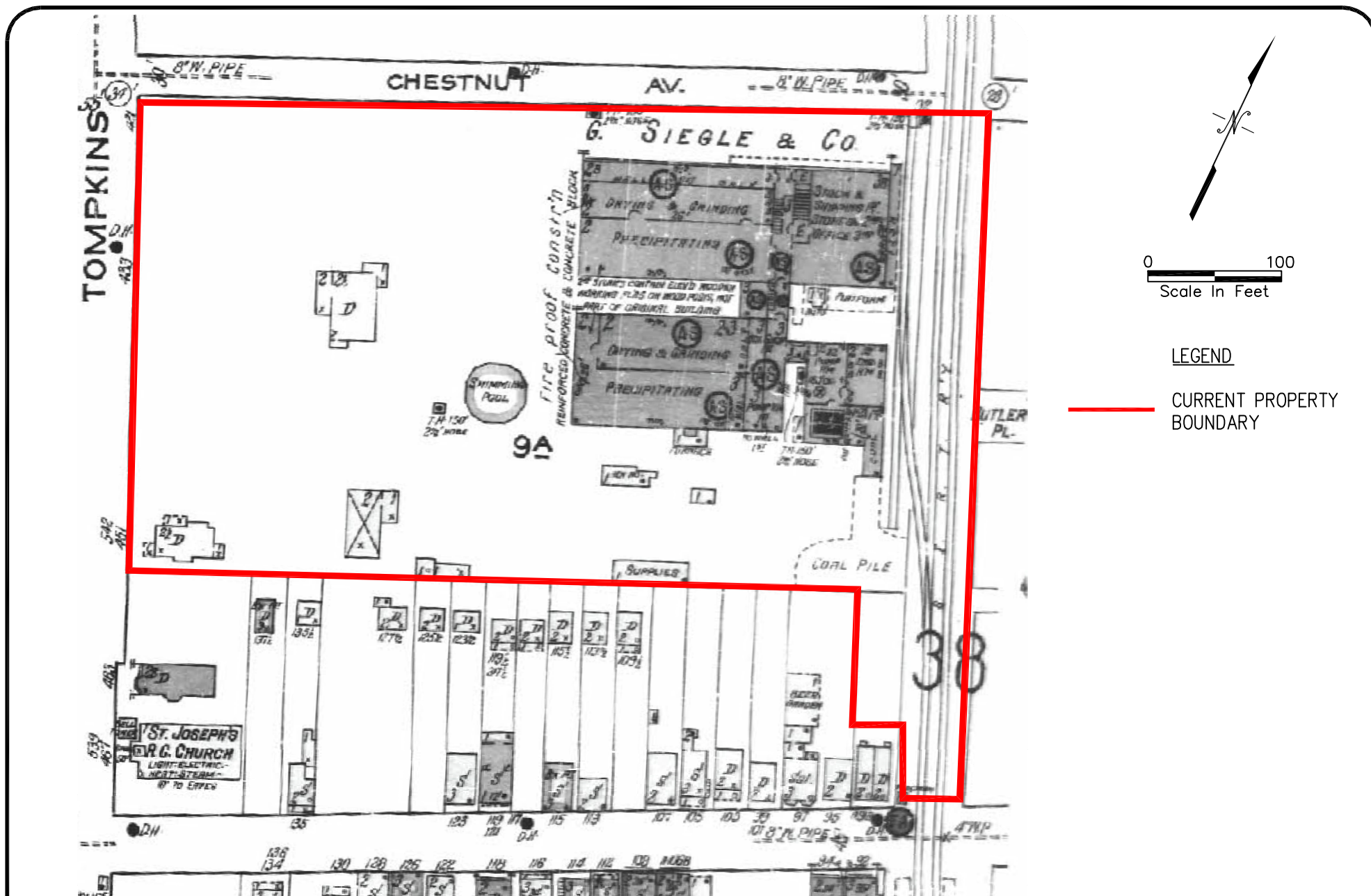
21-16443AS02



ENVIRON

FACILITY LAYOUT ACCORDING TO 1898 SANBORN FIRE INSURANCE MAP
SUN CHEMICAL CORPORATION—ROSEBANK FACILITY
441 TOMPKINS AVE., STATEN ISLAND, NY

