BROOKLYN NAVY YARD INDUSTRIAL PARK

KINGS COUNTY

BROOKLYN, NEW YORK

SITE MANAGEMENT PLAN

NYSDEC Site Number: V00120

Prepared for:

Brooklyn Navy Yard Development Corporation
63 Flushing Avenue, Unit 300
Brooklyn, New York 11205

Prepared by:

CORE Environmental Consultants, Inc.
22-48 119th Street
College Point, New York 11356

Revisions to Final Approved Site Management Plan:

Revision No.	Date Submitted	Summary of Revision	NYSDEC Approval Date

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JUNE 2018

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June 29, 2018

PROFESSIONAL ENGINEER CERTIFICATION

I, Elizabeth Tramposch, certify that I am currently a New York State Registered Professional Engineer as defined in Title 6 of the New York Codes, Rules and Regulations Part 375 (6 NYCRR 375) and that this Site Management Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER-10/Technical Guidance for Site Investigation and Remediation (DER-10).

STATE OF NEW YORK
ELIZABETH M. TRAMPOSCH
EXCELSIOR
098582
LICENSED PROFESSIONAL ENGINEER

NYS Professional Engineer Number (Stamp)	Date	Signature
098582	June 29, 2018	Elizabeth Tramposch

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APPENDICES

LIST OF ACRONYMS

AS	Air Sparging
ASP	Analytical Services Protocol
BCA	Brownfield Cleanup Agreement
BCP	Brownfield Cleanup Program
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CAMP	Community Air Monitoring Plan
C/D	Construction and Demolition
CFR	Code of Federal Regulation
CLP	Contract Laboratory Program
COC	Certificate of Completion
COPC	Constituent of Potential Concern
CO2	Carbon Dioxide
CP	Commissioner Policy
DER	Division of Environmental Remediation
EC	Engineering Control
ECL	Environmental Conservation Law
ELAP	Environmental Laboratory Approval Program
ERP	Environmental Restoration Program
GHG	Green House Gas
GWE&T	Groundwater Extraction and Treatment
HASP	Health and Safety Plan
IC	Institutional Control
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYCRR	New York Codes, Rules and Regulations
O&M	Operation and Maintenance
OM&M	Operation, Maintenance and Monitoring
OSHA	Occupational Safety and Health Administration
OU	Operable Unit
PID	Photoionization Detector
PRP	Potentially Responsible Party
PRR	Periodic Review Report
QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Project Plan
RAO	Remedial Action Objective
RAWP	Remedial Action Work Plan
RCRA	Resource Conservation and Recovery Act
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
RP	Remedial Party
RSO	Remedial System Optimization
SAC	State Assistance Contract
SCG	Standards, Criteria and Guidelines
SCO	Soil Cleanup Objective
SMP	Soil Management Plan
SOP	Standard Operating Procedures
SOW	Statement of Work
SPDES	State Pollutant Discharge Elimination System
SSDS	Sub-slab Depressurization System
SVE	Soil Vapor Extraction

LIST OF ACRONYMS
(continued)

SVI	Soil Vapor Intrusion
SVMS	Soil Vapor Mitigation System
TAL	Target Analyte List
TCL	Target Compound List
TCLP	Toxicity Characteristic Leachate Procedure
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VCA	Voluntary Cleanup Agreement
VCP	Voluntary Cleanup Program

EXECUTIVE SUMMARY

The following provides a brief summary of the controls implemented for the Site, as well as the inspections, monitoring, maintenance and reporting activities required by this Site Management Plan:

Site Identification:	V00120 Brooklyn Navy Yard Industrial Park, 63 Flushing Avenue, Brooklyn, New York

Institutional Controls
1. The remedial party or Site owner must complete an annual periodic certification of institutional and engineering controls in accordance with Part 375-1.8(h)(3) and submit to the New York State Department of Environmental Conservation (NYSDEC);
2. The property may be used for commercial use, which also permits industrial uses;
3. All ECs must be maintained as specified in this SMP;
4. All ECs must be inspected at a frequency and in a manner defined in this SMP;
5. The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by NYSDEC, the New York State Department of Health (NYSDOH), or the New York City Department of Health;
6. Data and information pertinent to Site management must be reported annually and in a manner as defined in this SMP;
7. Prior to any non-emergency breach of the cover system, building construction, or any other activity that may increase the potential for people to come into contact with the remaining contamination at the Site, NYSDEC will be contacted, and the details of the situation relayed through a “Change of Use” notification;
8. Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in this SMP;
9. Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical component of the remedy shall be performed as defined in this SMP;
10. Access to the Site must be provided to agents, employees, or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by the Environmental Easement;
11. Vegetable gardens and farming, other than rooftop farming, on the Site are prohibited; and
12. The future decommissioning of 16 transformer substations.
Engineering Controls
Site-wide protective cover system

Type	Frequency
Inspections	
Site-wide protective cover system	Annually
Maintenance	
Site-wide protective cover system	As needed
Reporting	
Periodic Review Report	Annually

* Further descriptions of the above requirements are provided in detail in later sections of this SMP.

This SMP details the Site-specific implementation procedures that are required by the Environmental Easement to manage remaining contamination at the Site until such time said Environmental Easement can be extinguished. All future activities that will disturb remaining contamination at the Site must be conducted in accordance with this SMP.

- Subsurface intrusive activities, such as soil boring installation or excavation, are controlled by procedures documented in the Excavation Work Plan (EWP), included as Appendix E of this SMP.
- Procedures for monitoring the Site-wide cover are discussed in Section 4.0.
- Tenant activities and requirements are discussed in Section 6.0.

1.0 INTRODUCTION

1.1 GENERAL

This Site Management Plan (SMP) was prepared by CORE Environmental Consultants, Inc. (CORE), on behalf of the Brooklyn Navy Yard Development Corporation (BNYDC) as a required element of the remedial program for the Brooklyn Navy Yard Industrial Park (BNYIP) located in Brooklyn, New York (hereinafter referred to as the “Site”). A Site Location Map is presented as Figure 1. The Site is currently in the New York State Voluntary Cleanup Program (VCP) (Site No. V00120) administered by New York State Department of Environmental Conservation (NYSDEC). This SMP was prepared in accordance with NYSDEC’s *DER-10/Technical Guidance for Site Investigation and Remediation* (DER-10), dated May 2010, and other guidelines provided by NYSDEC.

BNYDC entered into a Voluntary Cleanup Agreement (VCA) on May 5, 1998 with NYSDEC to remediate the Site, which includes an approximately 152-acre portion of a parcel in Brooklyn, Kings County, New York. The Site and boundaries of the parcel subject to this SMP are presented on Figure 2. The boundaries of the Site are more fully described in the metes and bounds Site description that is part of the Environmental Easement provided in Appendix A.

As a result of elevated concentrations of polychlorinated biphenyls (PCBs) detected in surface and subsurface soils in the portion of the Site containing former Drum Storage Area C and Substation H), the area was excluded from the VCA parcel and is to be placed under separate Order on Consent. Two additional substation areas were excepted from the VCA parcel boundaries. Substation 22 (Building 77) was removed, as well as the area of the Site subleased to BNY Tower Associates, LLC for the Dock 72 project - the former location of Building 274. The excepted substation areas will be addressed outside of the VCP.

All six dry docks currently located on Site were removed from the VCA parcel boundaries due to their potential to be considered “lands under water.” Piers D and G were excepted due to their current state of disrepair and plans to remove, while Pier C was excepted as a result of active construction.

After completion of the remedial work, some impacts were left at this site, which is hereafter referred to as “remaining contamination”. Institutional and Engineering Controls (ICs and ECs) have been incorporated into the Site remedy to control exposure to remaining contamination to ensure protection of public health and the environment. An Environmental Easement granted to NYSDEC, and recorded with the New York City Register’s Office, Kings Borough, requires compliance with this SMP and all ECs and ICs placed on the Site. This SMP addresses the means for implementing the ICs and ECs.

This SMP was prepared to manage remaining contamination at the Site until the Environmental Easement is extinguished in accordance with New York State Environmental Conservation Law (ECL) Article 71, Title 36. This Plan has been approved by NYSDEC, and compliance with this Plan is required by the grantor of the Environmental Easement and the grantor's successors and assigns. This SMP may only be revised with the approval of NYSDEC.

It is important to note that:

- This SMP details the Site-specific implementation procedures that are required by the Environmental Easement. Failure to properly implement the SMP is a violation of the Environmental Easement, which is grounds for revocation of the liability release;
- Failure to comply with this SMP is also a violation of ECL, Title 6 of the New York Codes, Rules and Regulations Part 375 (6 NYCRR 375) and the VCA (Index No. 02-0001-97-08; Site No. V00120) for the Site, and thereby subject to applicable penalties.

All reports associated with the Site can be viewed by contacting NYSDEC or its successor agency managing environmental issues in New York State or by visiting the document repository for the Site, located at:

Brooklyn Community Board 2
350 Jay Street, 8th Floor
Brooklyn, New York 11201
Phone: (718) 596-5410

A list of contacts for persons involved with the Site is provided in Appendix B of this SMP.

1.2 REVISIONS

Revisions to this plan will be proposed in writing to NYSDEC's project manager for the Site. Revisions will be necessary upon, but not limited to, the following occurrences:

- A change in media monitoring requirements;
- Post-remedial removal of contaminated sediment or soil; or
- Other significant change to the Site conditions.

In accordance with the Environmental Easement for the Site, NYSDEC will provide a notice of any approved changes to the SMP and append these notices to the SMP that is retained in its files.

1.3 NOTIFICATIONS

Notifications will be submitted by the property owner to NYSDEC, as needed, in accordance with NYSDEC's DER–10 for the following reasons:

- 60-day advance notice of any proposed changes in Site use that are required under the terms of the VCA, 6 NYCRR 375 and/or ECL, including the decommissioning or remediation of any substations identified in Section 2.7.3;
- 7-day advance notice of any field activity associated with the remedial program;
- 15-day advance notice of any proposed ground-intrusive activity pursuant to the Excavation Work Plan (EWP);
- Notice within 48 hours of any damage or defect to the foundation, structures, or ECs that reduces or has the potential to reduce the effectiveness of an EC, and likewise, any action to be taken to mitigate the damage or defect;
- By noon of the following day, verbal notice of any emergency, such as a fire, flood, or earthquake that reduces, or has the potential to reduce, the effectiveness of ECs in place at the Site, with written confirmation within seven days that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public; and/or
- Follow-up status reports submitted to NYSDEC within 45 days on actions taken to respond to any emergency event requiring ongoing responsive action describing and documenting actions taken to restore the effectiveness of the ECs.

Any change in the ownership of the site or the responsibility for implementing this SMP will include the following notifications:

- At least 60 days prior to the change, NYSDEC will be notified in writing of the proposed change. This will include a certification that the prospective purchaser/Remedial Party has been provided with a copy of the VCA, and all approved work plans and reports, including this SMP.
- Within 15 days after the transfer of all or part of the Site, the new owner's name, contact representative, and contact information will be confirmed to NYSDEC in writing.

Currently, the notifications listed above can be made to:

Jonathan Greco
NYSDEC Project Manager
625 Broadway
Albany, New York 12233
(518) 402-9694
Jonathan.Greco@dec.ny.gov

A full list of contacts for persons involved with the Site is provided in Appendix B of this SMP.

2.0 SUMMARY OF PREVIOUS INVESTIGATIONS AND REMEDIAL ACTIONS

2.1 SITE LOCATION AND DESCRIPTION

The Site is located in Brooklyn, Kings County, New York and is identified as Block 2023, Lot 1 by the New York City Department of Finance (see Figure 2). The Site is an approximately 150-acre portion of the lot that is bound by the East River to the north, Flushing Avenue to the south, Kent Avenue to the east, and Navy Street and the New York City Department of Environmental Protection (NYCDEP) Red Hook Wastewater Treatment Plant (WWTP) to the west. A Site Plan with surveyed Site boundaries is presented as Figure 2. The boundaries of the Site are more fully described in the metes and bounds survey of the Environmental Easement, provided in Appendix A. The owner of the Site parcel at the time of issuance of this SMP is the City of New York. The Site is developed and managed by the Brooklyn Navy Yard Development Corporation (BNYDC).

2.2 PHYSICAL SETTING

2.2.1 Land Use

The Site consists of 49 buildings, 9 open spaces, and 2 piers, and is currently leased to more than 400 small and midsized businesses. The Site is zoned M3-1 by the New York City Department of City Planning, indicating that it can be used for light and heavy manufacturing purposes. Site occupants are engaged in commercial and light manufacturing activities, such as clothing manufacturers, production and distribution of various goods, furniture refinishing, and printing.

The properties adjoining the Site, and in the neighborhood surrounding the Site, are zoned primarily for commercial and residential uses. The properties immediately south of the Site include primarily commercial and manufacturing properties such as self-storage, a door manufacturer, fruit and vegetable wholesaler, and various restaurants. The properties immediately east and west of the Site are primarily residential. The East River is immediately adjacent to the BNYIP on the northern parcel boundary.

2.2.2 Site Geology

According to several studies, the stratigraphy underlying the grade at the BNYIP consists of fill ranging from 1 to 25 feet below ground surface (bgs). Shallow fill (up to approximately 10 feet bgs) is consistent with urban fill, containing ash, coal waste, bricks, and concrete, etc. Underlying man-made fill is a layer of organic silt with peat lenses varying in thickness between 10 and 35 feet; a confining layer consisting of alternating layers of sand, silt, and clay between 10 and 50 feet thick; sand and gravel between 10 and 50 feet thick; and a blue clay confining layer between 20 and 45 feet thick. Immediately beneath the blue clay confining layer and above bedrock is a layer of sand, gravel, and boulders, between 10 and 15 feet thick (Wehran, 1988; HDR, 1998).

2.2.3 Hydrogeology

The water table as measured at monitoring wells near the Brooklyn Navy Yard basin fluctuate in response to tidal influence (Wehran, 1988; BBL, 1993). The tidal cycle of the East River has a mean range of approximately 4.2 feet, causing groundwater to flow into the Navy Yard basin during low tides and recharge as surface water level rises. It is probable that there is no prevailing direction of upper groundwater system adjacent to waterfront structures (perched groundwater), and that there is local mixing between the saline surface waters and local groundwater.

Water levels were measured during previous Site investigations (Wehran, 1988; BBL, 1993; HDR, 1998) in wells completed above the confining layer. The depth to groundwater at the Site ranged from 4 feet bgs to a maximum depth of 10 feet bgs across the Site. The shallow groundwater system flows from the surrounding highlands across the Site to the East River (generally northward flow direction). The hydraulic groundwater gradient and direction generally reflects the configuration of the surface topography at the Site.

Potable water is provided to the Site via the New York City municipal water supply system; no groundwater is used at the Site.

An historic groundwater contour map from Quay's 2007 Remedial Investigation is located in Appendix C.

2.3 PREVIOUS SITE INVESTIGATIONS

The following narrative provides a remedial history timeline and a brief summary of the available project records to document key investigative and remedial milestones for the Site.

The BNYDC, through planning for the redevelopment of specific parcels of property, has acquired numerous environmental Site assessments characterizing the Site. The following environmental assessments have been performed for the VCA parcel, but are not discussed in the following sections:

- Blasland, Bouck & Lee Engineering Consultants. 1991 &1992. "Phase I & II Assessments of Building #41." Final.
- ENSR Environmental, as summarized by Roux Associates, Inc. February 1995 "Summary of Additional Investigations at the Building No. 41 Facility." Final.
- Blasland, Bouck & Lee Engineering Consultants. March 1993. "Phase II Investigation of Cooling Water Tunnels and Dry Dock No. 2 Sampling." Final.
- Blasland, Bouck & Lee Engineering Consultants. July 1993. "Final Environmental Impact Statement, Brooklyn Navy Yard, Brooklyn, New York." Final.

- Fanning, Phillips and Molnar. May 1995. “Brooklyn Navy Yard Cogeneration Plant Project, Pipeline Route - Sampling Results.” Final.
- PMNC, A Joint Venture. February 1996. “Brooklyn Navy Yard Cogeneration Project 138 KV Underground Transmission Line Summary of Soil Testing Results.” Final.
- Soil Mechanics Environmental Services. August 2001. Soil and Ground water sampling at Operable Unit 1, Steiner Studios Inc.
- Whitman Companies Inc. November 2001. Site Investigation at Building 296 (operable Unit 1), Steiner Studios Inc.
- Roux Associates Inc. “Berth 17 and Berth 18 Summary of Investigation Report.” April 11, 2002.
- Environmental Resource Management. 2002. Phase I Environmental Assessment Report.
- Quay Consulting LLC. “Supplemental Site Investigation, Former Building 296, Operable Unit 1.” November 2002.
- Quay Consulting LLC. “Site Investigation for Operable Unit 2, Film Studio.” July 2003
- Quay Consulting LLC. “Proposed Market Avenue Redevelopment Site.” August 2005.

2.3.1 Electrical Transformer Substation C Investigation, Environmental Resources Management (November 1998)

The Environmental Resources Management (ERM) Supplemental Site assessment included collection of concrete surface wipe, sediment, and surface soil samples at former Substation C (Building 542). The substation was housed in a subsurface concrete vault. Historical figures and data relevant to the November 1998 supplemental Site assessment are included in Appendix C.

Two concrete wipe samples collected from transformer concrete surfaces within the subsurface vault contained PCBs at concentrations greater than the Site-specific goal of 10 micrograms (µg) per 100 square centimeters (cm^2). All four concrete wipe samples collected from the walls of the vault contained concentrations of PCBs in exceedence of the applicable 10 µg/100 cm^2 limit.

Four surficial soil samples were collected, one on each side of former Substation C. All four samples contained concentrations of PCBs at or above 1 part per million (ppm) of PCBs in surface soil. Sediment samples collected from the bottom and sidewalls of the subsurface vault contained PCBs at concentrations ranging from 2,100 to 5,300 milligrams per kilogram (mg/kg).

ERM concluded that remedial actions were required for transformer concrete surfaces and sediment, however that no further action was necessary for surface soil. At the time of the investigation, the surface soil cleanup objective was 10 ppm, which was not exceeded in surface soil samples.

2.3.2 Phase II Investigation Report, Environmental Resources Management (May 2002)

The ERM investigation included the collection of sediment samples, installation of soil borings and collection of subsurface soil samples at former drum storage areas, surficial soil and concrete wipe samples for PCB analysis at current and former electrical transformer stations, and groundwater well installation and groundwater sample collection. Historical figures and data relevant to the May 2002 Phase II Investigation Report are included in Appendix C.

Drum Storage Areas

ERM investigated three former drum storage areas at the BNYIP, Drum Storage Areas C and D, and east of Building 664. Impacts identified at Drum Storage Area C are not discussed further in this SMP as the project area is expressly excluded from the boundaries of the VCP Site and is to be placed under a separate Order on Consent with NYSDEC. Borings B-1 through B-3, B-8, and B-9 were installed at the former Drum Storage Area near Building 664; borings B-4 through B-6 were installed in the area of Former Drum Storage Area D. The majority of soil samples contained concentrations of semi-volatile organic compounds (SVOCs), primarily polycyclic aromatic hydrocarbons (PAHs), and metals, as well as some pesticides in exceedence of applicable NYSDEC Recommended Soil Cleanup Objectives (RSCOs) as listed in Technical and Administrative Guidance Memorandum (TAGM) 4046: *Determination of Soil Cleanup Objectives and Cleanup Levels*. Comparison to current NYSDEC Part 375 Commercial Use Soil Cleanup Objectives (SCOs) applicable to the BNYIP Site eliminates the majority of these exceedences. Samples collected at depths of 5 to 7 feet bgs and 8.5 to 9 feet bgs in soil boring B-8 at the former Drum Storage Area near Building 664 contained PCBs in exceedence of the Site-specific cleanup goal of 10 mg/kg in subsurface soils (12 mg/kg). PCBs were not detected in soil borings installed at former Drum Storage Area D at concentrations greater than the Site-specific cleanup goals.

Electrical Transformers

ERM evaluated PCB impacts at 28 transformer locations where oil-containing electrical transformers previously (or currently) contained concentrations of PCBs greater than 50 ppm. The transformers at 22 of the 28 locations are/were contained within structures and potential PCB impacts were limited to the containment structures and wipe analysis samples. Substations G, H, K, Q, 13, and 18 contained soil areas and therefore also required the collection of surficial soil samples. Wipe samples collected at six substations did not contain PCBs greater than 10 µg/100 cm^2 – Substations Q, 24, 28, Buildings 3 and 25, and Berth 8. Impacts identified at Substations H, 22 (Building 77), and Building 274 are not discussed further in this SMP as the project areas are expressly excluded from the boundaries of the VCP Site.

All surficial samples collected at Substations G, K, Q, 13, and 18 contained PCBs at concentrations greater than 1 ppm. Additional subsurface samples were collected from test pits installed at Substations G and K as a result of surficial sample concentrations greater than 10 ppm at those locations. Seven subsurface soil samples collected at Substation G and one collected at Substation K contained PCBs at concentrations greater than 10 mg/kg. All exceedences were in soil samples collected between 1 and 2 or 2 and 3 feet bgs.

Groundwater

As part of the Phase II Investigation, ERM located five existing groundwater monitoring wells and installed three new wells. All eight wells were utilized to collect two rounds of groundwater analytical data – one at high tide and one at low tide. Groundwater samples collected during the Phase II contained several metals at concentrations greater than the applicable Class GA Groundwater Standards.

2.3.3 Site-Wide Investigation Report, Quay Consulting LLC (July 2007)

Quay Consulting LLC (Quay) conducted a Site-wide Remedial Investigation (RI) that consisted of soil boring installation and soil sample collection, installation of groundwater monitoring wells and groundwater sample collection, preparation of a Qualitative Human Health Exposure Assessment (HHEA) of potential exposure pathways, and an evaluation of ecological resources. The Site-Wide Investigation specifically evaluated Buildings 12, 37, 46, 123, 132, 234, and 313. Figures and tables containing data relevant to the Site-Wide Investigation Report are included in Appendix C.

Soil

Soil samples collected during the Site-wide investigation contained concentrations of metals and PAHs at concentrations greater than the applicable Part 375 Commercial Use SCOs, similar to those collected during the ERM 2002 Phase II. Metals and PAHs detected are consistent with the presence of urban fill underlying the Site.

Groundwater

One round of groundwater samples was collected from each of the 10 newly-installed groundwater monitoring wells during the investigation. Groundwater samples collected during the Phase II contained several metals at concentrations greater than the applicable Class GA Groundwater Standards. The results are typical of groundwater quality in historic fill such as that known to underlie the Site. As part of the investigation, depth to water measurements were collected at the 10 newly-installed groundwater monitoring wells to determine groundwater elevation and flow. The water table was measured between 3 feet and 9 feet bgs. Groundwater flow was determined to be generally north toward the East River, also reflecting topography at the Site.

Qualitative Human Health Exposure Assessment

Quay performed an HHEA to identify constituents of potential concern (COPCs) and determine potential exposure pathways to impacted media at the Site. Exposure pathways for impacted soil were determined to be inhalation of airborne particles and dermal contact/ingestion of soils. Quay determined that these are minimized by the existing cover at the Site composed of buildings, paved areas, concrete, and millings, and that any potential subsurface intrusive activities would require community air monitoring and proper health and safety by workers.

2.3.4 Vegetative Area Delineation Remediation Work Plan, Quay Consulting LLC (November 2011)

Quay performed a Site-wide vegetated areas investigation to determine if the soil quality of surficial soil in existing vegetated areas meets NYSDEC Part 375 Commercial Use SCOs as required by the Decision Document for the Site. Twelve soil samples were collected from grade to 1 foot bgs in primarily the southern portion of the Site. Six of those soil samples contained one SVOC, benzo(a)pyrene, at concentrations greater than the Part 375 Commercial Use SCO. The highest concentration detected was 3.0 mg/kg in soil sample SS-08, collected in the landscaped area north of Building 275, with the remainder of exceedences ranging between 1.1 and 1.5 mg/kg. The remaining six soil samples did not contain any analytes at concentrations greater than the applicable Part 375 Commercial Use SCOs. Relevant figures and tables are included in Appendix C.

2.3.5 Vegetative Area Investigation, CORE Environmental Consultants, Inc. (November 2017)

CORE performed a visual assessment of vegetated areas at the BNYIP in February and March 2017. Based on the location of surface samples collected by Quay for the November 2011 Vegetative Area Delineation Remediation Work Plan, CORE identified a total of 15 surface soil sample locations in various vegetated areas throughout the Site. Soil from grade to 1 foot bgs was composited for analysis of Target Compound List (TCL) SVOCs, TCL pesticides/Aroclors, and Target Analyte List (TAL) metals plus cyanide. Discrete grab samples were collected at 6 inches bgs for analysis of TCL VOCs.