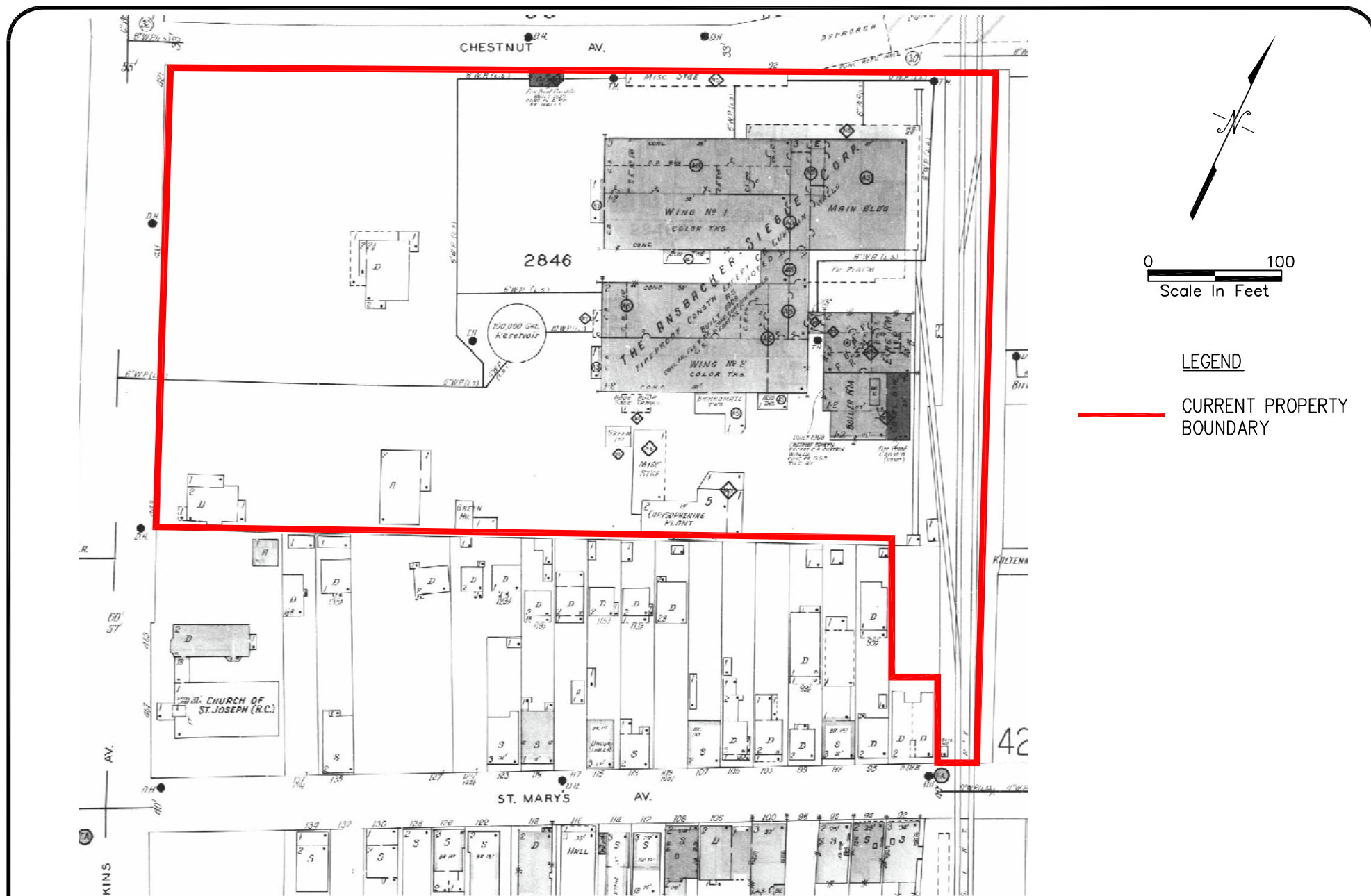
FIGURE
VII 2



ENVIRON

FACILITY LAYOUT ACCORDING TO 1917 SANBORN FIRE INSURANCE MAP
SUN CHEMICAL CORPORATION-ROSEBANK FACILITY
441 TOMPKINS AVE., STATEN ISLAND, NY

FIGURE
VII 3



ENVIRON

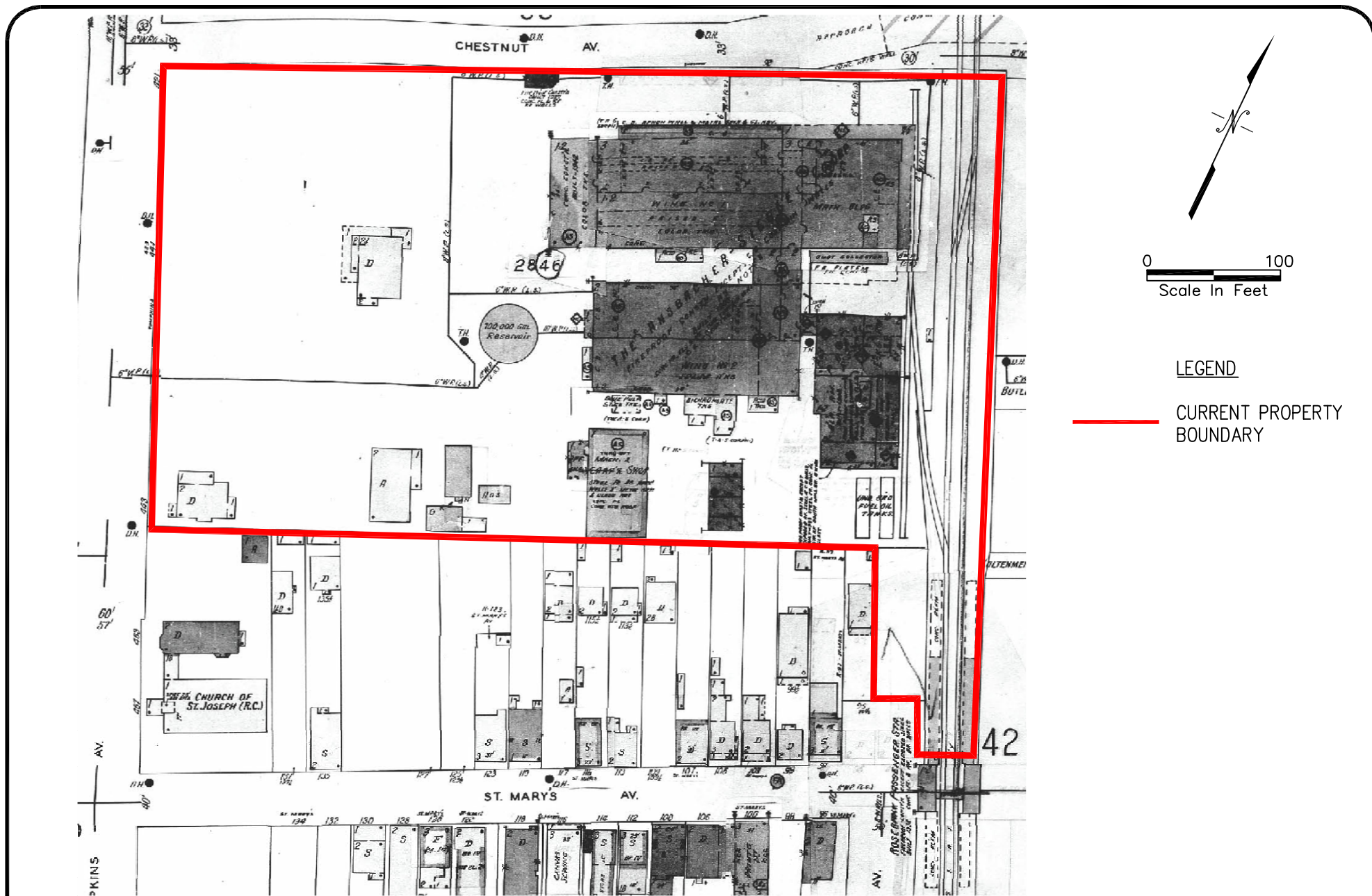
DRAFTED BY:BJK/TSP

DATE: 11/19/07

FACILITY LAYOUT ACCORDING TO 1937 SANBORN FIRE INSURANCE MAP
SUN CHEMICAL CORPORATION-ROSEBANK FACILITY
441 TOMPKINS AVE., STATEN ISLAND, NY

FIGURE
VII 4

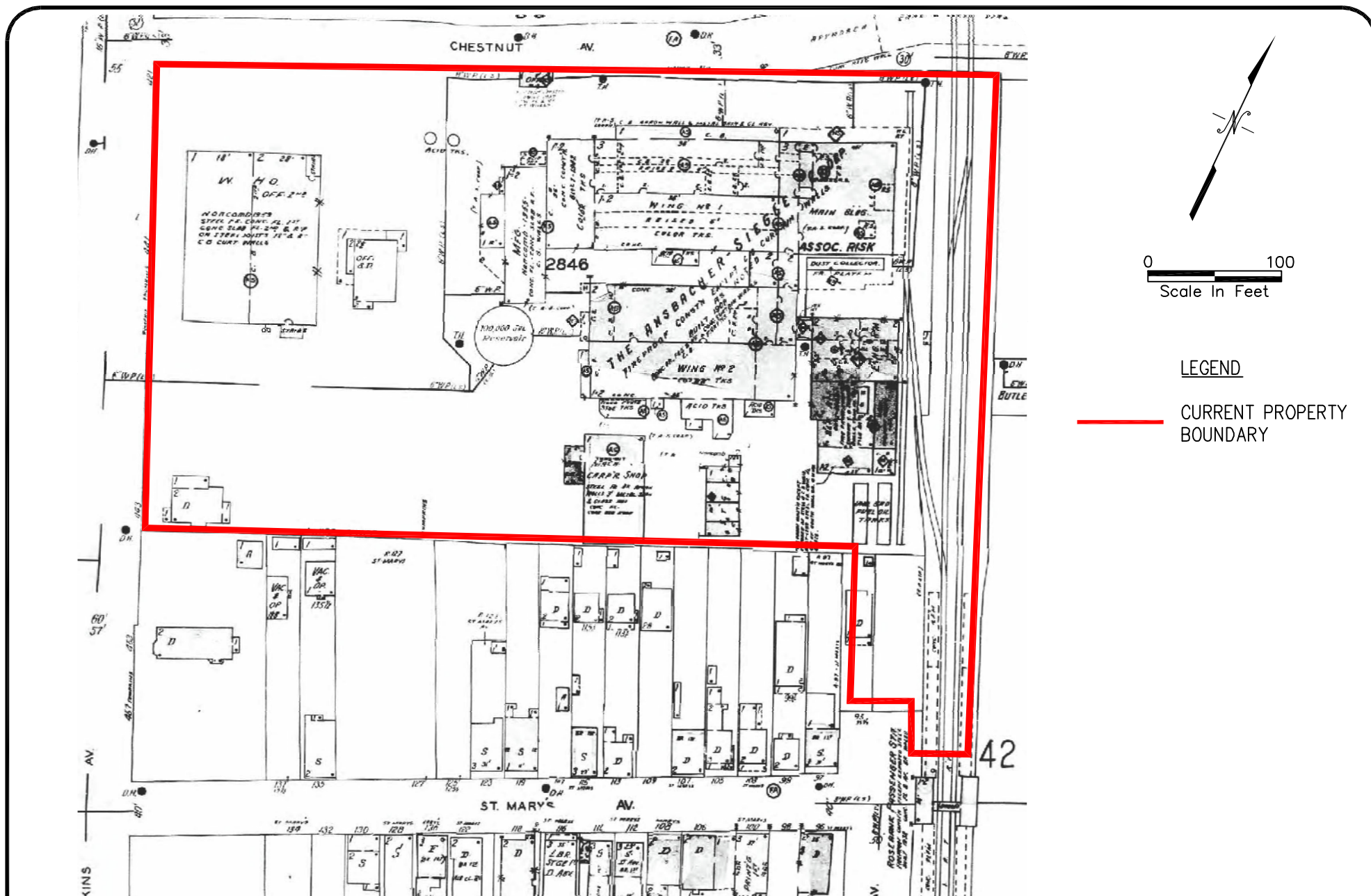
21-16443ASAN01



ENVIRON

FACILITY LAYOUT ACCORDING TO 1950 SANBORN FIRE INSURANCE MAP
SUN CHEMICAL CORPORATION—ROSEBANK FACILITY
441 TOMPKINS AVE., STATEN ISLAND, NY