Analytical results were compared to NYSDEC Part 375 Commercial Use SCOs. The following exceedences were identified:

- B-2 – Arsenic was detected at a concentration of 34.9 mg/kg (Commercial Use SCO of 16 mg/kg);
- B-3 – Arsenic was detected at a concentration of 43.8 mg/kg and copper was detected at a concentration of 1,030 mg/kg (270 mg/kg);
- B-7 – Benzo(a)pyrene was detected at a concentration of 1.44 mg/kg (1 mg/kg);

- B-9 – Arsenic was detected at a concentration of 31.0 mg/kg, barium was detected at a concentration of 484 mg/kg (400 mg/kg), and copper was detected at a concentration of 680 mg/kg; and
- B-14 – Copper was detected at a concentration of 384 mg/kg.

NYSDEC and NYSDOH determined that exceedences identified during the Vegetative Area Investigation were in remote portions of the Site, were relatively small, and the exceedences were generally minor. Figures and information relevant to the CORE 2017 Vegetative Area Investigation are included in Appendix C.

2.3.6 Site Investigations for Adjacent Properties

In addition, the following environmental site assessments were conducted at properties adjacent to the VCA parcel:

- Wehran Engineering Consulting Engineers. November 1988. "The Site Environmental Assessment of the Brooklyn Navy Yard." Final.
- Stone & Webster. 1990. "Site Assessment Report for Red Hook. Final." EA Engineering, Science, and Technology. 1994a. "Work Plan for Environmental Baseline Survey Phase II at Naval Station - New York Sites (Brooklyn Naval Station)."
- EA Engineering, Science, and Technology. 1994b. "Field Sampling Plan for Environmental Baseline Survey Phase II at Naval Station - New York Sites (Brooklyn Naval Station)." Final.
- EA Engineering, Science, and Technology. 1996. "Remedial Action Completion Report for Remediation of Transformer Site Soil." Final.
- HDR Consulting Engineers. "Supplemental Site Investigation." June 1998.
- HDR Consulting Engineers. "Interim Remedial Measures." June 1998.
- GEI Consultants. "Remedial Investigation Report, Nassau Gas Works." December 2006.
- HydroQual Environmental Engineers and Scientists. "Remedial Investigation Report." August 2007.

2.4 PREVIOUS REMEDIATION EVENTS

The following sections summarize remedial events that have occurred at the Site.

2.4.1 Electrical Transformer Substation C Final Remedial Action

PCB impacts related to Substation C (Building 542) were remediated between December 1998 and February 1999. During the initial phase of remedial activities, sediment in the subsurface vault was removed, and subsurface and above-grade concrete surfaces were cleaned. Post-cleaning wipe samples indicated that while above-grade concrete surfaces were below the applicable 10 µg/100 cm^2 cleanup objective, subsurface vault surfaces were not. The concrete surfaces within the subsurface vault were encapsulated with two solvent-resistant, water-repellant coatings of contrasting colors and were marked with the M_L Mark. The subsurface vault was backfilled with clean fill and the access man-way was sealed. All remedial waste, including sediments and decontamination fluids, was disposed of as required by the Toxic Substances Control Act (TSCA). The areas have been covered with concrete and are being managed under Site Management. A Copy of the Substation C closure report is included in Appendix D.

2.4.2 Substation 9 (Building 128)

On September 15, 2010, TCI of New York drained the oil from three existing transformers (Units 94, 95, and 96) located within Substation 9/Building 128. The PCB oil was transported to TCI of Alabama, LLC. TCI of New York subsequently removed the three transformers from Site on March 3, 2012. The transformers were transported to TCI of Alabama, LLC. At the time of transformer removal, the concrete containment pads for Units 94, 95, and 96 were removed in addition to containment pads for five additional historical transformers. Concrete was sent to CWM Chemical Services, LLC of Model City, New York.

Following removal of the concrete, confirmatory soil samples were collected to determine whether PCB impacts existed below the containment pads. A total of nine soils samples were collected and submitted for analysis of PCBs, Target Analyte List (TAL) metals, and Target Compound List (TCL) semi-volatile organics (SVOCs). Analytical results indicated that soil beneath the former containment pads did not contain PCBs in exceedence of the applicable Part 375 Commercial Use SCO of 1 mg/kg. Concentrations of metals and SVOCs detected were consistent with urban fill identified throughout the Site.

A copy of the Substation 9/Building 128 remedial cleanup report containing appropriate Hazardous Waste Manifests is located in Appendix D.

2.4.3 Building 3 – First Floor

Remedial actions for the first-floor transformer room in Building 3 were performed on May 16, 17, and 18, 2018 by CORE and Triumvirate Environmental, Inc. (TEI). Remedial activities were performed in accordance with the NYSDEC-approved Remedial Design dated April 18, 2018.

Triumvirate performed a double wash/rinse on the concrete in accordance with Title 40 of the Code of Federal Regulations Part 761 (40 CFR 761) Subpart S. Simple Green® was utilized as the solvent during the wash. The area between the two former transformer berms was also washed.

The concrete was allowed to dry for 24 hours and two layers of solvent-resistant, water-repellant coatings of contrasting colors were applied to the concrete in accordance with 40 CR 761.30(p). The initial coat of blue-colored epoxy was applied to the historical transformer area on May 17, 2018 and allowed to cure for 24 hours. A second gray coat of epoxy was applied on May 18, 2018. The area between the two former transformer berms was also coated.

Two M_L Marks were placed at approximately eye level on the wall located immediately adjacent to the encapsulated area within the former transformer room. A BNYDC contact was identified on both labels.

Two 55-gallon drums of wash/rinse water were transported off-Site on June 5, 2018. The wastewater was characterized prior to removal from Site and was disposed of appropriately based on that characterization (hazardous for lead). A copy of the Building 3 Transformer Substation Closure Report containing appropriate documentation and manifests is located in Appendix D.

2.5 PCB-IMPACTED TRANSFORMER REMOVAL

Several PCB-impacted oils and the associated transformers have been removed from the Site. Hazardous waste manifests for PCB-impacted oils and transformers identified below are included in Appendix D.

- **Building 3** – Two tanker trucks of PCB-impacted oil were drained from the Building 3 rooftop transformers in September 2005. PCB oil was removed from the four interior units in September 2010 (Units 780, 815, 816, and 817). The four interior transformers were removed and disposed of in September 2010. Waste was transported to TCI of Alabama, LLC in Pell City Alabama, a United States Environmental Protection Agency (USEPA)-permitted PCB disposal facility.
- **Building 22** – Transformers were reportedly removed from the Site prior to the VCA.
- **Building 200** – One of three transformers (Unit 400) and three drums of PCB-containing oil were removed from Building 200 in January 2013. Waste was transported to TCI of Alabama, LLC. Two additional transformers (Units 399 and 919) containing less than 500 ppm of PCBs were also removed in January 2013 and shipped as non-hazardous waste to G&S Motor Equipment Company of Kearny, New Jersey.
- **Substation 1 (Building 4)** – Transformers were reportedly removed from the Site prior to the VCA.

- **Substation 13 (Building 249)** – Transformers were reportedly removed from the Site prior to the VCA.
- **Substation 25 (Building 131)** – All transformers have been removed from the Site. Twelve drums of PCB oil, one drum of PCB debris, and PCB transformer Unit 93 were transported to TCI of Alabama, LLC on December 11, 2015.
- **Substation D (Building 280)** – PCB transformer Units 438 and 439 were drained in September 2010 generating four drums of PCB oil. Both units were removed from Site in September 2010. Waste was transported to TCI of Alabama, LLC.
- **Substation 18 (Building 562)** – The single PCB transformer located at Substation 18 (Unit 436) was removed from the Site in September 2010. Waste was transported to TCI of Alabama, LLC.
- **Substation K and Building 292** – Several PCB-impacted transformers were drained in August 2010 (Units 59, 106, 8010, 8011, and 8012), generating two cargo tanks and 13 drums of PCB oil. Between August and September 2010, six PCB transformers were removed from the Site (Units 59, 431, 432, 8010, 8011, and 8012). Waste was transported to TCI of Alabama, LLC. Two additional PCB transformers were also removed from the Site in December 2013, and one was removed in July 2014. At least two additional PCB transformers were reportedly disposed of in 1997.
- **Substation L (Building 390)** – The PCB-impacted oil was drained from three PCB transformers at Building 390 in August and September 2010 (Units 160, 409, and 410). The three transformers were subsequently removed from Site in September 2010. Waste was transported to TCI of Alabama, LLC. Remaining PCB-impacted transformers were reportedly removed from the Site in 1997.
- **Substation Q (Building 668)** – The non-PCB transformer and 2,085 gallons of oil were removed form Site and transported as non-hazardous waste to TCI, Inc. of Hudson, New York in 2005.

2.6 REMEDIAL ACTION OBJECTIVES

The Remedial Action Objectives (RAOs) for the Site are as follows:

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater or surface water contamination.

Groundwater

RAOs for the protection of human health:

- Prevent ingestion of groundwater with impacts exceeding drinking water standards.

2.7 FINAL REMEDY

The final remedy for the Site includes the installation/maintenance of a Site-wide protective cover with ICs. Components of the remedy include:

- Site-wide Cover
    - Existing buildings, roads and parking lots (either paved or of compacted gravel) currently cover the majority of the Site and are considered an acceptable cover in their present state.
    - When Site redevelopment results in penetration of these areas, reconstruction will include a concrete or paving system at a minimum of 6 inches in thickness. Any vegetated areas not covered by buildings, roads, or parking lots (i.e. landscaped areas) will be covered by a 1-foot thick soil cover consisting of soil that meets NYSDEC SCOs for Commercial Use underlain by a demarcation layer to delineate the cover soil from the subsurface soil. The top 6 inches of soil must be of sufficient quality to support vegetation.
- Institutional Control
    - The Environmental Easement, included as Appendix A of this SMP, is recorded in the Title records for the Site. The Environmental Easement:
        - requires the remedial party to complete and submit a periodic certification of institutional and engineering controls to NYSDEC in accordance with Part 375-1.8(h)(3);
        - allows the use and development of the Site for commercial as described in Part 375-1.8(g)(2)(iii) and industrial as described in Part 375-1.8(g)(2)(iv), including passive recreational uses, cultural uses, and college or graduate academic and administrative facilities, all with limited potential for soil contact. Interior classroom and administrative facilities for secondary education with limited potential for soil contact shall be allowed. Rooftop gardens shall be allowed so long as they are not grown using soil from Site;

        - restricts the use of groundwater underlying the property without necessary water quality treatment as determined by the New York State Department of Health (NYSDOH) or the New York City Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the NYSDEC; and
        - requires compliance with this NYSDEC-approved SMP.

- Site Management Plan
    - This NYSDEC-approved SMP, which includes:
        - an Institutional and Engineering Control Plan that identifies all use restrictions and ECs for the Site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:
            - ICs: The Environmental Easement provided in Appendix A; and
            - ECs: The Site-wide protective cover.
    - This SMP also includes:
        - an Excavation Work Plan which details the provisions for management of future excavations in areas of remaining contamination;
        - a Monitoring Plan to assess the performance and effectiveness of the remedy; and
        - the future decommissioning of 16 transformer substations. The substations will be cleaned to a goal of 1 mg/kg of PCBs in the upper 1 foot of soil, and 10 mg/kg in subsurface soils as these facilities are upgraded or decommissioned. Concrete surfaces will be cleaned to 10 µg/100 cm^2, or 100 µg/100 cm^2 if encapsulated in accordance with PCB Spill Decontamination standards and procedures listed in T40 CFR 761.79.

2.8 REMAINING CONTAMINATION

The following section summarizes remaining contamination at the Site following implementation of the final remedy.

2.8.1 Soil

Remaining contamination in soil remains beneath the Site after the remedy completion due to inaccessibility as a result of the on-Site buildings, pavement, concrete, or millings that cover the majority of the property. Consequently, ICs and ECs will be required for long-term management to protect human health and the environment. Long-term management of ICs, ECs, and remaining contamination will be executed under this Site-specific SMP.

Areas of subsurface soil where COPCs were detected, as discussed in Section 2.3, remain in place at levels that are typical for historic urban fill that is known to underlie the Site. PCBs related to transformer use identified at 16 current and historical substation locations will be addressed as each location is decommissioned during redevelopment activities.

Remaining contamination is identified in Appendix C. It is assumed that all soil underlying the Site-wide protective cover will exceed Commercial Use SCOs for one or more compounds.

2.8.2 Groundwater

During previous Site investigations, concentrations of COPCs - primarily metals and PAHs - were detected in exceedence of the applicable standards, guidance, and criteria (SCGs) in Site overburden groundwater.

As a result of existing impacts to groundwater that remain beneath the Site at issuance of the FER, ICs are required to protect human health and the environment. These ICs are discussed in Section 3.0. Long-term management of ICs and remaining contamination will be performed under this SMP. ICs include an environmental easement.

Remaining contamination is identified in Appendix C. It is assumed that groundwater at the Site is representative of groundwater quality in historic fill such as that encountered during previous Site investigations.

2.8.3 PCB-Impacted Transformers

The transformers identified in Table 2-1 will require remediation as they are decommissioned in accordance with the remedy for the Site. A Transformer Substation Location Plan is included as Figure 3.

Prior to decommissioning, a Transformer Substation Closure Plan will be submitted to NYSDEC for approval. Upon decommissioning and after completion of remedial actions at each substation, a Transformer Substation Closure Report will be submitted to NYSDEC that contains information on PCB-impacted oil removal and disposal, transformer removal and disposal, any concrete cleaning or encasement, and soil removal activities. Remedial actions will be documented with photographs, and all hazardous waste manifests and laboratory analytical data from confirmatory wipe or soil samples will be included in each report.

Table 2-1
Remaining Contamination at Transformer Substations

Substation ID/Location	Soil Present?	Soil Impacts Identified?	Concrete Present?	Concrete Impacts Identified?
Substation B - Building 234	N	NA	Y	Y
Substation D - Building 280	N	NA	Y	Y
Substation G - Building 386	Y	Y	Y	Y
Substation K - Building 292	Y	Y	Y	Y
Substation L - Building 390	N	NA	Y	Y
Substation 1 - Building 4	N	NA	Y	Y
Substation 18 - Building 562	Y	Y	Y	Y
Substation 19 - Building 5	N	NA	Y	Y
Substation 25 - Building 131	N	NA	Y	Y
Substation 29 - Building 664	N	NA	Y	Y
Building 22	N	NA	Y	Y
Building 41	N	NA	Y	Y
Building 200	N	NA	Y	Y
Building 275	N	NA	Y	Y
Building 292	N	NA	Y	Y
Building 664	N	NA	Y	Y

Substations Q (Building 668) and 13 (Building 249), which have historically been identified as substations requiring remediation, have been removed from the list per discussions with NYSDEC and following confirmatory investigation.

- **Substation Q (Building 668)** – The area previously identified as containing PCBs in surficial soils at concentrations greater than 1 ppm is currently asphalt paved and utilized for parking. The source transformer was non-PCB/non-TSCA, and the original PCB concentrations in soil were less than the Site-specific cleanup goal of 10 ppm for subsurface soil. The area was brought back under the VCA to prevent potential mismanagement of soil in that area in the future, however no additional remediation is required at this time.

- **Substation 13 (Building 249)** – Original surficial soil concentrations in the area of the transformer substation were greater than 1 ppm, but less than 10ppm, and the source was non-PCB/non-TSCA. The area of soil is currently asphalt paved. During previous investigations, wipe samples of the concrete transformer pads contained concentrations of PCBs greater than the Site-specific cleanup goal of 10 µg/100 cm^2. CORE collected three concrete dust samples in compliance with USEPA procedures and the NYSDEC-approved Remedial Design on June 5, 2018. All three concrete samples contained concentrations of PCBs less than 1 ppm, which allows for unrestricted use of an area per USEPA requirements. As a result, the area was brought back under the VCA to prevent potential mismanagement of soil in that area in the future, however no additional remediation is required at this time. The Exception Area Building 249/Substation 13 Investigation Report is included in Appendix D.

3.0 INSTITUTIONAL AND ENGINEERING CONTROL PLAN

3.1 GENERAL

Since remaining contamination exists at the Site, ICs and ECs are required to protect human health and the environment. This IC and EC Plan describes the procedures for the implementation and management of all IC and ECs at the Site. The IC and EC Plan is one component of the SMP and is subject to revision by NYSDEC.

This plan provides:

- A description of all ICs and ECs at the Site;
- The basic implementation and intended role of each IC and EC;
- A description of the key components of the ICs set forth in the Environmental Easement;
- A description of the controls to be evaluated during each required inspection and periodic review;
- A description of plans and procedures to be followed for implementation of ICs and ECs, such as the implementation of the EWP (as provided in Appendix E) for the proper handling of remaining contamination that may be disturbed during maintenance or redevelopment work on Site; and
- Any other provisions necessary to identify or establish methods for implementing the ICs and ECs required by the Site remedy, as determined by NYSDEC.

3.2 INSTITUTIONAL CONTROLS

A series of ICs is required by the Decision Document to:

- Implement, maintain, and monitor EC systems;
- Prevent future exposure to remaining contamination; and
- Limit the use and development of the Site to commercial or industrial uses only.

Adherence to these ICs on the site is required by the Environmental Easement and will be implemented under this SMP. ICs identified in the Environmental Easement may not be discontinued without an amendment to or extinguishment of the Environmental Easement. The IC boundaries are shown on Figure 2. These ICs are:

- The remedial party or Site owner must complete a periodic certification of institutional and engineering controls in accordance with Part 375-1.8(h)(3) and submit to NYSDEC;

- The Site may be used for commercial as described in Part 375-1.8(g)(2)(iii) and industrial as described in Part 375-1.8(g)(2)(iv), including passive recreational uses, cultural uses, and college or graduate academic and administrative facilities, all with limited potential for soil contact. Interior classroom and administrative facilities for secondary education with limited potential for soil contact shall be allowed. Rooftop gardens shall be allowed so long as they are not grown using soil from Site;
- All ECs must be operated and maintained as specified in this SMP;
- All ECs must be inspected at a frequency and in a manner defined in this SMP;
- The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the New York City Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the NYSDEC;
- Data and information pertinent to Site management must be reported at the frequency and in a manner as defined in this SMP;
- Prior to any non-emergency breach of the cover system, building construction, or any other activity that may increase the potential for people to come into contact with the remaining contamination at the Site, NYSDEC will be contacted, and the details of the situation relayed through a “Change of Use” notification;
- Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in this SMP;
- Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical component of the remedy shall be performed as defined in this SMP;
- Access to the Site must be provided to agents, employees, or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by the Environmental Easement; and
- The future decommissioning of 16 transformer substations.

3.3 ENGINEERING CONTROLS

Site-wide Cover

Exposure to remaining contamination at the Site is prevented by a Site-wide cover, consisting of either structures, such as buildings, pavement, and sidewalks, or soil, where the upper one foot of exposed surface soil meets the applicable SCOs for Commercial Use. Any fill material brought to the Site will meet the lower of the Commercial Use SCOs and the Protection of Groundwater SCOs as set forth in 6 NYCRR 375-6.7(d).

The EWP provided in Appendix E outlines the procedures required to be implemented in the event the cover system is breached, penetrated, or temporarily removed, and any underlying residually impacted materials are disturbed. Procedures for the inspection of this cover are provided in the Monitoring Plan included in Section 4.0 of this SMP. Any work conducted pursuant to the EWP must also be conducted in accordance with the procedures defined in a Health and Safety Plan (HASP) and associated Community Air Monitoring Plan (CAMP), provided in Appendix F. The area of the Site subject to Engineering Controls is presented on Figure 4.

3.4 CRITERIA FOR COMPLETION OF REMEDIATION

Generally, remedial processes are considered completed when monitoring indicates that the remedy has achieved the RAOs identified by the Decision Document. The framework for determining when remedial processes are complete is provided in Section 6.4 of DER-10. It is assumed that the Site-wide cover will be required to be maintained in perpetuity.

Site-wide Cover

The Site-wide cover system consisting of buildings, pavement, sidewalks, millings, or exposed soil where the upper one foot meets Commercial Use SCOs is a permanent control and the quality and integrity of this system will be inspected at defined, regular intervals in accordance with this SMP in perpetuity.

4.0 MONITORING PLAN

4.1 GENERAL

This Monitoring Plan describes the measures for evaluating the overall performance and effectiveness of the remedy. This Monitoring Plan may only be revised with the approval of NYSDEC. Although the current remedy does not currently require sample collection, details regarding the sampling procedures, data quality usability objectives, analytical methods, etc. for all samples potentially collected as part of future Site management activities are included in the Quality Assurance Project Plan (QAPP) provided in Appendix G.

This Monitoring Plan describes the methods to be used for evaluating Site information periodically to confirm that the remedy continues to be effective in protecting public health and the environment.

To adequately address these issues, this Monitoring Plan provides information on annual inspection and periodic certification. Reporting requirements are provided in Section 8.0 of this SMP.

4.2 SITE – WIDE INSPECTION

Site-wide inspections will be performed once per year, at a minimum. Modification to the frequency or duration of the inspections will require approval from NYSDEC. Site-wide inspections will also be performed after all severe weather conditions that may affect ECs or monitoring devices. During these inspections, an inspection form will be completed as provided in Appendix H – Site Management Forms. The form will compile sufficient information to assess the following:

- Compliance with all ICs, including Site usage;
- An evaluation of the condition and continued effectiveness of ECs;
- General site conditions at the time of the inspection;
- The Site management activities being conducted including, where appropriate, confirmation sampling and a health and safety inspection; and
- Confirm that Site records are up to date.

Inspections of all remedial components installed at the Site will be conducted. A comprehensive Site-wide inspection will be conducted and documented according to the SMP schedule, regardless of the frequency of the Periodic Review Report. The inspections will determine and document the following:

- Whether ECs continue to perform as designed;
- If these controls continue to be protective of human health and the environment;
- Compliance with requirements of this SMP and the Environmental Easement;

- Achievement of remedial performance criteria; and
- If Site records are complete and up to date.

Reporting requirements are outlined in Section 8.0 of this plan.

Inspections will also be performed in the event of an emergency. If an emergency, such as a natural disaster or an unforeseen failure of any of the ECs occurs that reduces or has the potential to reduce the effectiveness of ECs in place at the site, verbal notice to NYSDEC must be given by noon of the following day. In addition, an inspection of the Site will be conducted within five days of the event to verify the effectiveness of the IC and ECs implemented at the Site by a qualified environmental professional (QEP), as determined by NYSDEC. Written confirmation that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public must be provided to NYSDEC within seven days of the event.

4.3 POST-REMEDIATION MEDIA MONITORING AND SAMPLING

The remedy does not currently require routine analytical monitoring and sampling of Site media; however, should that be changed by unforeseen circumstances in the future, this SMP will be revised to reflect monitoring requirements as determined by NYSDEC. In the event that such information is required, detailed sample collection and analytical procedures are provided in Appendix G – Quality Assurance Project Plan.

5.0 OPERATION AND MAINTENANCE PLAN

The Site remedy does not rely on any mechanical systems, such as groundwater treatment systems, sub-slab depressurization systems (SSDS) or air sparge/soil vapor extraction (AS/SVE) systems to protect public health and the environment. Therefore, the operation and maintenance of such components is not included in this SMP. Should that change, this Section of the SMP will be updated and resubmitted to NYSDEC for approval.

6.0 TENANT ACTIVITIES

Tenant activities at the BNYIP must comply with the requirements of this SMP and the EWP included in Appendix E.

6.1 SUBSURFACE INTRUSIVE ACTIVITIES

Subsurface intrusive activities must comply with this SMP, the EWP included as Appendix E, and with the requirements outlined below.

6.1.1 Notifications

Tenants who wish to disturb the existing Site-wide cover (as defined in Section 2.6) must notify BNYDC in advance of such activities as described below. No subsurface intrusive activities will occur without explicit approval by BNYDC. All work must be performed in compliance with the Site-specific HASP included in Appendix F, including Site-specific CAMP monitoring requirements. A BNYDC representative must be on Site to perform CAMP monitoring if the tenant is unable to do so.

Drilling, Subsurface Investigation or Other Minor Disturbances

Site-wide cover disturbance requires a notification to NYSDEC. Tenant activities that include minor subsurface investigation (e.g., drilling, subsurface investigation, excavation, fence post installation, tree root removal, etc.) that may disturb the existing Site cover require notification to BNYDC at least 15 days in advance. BNYDC will provide the appropriate notice to NYSDEC.