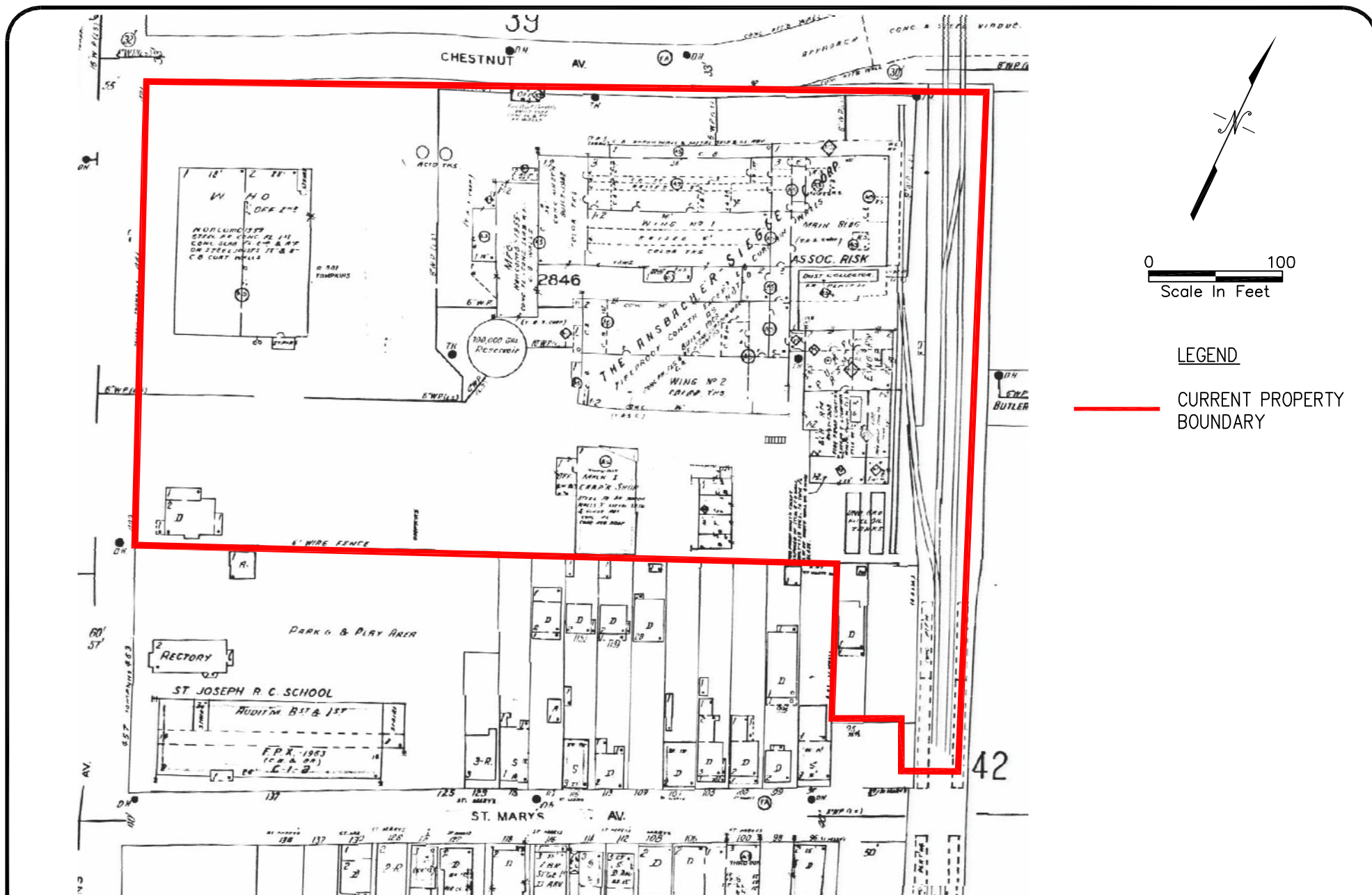
FIGURE
VII 5



ENVIRON

FACILITY LAYOUT ACCORDING TO 1962 SANBORN FIRE INSURANCE MAP
 SUN CHEMICAL CORPORATION-ROSEBANK FACILITY
 441 TOMPKINS AVE., STATEN ISLAND, NY

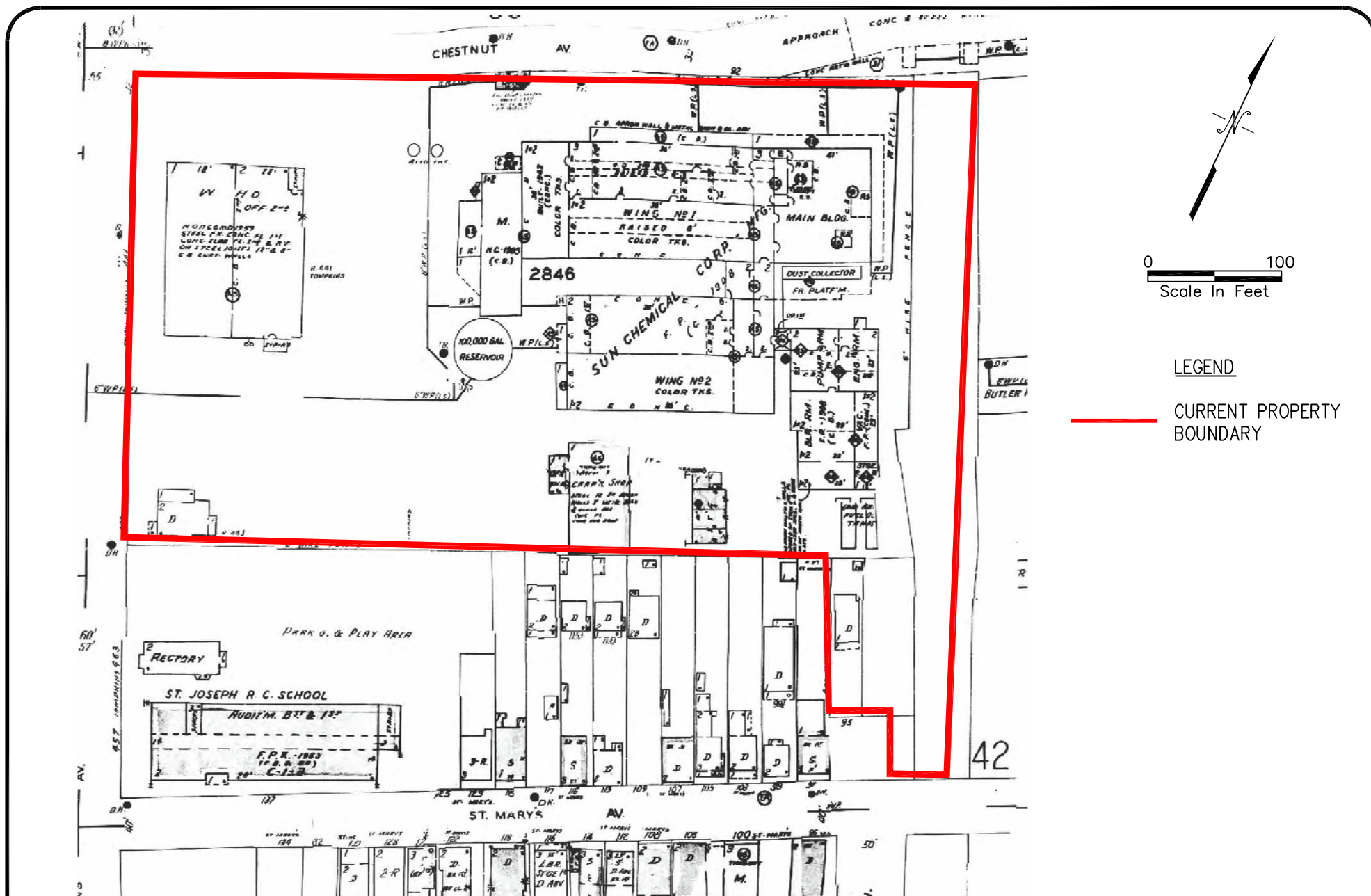
FIGURE
 VII 6



ENVIRON

FACILITY LAYOUT ACCORDING TO 1977 SANBORN FIRE INSURANCE MAP
SUN CHEMICAL CORPORATION-ROSEBANK FACILITY
441 TOMPKINS AVE., STATEN ISLAND, NY