Change of Use

Any activity that will result in a change of use of any property leased from BNYDC requires notification to NYSDEC. This includes any major breach of the Site-wide protective cover (as defined in Section 2.6), e.g. – the addition of any structure, creation of a park or other public/private recreational facility, any activity that is likely to expose impacted media or increase the potential for direct human exposure (e.g. building demolition/construction, slab removal, roadway and parking lot demolition/construction, etc.), or any other activity which may impede the ability of BNYDC to maintain the ECs required by the remedy.

BNYDC must be notified of any activity which may be considered a Change of Use at least 65 days in advance. A project-specific Work Plan will be provided to BNYDC by the tenant describing soil disturbance activities and will include figures identifying the area(s) to be disturbed. The Change of Use request must include the NYSDEC 60-Day Advance Notification of Site Change of Use, Transfer of Certificate of Completion, and/or Ownership form found at http://www.dec.ny.gov/docs/remediation_hudson_pdf/changeofuse.pdf or in Appendix H. BNYDC will review the Change of Use request and submit to NYSDEC.

6.1.2 Reporting

Any documentation generated during subsurface intrusive activities, including disposal manifests, air monitoring data, and/or closeout reports will be submitted to BNYDC within 60 days of project completion. All investigation-derived analytical data (such as soil, groundwater, or vapor intrusion air data) collected during subsurface intrusive or investigative activities will be provided to BNYDC as an Analytical Services Protocol Category B (ASP-B) laboratory deliverable with associated electronic data deliverable (EDD). The deliverable will be sufficient for validation in accordance with NYSDEC requirements.

6.2 SPILLS REPORTING

If obviously impacted soils are encountered during subsurface intrusive activities, BNYDC will be notified immediately. BNYDC will be responsible for reporting the spill to NYSDEC, as applicable. In the event that a spill occurs during a tenant's daily activities, the tenant will immediately report the spill to BNYDC, who will report the spill to NYSDEC, if applicable.

Table 6-1
Tenant Reporting Responsibilities

Activity	Report To	When	Contact	
Minor Ground Disturbance	BNYDC	15 days prior	Shani Leibowitz	718.907.5955
Change of Use	BNYDC	65 days prior	Shani Leibowitz	718.907.5955
Spills	BNYDC	Immediately	Carmine Stabile	718.907.5919
Analytical Data	BNYDC	Within 60 days of collection	Shani Leibowitz	718.907.5955

7.0 PERIODIC ASSESSMENTS/EVALUATIONS

7.1 CLIMATE CHANGE VULNERABILITY ASSESSMENT

Increases in both the severity and frequency of storms/weather events, an increase in sea level elevations along with accompanying flooding impacts, shifting precipitation patterns and wide temperature fluctuations, resulting from global climactic change and instability, have the potential to significantly impact the performance, effectiveness and protectiveness of a given Site and associated remedial systems. Vulnerability assessments provide information so that the Site and associated remedial systems are prepared for the impacts of the increasing frequency and intensity of severe storms/weather events and associated flooding.

This section provides a summary of vulnerability assessments that will be conducted for the Site during periodic assessments, and briefly summarizes the vulnerability of the Site and/or ECs to severe storms/weather events and associated flooding. Potential vulnerabilities may include, but are not limited to:

- **Flood Plain:** The majority of the Site is located in a 100-year flood plain with the southern and easternmost extents of the Site falling in a 500-year flood plain. The 100-year floor base flood elevation varies between 14 feet on the northern end of the Site to 10 feet at the southern portion of the Site.
- **Site Drainage and Storm Water Management:** Severe weather events may result in Site flooding.
- **Erosion:** The majority of the Site is covered with buildings, concrete or asphalt paving, and millings. Some vegetated and/or open soil areas exist which may be susceptible to erosion.
- **High Wind:** Windows in the on-Site buildings may be susceptible during high wind events.
- **Electricity:** There are no active remedial systems at the Site which require power, as such, power surges or power loss will not affect the remedy.
- **Spill/Contaminant Release:** There is no active remedial system which may malfunction resulting in a release. Tenants within the BNYDC often store chemicals for use in their daily operations. Tenants are independently responsible for maintaining these chemicals and are required to report any spills to BNYDC for report to NYSDEC if applicable.

Because there are no active remedial components, there is a low likelihood of severe weather events negatively impacting the remedy. As a result, a full-scale vulnerability assessment was not performed.

7.2 GREEN REMEDIATION EVALUATION

NYSDEC's *DER-31/Green Remediation* (DER-31) requires that green remediation concepts and techniques be considered during all stages of the remedial program including Site management, with the goal of improving the sustainability of the cleanup and summarizing the net environmental benefit of any implemented green technology. This section of the SMP provides a summary of any green remediation evaluations to be completed for the Site during Site management, and as reported in the Periodic Review Report (PRR). These evaluations may include, but not be limited to:

- **Waste Generation:** The remedy includes the Site-wide protective cover that currently exists at the Site. Any future repairs to that cover may result in generation of waste environmental media, such as excavated soils. Environmental media are to be characterized and transported for off-Site disposal as discussed in the Excavation Work Plan in Appendix E.
- **Energy usage:** There are no active remedial components; therefore, no energy usage is required.
- **Emissions:** There are no active remedial components; therefore, no emissions are generated.
- **Water usage:** No water is utilized during maintenance of the Site-wide cover, outside of potential water application to vegetated areas.
- **Land and/or ecosystems:** No ecosystems are anticipated to be disturbed during maintenance of the Site-wide cover. Land may be disturbed during Site redevelopment activities.

7.2.1 Timing of Green Remediation Evaluations

For major remedial components, green remediation evaluations and corresponding modifications will be undertaken at any time the NYSDEC Project Manager feels appropriate, e.g. during significant maintenance events or in conjunction with storm recovery activities.

Modifications resulting from green remediation evaluations will be routinely implemented and scheduled to occur during planned/routine operation and maintenance (O&M) activities. Reporting of these modifications will be presented in the PRR.

7.2.2 Frequency of System Checks, Sampling, and Other Periodic Activities

Transportation to and from the Site and use of consumables in relation to visiting the Site in order to conduct EC checks and/or collect samples and shipping samples to a laboratory for analyses have direct and/or inherent energy costs. The schedule and/or means of these periodic activities have been prepared so that these tasks can be accomplished in a manner that does not impact remedy protectiveness but reduces expenditure of energy or resources. The implementation of a passive remedy such as the Site-wide cover eliminates frequent O&M visits to the Site, minimizing the number of trips required. At this time, no regular sampling is required under the Decision Document, further reducing the number of trips required to maintain the remedy.

7.2.3 Metrics and Reporting

As discussed in Section 8.0 and as shown in Appendix H – Site Management Forms, information on energy usage, solid waste generation, transportation and shipping, water usage and land use and ecosystems will be recorded to facilitate and document consistent implementation of green remediation during Site management and to identify corresponding benefits; a set of metrics has been developed.

8.0 REPORTING REQUIREMENTS

8.1 SITE MANAGEMENT REPORTS

All Site management inspection, maintenance and monitoring events will be recorded on the appropriate Site management forms provided in Appendix G. These forms are subject to NYSDEC revision.

All applicable inspection forms and other records, including media sampling data (when appropriate) generated for the Site during the reporting period will be provided in electronic format to NYSDEC in accordance with the requirements of Table 8-1 and summarized in the PRR.

Table 8-1
Schedule of Interim Monitoring/Inspection Reports

Task/Report	Reporting Frequency*
Site-wide Inspection	Annually
Periodic Review Report	Annually
Site Media (soil, groundwater, soil vapor, etc.)	To be determined if required in the future.

* The frequency of events will be conducted as specified until otherwise approved by NYSDEC.

All monitoring/inspections reports will include, at a minimum:

- Date of event or reporting period;
- Name, company, and position of person(s) conducting monitoring/inspection activities;
- Description of the activities performed;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents noted (included either on the checklist/form or on an attached sheet);
- Type of samples collected (e.g., sub-slab vapor, indoor air, outdoor air, etc.);
- Copies of all field forms completed (e.g., well sampling logs, chain-of-custody documentation, etc.);
- Sampling results in comparison to appropriate standards/criteria;
- A figure illustrating sample type and sampling locations;
- Copies of all laboratory data sheets and the required laboratory data deliverables required for all points sampled (to be submitted electronically in the NYSDEC-identified format);
- Any observations, conclusions, or recommendations; and

- A determination as to whether contaminant conditions have changed since the last reporting event.

Routine maintenance event reporting forms will include, at a minimum:

- Date of event;
- Name, company, and position of person(s) conducting maintenance activities;
- Description of maintenance activities performed;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents noted (included either on the checklist/form or on an attached sheet); and,
- Other documentation such as copies of invoices for maintenance work, etc., (attached to the checklist/form).

Non-routine maintenance event reporting forms will include, at a minimum:

- Date of event;
- Name, company, and position of person(s) conducting non-routine maintenance/repair activities;
- Description of non-routine activities performed;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents (included either on the form or on an attached sheet); and
- Other documentation such as copies of invoices for repair work, etc. (attached to the checklist/form).

When analytical data is generated during the reporting period, it will be reported in digital format as determined by NYSDEC. Currently, data is to be supplied electronically and submitted to NYSDEC's EQuIS™ database in accordance with the requirements found at this link http://www.dec.ny.gov/chemical/62440.html.

8.2 PERIODIC REVIEW REPORT

A PRR will be submitted to NYSDEC beginning 16 months after the liability release is issued. After submittal of the initial PRR, the next PRR shall be submitted annually to NYSDEC or at another frequency as may be required by NYSDEC. In the event that the Site is subdivided into separate parcels with different ownership, a single PRR will be prepared that addresses the Site described in Appendix A - Environmental Easement. The report will be prepared in accordance with NYSDEC's DER-10 and submitted within 30 days of the end of each certification period. Media sampling results will also be incorporated into the Periodic Review Report, when analytical data is generated. The report will include:

- Identification, assessment and certification of all ECs/ICs required by the remedy for the Site.
- Results of the required annual Site inspections and severe condition inspections, if applicable.
- All applicable Site management forms and other records generated for the Site during the reporting period in the NYSDEC-approved electronic format, if not previously submitted.
- A summary of any discharge monitoring data and/or information generated during the reporting period, with comments and conclusions.
- Data summary tables and graphical representations of contaminants of concern by media (groundwater, soil vapor, etc.), which include a listing of all compounds analyzed, along with the applicable standards, with all exceedances highlighted. These will include a presentation of past data as part of an evaluation of contaminant concentration trends.
- Results of all analyses, copies of all laboratory data sheets, and the required laboratory data deliverables for all samples collected during the reporting period will be submitted in digital format as determined by NYSDEC. Currently, data is supplied electronically and submitted to the NYSDEC EQuIS™ database in accordance with the requirements found at this link: http://www.dec.ny.gov/chemical/62440.html.
- A Site evaluation, which includes the following:
  - The compliance of the remedy with the requirements of the Site-specific RAWP or Decision Document;
  - The operation and the effectiveness of ECs, including identification of any needed repairs;
  - Any new conclusions or observations regarding Site impacts based on inspections or data generated;
  - Recommendations regarding any necessary changes to the remedy and/or Monitoring Plan;
  - Trends in contaminant levels in the affected media will be evaluated to determine if the remedy continues to be effective in achieving remedial goals as specified by the Decision Document; and
  - The overall performance and effectiveness of the remedy.

Certification of Institutional and Engineering Controls

Following the last inspection of the reporting period, a Professional Engineer licensed to practice in New York State will prepare, and include in the PRR, the following certification as per the requirements of NYSDEC DER-10:

"*For each institutional or engineering control identified for the Site, I certify that all of the following statements are true:*

- *The inspection of the Site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under my direction;*
- *The institutional control and/or engineering control employed at this Site is unchanged from the date the control was put in place, or last approved by NYSDEC;*
- *Nothing has occurred that would impair the ability of the control to protect the public health and environment;*
- *Nothing has occurred that would constitute a violation or failure to comply with any Site management plan for this control;*
- *Access to the Site will continue to be provided to NYSDEC to evaluate the remedy, including access to evaluate the continued maintenance of this control;*
- *Use of the Site is compliant with the environmental easement;*
- *The engineering control systems are performing as designed and are effective;*
- *To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the Site remedial program and generally accepted engineering practices; and*
- *The information presented in this report is accurate and complete.*

I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, [name], of [business address], am certifying as Owner's/Remedial Party's Designated Site Representative for the site."

The signed certification will be included in the PRR.

The PRR will be submitted, in electronic format, to the NYSDEC Central Office, Regional Office in which the Site is located and the NYSDOH Bureau of Environmental Exposure Investigation. The

PRR may need to be submitted in hard-copy format, as requested by the NYSDEC project manager.

8.3 CORRECTIVE MEASURES WORK PLAN

If any component of the remedy is found to have failed, or if the periodic certification cannot be provided due to the failure of IC or EC, a Corrective Measures Work Plan will be submitted to NYSDEC for approval. This plan will explain the failure and provide the details and schedule for performing work necessary to correct the failure. Unless an emergency condition exists, no work will be performed pursuant to the Corrective Measures Work Plan until it has been approved by NYSDEC.

9.0 REFERENCES

Blasland, Bouck, & Lee Engineering Consultants (BBL), 1993. *Phase II Investigation of Cooling Water Tunnels and Dry Dock No. 2 Sampling.*

CORE Environmental Consultants, Inc. (CORE), 2017. *Vegetative Areas Investigation Report.*

Environmental Resources Management (ERM), 1998. *Electrical Transformer Substation C Investigation, Supplemental Site Assessment, Brooklyn Navy Yard Industrial Park, Brooklyn, NY, (NYSDEC Site Code #224019).*

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ERM, 2002. *Phase II Investigation Report, Brooklyn Navy Yard Industrial Park, Brooklyn, NY 11250, NYSDEC Site Code #224019.*

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NYSDEC, 1998. *Technical and Operational Guidance Series (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (April 2000 addendum).*

NYSDEC, 2006. *6 NYCRR Part 375, Environmental Remediation Programs. Subpart 375-6 – Remedial Program Soil Cleanup Objectives for Restricted Use*.

NYSDEC, 2011. *Decision Document for the Brooklyn Navy Yard Industrial Park, Operable Unit Number: 01, Voluntary Cleanup Program, Brooklyn, Kings County, Site No. V00120.*

NYSDEC, 2010. *DER-10*/*Technical Guidance for Site Investigation and Remediation*.

Wehran Engineering Consulting Engineers (Wehran), 1988. *The Site Environmental Assessment of the Brooklyn Navy Yard.*

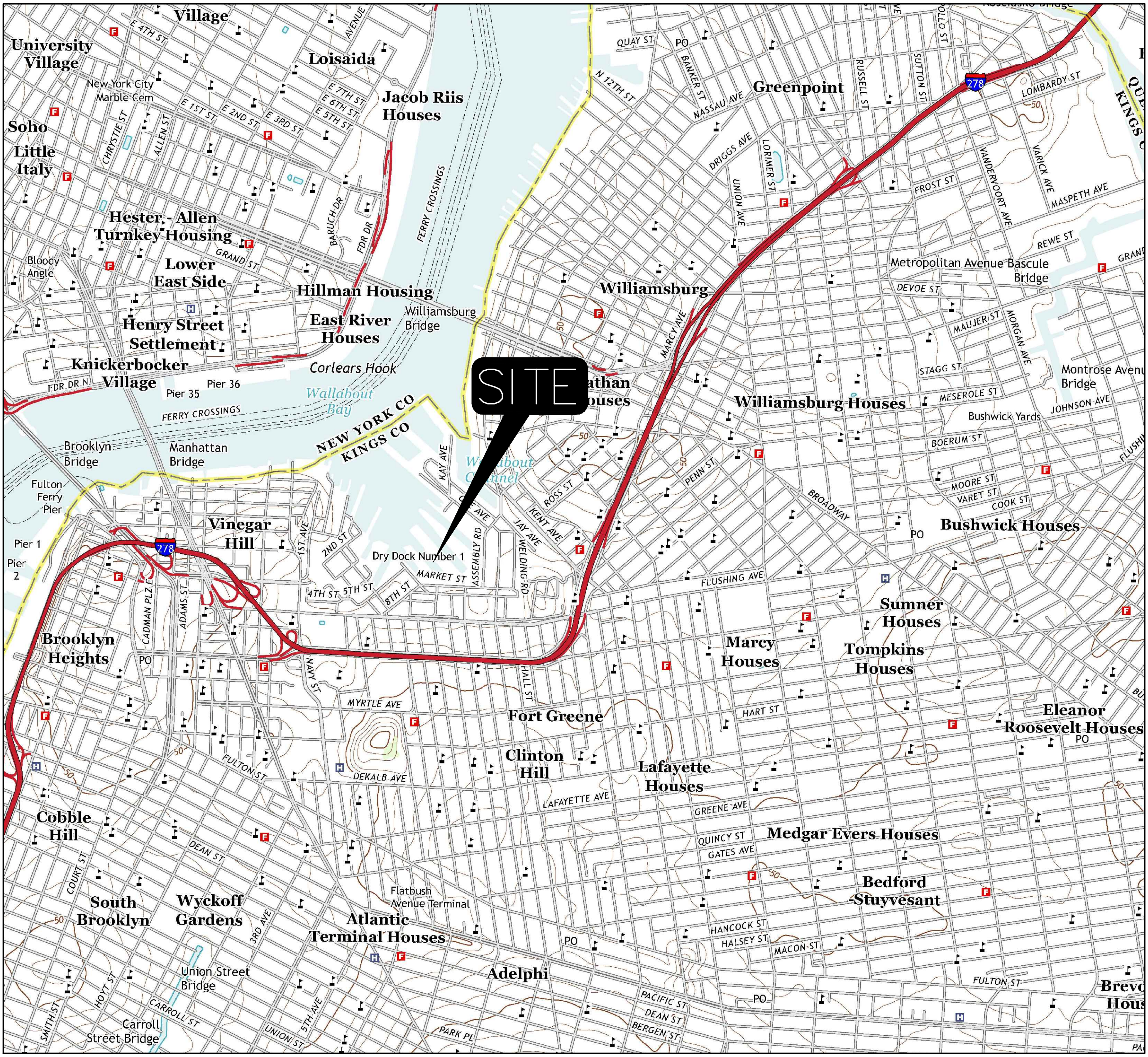
Quay Consulting LLC (Quay), 2007. *Site-Wide Investigation Report, Program Code V00120, Brooklyn Navy Yard, Brooklyn, NY.*

Quay, 2010. *Remedial Action Work Plan, Program Code V00120, Brooklyn Navy Yard, Brooklyn, NY.*

Quay, 2011. *Vegetative Area Delineation Remediation Work Plan, Program Code V00120, Brooklyn Navy Yard, Brooklyn, NY.*

FIGURES

CORE
ENVIRONMENTAL
CONSULTANTS



Source: USGS Topographic map Brooklyn 2013
USGS Topographic map Central Park 2013

QUADRANGLE LOCATION

JOB TITLE AND LOCATION:		DRAWING TITLE:
BROOKLYN NAVY YARD 63 FLUSHING AVE, BROOKLYN, NEW YORK	CORE ENVIRONMENTAL CONSULTANTS	SITE LOCATION MAP

WARNING
IT IS A VIOLATION OF SECTION 7209, SUBDIVISION 2, OF THE NEW YORK STATE EDUCATION LAW FOR ANY PERSON, OTHER THAN THOSE WHOSE SEAL APPEARS ON THIS DRAWING, TO ALTER IN ANY WAY AN ITEM ON THIS DRAWING. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

28-48 119TH STREET
COLLEGE POINT, N.Y. 11356
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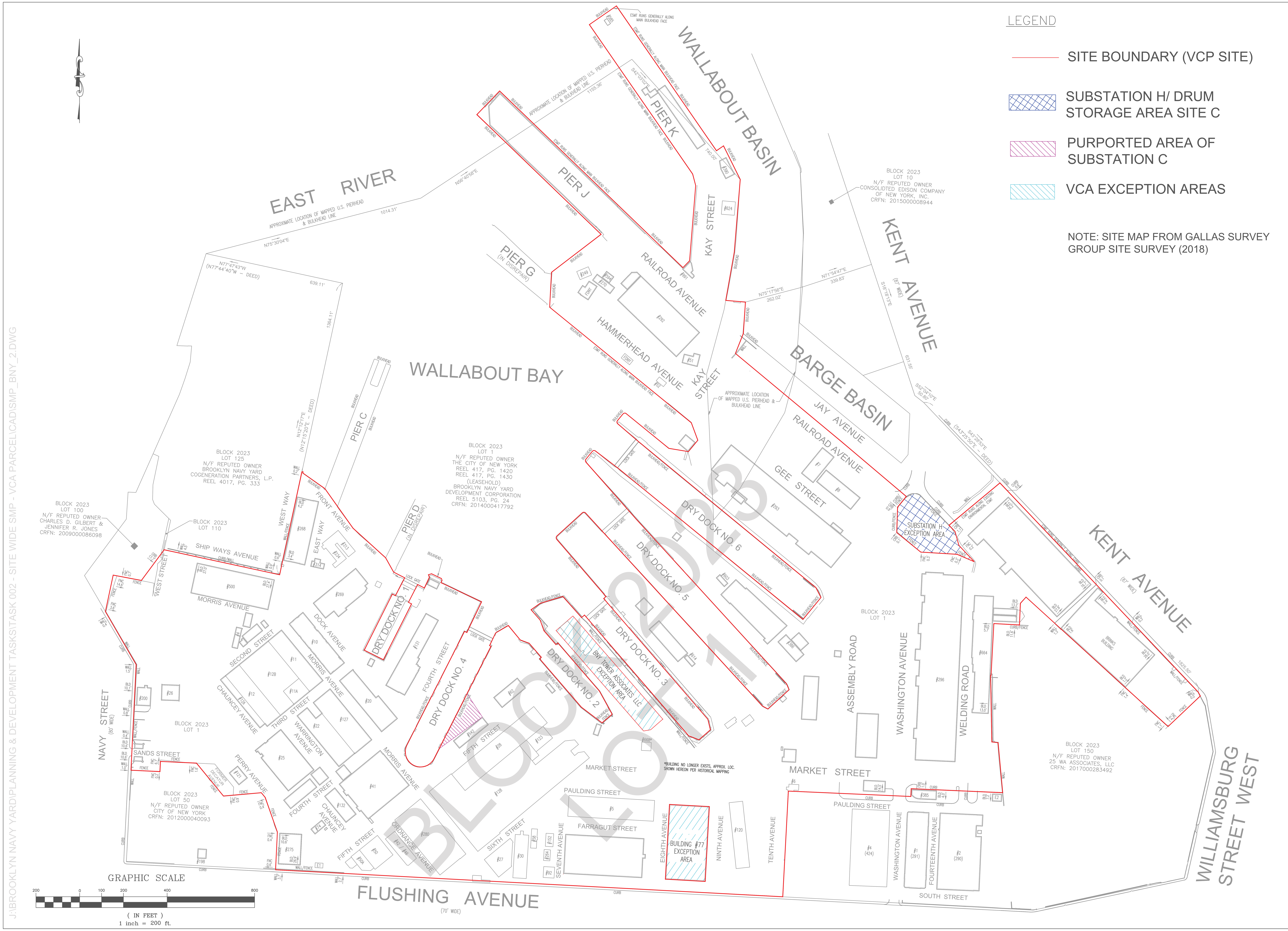
F: 718-786-4764

2312 WEHRLE DRIVE
BUFFALO, N.Y. 14221
T: 716-204-8054
F: 716-204-8557

www.COREenv.com

DATE: 1/10/2018		JOB NO.:	FIGURE NO.: 1
DESIGNED BY: SH	CHECKED BY: AC	SCALE: 2 : 1	
DRAWN BY: SH	PROJ ENG.: AC	SHEET OF	



CLIENT NAME

BROOKLYN NAVY YARD

BROOKLYN NAVY YARD DEVELOPMENT CORPORATION
63 FLUSHING AVENUE
BROOKLYN, NY, 11205

SEAL & SIGNATURE

NO.	REVISIONS	DATE

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2312 WEHRLE DRIVE
BUFFALO, N.Y. 14221
T: 716-204-8054
F: 716-204-8557