FIGURE
VII 7



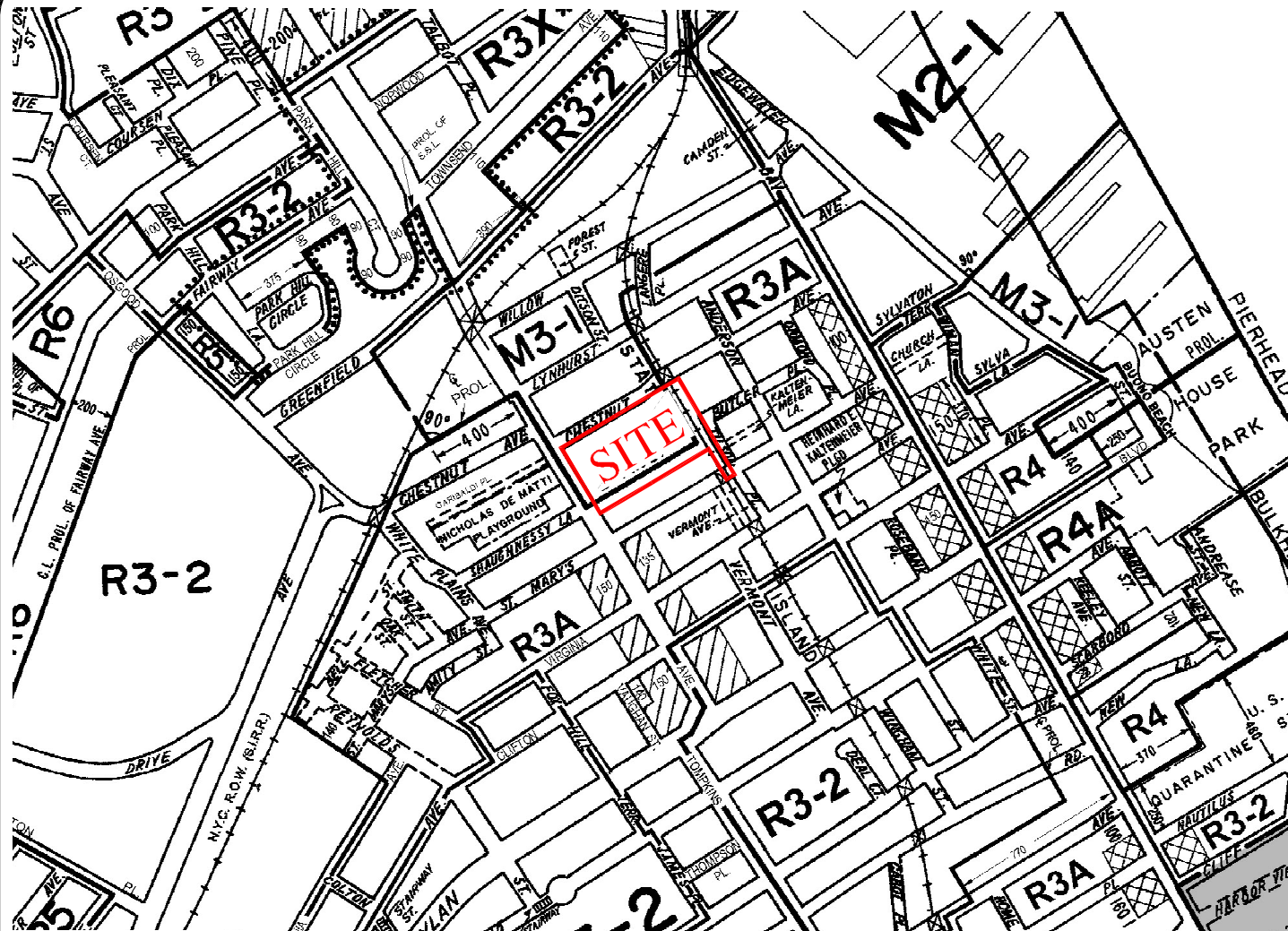
ENVIRON

FACILITY LAYOUT ACCORDING TO 1986 SANBORN FIRE INSURANCE MAP
SUN CHEMICAL CORPORATION—ROSEBANK FACILITY
441 TOMPKINS AVE., STATEN ISLAND, NY

DRAFTED BY:BJK/TSP

DATE: 11/19/07

21-16443ASAN01



ZONING MAP

THE NEW YORK CITY PLANNING COMMISSION

Major Zoning Classifications:

The number(s) and/or letter(s) that follows or **R**, **C** or **M** U.S.'s designator indicates use, bulk and other controls as described in the text of the Zoning Resolution.

- R RESIDENTIAL DISTRICT
- C COMMERCIAL DISTRICT
- M MANUFACTURING DISTRICT

AREA(S) REZONED

EFFEKTIVE DATE(S) OF REZONING

X/0/25 2005 C 060536 ZV3
10/25/2005 C 060477 ZV3

SPECIAL PURPOSE DISTRICT
The element(s) within the shaded area designates the special purpose district as described in the text of the Zoning Resolution.

- D RESIDENTIAL DECLARATION
- E CITY ENVIRONMENTAL QUALITY REVIEW DECLARATION

MAP KEY

21a	21c	22a
21b	21d	22b
27a	27c	28a

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ZONING MAP 21d

0 800
Scale In Feet

C1-1 C1-2 C1-3 C1-4 C1-5 C2-1 C2-2 C2-3 C2-4 C2-5

NOTE: Where no dimensions for zoning district boundaries appear on the zoning maps, such dimensions are determined in Article VII, Chapter 6 (Location of District Boundaries) of the Zoning Resolution.

NOTE: Zoning information as shown on this map is subject to change. For the most up-to-date zoning information for this map visit the Zoning section of the Department of City Planning website: www.nyc.gov/planning or contact the Zoning Information Desk at (212) 720-3291.

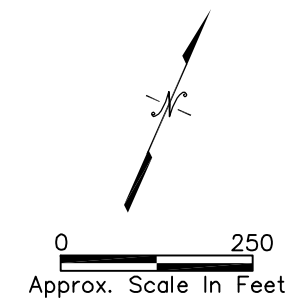
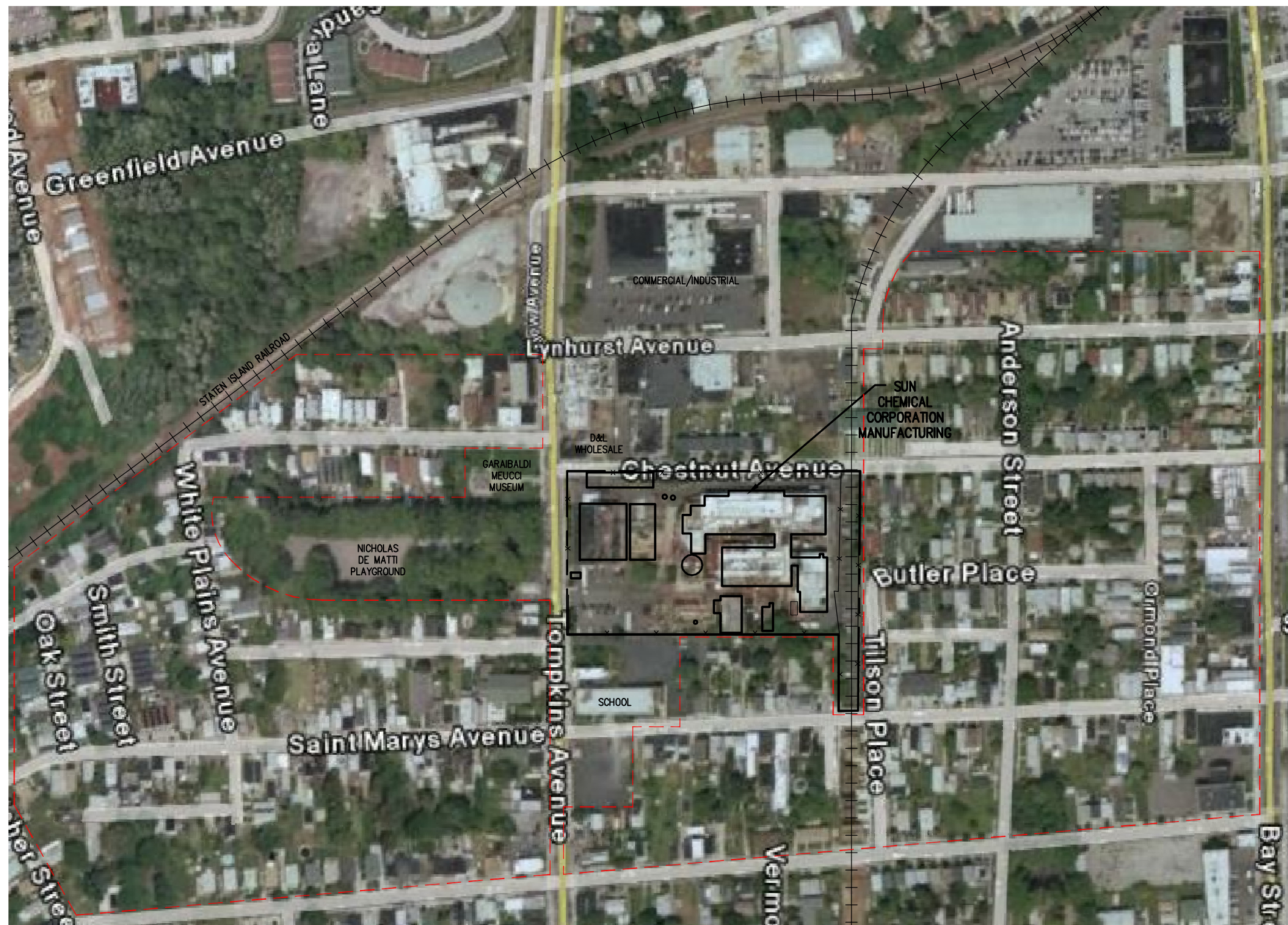
ENVIRON