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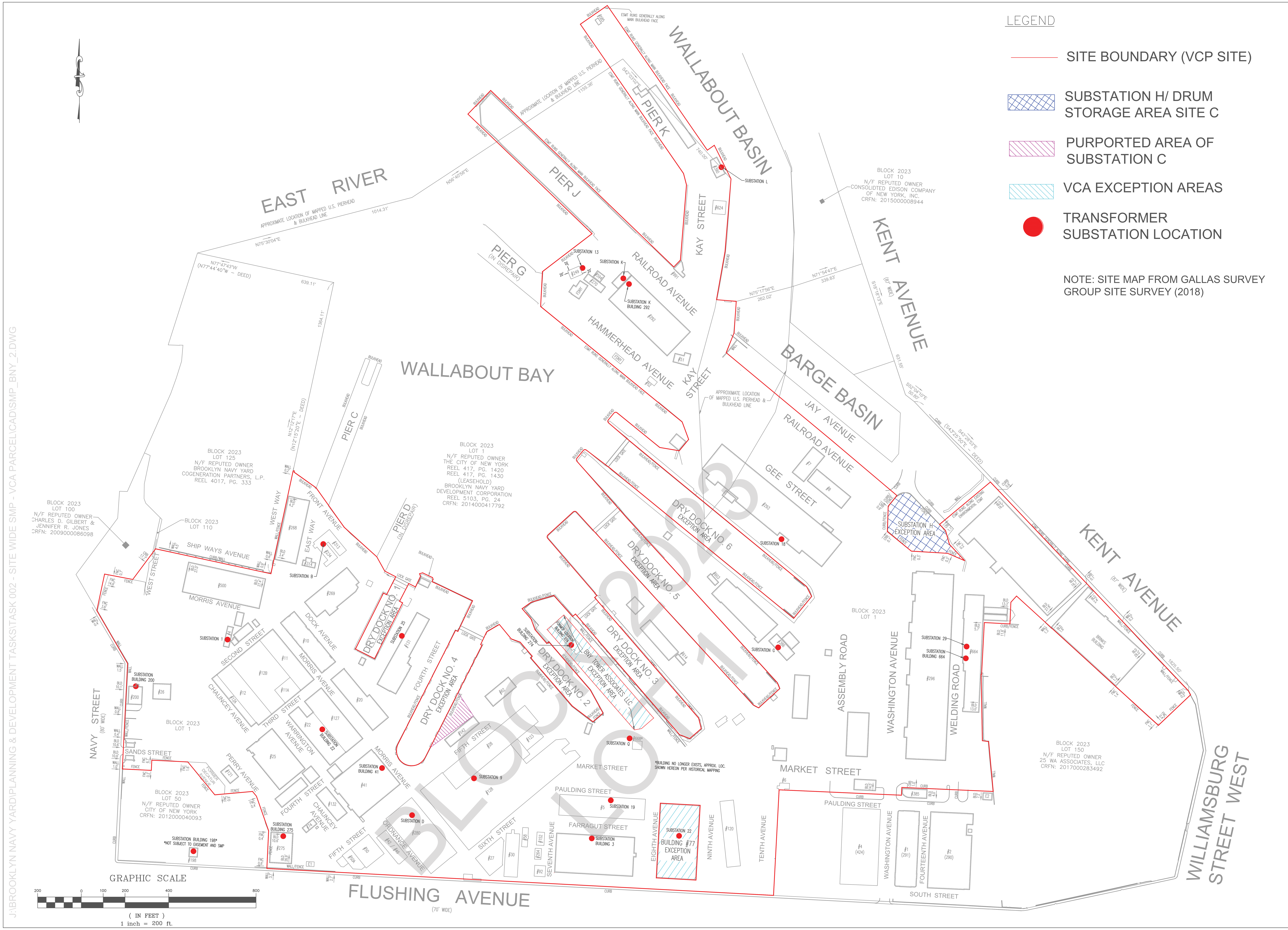
PROJECT TITLE:
BROOKLYN NAVY YARD
63 Flushing Avenue
Brooklyn, NY

DESCRIPTION:
SITE MANAGEMENT PLAN

DRAWING TITLE:
SITE MAP

SEAL & SIGNATURE

DATE:	3/21/2018
PROJECT No.:	–
DRAWN BY:	SH
DESIGNED BY:	SH
CHECKED BY:	AC
APPROVED BY:	AC
FIGURE No.:	2
SCALE:	1=200
SHEET No.:	OF:
REVISED BY:	–



CLIENT NAME

BROOKLYN NAVY YARD

BROOKLYN NAVY YARD DEVELOPMENT CORPORATION
63 FLUSHING AVENUE
BROOKLYN, NY, 11205

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CORE ENVIRONMENTAL CONSULTANTS

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2312 WEHRLE DRIVE BUFFALO, N.Y. 14221 T: 716-204-8054 F: 716-204-8557

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PROJECT TITLE:

BROOKLYN NAVY YARD
63 Flushing Avenue
Brooklyn, NY

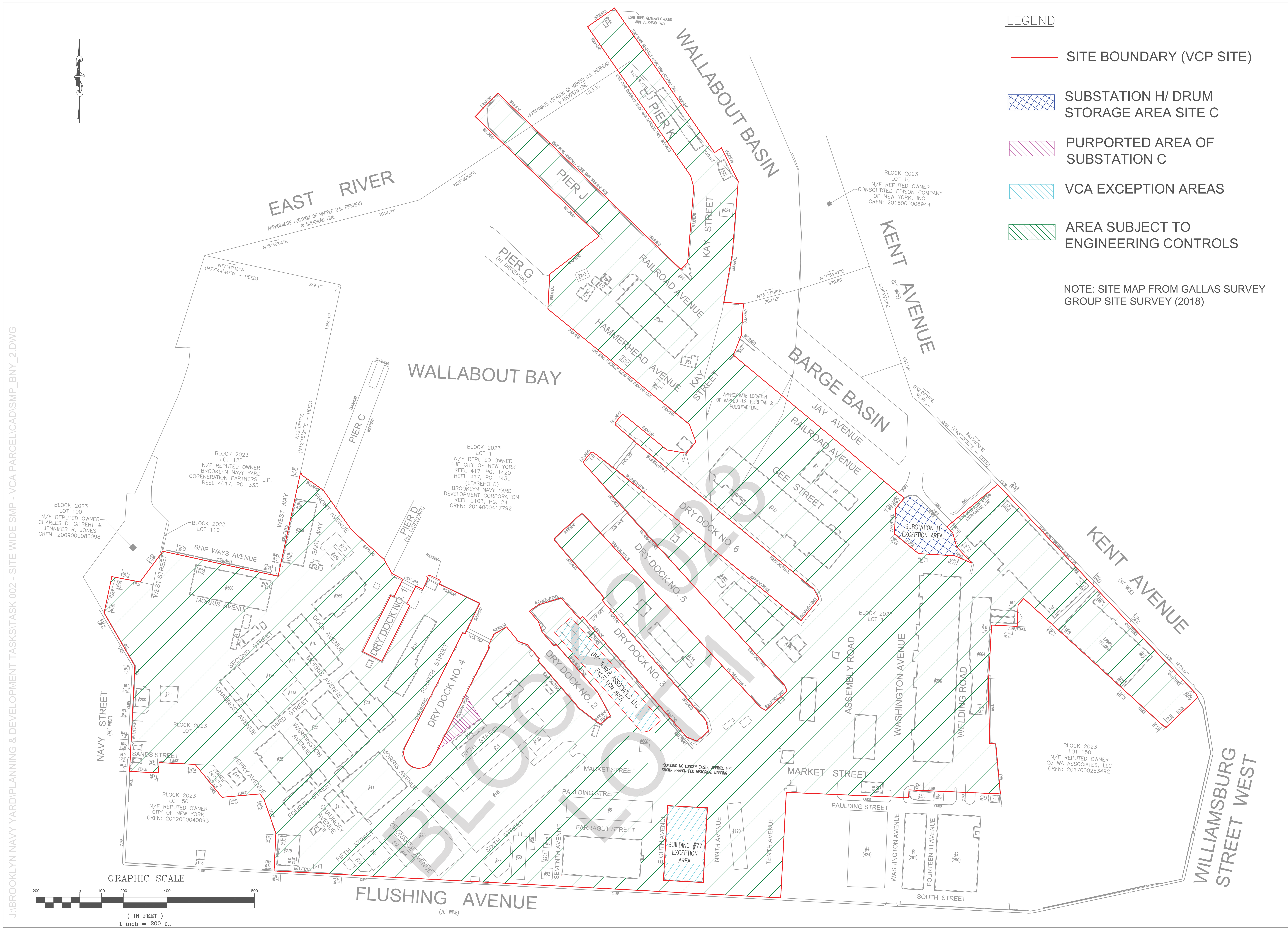
DESCRIPTION:

SITE MANAGEMENT PLAN

DRAWING TITLE:

TRANSFORMER SUBSTATION LOCATION PLAN

SEAL & SIGNATURE		
	DATE:	3/21/2018
	PROJECT No.:	–
	DRAWN BY:	SH
	DESIGNED BY:	SH
	CHECKED BY:	AC
	APPROVED BY:	AC
	FIGURE No.:	3
SCALE: 1=200	SHEET No.:	OF:
	REVISED BY:	–



CLIENT NAME

BROOKLYN NAVY YARD

BROOKLYN NAVY YARD DEVELOPMENT CORPORATION
63 FLUSHING AVENUE
BROOKLYN, NY, 11205

SEAL & SIGNATURE

NO.	REVISIONS	DATE

CORE ENVIRONMENTAL CONSULTANTS
22-48 119TH STREET COLLEGE POINT, N.Y. 11356 T: 718-786-4730 F: 718-786-4764
2312 WEHRLE DRIVE BUFFALO, N.Y. 14221 T: 716-204-8054 F: 716-204-8557
www.COREenv.com

PROJECT TITLE:
BROOKLYN NAVY YARD
63 Flushing Avenue
Brooklyn, NY

DESCRIPTION:
SITE MANAGEMENT PLAN

DRAWING TITLE:
LOCATION OF SITE ENGINEERING CONTROLS

SEAL & SIGNATURE	DATE:	3/21/2018
	PROJECT No.:	–
	DRAWN BY:	SH
	DESIGNED BY:	SH
	CHECKED BY:	AC
	APPROVED BY:	AC
	FIGURE No.:	4
SCALE: 1=200	SHEET No.:	OF:
	REVISED BY:	–

APPENDICES

CORE ENVIRONMENTAL CONSULTANTS

APPENDIX A

Metes and Bounds Survey

CORE ENVIRONMENTAL CONSULTANTS

SCHEDULE "A" PROPERTY DESCRIPTION

METES & BOUNDS DESCRIPTION
ENVIRONMENTAL EASEMENT
PART OF LOT 1, BLOCK 2023
BOROUGH OF BROOKLYN
KINGS COUNTY, CITY & STATE OF NEW YORK

BEGINNING AT A POINT ON THE EASTERLY LINE OF NAVY STREET (80' WIDE) WHERE SAME IS INTERSECTED BY THE DIVIDING LINE OF LOT 1 AND LOT 50, BLOCK 2023, SAID POINT HAVING A COORDINATE VALUE OF NORTH 194,116.15, EAST 989,703.56 IN THE NEW YORK STATE PLANE COORDINATE SYSTEM (NAD 1983), SAID POINT ALSO BEING DISTANT NORTH 02 DEGREES – 50 MINUTES – 14 SECONDS EAST, A DISTANCE OF 419.50 FEET FROM A POINT FORMED BY THE INTERSECTION OF THE NORTHERLY LINE OF FLUSHING AVENUE (70' WIDE) WITH SAID EASTERLY LINE OF NAVY STREET (80' WIDE) AND FROM SAID BEGINNING POINT RUNNING, THENCE; THE FOLLOWING TWO (2) COURSES ALONG SAID EASTERLY LINE OF NAVY STREET:

1. NORTH 02 DEGREES – 50 MINUTES - 14 SECONDS EAST, A DISTANCE OF 483.53 FEET TO A POINT, THENCE;
2. NORTH 30 DEGREES – 08 MINUTES - 03 SECONDS WEST, A DISTANCE OF 280.55 FEET TO A POINT, THENCE; THE FOLLOWING THREE (3) COURSES ALONG A LINE DIVIDING LOT 1 AND LOT 100, BLOCK 2023:
3. NORTH 12 DEGREES – 03 MINUTES – 06 SECONDS EAST, A DISTANCE OF 170.42 FEET TO A POINT, THENCE;
4. SOUTH 79 DEGREES – 14 MINUTES – 14 SECONDS EAST, A DISTANCE OF 131.27 FEET TO A POINT, THENCE;
5. NORTH 36 DEGREES – 40 MINUTES – 24 SECONDS EAST, A DISTANCE OF 174.98 FEET TO A POINT, THENCE; THE FOLLOWING TWO (2) COURSES ALONG A LINE DIVIDING LOT 1 AND LOT 125, BLOCK 2023:
6. SOUTH 77 DEGREES – 47 MINUTES - 43 SECONDS EAST, A DISTANCE OF 540.19 FEET TO A POINT, THENCE;
7. NORTH 12 DEGREES – 12 MINUTES – 17 SECONDS EAST, A DISTANCE OF 482.29 FEET TO A POINT, THENCE; THE FOLLOWING ONE-HUNDRED (100) COURSES ALONG VARIOUS BULKHEADS ALONG THE DRY DOCKS AND WALLABOUT BAY:
8. SOUTH 82 DEGREES – 24 MINUTES – 16 SECONDS EAST, A DISTANCE OF 5.60 FEET TO A POINT, THENCE;
9. SOUTH 09 DEGREES – 17 MINUTES – 46 SECONDS WEST, A DISTANCE OF 5.78 FEET TO A POINT, THENCE;
10. SOUTH 54 DEGREES – 39 MINUTES – 55 SECONDS EAST, A DISTANCE OF 123.38 FEET TO A POINT, THENCE;
11. SOUTH 35 DEGREES – 24 MINUTES – 08 SECONDS EAST, A DISTANCE OF 99.26 FEET TO A POINT, THENCE;
12. SOUTH 35 DEGREES – 28 MINUTES – 11 SECONDS EAST, A DISTANCE OF 122.43 FEET TO A POINT THENCE;
13. SOUTH 47 DEGREES – 45 MINUTES – 55 SECONDS EAST, A DISTANCE OF 201.62 FEET TO A POINT, THENCE;

14. SOUTH 29 DEGREES – 10 MINUTES – 43 SECONDS EAST, A DISTANCE OF 74.73 FEET TO A POINT, THENCE;

15. SOUTH 62 DEGREES – 41 MINUTES – 10 SECONDS EAST, A DISTANCE OF 57.18 FEET TO A POINT, THENCE;

16. SOUTH 27 DEGREES – 18 MINUTES – 50 SECONDS WEST, A DISTANCE OF 92.21 FEET TO A POINT, THENCE;

17. NORTH 62 DEGREES – 41 MINUTES – 10 SECONDS WEST, A DISTANCE OF 16.05 FEET TO A POINT, THENCE;

18. SOUTH 26 DEGREES – 37 MINUTES – 32 SECONDS WEST, A DISTANCE OF 286.61 FEET TO A POINT, THENCE;

19. SOUTH 63 DEGREES – 23 MINUTES – 06 SECONDS EAST, A DISTANCE OF 97.92 FEET TO A POINT, THENCE;

20. NORTH 26 DEGREES – 46 MINUTES – 02 SECONDS EAST, A DISTANCE OF 285.89 FEET TO A POINT, THENCE;

21. NORTH 62 DEGREES – 41 MINUTES – 10 SECONDS WEST, A DISTANCE OF 15.94 FEET TO A POINT, THENCE;

22. NORTH 27 DEGREES – 18 MINUTES – 50 SECONDS EAST, A DISTANCE OF 91.73 FEET TO A POINT, THENCE;

23. SOUTH 62 DEGREES – 41 MINUTES – 10 SECONDS EAST, A DISTANCE OF 34.62 FEET TO A POINT, THENCE;

24. NORTH 25 DEGREES – 09 MINUTES – 37 SECONDS EAST, A DISTANCE OF 53.89 FEET TO A POINT, THENCE;

25. NORTH 19 DEGREES – 52 MINUTES – 46 SECONDS WEST, A DISTANCE OF 12.55 FEET TO A POINT, THENCE;

26. NORTH 73 DEGREES – 05 MINUTES – 53 SECONDS EAST, A DISTANCE OF 14.80 FEET TO A POINT, THENCE;

27. SOUTH 64 DEGREES – 12 MINUTES – 29 SECONDS EAST, A DISTANCE OF 50.20 FEET TO A POINT, THENCE;

28. SOUTH 20 DEGREES – 08 MINUTES – 21 SECONDS EAST, A DISTANCE OF 8.80 FEET TO A POINT, THENCE;

29. SOUTH 25 DEGREES – 18 MINUTES – 50 SECONDS WEST, A DISTANCE OF 11.68 FEET TO A POINT, THENCE;

30. SOUTH 64 DEGREES – 41 MINUTES – 10 SECONDS EAST, A DISTANCE OF 205.26 FEET TO A POINT, THENCE;

31. SOUTH 25 DEGREES – 39 MINUTES – 09 SECONDS WEST, A DISTANCE OF 155.47 FEET TO A POINT, THENCE;

32. NORTH 64 DEGREES – 20 MINUTES – 51 SECONDS WEST, A DISTANCE OF 11.86 FEET TO A POINT, THENCE;

33. SOUTH 26 DEGREES – 52 MINUTES – 28 SECONDS WEST, A DISTANCE OF 581.92 FEET TO A POINT OF CURVATURE, THENCE;

34. ALONG A CURVE TO THE LEFT, HAVING AN ARC LENGTH OF 218.35 FEET, A RADIUS OF 69.50 FEET, A CENTRAL ANGLE OF 180 DEGREES – 00 MINUTES – 00 SECONDS, BEARING A CHORD OF SOUTH 63 DEGREES – 07 MINUTES – 32 SECONDS EAST, A CHORD DISTANCE OF 139.00 FEET TO A POINT OF TANGENCY, THENCE;

35. NORTH 26 DEGREES – 52 MINUTES – 28 SECONDS EAST, A DISTANCE OF 575.85 FEET TO A POINT, THENCE;

36. NORTH 64 DEGREES – 28 MINUTES – 24 SECONDS WEST, A DISTANCE OF 7.31 FEET TO A POINT, THENCE;

37. NORTH 25 DEGREES – 31 MINUTES – 36 SECONDS EAST, A DISTANCE OF 64.19 FEET TO A POINT, THENCE;

38. NORTH 59 DEGREES – 45 MINUTES – 26 SECONDS EAST, A DISTANCE OF 67.43 FEET TO A POINT, THENCE;

39. SOUTH 39 DEGREES – 29 MINUTES – 48 SECONDS EAST, A DISTANCE OF 85.46 FEET TO A POINT, THENCE;

40. SOUTH 69 DEGREES – 51 MINUTES – 51 SECONDS EAST, A DISTANCE OF 43.46 FEET TO A POINT, THENCE;

41. SOUTH 40 DEGREES – 45 MINUTES -18 SECONDS EAST, A DISTANCE OF 85.18 FEET TO A POINT, THENCE;

42. SOUTH 49 DEGREES – 10 MINUTES – 03 SECONDS WEST, A DISTANCE OF 10.10 FEET TO A POINT, THENCE;

43. SOUTH 40 DEGREES – 45 MINUTES – 19 SECONDS EAST, A DISTANCE OF 292.05 FEET TO A POINT, THENCE;

44. SOUTH 52 DEGREES – 51 MINUTES – 21 SECONDS EAST, A DISTANCE OF 118.97 FEET TO A POINT, THENCE;

45. NORTH 49 DEGREES – 33 MINUTES – 43 SECONDS EAST, A DISTANCE OF 60.57 FEET TO A POINT, THENCE;

46. NORTH 28 DEGREES – 44 MINUTES – 31 SECONDS WEST, A DISTANCE OF 120.46 FEET TO A POINT, THENCE;

47. NORTH 40 DEGREES – 45 MINUTES – 18 SECONDS WEST, A DISTANCE OF 291.28 FEET TO A POINT, THENCE;

48. SOUTH 49 DEGREES – 14 MINUTES – 42 SECONDS WEST, A DISTANCE OF 11.95 FEET TO A POINT, THENCE;

49. NORTH 40 DEGREES – 45 MINUTES – 18 SECONDS WEST, A DISTANCE OF 83.89 FEET TO A POINT, THENCE;

50. NORTH 19 DEGREES – 42 MINUTES – 58 SECONDS WEST, A DISTANCE OF 51.43 FEET TO A POINT, THENCE;

51. NORTH 41 DEGREES – 03 MINUTES – 46 SECONDS WEST, A DISTANCE OF 63.25 FEET TO A POINT, THENCE;

52. NORTH 54 DEGREES – 42 MINUTES – 44 SECONDS EAST, A DISTANCE OF 50.18 FEET TO A POINT, THENCE;

53. NORTH 73 DEGREES -14 MINUTES – 08 SECONDS EAST, A DISTANCE OF 109.18 FEET TO A POINT, THENCE;

54. SOUTH 41 DEGREES – 33 MINUTES – 58 SECONDS EAST, A DISTANCE OF 128.91 FEET TO A POINT, THENCE;

55. NORTH 49 DEGREES – 12 MINUTES – 52 SECONDS EAST, A DISTANCE OF 17.77 FEET TO A POINT, THENCE;

56. SOUTH 40 DEGREES – 47 MINUTES – 08 SECONDS EAST, A DISTANCE OF 728.91 FEET TO A POINT, THENCE;

57. SOUTH 68 DEGREES – 33 MINUTES – 49 SECONDS EAST, A DISTANCE OF 50.64 FEET TO A POINT, THENCE;

58. NORTH 49 DEGREES – 03 MINUTES – 33 SECONDS EAST, A DISTANCE OF 69.55 FEET TO A POINT, THENCE;

59. NORTH 13 DEGREES – 40 MINUTES – 31 SECONDS WEST, A DISTANCE OF 49.52 FEET TO A POINT, THENCE;

60. NORTH 40 DEGREES – 47 MINUTES – 08 SECONDS WEST, A DISTANCE OF 729.44 FEET TO POINT, THENCE;

61. NORTH 49 DEGREES – 12 MINUTES – 52 SECONDS EAST, A DISTANCE OF 13.89 FEET TO A POINT, THENCE;

62. NORTH 40 DEGREES – 42 MINUTES – 19 SECONDS WEST, A DISTANCE OF 345.36 FEET TO A POINT OF CURVATURE, THENCE;

63. ALONG A CURVE TO THE RIGHT, HAVING AN ARC LENGTH OF 16.96 FEET, A RADIUS OF 11.00 FEET, A CENTRAL ANGLE OF 88 DEGREES – 20 MINUTES – 10 SECONDS, BEARING A CHORD OF NORTH 03 DEGREES – 27 MINUTES – 46 SECONDS EAST, A CHORD DISTANCE OF 15.33 FEET TO A POINT OF TANGENCY, THENCE;

64. NORTH 47 DEGREES – 37 MINUTES – 51 SECONDS EAST, A DISTANCE OF 156.52 FEET TO A POINT OF CURVATURE, THENCE;

65. ALONG A CURVE TO THE RIGHT, HAVING AN ARC LENGTH OF 17.27 FEET, A RADIUS OF 11.00 FEET, A CENTRAL ANGLE OF 89 DEGREES – 56 MINUTES – 56 SECONDS, BEARING A CHORD OF SOUTH 87 DEGREES – 23 MINUTES – 41 SECONDS EAST A CHORD DISTANCE OF 15.55 FEET TO A POINT OF TANGENCY, THENCE;

66. SOUTH 42 DEGREES – 25 MINUTES – 13 SECONDS EAST, A DISTANCE OF 110.42 FEET TO A POINT, THENCE;

67. SOUTH 42 DEGREES – 29 MINUTES- 59 SECONDS EAST, A DISTANCE OF 1,085.96 FEET TO A POINT, THENCE;

68. SOUTH 61 DEGREES – 22 MINUTES – 28 SECONDS EAST, A DISTANCE OF 29.01 FEET TO A POINT, THENCE;

69. NORTH 47 DEGREES – 44 MINUTES – 22 SECONDS EAST, A DISTANCE OF 130.95 FEET TO A POINT, THENCE;

70. NORTH 23 DEGREES – 21 MINUTES – 17 SECONDS WEST, A DISTANCE OF 29.71 FEET TO A POINT, THENCE;

71. NORTH 42 DEGREES – 23 MINUTES – 50 SECONDS WEST, A DISTANCE OF 1,023.78 FEET TO A POINT, THENCE;

72. NORTH 41 DEGREES – 22 MINUTES – 50 SECONDS WEST, A DISTANCE OF 343.52 FEET TO A POINT OF CURVATURE, THENCE;

73. ALONG A CURVE TO THE RIGHT, HAVING AN ARC LENGTH OF 14.09 FEET, A RADIUS OF 10.00 FEET, A CENTRAL ANGLE OF 80 DEGREES – 45 MINUTES – 10 SECONDS, BEARING A CHORD OF NORTH 01 DEGREE – 00 MINUTES – 15 SECONDS WEST, A CHORD DISTANCE OF 12.96 FEET TO A POINT OF TANGENCY, THENCE;