DRAFTED BY: CAD/PMASCARO DATE: 5/9/08

ZONING OF SITE AND NEIGHBORING PROPERTIES
SUN CHEMICAL CORPORATION-ROSEBANK FACILITY
441 TOMPKINS AVE., STATEN ISLAND, NY

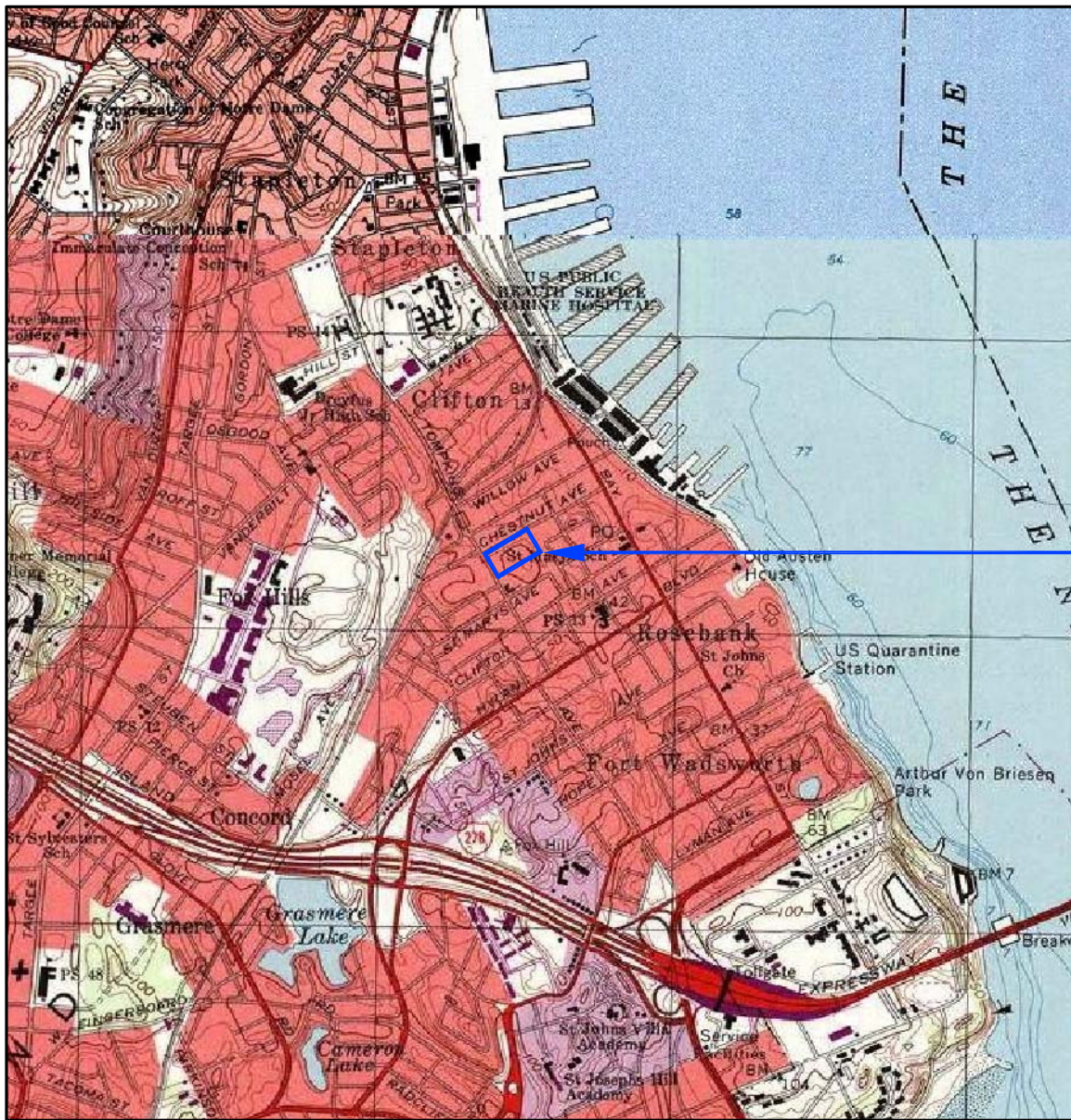
FIGURE
IX.1

21-16443AS04A



LEGEND

- PROPERTY BOUNDARY
- - - RESIDENTIAL WITH MINOR COMMERCIAL USES
- BUILDING OUTLINE
- X — FENCE
- + + + + + RAILROAD



SITE

0 2000 4000
 Scale in Feet

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

DRAFTED BY: CAD/TSP

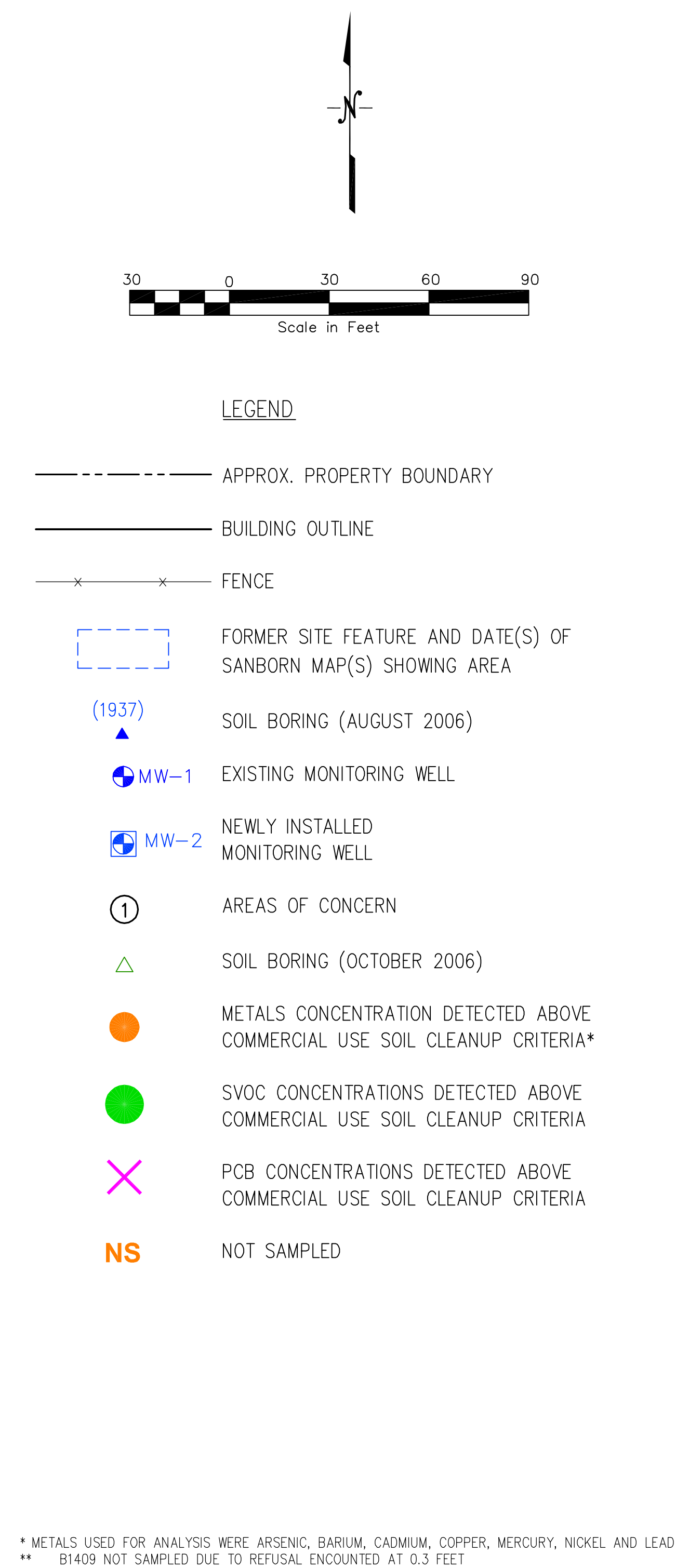
DATE: 8/30/07

SITE LOCATION MAP
 SUN CHEMICAL CORPORATION
 441 TOMPKINS AVENUE
 STATEN ISLAND, NEW YORK

FIGURE
IX.14

21-16443AJ01

PLATES

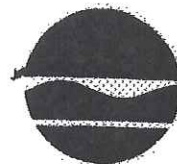


NOTES:

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.
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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 NYSCDC, AND INFORMATION PROVIDED BY SUN CHEMICAL.

**DEC
CORRESPONDENCE**

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
50 Wolf Road, Albany, New York 12233



Langdon Marsh
Commissioner

DEC 28 1994

Dear Sir/Madam:

Re: Hazardous Substance Waste Disposal Site Study

Enclosed for your information is a fact sheet on the Hazardous Substance Waste Disposal Site Study that we are conducting at the direction of the State Legislature. Part of the study entailed compiling an inventory of disposal sites known or suspected of being used for the disposal of hazardous substance wastes.

Our records indicate that you are the owner and/or operator of one of the sites currently included in this inventory. A copy of our information on that site is enclosed for your review. Please provide us with clarification on site ownership as well as any additional information you may have regarding waste disposal or contamination so that our final report can be as accurate as possible.

As is indicated in the fact sheet, you are invited to attend one of our public meetings or availability sessions. Comments on our draft report are welcome. Please call me at (518) 457-0639 if you have any questions.

Sincerely,

John B. Swartwout, P.E.
Chief

Eastern Investigation Section
Bureau of Hazardous Site Control
Division of Hazardous Waste Remediation

Enclosure