74. NORTH 39 DEGREES – 22 MINUTES – 20 SECONDS EAST, A DISTANCE OF 46.96 FEET TO A POINT OF CURVATURE, THENCE;

75. ALONG A CURVE TO THE RIGHT, HAVING AN ARC LENGTH OF 15.35 FEET, A RADIUS OF 10.00 FEET, A CENTRAL ANGLE OF 87 DEGREES – 57 MINUTES – 10 SECONDS, BEARING A CHORD OF NORTH 83 DEGREES – 20 MINUTES – 55 SECONDS EAST, A CHORD DISTANCE OF 13.89 FEET TO A POINT OF TANGENCY, THENCE;

76. SOUTH 52 DEGREES – 40 MINUTES – 30 SECONDS EAST, A DISTANCE OF 140.24 FEET TO A POINT, THENCE;

77. SOUTH 50 DEGREES – 43 MINUTES – 00 SECONDS EAST, A DISTANCE OF 1,082.50 FEET TO A POINT, THENCE;

78. NORTH 39 DEGREES – 23 MINUTES – 35 SECONDS EAST, A DISTANCE OF 129.68 FEET TO A POINT, THENCE;

79. NORTH 27 DEGREES – 11 MINUTES – 09 SECONDS WEST, A DISTANCE OF 50.74 FEET TO A POINT, THENCE;

80. NORTH 50 DEGREES – 31 MINUTES – 56 SECONDS WEST, A DISTANCE OF 1,067.42 FEET TO A POINT, THENCE;

81. NORTH 49 DEGREES – 17 MINUTES – 25 SECONDS WEST, A DISTANCE OF 108.87 FEET TO A POINT OF CURVATURE, THENCE;

82. ALONG A CURVE TO THE RIGHT, HAVING AN ARC LENGTH OF 15.54 FEET, A RADIUS OF 10.00 FEET, A CENTRAL ANGLE OF 89 DEGREES – 02 MINUTES – 17 SECONDS, BEARING A CHORD OF NORTH 04 DEGREES – 46 MINUTES – 16 SECONDS WEST, A CHORD DISTANCE OF 14.02 FEET TO A POINT OF TANGENCY, THENCE;

83. NORTH 39 DEGREES – 44 MINUTES – 52 SECONDS EAST, A DISTANCE OF 40.52 FEET TO A POINT OF CURVATURE, THENCE;

84. ALONG A CURVE TO THE RIGHT, HAVING AN ARC LENGTH OF 15.60 FEET, A RADIUS OF 10.00 FEET, A CENTRAL ANGLE OF 89 DEGREES – 23 MINUTES – 52 SECONDS, BEARING A CHORD OF NORTH 84 DEGREES – 26 MINUTES – 48 SECONDS EAST, A CHORD DISTANCE OF 14.07 FEET TO A POINT OF TANGENCY, THENCE;

85. SOUTH 50 DEGREES – 51 MINUTES – 16 SECONDS EAST, A DISTANCE OF 252.00 FEET TO A POINT, THENCE;

86. SOUTH 80 DEGREES – 27 MINUTES – 14 SECONDS EAST, A DISTANCE OF 90.63 FEET TO A POINT, THENCE;

87. NORTH 39 DEGREES – 34 MINUTES – 18 SECONDS EAST, A DISTANCE OF 67.46 FEET TO A POINT, THENCE;

88. NORTH 20 DEGREES – 18 MINUTES – 40 SECONDS WEST, A DISTANCE OF 85.18 FEET TO A POINT, THENCE;

89. NORTH 50 DEGREES – 48 MINUTES – 18 SECONDS WEST, A DISTANCE OF 836.33 FEET TO A POINT, THENCE;

90. NORTH 03 DEGREES – 02 MINUTES – 16 SECONDS EAST, A DISTANCE OF 159.96 FEET TO A POINT, THENCE;

91. NORTH 52 DEGREES – 34 MINUTES – 06 SECONDS EAST, A DISTANCE OF 285.72 FEET TO A POINT, THENCE;

92. NORTH 46 DEGREES – 03 MINUTES – 51 SECONDS WEST, A DISTANCE OF 789.14 FEET TO A POINT, THENCE;

93. NORTH 43 DEGREES – 56 MINUTES -09 SECONDS EAST, A DISTANCE OF 150.00 FEET TO A POINT, THENCE;

94. SOUTH 46 DEGREES – 03 MINUTES – 51 SECONDS EAST, A DISTANCE OF 1,164.36 FEET TO A POINT, THENCE;

95. NORTH 43 DEGREES – 59 MINUTES – 09 SECONDS EAST, A DISTANCE OF 43.82 FEET TO A POINT, THENCE;

96. NORTH 04 DEGREES – 38 MINUTES – 10 SECONDS EAST, A DISTANCE OF 344.94 FEET TO A POINT, THENCE;

97. NORTH 14 DEGREES – 37 MINUTES – 20 SECONDS WEST, A DISTANCE OF 54.20 FEET TO A POINT, THENCE;

98. NORTH 34 DEGREES – 39 MINUTES – 02 SECONDS WEST, A DISTANCE OF 830.99 FEET TO A POINT, THENCE;

99. NORTH 55 DEGREES – 20 MINUTES – 58 SECONDS EAST, A DISTANCE OF 150.30 FEET TO A POINT, THENCE;

100. SOUTH 34 DEGREES – 39 MINUTES – 02 SECONDS EAST, A DISTANCE OF 804.97 FEET TO A POINT, THENCE;

101. NORTH 55 DEGREES – 20 MINUTES – 58 SECONDS EAST, A DISTANCE OF 39.14 FEET TO A POINT, THENCE;

102. SOUTH 26 DEGREES – 24 MINUTES – 40 SECONDS EAST, A DISTANCE OF 171.88 FEET TO A POINT, THENCE;

103. SOUTH 04 DEGREES – 42 MINUTES – 39 SECONDS WEST, A DISTANCE OF 334.00 FEET TO A POINT, THENCE;

104. SOUTH 10 DEGREES – 02 MINUTES – 16 SECONDS WEST, A DISTANCE OF 223.31 FEET TO A POINT, THENCE;

105. SOUTH 85 DEGREES – 03 MINUTES – 29 SECONDS EAST, A DISTANCE OF 90.54 FEET TO A POINT, THENCE;

106. SOUTH 03 DEGREES – 53 MINUTES – 53 SECONDS WEST, A DISTANCE OF 144.14 FEET TO A POINT, THENCE;

107. ALONG A LINE RUNNING THROUGH LOT 1, BLOCK 2023, SOUTH 21 DEGREES – 41 MINUTES – 24 SECONDS WEST, A DISTANCE OF DISTANCE OF 97.85 FEET TO A POINT, THENCE; THE FOLLOWING TWO (2) COURSES ALONG A LINE COMMON TO AN EXISTING ENVIRONMENTAL EASEMENT KNOWN AS SITE NO. 224019A:

108. SOUTH 50 DEGREES – 15 MINUTES – 37 SECONDS EAST, A DISTANCE OF 637.21 FEET TO A POINT, THENCE;

109. SOUTH 49 DEGREES – 46 MINUTES – 00 SECONDS EAST, A DISTANCE OF 382.01 FEET TO A POINT, THENCE; THE FOLLOWING EIGHT (8) COURSES ALONG THE PERIMETER EXTENTS OF THE AREA KNOWN AS SUBSTATION "H" EXCEPTION AREA:

110. SOUTH 39 DEGREES – 16 MINUTES – 57 SECONDS WEST, A DISTANCE OF 62.82 FEET TO A POINT, THENCE;

111. SOUTH 01 DEGREE – 57 MINUTES – 28 SECONDS WEST, A DISTANCE OF 116.68 FEET TO A POINT, THENCE;

112. SOUTH 50 DEGREES – 54 MINUTES – 57 SECONDS EAST, A DISTANCE OF 141.54 FEET TO A POINT, THENCE;

113. SOUTH 86 DEGREES – 30 MINUTES – 56 SECONDS EAST, A DISTANCE OF 166.83 FEET TO A POINT, THENCE;

114. SOUTH 66 DEGREES – 37 MINUTES – 34 SECONDS EAST, A DISTANCE OF 85.21 FEET TO A POINT, THENCE;

115. NORTH 43 DEGREES – 13 MINUTES – 51 SECONDS WEST, A DISTANCE OF 102.59 FEET TO A POINT, THENCE;

116. NORTH 15 DEGREES – 33 MINUTES – 17 SECONDS WEST, A DISTANCE OF 65.54 FEET TO A POINT, THENCE;

117. NORTH 44 DEGREES – 09 MINUTES – 13 SECONDS WEST, A DISTANCE OF 39.77 FEET TO A POINT, THENCE;

118. ALONG A LINE COMMON TO AN EXISTING ENVIRONMENTAL EASEMENT KNOWN AS SITE NO. 224019A, NORTH 50 DEGREES – 14 MINUTES – 31 SECONDS EAST, A DISTANCE OF 303.15 FEET TO A POINT ON THE SOUTHERLY LINE OF KENT AVENUE (87' WIDE), THENCE; CONTINUING ALONG SAID SOUTHERLY LINE OF KENT AVENUE, THE FOLLOWING TWO (2) COURSES:

119. SOUTH 43 DEGREES -- 28 MINUTES – 53 SECONDS EAST, A DISTANCE OF 1,318.14 FEET TO A POINT, THENCE;

120. SOUTH 28 DEGREES – 07 MINUTES – 24 SECONDS EAST, A DISTANCE OF 20.26 FEET TO A POINT, THENCE; THE FOLLOWING FOURTEEN (14) COURSES ALONG A LINE DIVIDING LOT 1 AND LOT 150, BLOCK 2023:

121. SOUTH 46 DEGREES – 34 MINUTES – 51 SECONDS WEST, A DISTANCE OF 203.20 FEET TO A POINT, THENCE;

122. NORTH 47 DEGREES – 39 MINUTES – 18 SECONDS WEST, A DISTANCE OF 878.73 FEET TO A POINT, THENCE;

123. SOUTH 42 DEGREES – 20 MINUTES – 42 SECONDS WEST, A DISTANCE OF 38.42 FEET TO A POINT, THENCE;

124. SOUTH 02 DEGREES – 28 MINUTES – 42 SECONDS WEST, A DISTANCE OF 99.27 FEET TO A POINT, THENCE;

125. NORTH 86 DEGREES – 55 MINUTES – 35 SECONDS WEST, A DISTANCE OF 117.38 FEET TO A POINT, THENCE;

126. SOUTH 03 DEGREES – 04 MINUTES – 25 SECONDS WEST, A DISTANCE OF 238.00 FEET TO A POINT, THENCE;

127. NORTH 86 DEGREES – 55 MINUTES – 35 SECONDS WEST, A DISTANCE OF 2.00 FEET TO A POINT, THENCE;

128. SOUTH 01 DEGREE – 03 MINUTES – 20 SECONDS EAST, A DISTANCE OF 303.67 FEET TO A POINT, THENCE;

129. SOUTH 82 DEGREES – 50 MINUTES – 55 SECONDS EAST, A DISTANCE OF 28.92 FEET TO A POINT, THENCE;

130. SOUTH 05 DEGREES – 16 MINUTES – 30 SECONDS EAST, A DISTANCE OF 229.45 FEET TO A POINT, THENCE;

131. NORTH 87 DEGREES – 28 MINUTES – 35 SECONDS WEST, A DISTANCE OF 419.05 FEET TO A POINT, THENCE;

132. SOUTH 02 DEGREES – 26 MINUTES – 28 SECONDS WEST, A DISTANCE OF 35.78 FEET TO A POINT, THENCE;

133. NORTH 87 DEGREES – 28 MINUTES – 41 SECONDS WEST, A DISTANCE OF 560.79 FEET TO A POINT, THENCE;

134. SOUTH 03 DEGREES – 02 MINUTES – 50 SECONDS WEST, A DISTANCE OF 484.07 FEET TO A POINT IN THE AFOREMENTIONED NORTHERLY LINE OF FLUSHING AVENUE (70' WIDE), THENCE;

135. ALONG SAID NORTHERLY LINE OF FLUSHING AVENUE, NORTH 86 DEGREES – 57 MINUTES – 10 SECONDS WEST, A DISTANCE OF 2,323.21 FEET TO A POINT, THENCE; THE FOLLOWING EIGHT (8) COURSES ALONG A LINE DIVIDING LOT 1 AND LOT 50, BLOCK 2023:

136. NORTH 02 DEGREES – 45 MINUTES – 20 SECONDS EAST, A DISTANCE OF 172.42 FEET TO A POINT, THENCE;

137. NORTH 19 DEGREES – 24 MINUTES – 07 SECONDS WEST, A DISTANCE OF 168.10 FEET TO A POINT, THENCE;

138. NORTH 39 DEGREES – 18 MINUTES – 55 SECONDS WEST, A DISTANCE OF 27.97 FEET TO A POINT, THENCE;

139. SOUTH 84 DEGREES – 59 MINUTES – 35 SECONDS WEST, A DISTANCE OF 173.74 FEET TO A POINT, THENCE;

140. NORTH 39 DEGREES – 21 MINUTES – 30 SECONDS WEST, A DISTANCE OF 194.54 FEET TO A POINT, THENCE;

141. NORTH 87 DEGREES – 14 MINUTES – 30 SECONDS WEST, A DISTANCE OF 165.20 FEET TO A POINT, THENCE;

142. SOUTH 02 DEGREES – 39 MINUTES – 20 SECONDS WEST, A DISTANCE OF 46.68 FEET TO A POINT, THENCE;

143. NORTH 87 DEGREES – 16 MINUTES – 25 SECONDS WEST, A DISTANCE OF 132.77 FEET TO THE POINT AND PLACE OF BEGINNING.

CONTAINING 6,520,927 SQUARE FEET OR 149.6999 ACRES

EXCEPTING OUT AND THEREFROM THE FOLLOWING TWO (2) PARCELS:

BUILDING NO. 77

BEGINNING AT A POINT, SAID POINT BEING THE SOUTHEASTERLY MOST CORNER OF BUILDING 77 WITHIN THE INTERIOR OF LOT 1, BLOCK 2023, SAID POINT ALSO BEING DISTANT THE FOLLOWING TWO (2) COURSES FROM THE TERMINUS OF THE ABOVE DESCRIBED COURSE NO. 134 OF THE OVERALL EASEMENT WHICH IS IN THE NORTHERLY LINE OF FLUSHING AVENUE (70' WIDE) WHICH IS AT THE LINE DIVIDING LOT 1 AND LOT 150, BLOCK 2023:

A) ALONG THE AFOREMENTIONED NORTHERLY LINE OF FLUSHING AVENUE, NORTH 86 DEGREES – 57 MINUTES – 10 SECONDS WEST, A DISTANCE OF 358.10 FEET TO A POINT, THENCE;

B) ALONG A LINE RUNNING THROUGH LOT 1, BLOCK 2023, NORTH 03 DEGREES – 02 MINUTES – 50 SECONDS EAST, A DISTANCE OF 51.26 FEET TO THE POINT AND PLACE OF BEGINNING AND FROM SAID BEGINNING POINT RUNNING, THENCE; THE FOLLOWING FOUR (4) COURSES THROUGH SAID LOT 1, BLOCK 2023 WHICH IS GENERALLY THE PERIMETER EXTENTS OF BUILDING NO. 77:

1. NORTH 86 DEGREES – 46 MINUTES – 07 SECONDS WEST, A DISTANCE OF 182.32 FEET TO A POINT, THENCE;

2. NORTH 03 DEGREES – 09 MINUTES – 53 SECONDS EAST, A DISTANCE OF 342.34 FEET TO A POINT, THENCE;

3. SOUTH 86 DEGREES – 55 MINUTES – 30 SECONDS EAST, A DISTANCE OF 182.61 FEET TO A POINT, THENCE;

4. SOUTH 03 DEGREES – 12 MINUTES – 53 SECONDS WEST, A DISTANCE OF 342.84 FEET TO THE POINT AND PLACE OF BEGINNING.

CONTAINING 62,510 SQUARE FEET OR 1.4350 ACRES

SUBLEASE PARCEL TO BNY TOWER ASSOCIATES, LLC

BEGINNING AT A POINT, SAID POINT BEING THE SOUTHERLY MOST CORNER OF THE SUBLEASE PARCEL TO BNY TOWER ASSOCIATES, LLC EXCEPTION AREA WITHIN THE INTERIOR OF LOT 1, BLOCK 2023, SAID POINT ALSO BEING DISTANT THE FOLLOWING THREE (3) COURSES FROM THE TERMINUS OF THE ABOVE DESCRIBED COURSE NO. 134 OF THE OVERALL EASEMENT WHICH IS IN THE NORTHERLY LINE OF FLUSHING AVENUE (70' WIDE) WHICH IS AT THE LINE DIVIDING LOT 1 AND LOT 150, BLOCK 2023:

A) ALONG THE AFOREMENTIONED NORTHERLY LINE OF FLUSHING AVENUE, NORTH 86 DEGREES – 57 MINUTES – 10 SECONDS WEST, A DISTANCE OF 588.02 FEET TO A POINT, THENCE;

B) ALONG A LINE RUNNING THROUGH LOT 1, BLOCK 2023, NORTH 03 DEGREES – 02 MINUTES – 50 SECONDS EAST, A DISTANCE OF 722.02 FEET TO A POINT, THENCE;

C) NORTH 86 DEGREES – 57 MINUTES – 10 SECONDS WEST, A DISTANCE OF 88.28 FEET TO THE POINT AND PLACE OF BEGINNING AND FROM SAID BEGINNING POINT RUNNING, THENCE; THE FOLLOWING FIVE (5) COURSES ALONG THE PERIMETER EXTENTS OF THE BNY TOWER ASSOCIATES, LLC LEASE PARCEL:

1. NORTH 41 DEGREES – 03 MINUTES – 54 SECONDS WEST, A DISTANCE OF 609.70 FEET TO A POINT, THENCE;

2. NORTH 48 DEGREES – 56 MINUTES – 06 SECONDS EAST, A DISTANCE OF 102.92 FEET TO A POINT, THENCE;

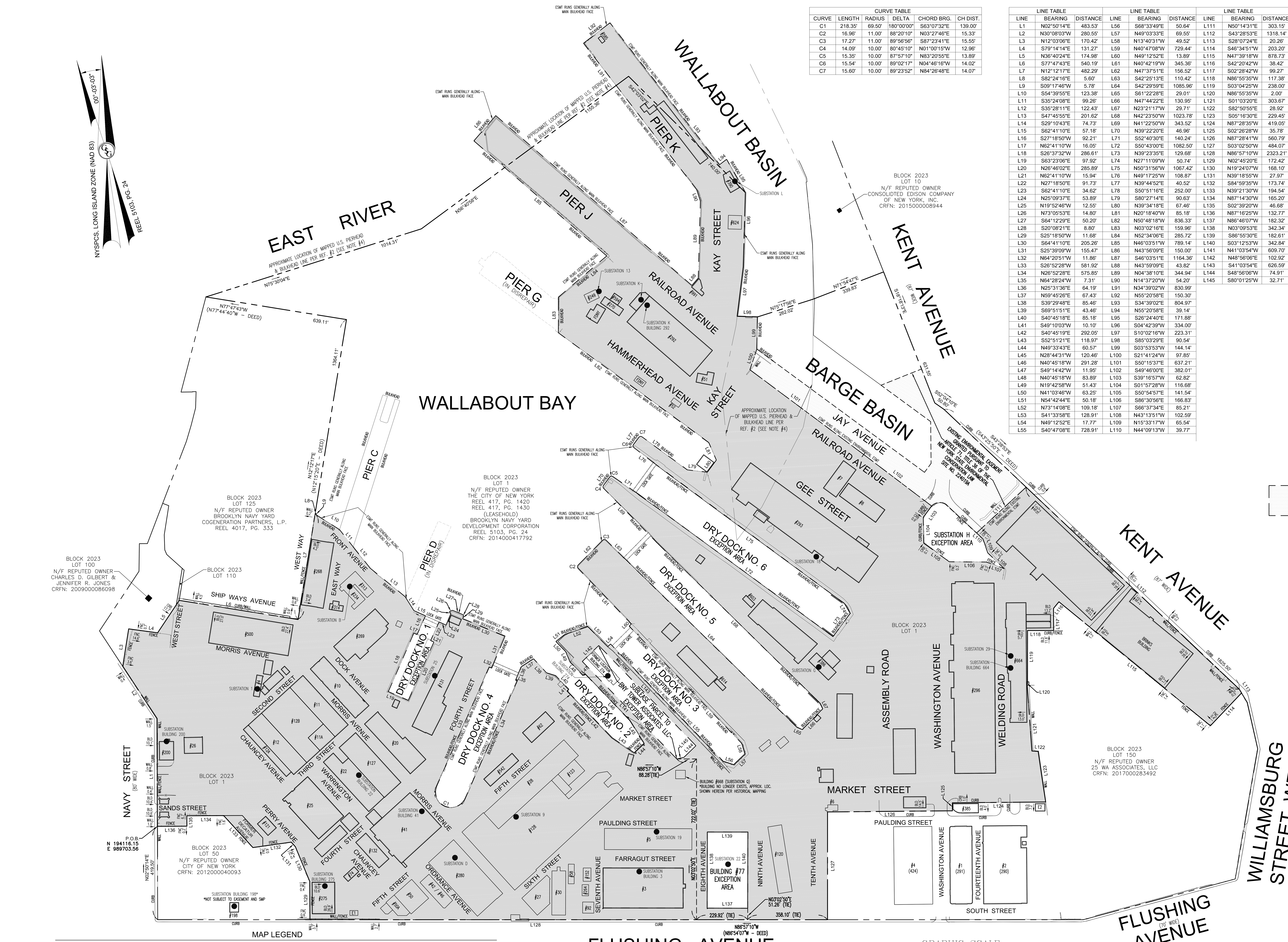
3. SOUTH 41 DEGREES – 03 MINUTES – 54 SECONDS EAST, A DISTANCE OF 626.59 FEET TO A POINT, THENCE;

4. SOUTH 48 DEGREES – 56 MINUTES – 06 SECONDS WEST, A DISTANCE OF 74.91 FEET TO A POINT, THENCE;

5. SOUTH 80 DEGREES – 01 MINUTE – 25 SECONDS WEST, A DISTANCE OF 32.71 FEET TO THE POINT AND PLACE OF BEGINNING.

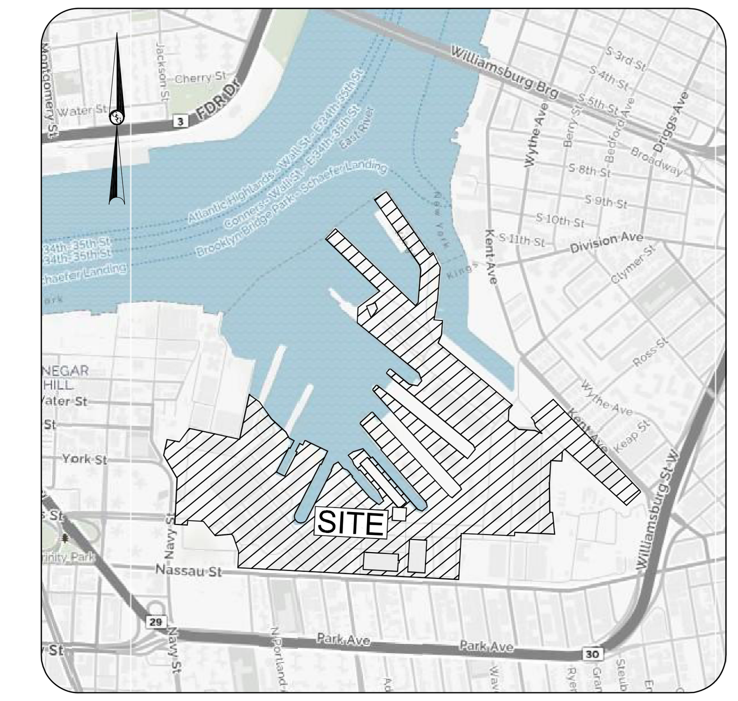
CONTAINING 64,250 SQUARE FEET OR 1.4750 ACRES

THE ABOVE DESCRIBED ENVIRONMENTAL EASEMENT CONTAINS
A NET AREA OF 6,394,167 SQUARE FEET OR 146.7899 ACRES



CURVE TABLE					
CURVE	LENGTH	RADIUS	DELTA	CHORD BRG.	CH DIST.
C1	218.35'	69.50'	180°00'00"	S63°07'32"E	139.00'
C2	16.96'	11.00'	88°20'10"	N03°27'46"E	15.33'
C3	17.27'	11.00'	89°56'56"	S87°23'41"E	15.55'
C4	14.09'	10.00'	80°45'10"	N01°00'15"W	12.96'
C5	15.35'	10.00'	87°57'10"	N83°20'55"E	13.89'
C6	15.54'	10.00'	89°02'17"	N04°46'16"W	14.02'
C7	15.60'	10.00'	89°23'52"	N84°26'48"E	14.07'

LINE TABLE			LINE TABLE			LINE TABLE		
LINE	BEARING	DISTANCE	LINE	BEARING	DISTANCE	LINE	BEARING	DISTANCE
L1	N02°50'14"E	483.53'	L56	S68°33'49"E	50.64'	L111	N50°14'31"E	303.15'
L2	N30°08'03"W	280.55'	L57	N49°03'33"E	69.55'	L112	S43°28'53"E	1318.14'
L3	N12°03'06"E	170.42'	L58	N13°40'31"W	49.52'	L113	S28°07'24"E	20.26'
L4	S79°14'14"E	131.27'	L59	N40°47'08"W	729.44'	L114	S46°34'51"W	203.20'
L5	N36°40'24"E	174.98'	L60	N49°12'52"E	13.89'	L115	N47°39'18"W	878.73'
L6	S77°47'43"E	540.19'	L61	N40°42'19"W	345.36'	L116	S42°20'42"W	38.42'
L7	N12°12'17"E	482.29'	L62	N47°37'51"E	156.52'	L117	S02°28'42"W	99.27'
L8	S82°24'16"E	5.60'	L63	S42°25'13"E	110.42'	L118	N86°55'35"W	117.38'
L9	S09°17'46"W	5.78'	L64	S42°29'59"E	1085.96'	L119	S03°04'25"W	238.00'
L10	S54°39'55"E	123.38'	L65	S61°22'28"E	29.01'	L120	N86°55'35"W	2.00'
L11	S35°24'08"E	99.26'	L66	N47°44'22"E	130.95'	L121	S01°03'20"E	303.67'
L12	S35°28'11"E	122.43'	L67	N23°21'17"W	29.71'	L122	S82°50'55"E	28.92'
L13	S47°45'55"E	201.62'	L68	N42°23'50"W	1023.78'	L123	S05°16'30"E	229.45'
L14	S29°10'43"E	74.73'	L69	N41°22'50"W	343.52'	L124	N87°28'35"W	419.05'
L15	S62°41'10"E	57.18'	L70	N39°22'20"E	46.96'	L125	S02°26'28"W	35.78'
L16	S27°18'50"W	92.21'	L71	S52°40'30"E	140.24'	L126	N87°28'41"W	560.79'
L17	N62°41'10"W	16.05'	L72	S50°43'00"E	1082.50'	L127	S03°02'50"W	484.07'
L18	S26°37'32"W	286.61'	L73	N39°23'35"E	129.68'	L128	N86°57'10"W	2323.21'
L19	S63°23'06"E	97.92'	L74	N27°11'09"W	50.74'	L129	N02°45'20"E	172.42'
L20	N26°46'02"E	285.89'	L75	N50°31'56"W	1067.42'	L130	N19°24'07"W	168.10'
L21	N62°41'10"W	15.94'	L76	N49°17'25"W	108.87'	L131	N39°18'55"W	27.97'
L22	N27°18'50"E	91.73'	L77	N39°44'52"E	40.52'	L132	S84°59'35"W	173.74'
L23	S62°41'10"E	34.62'	L78	S50°51'16"E	252.00'	L133	N39°21'30"W	194.54'
L24	N25°09'37"E	53.89'	L79	S80°27'14"E	90.63'	L134	N87°14'30"W	165.20'
L25	N19°52'46"W	12.55'	L80	N39°34'18"E	67.46'	L135	S02°39'20"W	46.68'
L26	N73°05'53"E	14.80'	L81	N20°18'40"W	85.18'	L136	N87°16'25"W	132.77'
L27	S64°12'29"E	50.20'	L82	N50°48'18"W	836.33'	L137	N86°46'07"W	182.32'
L28	S20°08'21"E	8.80'	L83	N03°02'16"E	159.96'	L138	N03°09'53"E	342.34'
L29	S25°18'50"W	11.68'	L84	N52°34'06"E	285.72'	L139	S86°55'30"E	182.61'
L30	S64°41'10"E	205.26'	L85	N46°03'51"W	789.14'	L140	S03°12'53"W	342.84'
L31	S25°39'09"W	155.47'	L86	N43°56'09"E	150.00'	L141	N41°03'54"W	609.70'
L32	N64°20'51"W	11.86'	L87	S46°03'51"E	1164.36'	L142	N48°56'06"E	102.92'
L33	S26°52'28"W	581.92'	L88	N43°59'09"E	43.82'	L143	S41°03'54"E	626.59'
L34	N26°52'28"E	575.85'	L89	N04°38'10"E	344.94'	L144	S48°56'06"W	74.91'
L35	N64°28'24"W	7.31'	L90	N14°37'20"W	54.20'	L145	S80°01'25"W	32.71'
L36	N25°31'36"E	64.19'	L91	N34°39'02"W	830.99'			
L37	N59°45'26"E	67.43'	L92	N55°20'58"E	150.30'			
L38	S39°29'48"E	85.46'	L93	S34°39'02"E	804.97'			
L39	S69°51'51"E	43.46'	L94	N55°20'58"E	39.14'			
L40	S40°45'18"E	85.18'	L95	S26°24'40"E	171.88'			
L41	S49°10'03"W	10.10'	L96	S04°42'39"W	334.00'			
L42	S40°45'19"E	292.05'	L97	S10°02'16"W	223.31'			
L43	S52°51'21"E	118.97'	L98	S85°03'29"E	90.54'			
L44	N49°33'43"E	60.57'	L99	S03°53'53"W	144.14'			
L45	N28°44'31"W	120.46'	L100	S21°41'24"W	97.85'			
L46	N40°45'18"W	291.28'	L101	S50°15'37"E	637.21'			
L47	S49°14'42"W	11.95'	L102	S49°46'00"E	382.01'			
L48	N40°45'18"W	83.89'	L103	S39°16'57"W	62.82'			
L49	N19°42'58"W	51.43'	L104	S01°57'28"W	116.68'			
L50	N41°03'46"W	63.25'	L105	S50°54'57"E	141.54'			
L51	N54°42'44"E	50.18'	L106	S86°30'56"E	166.83'			
L52	N73°14'08"E	109.18'	L107	S66°37'34"E	85.21'			
L53	S41°33'58"E	128.91'	L108	N43°13'51"W	102.59'			
L54	N49°12'52"E	17.77'	L109	N15°33'17"W	65.54'			
L55	S40°47'08"E	728.91'	L110	N44°09'13"W	39.77'			



VICINITY MAP

NOTES:

1. PROPERTY KNOWN AS PART OF LOT 1, IN BLOCK 2023 AS DESIGNATED ON THE NEW YORK CITY DIGITAL TAX MAP, HAVING AN EFFECTIVE DATE OF JANUARY 7, 2015.
2. AREA OF ENVIRONMENTAL EASEMENT: 6,520,927 S.F. OR 149.6999 AC.
   LESS BUILDING #77 EXCEPTION AREA: 62,510 S.F. OR 1.4350 AC.
   LESS SUBLEASE PARCEL TO BNY TOWER ASSOCIATES LLC EXCEPTION AREA: 64,250 S.F. OR 1.4750 AC.
   NET AREA: 6,394,167 S.F. OR 146.7899 AC.
3. LOCATIONS WERE LIMITED TO SUBSTANTIAL ON SITE BUILDINGS AND VISIBLE IMPROVEMENTS WITHIN FIVE FEET OF EACH SIDE OF THE PERIMETER OF THE PROPOSED ENVIRONMENTAL EASEMENT. NO OTHER SITE IMPROVEMENTS, INCLUDING UTILITIES, HAVE BEEN SHOWN.
4. THE MAPPED U.S. PIERHEAD LINE IS SHOWN APPROXIMATE PER REFERENCE NO. 2

REFERENCES:

1. SUBSTATION PLAN, BROOKLYN NAVY YARD DEVELOPMENT CORP., BROOKLYN NAVY YARD, BROOKLYN, NY 11205, PREPARED BY QUAY CONSULTING, LLC, DATED: NOVEMBER 12, 2009.
2. MAP OF PIERHEAD AND BULKHEAD LINES, EAST RIVER, NEW YORK, BATTERY TO E. 4TH ST., MANHATTAN, ATLANTIC AVE. TO N. 6TH ST., BROOKLYN, APPROVED BY THE SECRETARY OF WAR ON FEBRUARY 25, 1918.

This property is subject to an environmental easement held by the New York State Department of Environmental Conservation pursuant to Title 36 of Article 71 of the New York Environmental Conservation Law. The engineering and institutional controls for this Easement are set forth in the Site Management Plan (SMP). A copy of the SMP must be obtained by any party with an interest in the property. The SMP can be obtained from NYS Department of Environmental Conservation, Division of Environmental Remediation, Site Control Section, 625 Broadway, Albany, NY 12233 or at derweb@dec.ny.gov.

No.	DESCRIPTION OF REVISION	DRAWN:	DATE
1	REVISE PER CLIENT REQUEST	K.G.G.	06-12-18

ENVIRONMENTAL EASEMENT SURVEY

BROOKLYN NAVY YARD

PART OF LOT 1, BLOCK 2023
BOROUGH OF BROOKLYN
KINGS COUNTY
CITY AND STATE OF NEW YORK

GALLAS SURVEYING GROUP
2865 U.S. ROUTE 1
NORTH BRUNSWICK, NJ 08902
TELE: 732-422-6700
FAX: 732-940-8786
www.gallassurvey.com

DATE	SCALE	DRAWN:	CHECKED:
03-14-2018	1"=200'	E.C.R.	G.S.G.
FIELD DATE	FIELD BOOK	PAGE	FIELD CREW
FEB. 2018			M.S./K.S.
FILE NO.: G16214		DRAWING NAME/SHEET NO. G16214-ENV ESMT.DWG 1 OF 1	

NOT VALID UNLESS EMBOSSED WITH RAISED IMPRESSION OR BLUE INK SEAL

STATE OF NEW YORK GREGORY S. GALLAS LICENSED LAND SURVEYOR 50124 EXCELSIOR

06-12-2018

GREGORY S. GALLAS
DATE
NEW YORK PROFESSIONAL LAND SURVEYOR #50124

APPENDIX B

Site Contacts

SITE CONTACTS

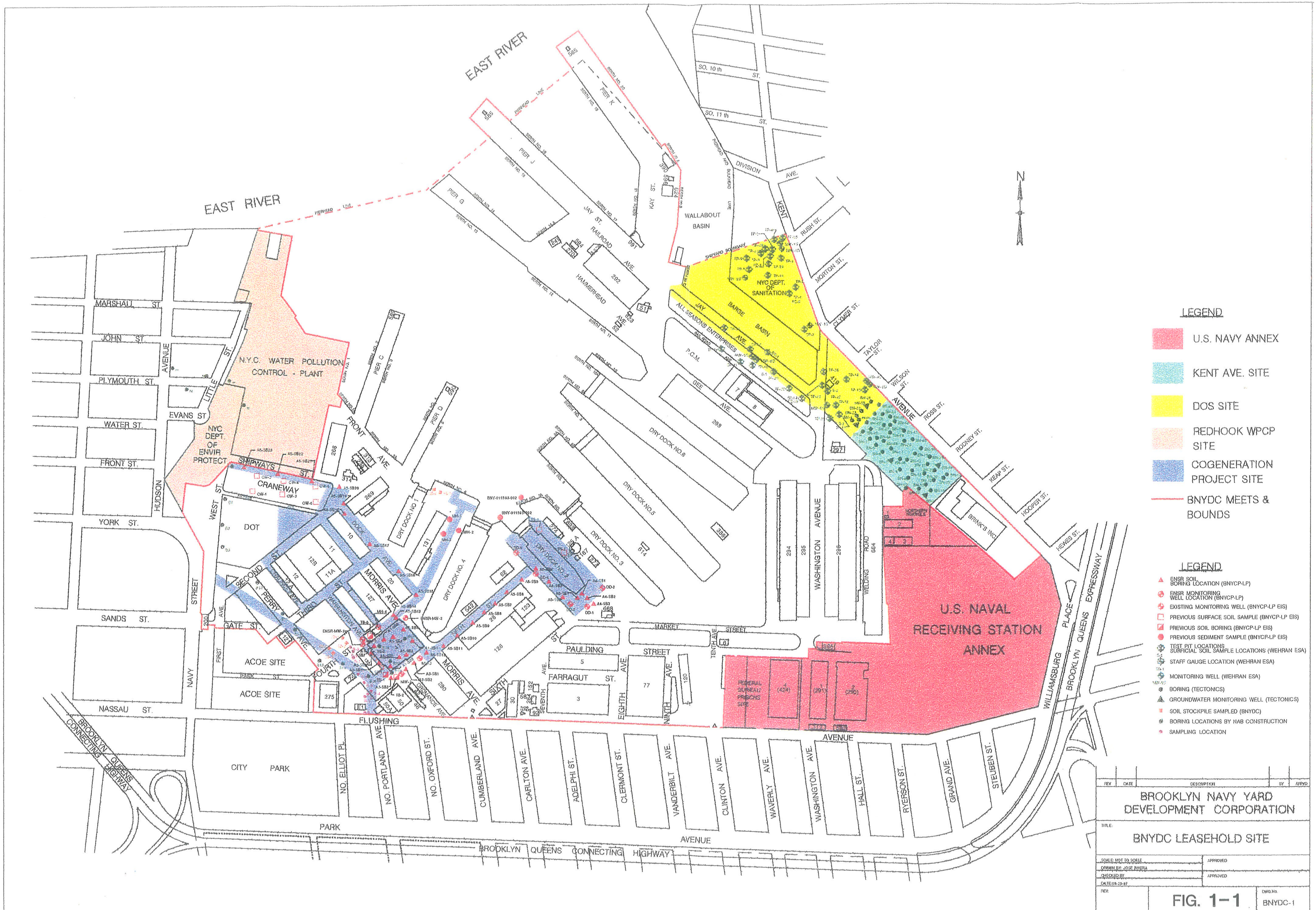
Name	Company/Title	Address	Contact Information
Shani Leibowitz	BNYDC Sr. Vice President, Planning & Transportation	63 Flushing Avenue Brooklyn, NY 11205	Office: (718) 907-5955 Email: SLeibowitz@bnydc.org
Ronald Tramposch	CORE QEP	22-48 119th Street College Point, NY 11356	Office: (718) 786-4730 Email: RPT@coreenv.com
Jonathan Greco	NYSDEC Project Manager	625 Broadway Albany, NY 12233-7016	Office: (518) 402-9694 Email: Jonathan.Greco@dec.ny.gov

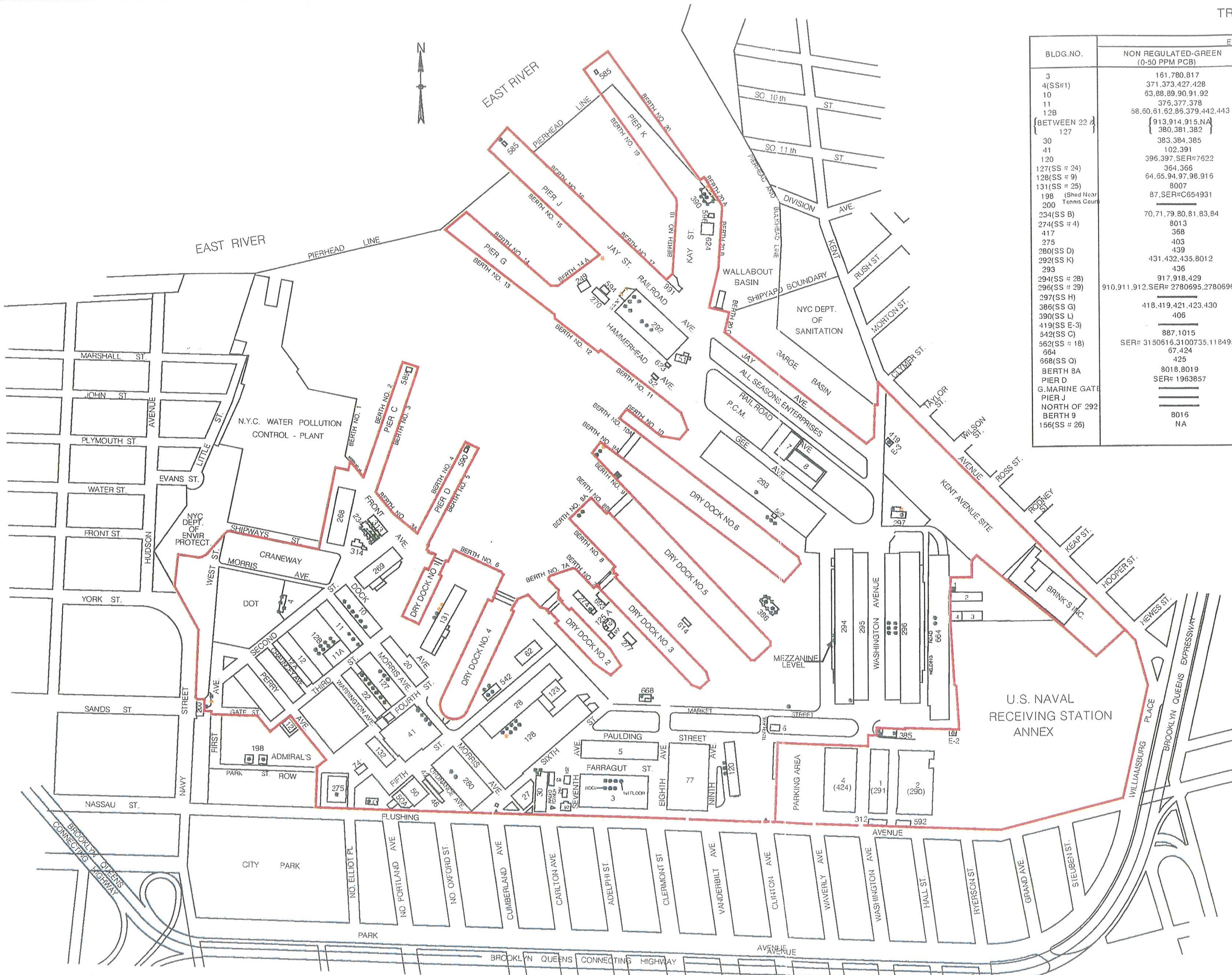
APPENDIX C

Historical Site Data

ERM, 1998
Electrical Transformer Substation C Investigation

CORE ENVIRONMENTAL CONSULTANTS


EAST RIVER
EAST RIVER
WALLABOUT BASIN
N.Y.C. WATER POLLUTION CONTROL - PLANT
NYC DEPT. OF SANITATION
U.S. NAVAL RECEIVING STATION ANNEX
DOT
ACOE SITE
ACOE SITE
CITY PARK
FLUSHING AVENUE
PARK AVENUE
BROOKLYN QUEENS CONNECTING HIGHWAY
BROOKLYN QUEENS EXPRESSWAY
WILLIAMSBURG PLACE
DRY DOCK NO. 1
DRY DOCK NO. 3
DRY DOCK NO. 4
DRY DOCK NO. 5
DRY DOCK NO. 6
LEGEND
U.S. NAVY ANNEX
KENT AVE. SITE
DOS SITE
REDHOOK WPCP SITE
COGENERATION PROJECT SITE
BNYDC MEETS & BOUNDS
LEGEND
ENSR SOIL BORING LOCATION (BNYCP-LP)
ENSR MONITORING WELL LOCATION (BNYCP-LP)
EXISTING MONITORING WELL (BNYCP-LP EIS)
PREVIOUS SURFACE SOIL SAMPLE (BNYCP-LP EIS)
PREVIOUS SOIL BORING (BNYCP-LP EIS)
PREVIOUS SEDIMENT SAMPLE (BNYCP-LP EIS)
TEST PIT LOCATIONS SURFICIAL SOIL SAMPLE LOCATIONS (WEHRAN ESA)
STAFF GAUGE LOCATION (WEHRAN ESA)
MONITORING WELL (WEHRAN ESA)
BORING (TECTONICS)
GROUNDWATER MONITORING WELL (TECTONICS)
SOIL STOCKPILE SAMPLED (BNYDC)
BORING LOCATIONS BY NAB CONSTRUCTION
SAMPLING LOCATION
BROOKLYN NAVY YARD DEVELOPMENT CORPORATION
TITLE:
BNYDC LEASEHOLD SITE
SCALE: NOT TO SCALE
APPROVED
APPROVED
DWG No.
BNYDC-1
FIG. 1-1



TRANSFORMER LEGEND

SS-SUBSTATION

BLDG.NO.	EPA IDENTIFICATION NUMBERS: NON REGULATED-GREEN (0-50 PPM PCB)	PCB CONTAMINATED-BLUE (50-500 PPM PCB)	PCB TRANSFORMER-ORANGE (GREATER 500 PPM)	TOTAL # OF TRANSFORMERS
3	161,780,817	815,816,374,375	—	7
4(SS#1)	371,373,427,428	—	—	4
10	63,88,89,90,91,92	—	—	6
11	376,377,378	—	—	3
12B	58,60,61,62,86,379,442,443	—	—	8
BETWEEN 22 & 127	913,914,915,NA 380,381,382	—	—	7
30	383,384,385	—	—	3
41	102,391	101,388	—	4
120	396,397,SER#7622		—	3
127(SS # 24)	364,366	365	—	3
128(SS # 9)	64,65,94,97,98,916	96	95	8
131(SS # 25)	8007	93	8008,8009	4
198 (Shed Near Tennis Court)	87,SER#C654931	—	—	2
200	—	399,919	400	3
234(SS B)	70,71,79,80,81,83,84	69,72,78,82,405	—	12
274(SS # 4)	8013	—	—	1
417	368	—	—	1
275	403	—	—	1
280(SS D)	439	438	—	2
292(SS K)	431,432,435,8012	433,434,8010,8011	59,106	10
293	436	—	—	1
294(SS # 28)	917,918,429	—	—	3
296(SS # 29)	910,911,912,SER# 2780695,2780696,2780698	—	—	6
297(SS H)	—	411,416	85	3
386(SS G)	418,419,421,423,430	73,74,417,420,422	—	10
390(SS L)	406	159,407,408,409,921,8021	68,160,410	10
419(SS E-3)	—	922	—	1
542(SS C)	887,1015	77, 104	—	4
562(SS # 18)	SER# 3150616,3100735,1184957A	—		3
664	67,424	—	—	2
668(SS Q)	425	—	—	1
BERTH 8A	8018,8019	—	—	2
PIER D	SER# 1963857	—	—	1
G.MARINE GATE	—	8022		1
PIER J	—	8023	—	1
NORTH OF 292	—		8024	1
BERTH 9	8016	8017	8015	3
156(SS # 26)	NA	—	—	

REV	DATE	DESCRIPTION	BY	APPVD

BROOKLYN NAVY YARD
DEVELOPMENT CORPORATION

TITLE:

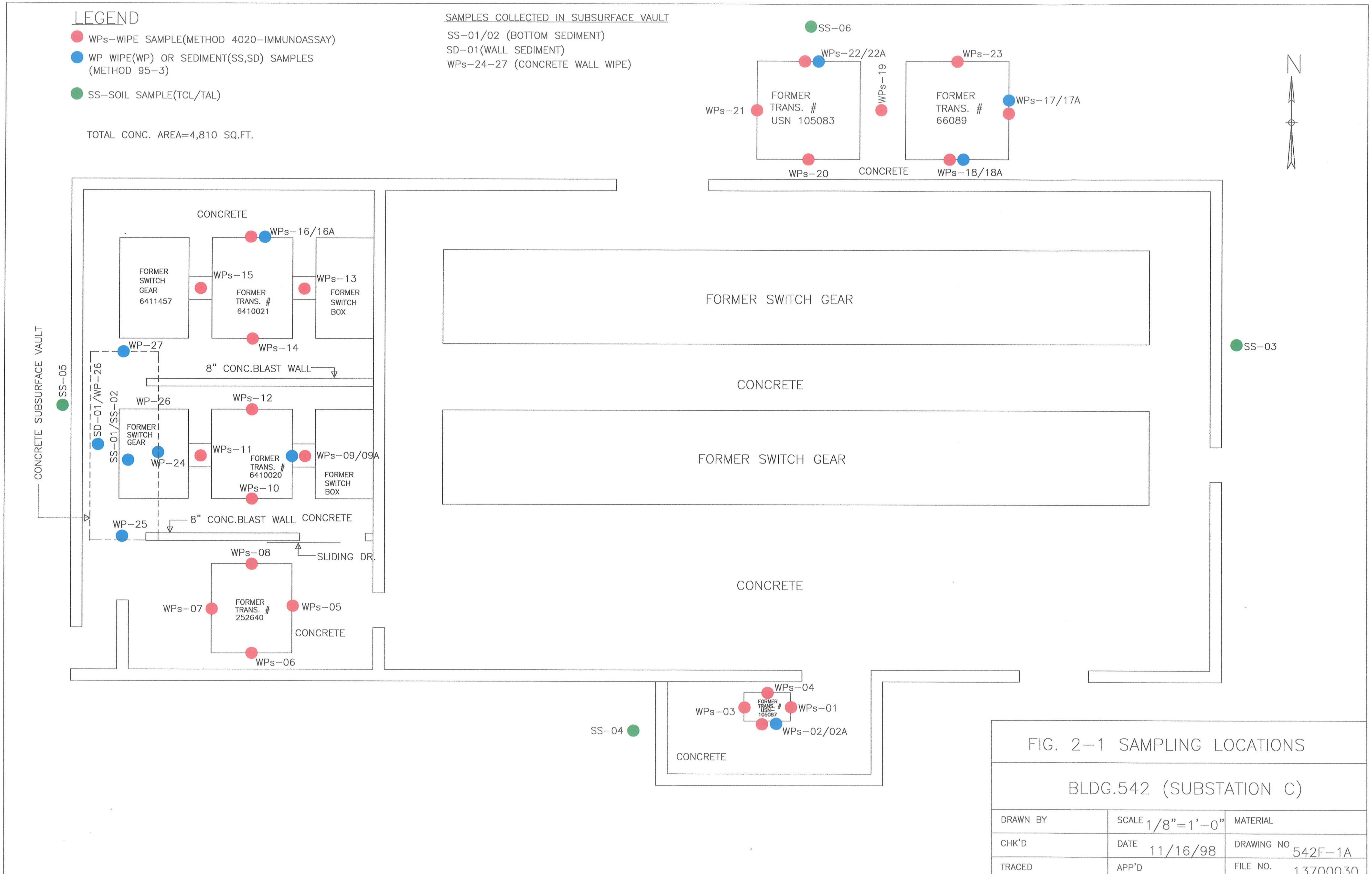
TRANSFORMER LOCATION PLAN

SCALE: 1"=600'
DRAWN BY: JOSE RIVERA
CHECKED BY:
DATE: 02-28-96
REV:

APPROVED
APPROVED

FIG. 1-2

DWG.NO. T-1



LEGEND
WPs-WIPE SAMPLE(METHOD 4020-IMMUNOASSAY)
WP WIPE(WP) OR SEDIMENT(SS,SD) SAMPLES (METHOD 95-3)
SS-SOIL SAMPLE(TCL/TAL)
TOTAL CONC. AREA=4,810 SQ.FT.
SAMPLES COLLECTED IN SUBSURFACE VAULT
SS-01/02 (BOTTOM SEDIMENT)
SD-01(WALL SEDIMENT)
WPs-24-27 (CONCRETE WALL WIPE)
SS-06
WPs-22/22A
WPs-23
FORMER TRANS. # USN 105083
FORMER TRANS. # 66089
WPs-21
WPs-19
WPs-17/17A
WPs-20
CONCRETE
WPs-18/18A
N
CONCRETE
WPs-16/16A
FORMER SWITCH GEAR 6411457
WPs-15
FORMER TRANS. # 6410021
WPs-13
FORMER SWITCH BOX
WPs-14
WP-27
8" CONC.BLAST WALL
FORMER SWITCH GEAR
CONCRETE
FORMER SWITCH GEAR
SS-03
CONCRETE SUBSURFACE VAULT
SS-05
SD-01/WP-26
SS-01/SS-02
WP-26
WPs-12
FORMER SWITCH GEAR
WP-24
WPs-11
FORMER TRANS. # 6410020
WPs-10
WPs-09/09A
FORMER SWITCH BOX
WP-25
8" CONC.BLAST WALL
CONCRETE
SLIDING DR.
WPs-08
CONCRETE
WPs-07
FORMER TRANS. # 252640
WPs-05
CONCRETE
WPs-06
WPs-04
WPs-03
FORMER TRANS. # USN-105087
WPs-01
WPs-02/02A
SS-04
CONCRETE
FIG. 2-1 SAMPLING LOCATIONS
BLDG.542 (SUBSTATION C)
DRAWN BY
SCALE 1/8"=1'-0"
MATERIAL
CHK'D
DATE 11/16/98
DRAWING NO 542F-1A
TRACED
APP'D
FILE NO. 13700030

TABLE 2-1
SUMMARY OF SAMPLES SUBMITTED TO THE OFF-SITE LABORATORY
Electrical Transformer Substation C
Brooklyn Navy Yard

ERM Sample Number	Sample Date	Sample Time	Sample Matrix	Sample Description	Test Parameters	Delivery Date To Lab
1430-SBSTNC-SS-01	9/23/98	14:40	Sediment	Subsurface Vault Sediment	PCB BY NYSDEC CLP 95-3	9/24/98
1430-SBSTNC-SS-01-MS	9/23/98	14:40	Sediment	Matrix Spike of 1430-SBSTNC-SS-01	PCB BY NYSDEC CLP 95-3	9/24/98
1430-SBSTNC-SS-01-MSD	9/23/98	14:40	Sediment	Matrix Spike Dup. of 1430-SBSTNC-SS-01	PCB BY NYSDEC CLP 95-3	9/24/98
1430-SBSTNC-SS-02	9/23/98	14:35	Sediment	Blind Dup. of SBSTNC-SS-01	PCB BY NYSDEC CLP 95-3	9/24/98
1430-SBSTNC-SD-01	9/23/98	14:30	Sediment	Sediment Adhered To Subsurface Vault Wall	PCB BY NYSDEC CLP 95-3	9/24/98
1430-SBSTNC-WP-24	9/23/98	14:10	Wipe	Subsurface Vault Wall Wipe Sample	PCB BY NYSDEC CLP 95-3	9/24/98
1430-SBSTNC-WP-25	9/23/98	14:15	Wipe	Subsurface Vault Wall Wipe Sample	PCB BY NYSDEC CLP 95-3	9/24/98
1430-SBSTNC-WP-26	9/23/98	14:20	Wipe	Subsurface Vault Wall Wipe Sample	PCB BY NYSDEC CLP 95-3	9/24/98
1430-SBSTNC-WP-27	9/23/98	14:25	Wipe	Subsurface Vault Wall Wipe Sample	PCB BY NYSDEC CLP 95-3	9/24/98
1430-SBSTNC-WP-02A	9/23/98	18:15	Wipe	Dup. of 1430-SBSTNC-WP-02*	PCB BY NYSDEC CLP 95-3	9/24/98
1430-SBSTNC-WP-09A	9/23/98	18:16	Wipe	Dup. of 1430-SBSTNC-WP-09*	PCB BY NYSDEC CLP 95-3	9/24/98
1430-SBSTNC-WP-16A	9/23/98	18:17	Wipe	Dup. of 1430-SBSTNC-WP-16*	PCB BY NYSDEC CLP 95-3	9/24/98
1430-SBSTNC-WP-17A	9/23/98	18:18	Wipe	Dup. of 1430-SBSTNC-WP-17*	PCB BY NYSDEC CLP 95-3	9/24/98
1430-SBSTNC-WP-18A	9/23/98	18:15	Wipe	Dup. of 1430-SBSTNC-WP-18*	PCB BY NYSDEC CLP 95-3	9/24/98
1430-SBSTNC-WP-22A	9/23/98	18:19	Wipe	Dup. of 1430-SBSTNC-WP-22*	PCB BY NYSDEC CLP 95-3	9/24/98
1430-SBSTNC-WP-BLANK	9/23/98	14:05	Wipe	Blank Wipe Sample For QA	PCB BY NYSDEC CLP 95-3	9/24/98
1430-SBSTNC-SS-03	9/23/98	16:10	Soil	Surface Soil N/S Bldg Wall 0"-6"	TCL/TAL BY NYSDEC CLP	9/24/98
1430-SBSTNC-SS-03-MS	9/23/98	16:10	Soil	Matrix Spike of 1430-SBSTNC-SS-03	TCL/TAL BY NYSDEC CLP	9/24/98
1430-SBSTNC-SS-03-MSD	9/23/98	16:10	Soil	Matrix Spike Dup. of 1430-SBSTNC-SS-03	TCL/TAL BY NYSDEC CLP	9/24/98
1430-SBSTNC-SS-04	9/23/98	16:25	Soil	Surface Soil E/S Bldg Wall 0"-6"	TCL/TAL BY NYSDEC CLP	9/24/98
1430-SBSTNC-SS-05	9/23/98	16:30	Soil	Surface Soil S/S Bldg Wall 0"-6"	TCL/TAL BY NYSDEC CLP	9/24/98
1430-SBSTNC-SS-06	9/23/98	16:35	Soil	Surface Soil W/S Bldg Wall 0"-6"	TCL/TAL BY NYSDEC CLP	9/24/98
1430-SBSTNC-SS-07	9/23/98	16:50	Soil	Blind Dup. of SBSTNC-SS-06	TCL/TAL BY NYSDEC CLP	9/24/98
1430-SBSTNC-FB-09/23/98	9/23/98	15:30	Water	Field Blank	TCL/TAL BY NYSDEC CLP	9/24/98

* Initial sample was analyzed on-site by immunoassay test kit.

TABLE 3-1
SUMMARY OF IMMUNOASSAY FIELD SCREENING RESULTS
Electrical Transformer Substation C
Brooklyn Navy Yard

SAMPLE IDENTIFICATION	RAW IMMUNOASSAY RESULT	PRESENCE OF PCBs	CONVERTED RESULT (ug/100 cm^2)	DUPLICATE ANALYSIS BY METHOD 95-3
WP-01	ND	NO	<5	NO
WP-02	0.08ND	POSSIBLE?	<5	YES
WP-03	0.00ND	POSSIBLE?	<5	NO
WP-04	0.00ND	POSSIBLE?	<5	NO
WP-05	ND	NO	<5	NO
WP-06	0.00ND	POSSIBLE?	<5	NO
WP-07	0.00ND	POSSIBLE?	<5	NO
WP-08	ND	NO	<5	NO
WP-09	1.04	YES	20.8	YES
WP-10	0.03ND	POSSIBLE?	<5	NO
WP-11	0.16 ND	YES	<5	NO
WP-12	0.01ND	POSSIBLE?	<5	NO
WP-13	0.35	YES	7	NO
WP-14	0.03ND	POSSIBLE?	<5	NO
WP-15	0.01ND	POSSIBLE?	<5	NO
WP-16	0.27	YES	5.4	YES
WP-17	0.38	YES	7.6	YES
WP-18	0.21 ND	YES	<5	YES
WP-19	0.38	YES	7.6	NO
WP-20	0.04ND	POSSIBLE?	<5	NO
WP-21	0.08ND	POSSIBLE?	<5	NO
WP-22	0.36	YES	7.2	YES
WP-23	0.39	YES	7.8	NO
BLANK	ND	NO	<5	NO
VAULT SEDIMENT	19.67 HIGH	YES	>100 ppm	YES

TABLE 3-2
SUMMARY OF LABORATORY ANALYTICAL RESULTS
Wipe and Soil/Sediment Samples
Electrical Transformer Substation C
Brooklyn Navy Yard

SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD 95-3 (ug/100 cm^2)
WP-02A	Concrete Wipe	2.6
WP-09A	Concrete Wipe	73
WP-16A	Concrete Wipe	28
WP-17A	Concrete Wipe	1.1
WP-18A	Concrete Wipe	2.9
WP-22A	Concrete Wipe	4.3
WP-24	Concrete Wipe	160
WP-25	Concrete Wipe	1600
WP-26	Concrete Wipe	1500
WP-27	Concrete Wipe	560
BLANK	Wipe Blank	<2

All results are for Aroclor 1260.

SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD 95-3 (mg/kg)
SS-01	Vault Sediment	2700
SS-02	Duplicate of SS-01	2100
SD-01	Wall Sediment	5300

All results are for Aroclor 1260.

TABLE 3-3
COMPARISON OF IMMUNOASSAY VERSUS LABORATORY WIPE AND SOIL ANALYTICAL RESULTS
Electrical Transformer Substation C
Brooklyn Navy Yard

SAMPLE ID	RAW IMMUNOASSAY	PRESENCE OF PCBs	CONVERTED RESULT (ug/100 cm^2)	OFFSITE ANALYTICAL RESULT* (ug/100 cm^2)
WP-02(A)	0.08ND	POSSIBLE?	<5	2.6
WP-09(A)	1.04	YES	20.8	73
WP-16(A)	0.27	YES	5.4	28
WP-17(A)	0.38	YES	7.6	1.1
WP-18(A)	0.21 ND	YES	<5	2.9
WP-22(A)	0.36	YES	7.2	4.3
VAULT SEDIMENT	19.67 HIGH	YES	>100 mg/kg	2,700 mg/kg

*All results are for Aroclor 1260.

TABLE 3-4
SUMMARY OF SURFICIAL SOIL SAMPLE ANALYTICAL RESULTS
Electrical Transformer Substation C
Brooklyn Navy Yard

VOLATILE ORGANICS				
SAMPLE NO.:		SBSTNC-SS-03	SBSTNC-SS-04	SBSTNC-SS-05
SAMPLE INTERVAL:	NYSDEC	0"- 6"	0"- 6"	0"- 6"
SAMPLE DATE:	RSCO	9/23/98	9/23/98	9/23/98
Chloromethane	NL	11 U	11 U	11 U
Bromomethane	NL	11 U	11 U	11 U
Vinyl Chloride	200	11 U	11 U	11 U
Chloroethane	1,900	11 U	11 U	11 U
Methylene Chloride	100	**4 JB**	**3 JB**	**3 JB**
Acetone	200	11 U	11 U	11 U
Carbon Disulfide	2,700	**1 J**	11 U	11 U
1,1-Dichloroethene	400	11 U	11 U	11 U
1,1-Dichloroethane	200	11 U	11 U	11 U
Total 1,2-Dichloroethene (1)	300	11 U	11 U	11 U
2-Butanone	300	11 U	11 U	11 U
Chloroform	300	11 U	11 U	11 U
1,2-Dichloroethane	100	11 U	11 U	11 U
1,1,1-Trichloroethane	800	**1 J**	**1 J**	11 U
Carbon Tetrachloride	600	11 U	11 U	11 U
Bromodichloromethane	NL	11 U	11 U	11 U
1,2-Dichloropropane	NL	11 U	11 U	11 U
cis-1,3-Dichloropropene	NL	11 U	11 U	11 U
Trichloroethene	700	11 U	11 U	11 U
Benzene	60	11 U	11 U	11 U
Dibromochloromethane	NL	11 U	11 U	11 U
trans-1,3-Dichloropropene	NL	11 U	11 U	11 U
1,1,2-Trichloroethane	NL	11 U	11 U	11 U
Bromoform	NL	11 U	11 U	11 U
4-Methyl-2-Pentanone	1,000	11 U	11 U	11 U
2-Hexanone	NL	11 U	11 U	11 U
1,1,2,2-Tetrachloroethane	600	11 U	11 U	11 U
Tetrachloroethene	1,400	**4 J**	**14**	**4 J**
Toluene	1,500	**1 J**	11 U	11 U
Chlorobenzene	1,700	11 U	11 U	11 U
Ethylbenzene	5,500	**3 J**	11 U	11 U
Styrene	NL	11 U	11 U	11 U
Total Xylenes	1,200	**15**	11 U	11 U
Total Volatile Organic Compounds	10,000	**25**	**15**	**4**
Total Tentatively Identified Compounds	NL	**672**	**252**	**0**

NOTES:

Units are micrograms per kilogram (ug/kg).

Detections are identified in bold format.

Shaded cells represent detections above NYSDEC Recommended Soil Cleanup Objectives (RSCO) as per NYSDEC TAGM No. HWR-94-4046 (1/24/994)

NL - Indicates that no regulatory guidance value is listed in NYSDEC TAGM No. HWR-94-4046 (1/24/994)

(1) - Total cis & trans Dichloroethene, associated NYSDEC RSCO is for trans 1,2-Dichloroethene

U - Undetected at the indicated detection limit.

J - Estimated value.

B - Compound also detected in blank.

TABLE 3-4
SUMMARY OF SURFICIAL SOIL SAMPLE ANALYTICAL RESULTS
Electrical Transformer Substation C
Brooklyn Navy Yard

VOLATILE ORGANICS				
SAMPLE NO.:		SBSTNC-SS-06	SBSTNC-SS-07	FB-09/23/98
SAMPLE INTERVAL:	NYSDEC	0"- 6"	0"- 6"	FIELD BLANK
SAMPLE DATE:	RSCO	9/23/98	9/23/98	9/23/98
Chloromethane	NL	11 U	11 U	10 U
Bromomethane	NL	11 U	11 U	10 U
Vinyl Chloride	200	11 U	11 U	10 U
Chloroethane	1,900	11 U	11 U	10 U
Methylene Chloride	100	3 JB	3 JB	1,100 E
Acetone	200	11 U	11 U	7 J
Carbon Disulfide	2,700	1 J	2 J	10 U
1,1-Dichloroethene	400	11 U	11 U	10 U
1,1-Dichloroethane	200	11 U	11 U	10 U
Total 1,2-Dichloroethene (1)	300	11 U	11 U	10 U
2-Butanone	300	11 U	11 U	10 U
Chloroform	300	11 U	11 U	10 U
1,2-Dichloroethane	100	11 U	11 U	10 U
1,1,1-Trichloroethane	800	11 U	11 U	10 U
Carbon Tetrachloride	600	11 U	11 U	10 U
Bromodichloromethane	NL	11 U	11 U	10 U
1,2-Dichloropropane	NL	11 U	11 U	10 U
cis-1,3-Dichloropropene	NL	11 U	11 U	10 U
Trichloroethene	700	11 U	11 U	10 U
Benzene	60	11 U	11 U	10 U
Dibromochloromethane	NL	11 U	11 U	10 U
trans-1,3-Dichloropropene	NL	11 U	11 U	10 U
1,1,2-Trichloroethane	NL	11 U	11 U	10 U
Bromoform	NL	11 U	11 U	10 U
4-Methyl-2-Pentanone	1,000	11 U	11 U	10 U
2-Hexanone	NL	11 U	11 U	10 U
1,1,2,2-Tetrachloroethane	600	11 U	11 U	10 U
Tetrachloroethene	1,400	4 J	4 J	10 J
Toluene	1,500	11 U	11 U	10 U
Chlorobenzene	1,700	11 U	11 U	10 U
Ethylbenzene	5,500	11 U	11 U	10 U
Styrene	NL	11 U	11 U	10 U
Total Xylenes	1,200	11 U	11 U	10 U
Total Volatile Organic Compounds	10,000	5	6	7
Total Tentatively Identified Compounds	NL	0	0	36

NOTES:

Units are micrograms per kilogram (ug/kg).

Detections are identified in bold format.

Shaded cells represent detections above NYSDEC Recommended Soil Cleanup Objectives (RSCO) as per NYSDEC TAGM No. HWR-94-4046 (1/24/994)

NL - Indicates that no regulatory guidance value is listed in NYSDEC TAGM No. HWR-94-4046 (1/24/994)

(1) - Total cis & trans Dichloroethene, associated NYSDEC RSCO is for trans 1,2-Dichloroethene

U - Undetected at the indicated detection limit.

J - Estimated value.

B - Compound also detected in blank.

TABLE 3-4
SUMMARY OF SURFICIAL SOIL SAMPLE ANALYTICAL RESULTS
Electrical Transformer Substation C
Brooklyn Navy Yard

SEMI-VOLATILE ORGANICS				
SAMPLE NO.:		SBSTNC-SS-03	SBSTNC-SS-04	SBSTNC-SS-05
SAMPLE INTERVAL:	NYSDEC	0"-6"	0"-6"	0"-6"
SAMPLE DATE:	RSCO	9/23/98	9/23/98	9/23/98
Phenol	30	360 U	370 U	350 U
bis(2-Chloroethyl) ether	50,000	360 U	370 U	350 U
2-Chlorophenol	800	360 U	370 U	350 U
1,3-Dichlorobenzene	1,600	360 U	370 U	350 U
1,4-Dichlorobenzene	8,500	360 U	370 U	350 U
1,2-Dichlorobenzene	7,900	360 U	370 U	350 U
2-Methylphenol	100	360 U	370 U	350 U
2,2'-oxybis(1-Chloropropane)	NL	360 U	370 U	350 U
4-Methylphenol	900	360 U	370 U	350 U
N-Nitroso-di-n-propylamine	NL	360 U	370 U	350 U
Hexachloroethane	NL	360 U	370 U	350 U
Nitrobenzene	200	360 U	370 U	350 U
Isophorone	4,400	360 U	370 U	350 U
2-Nitrophenol	330	360 U	370 U	350 U
2,4-Dimethylphenol	NL	360 U	370 U	350 U
bis(2-Chloroethoxy)methane	NL	360 U	370 U	350 U
2,4-Dichlorophenol	400	360 U	370 U	350 U
1,2,4-Trichlorobenzene	NL	360 U	**78 J**	350 U
Naphthalene	13,000	360 U	**110 J**	**110 J**
4-Chloroaniline	220	360 U	370 U	350 U
Hexachlorobutadiene	NL	360 U	370 U	350 U
4-Chloro-3-methylphenol	240	360 U	370 U	350 U
2-Methylnaphthalene	36,400	**8,500 D**	**110 J**	**160 J**
Hexachlorocyclopentadiene	NL	360 U	370 U	350 U
2,4,6-Trichlorophenol	NL	360 U	370 U	350 U
2,4,5-Trichlorophenol	100	900 U	940 U	880 U
2-Chloronaphthalene	NL	360 U	370 U	350 U
2-Nitroaniline	430	900 U	940 U	880 U
Dimethylphthalate	2,000	360 U	370 U	350 U
Acenaphthylene	41,000	360 U	**150 J**	**130 J**
2,6-Dinitrotoluene	1,000	360 U	370 U	350 U
3-Nitroaniline	500	900 U	940 U	880 U
Acenaphthene	50,000	360 U	**240 J**	**120 J**
2,4-Dinitrophenol	200	900 U	940 U	880 U
4-Nitrophenol	100	900 U	940 U	880 U
Dibenzofuran	6,200	360 U	**170 J**	**100 J**
2,4-Dinitrotoluene	NL	360 U	370 U	350 U
Diethylphthalate	7,100	360 U	370 U	350 U
Fluorene	50,000	**1,200**	**270 J**	**150 J**
4-Chlorophenyl-phenylether	NL	360 U	370 U	350 U
4-Nitroaniline	NL	900 U	940 U	880 U
4,6-Dinitro-2-methylphenol	NL	900 U	940 U	880 U
n-Nitrosodiphenylamine	NL	360 U	370 U	350 U
4-Bromophenyl-phenylether	NL	360 U	370 U	350 U
Hexachlorobenzene	410	360 U	370 U	350 U
Pentachlorophenol	1,000	900 U	940 U	880 U
Phenanthrene	50,000	**4,400 D**	**2,800**	**1,700**
Anthracene	50,000	**630**	**720**	**360**

TABLE 3-4
SUMMARY OF SURFICIAL SOIL SAMPLE ANALYTICAL RESULTS
Electrical Transformer Substation C
Brooklyn Navy Yard

SEMI-VOLATILE ORGANICS				
SAMPLE NO.:		SBSTNC-SS-03	SBSTNC-SS-04	SBSTNC-SS-05
SAMPLE INTERVAL:	NYSDEC	0"-6"	0"-6"	0"-6"
SAMPLE DATE:	RSCO	9/23/98	9/23/98	9/23/98
Carbazole	NL	360 U	**330 J**	**160 J**
Di-n-butylphthalate	NL	360 U	370 U	**37 J**
Fluoranthene	50,000	**3,600 D**	**2,600 D**	**2,900 D**
Pyrene	50,000	**2,100**	**2,600 D**	**2,800**
Butylbenzylphthalate	50,000	360 U	370 U	350 U
Benzo(a)anthracene	224	**2,000**	**2,200**	**1,500**
3,3'-Dichlorobenzidine	NL	360 U	370 U	350 U
Chrysene	400	**2,200**	**2,200**	**1,800**
bis(2-Ethylhexyl)phthalate	50,000	360 U	**250 J**	**360 B**
Di-n-Octylphthalate	50,000	360 U	370 U	350 U
Benzo(b)fluoranthene	1,100	**2,500**	**2,000**	**1,600**
Benzo(k)fluoranthene	1,100	**1,300**	**1,100**	**1,100**
Benzo(a)pyrene	61	**1,800**	**1,800**	**1,300**
Indeno(1,2,3-cd)pyrene	3,200	**660**	**1,100**	**620**
Dibenzo(a,h)anthracene	14	**300 J**	**530**	**310 J**
Benzo (g,h,i)perylene	50,000	**540**	**1,100**	**580**
Total Semi-Volatile Organic Compounds	**500,000**	**31,730**	**22,458**	**17,897**
Total Tentatively Identified Compounds	**NL**	**12,950**	**9,520**	**105,500**

NOTES:

Units are micrograms per kilogram (ug/kg).

Detections are identified in bold format.

Shaded cells represent detections above NYSDEC Recommended Soil Cleanup Objectives (RSCO) as per NYSDEC TAGM No. HWR-94-4046 (1/24/994)

NL - Indicates that no regulatory guidance value is listed in NYSDEC TAGM No. HWR-94-4046 (1/24/994)

U - Undetected at the indicated detection limit.

J - Estimated value.

D - Result is reported from a diluted analytical run.

B - Compound also detected in blank.

TABLE 3-4
SUMMARY OF SURFICIAL SOIL SAMPLE ANALYTICAL RESULTS
Electrical Transformer Substation C
Brooklyn Navy Yard

SEMI-VOLATILE ORGANICS				
SAMPLE NO.:		SBSTNC-SS-06	SBSTNC-SS-07	FB-09/23/98
SAMPLE INTERVAL:	NYSDEC	0"-6"	0"-6"	FIELD BLANK
SAMPLE DATE:	RSCO	9/23/98	9/23/98	9/23/98
Phenol	30	360 U	360 U	10 U
bis(2-Chloroethyl) ether	50,000	360 U	360 U	10 U
2-Chlorophenol	800	360 U	360 U	10 U
1,3-Dichlorobenzene	1,600	360 U	360 U	10 U
1,4-Dichlorobenzene	8,500	360 U	360 U	10 U
1,2-Dichlorobenzene	7,900	360 U	360 U	10 U
2-Methylphenol	100	360 U	360 U	10 U
2,2'-oxybis(1-Chloropropane)	NL	360 U	360 U	10 U
4-Methylphenol	900	**44 J**	**78 J**	10 U
N-Nitroso-di-n-propylamine	NL	360 U	360 U	10 U
Hexachloroethane	NL	360 U	360 U	10 U
Nitrobenzene	200	360 U	360 U	10 U
Isophorone	4,400	360 U	360 U	10 U
2-Nitrophenol	330	360 U	360 U	10 U
2,4-Dimethylphenol	NL	360 U	360 U	10 U
bis(2-Chloroethoxy)methane	NL	360 U	360 U	10 U
2,4-Dichlorophenol	400	360 U	360 U	10 U
1,2,4-Trichlorobenzene	NL	360 U	**65 J**	10 U
Naphthalene	13,000	**120 J**	**110 J**	10 U
4-Chloroaniline	220	360 U	360 U	10 U
Hexachlorobutadiene	NL	360 U	360 U	10 U
4-Chloro-3-methylphenol	240	360 U	360 U	10 U
2-Methylnaphthalene	36,400	**120 J**	**130 J**	10 U
Hexachlorocyclopentadiene	NL	360 U	360 U	10 U
2,4,6-Trichlorophenol	NL	360 U	360 U	10 U
2,4,5-Trichlorophenol	100	900 U	900 U	25 U
2-Chloronaphthalene	NL	360 U	360 U	10 U
2-Nitroaniline	430	900 U	900 U	25 U
Dimethylphthalate	2,000	360 U	360 U	10 U
Acenaphthylene	41,000	**500**	**640**	10 U
2,6-Dinitrotoluene	1,000	360 U	360 U	10 U
3-Nitroaniline	500	900 U	900 U	25 U
Acenaphthene	50,000	**350 J**	**410**	10 U
2,4-Dinitrophenol	200	900 U	900 U	25 U
4-Nitrophenol	100	900 U	900 U	25 U
Dibenzofuran	6,200	**180 J**	**210 J**	10 U
2,4-Dinitrotoluene	NL	360 U	360 U	10 U
Diethylphthalate	7,100	360 U	360 U	10 U
Fluorene	50,000	**360 J**	**440**	10 U
4-Chlorophenyl-phenylether	NL	360 U	360 U	10 U
4-Nitroaniline	NL	900 U	900 U	25 U
4,6-Dinitro-2-methylphenol	NL	900 U	900 U	25 U
n-Nitrosodiphenylamine	NL	360 U	360 U	10 U
4-Bromophenyl-phenylether	NL	360 U	360 U	10 U
Hexachlorobenzene	410	360 U	360 U	10 U
Pentachlorophenol	1,000	900 U	900 U	25 U
Phenanthrene	50,000	**3,900 D**	**4,100 D**	10 U
Anthracene	50,000	**920**	**900**	10 U

TABLE 3-4
SUMMARY OF SURFICIAL SOIL SAMPLE ANALYTICAL RESULTS
Electrical Transformer Substation C
Brooklyn Navy Yard

SEMI-VOLATILE ORGANICS				
SAMPLE NO.:		SBSTNC-SS-06	SBSTNC-SS-07	FB-09/23/98
SAMPLE INTERVAL:	NYSDEC	0"-6"	0"-6"	FIELD BLANK
SAMPLE DATE:	RSCO	9/23/98	9/23/98	9/23/98
Carbazole	NL	**300 J**	**250 J**	10 U
Di-n-butylphthalate	NL	360 U	360 U	10 U
Fluoranthene	50,000	**8,900 D**	**9,700 D**	10 U
Pyrene	50,000	**6,000 D**	**6,400 D**	10 U
Butylbenzylphthalate	50,000	360 U	360 U	10 U
Benzo(a)anthracene	224	**3,400 D**	**3,900 D**	10 U
3,3'-Dichlorobenzidine	NL	360 U	360 U	10 U
Chrysene	400	**3,500 D**	**3,900 D**	10 U
bis(2-Ethylhexyl)phthalate	50,000	**1,500 B**	**1,700 B**	**1 J**
Di-n-Octylphthalate	50,000	360 U	360 U	10 U
Benzo(b)fluoranthene	1,100	**2,900 D**	**3,500 D**	10 U
Benzo(k)fluoranthene	1,100	**2,500**	**2,500**	10 U
Benzo(a)pyrene	61	**2,800**	**2,900**	10 U
Indeno(1,2,3-cd)pyrene	3,200	**1,100**	**1,000**	10 U
Dibenzo(a,h)anthracene	14	**500**	**470**	10 U
Benzo (g,h,i)perylene	50,000	**920**	**790**	10 U
Total Semi-Volatile Organic Compounds	500,000	40,814	43,843	1
Total Tentatively Identified Compounds	NL	102,880	70,710	39

NOTES:

Units are micrograms per kilogram (ug/kg).

Detections are identified in bold format.

Shaded cells represent detections above NYSDEC Recommended Soil Cleanup Objectives (RSCO) as per NYSDEC TAGM No. HWR-94-4046 (1/24/994)

NL - Indicates that no regulatory guidance value is listed in NYSDEC TAGM No. HWR-94-4046 (1/24/994)

U - Undetected at the indicated detection limit.

J - Estimated value.

D - Result is reported from a diluted analytical run.

B - Compound also detected in blank.

TABLE 3-4
SUMMARY OF SURFICIAL SOIL SAMPLE ANALYTICAL RESULTS
Electrical Transformer Substation C
Brooklyn Navy Yard

PESTICIDES AND PCBS				
SAMPLE NO.:		SBSTNC-SS-03	SBSTNC-SS-04	SBSTNC-SS-05
SAMPLE INTERVAL:	NYSDEC	0"-6"	0"-6"	0"-6"
SAMPLE DATE:	RSCO	9/23/98	9/23/98	9/23/98
Alpha-BHC	110	18 U	38 U	8.9 U
Beta-BHC	200	18 U	38 U	8.9 U
Delta-BHC	300	18 U	38 U	8.9 U
Lindane	60	18 U	38 U	8.9 U
Heptachlor	100	18 U	38 U	8.9 U
Aldrin	41	18 U	38 U	8.9 U
Heptachlor Epoxide	20	18 U	38 U	8.9 U
Endosulfan I	900	18 U	38 U	8.9 U
Dieldrin	44	36 U	74 U	17 U
4,4'-DDE	2,100	36 U	74 U	17 U
Endrin	100	36 U	74 U	17 U
Endosulfan II	900	36 U	74 U	17 U
4,4'-DDD	2,900	36 U	74 U	17 U
Endosulfan sulfate	1,000	36 U	74 U	17 U
4, 4' DDT	2,100	36 U	74 U	17 U
Methoxychlor	*	180 U	380 U	89 U
Endrin Ketone	NL	36 U	74 U	17 U
Endrin aldehyde	NL	**59 DP**	**42 JDP**	**22 JDP**
Alpha Chlordane	540	18 U	38 U	8.9 U
Gamma Chlordane	540	**12 JDP**	38 U	**7.1 JDP**
Toxaphene	NL	1,800 U	3,800 U	890 U
Aroclor 1016	**	360 U	740 U	170 U
Aroclor 1221	**	720 U	1,500 U	350 U
Aroclor 1232	**	360 U	740 U	170 U
Aroclor 1242	**	360 U	740 U	170 U
Aroclor 1248	**	360 U	740 U	170 U
Aroclor 1254	**	360 U	740 U	170 U
Aroclor 1260	**	**2,600 D**	**5,900 D**	**1,000 DP**

NOTES:
Units are micrograms per kilogram (ug/kg).
Detections are identified in bold format.
Shaded cells represent detections above NYSDEC Recommended Soil Cleanup Objectives (RSCO) as per NYSDEC TAGM No. HWR-94-4046 (1/24/994)
NL - Indicates that no regulatory guidance value is listed in NYSDEC TAGM No. HWR-94-4046 (1/24/94)
U - Indicates that compound was undetected at or above the indicated detection limit.
D - Result is reported from a diluted analytical run.
P - Greather than 25% difference for detected concentrations between two GC columns. The lower of the two values is reported.
[illegible] Indicates an estimated concentration.
* - As per TAGM No. 4046, Total Pesticides <10ppm
** - As per the NYSDEC-approved January 1997 Final Project Work Plan, Clean-up levels for PCBs shall be 10ppm for soil in the upper 12 inches, and 25ppm for soils at depths greater than 12 inches.

TABLE 3-4
SUMMARY OF SURFICIAL SOIL SAMPLE ANALYTICAL RESULTS
Electrical Transformer Substation C
Brooklyn Navy Yard

PESTICIDES AND PCBS				
SAMPLE NO.:		SBSTNC-SS-06	SBSTNC-SS-07	FB-09/23/98
SAMPLE INTERVAL:	NYSDEC	0"-6"	0"-6"	FIELD BLANK
SAMPLE DATE:	RSCO	9/23/98	9/23/98	9/23/98
Alpha-BHC	110	37 U	37 U	0.05 U
Beta-BHC	200	37 U	37 U	0.05 U
Delta-BHC	300	37 U	37 U	0.05 U
Lindane	60	37 U	37 U	0.05 U
Heptachlor	100	37 U	37 U	0.05 U
Aldrin	41	37 U	37 U	0.05 U
Heptachlor Epoxide	20	37 U	37 U	0.05 U
Endosulfan I	900	37 U	37 U	0.05 U
Dieldrin	44	71 U	71 U	0.1 U
4,4'-DDE	2,100	71 U	71 U	0.1 U
Endrin	100	71 U	71 U	0.1 U
Endosulfan II	900	71 U	71 U	0.1 U
4,4'-DDD	2,900	71 U	71 U	0.1 U
Endosulfan sulfate	1,000	71 U	71 U	0.1 U
4, 4' DDT	2,100	71 U	71 U	0.1 U
Methoxychlor	*	370 U	370 U	0.5 U
Endrin Ketone	NL	71 U	71 U	0.1 U
Endrin aldehyde	NL	**100 DP**	**100 DP**	0.1 U
Alpha Chlordane	540	**19 JDP**	**23 JDP**	0.05 U
Gamma Chlordane	540	**25 JDP**	**22 JDP**	0.05 U
Toxaphene	NL	3,700 U	3,700 U	1.0 U
Aroclor 1016	**	710 U	710 U	2.0 U
Aroclor 1221	**	1,400 U	1,400 U	1.0 U
Aroclor 1232	**	710 U	710 U	1.0 U
Aroclor 1242	**	710 U	710 U	1.0 U
Aroclor 1248	**	710 U	710 U	1.0 U
Aroclor 1254	**	710 U	710 U	1.0 U
Aroclor 1260	**	**5,300 D**	**4,700 D**	1.0 U

NOTES:
Units are micrograms per kilogram (ug/kg).
Detections are identified in bold format.
Shaded cells represent detections above NYSDEC Recommended Soil Cleanup Objectives (RSCO) as per NYSDEC TAGM No. HWR-94-4046 (1/24/994)
NL - Indicates that no regulatory guidance value is listed in NYSDEC TAGM No. HWR-94-4046 (1/24/94)
U - Indicates that compound was undetected at or above the indicated detection limit.
D - Result is reported from a diluted analytical run.
P - Greather than 25% difference for detected concentrations between two GC columns. The lower of the two values is reported.
J - Indicates an estimated concentration.
* - As per TAGM No. 4046, Total Pesticides <10ppm
** - As per the NYSDEC-approved January 1997 Final Project Work Plan, Clean-up levels for PCBs shall be 10ppm for soil in the upper 12 inches, and 25ppm for soils at depths greater than 12 inches.

TABLE 3-4
SUMMARY OF SURFICIAL SOIL SAMPLE ANALYTICAL RESULTS
Electrical Transformer Substation C
Brooklyn Navy Yard

METALS					
SAMPLE NO.:	EASTERN		SBSTNC-SS-03	SBSTNC-SS-04	SBSTNC-SS-05
SAMPLE INTERVAL:	USA	NYSDEC	0"-6"	0"-6"	0"-6"
SAMPLE DATE:	BACKGROUND	RSCO	9/23/98	9/23/98	9/23/98
Aluminum	33,000	SB	**4300**	**4930**	**4010**
Antimony	N/A	SB	**1.9 BN**	**2.5 BN**	**3.1 BN**
Arsenic	3-12**	7.5 or SB	**6.3**	**12.3**	**10.8**
Barium	15-600	300 or SB	**139**	**228**	**105**
Beryllium	0-1.75	0.16 (HEAST) or SB	**0.75 B**	**0.43 B**	**0.29 B**
Cadmium	0.1-1	1 or SB	**0.88 B**	**2.5**	**1.5**
Calcium	130-35,000**	SB	**14900**	**8410**	**11300**
Chromium	1.5-40**	10 or SB	**13**	**14.4**	**17.4**
Cobalt	2.5-60**	30 or SB	**4.8 B**	**6.9 B**	**5.2 B**
Copper	1-50	25 or SB	**477**	**553**	**201**
Iron	2,000-550,000	2,000 or SB	**9550**	**21600**	**12100**
Lead	****	SB****	**555**	**915**	**1470**
Magnesium	100-5,000	SB	**2610**	**2690**	**2220**
Manganese	50-5,000	SB	**138 N**	**241 N**	**172 N**
Mercury	0.001-0.2	0.1	**4.2**	**3.4**	**4.7**
Nickel	0.5-25	13 or SB	**25**	**35.9**	**20.1**
Potassium	8,500-43,000*	SB	**557 BE**	**602 BE**	**796 BE**
Selenium	0.1-3.9	2 or SB	**0.87 B**	**1.5**	**1 B**
Silver	N/A	SB	**0.27 B**	0.14 U	0.13 U
Sodium	6,000-8,000	SB	**368 B**	**236 B**	**309 B**
Thallium	N/A	SB	0.41 U	0.43 U	0.4 U
Vanadium	1-300	150 or SB	**15.4**	**26.7**	**15.9**
Zinc	9-50	20 or SB	**565**	**1180**	**477**
Total Cyanide	N/A	***	0.54 U	0.56 U	0.53 U

NOTES:
Units are milligrams per kilogram (mg/kg).
Detections are identified in bold format.
Shaded cells represent detections above criteria.
U - Compound not found relative to the indicated detection limit.
E - Indicates on estimated value because of an interference.
B - Value is less than CRDL but greater than IDL.
N - Spiked sample recovery not within control limits.
W - Furnace AA post digestion spike is out of control limits while sample absorbance is less than 50% of spike absorbance
SB - site background
N/A - not available
** - New York State background
**** - Background levels for lead very widely. Average levels in undeveloped, rural areas may range from 4-61 ppm. Average background levels in metropolitan suburban areas or near highways are much higher and typically range from 200-500 ppm.

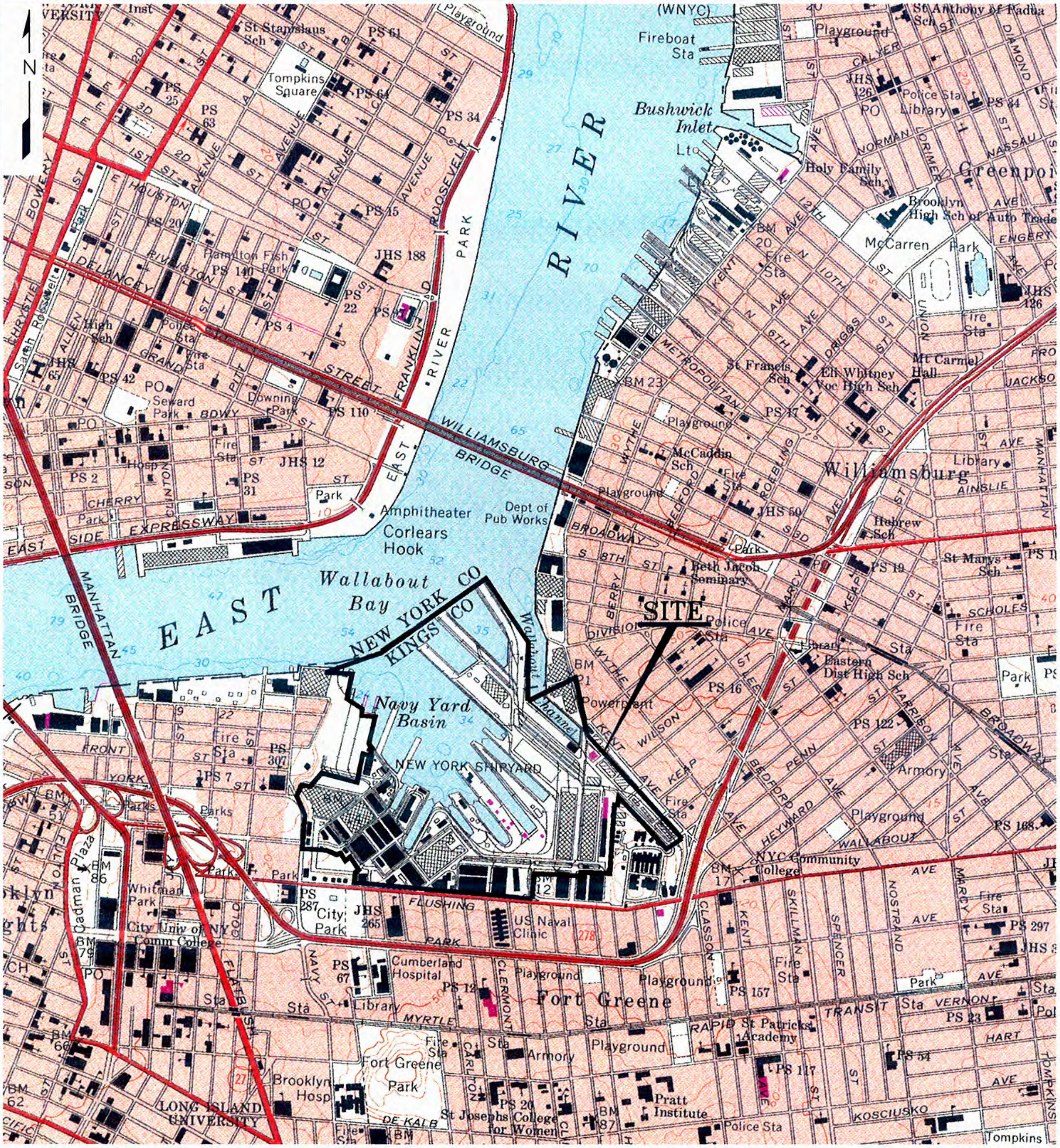
TABLE 3-4
SUMMARY OF SURFICIAL SOIL SAMPLE ANALYTICAL RESULTS
Electrical Transformer Substation C
Brooklyn Navy Yard

METALS					
SAMPLE NO.:	EASTERN		SBSTNC-SS-06	SBSTNC-SS-07	FB-09/23/98
SAMPLE INTERVAL:	USA	NYSDEC	0"-6"	0"-6"	FIELD BLANK
SAMPLE DATE:	BACKGROUND	RSCO	9/23/98	9/23/98	9/23/98
Aluminum	33,000	SB	**17100**	**19100**	**30.5 B**
Antimony	N/A	SB	**11.3 BN**	**13.4 N**	3.0 U
Arsenic	3-12**	7.5 or SB	**7.3**	**9.2**	**2.6 B**
Barium	15-600	300 or SB	**497**	**445**	**1.5 B**
Beryllium	0-1.75	0.16 (HEAST) or SB	**14.0**	**22.4**	0.21 U
Cadmium	0.1-1	1 or SB	**1.6**	**2.6**	0.21 U
Calcium	130-35,000**	SB	**19000**	**21200**	**112 B**
Chromium	1.5-40**	10 or SB	**175**	**134**	0.7 U
Cobalt	2.5-60**	30 or SB	**43.8**	**55.8**	1.9 U
Copper	1-50	25 or SB	**1640**	**2290**	**1.8 B**
Iron	2,000-550,000	2,000 or SB	**61200**	**67100**	**59.9 B**
Lead	****	SB****	**1220**	**1810**	**2.7 B**
Magnesium	100-5,000	SB	**4260**	**4770**	28 U
Manganese	50-5,000	SB	**679 N**	**824 N**	0.7 U
Mercury	0.001-0.2	0.1	**2.4**	**2.3**	0.1 U
Nickel	0.5-25	13 or SB	**332**	**438**	1.5 U
Potassium	8,500-43,000*	SB	**1980 E**	**2130 E**	25 U
Selenium	0.1-3.9	2 or SB	**4.9**	**4.6**	2.5 U
Silver	N/A	SB	**0.16 B**	**0.24 B**	**7.8 B**
Sodium	6,000-8,000	SB	**1550**	**1970**	**65.2 B**
Thallium	N/A	SB	**1.7 B**	**2.2**	**2.4 B**
Vanadium	1-300	150 or SB	**39.2**	**43.8**	2.1 U
Zinc	9-50	20 or SB	**7300**	**11100**	**22.6**
Total Cyanide	N/A	***	0.54 U	0.54 U	10 U

NOTES:
Units are milligrams per kilogram (mg/kg).
Detections are identified in bold format.
Shaded cells represent detections above criteria.
U - Compound not found relative to the indicated detection limit.
E - Indicates on estimated value because of an interference.
B - Value is less than CRDL but greater than IDL.
N - Spiked sample recovery not within control limits.
W - Furnace AA post digestion spike is out of control limits while sample absorbance is less than 50% of spike absorbance
SB - site background
N/A - not available
** - New York State background
**** - Background levels for lead very widely. Average levels in undeveloped, rural areas may range from 4-61 ppm. Average background levels in metropolitan suburban areas or near highways are much higher and typically range from 200-500 ppm.

ERM, 2002
Phase II Investigation Report

FIGURES



SOURCE: U.S.G.S. Brooklyn, NY Quadrangle Map

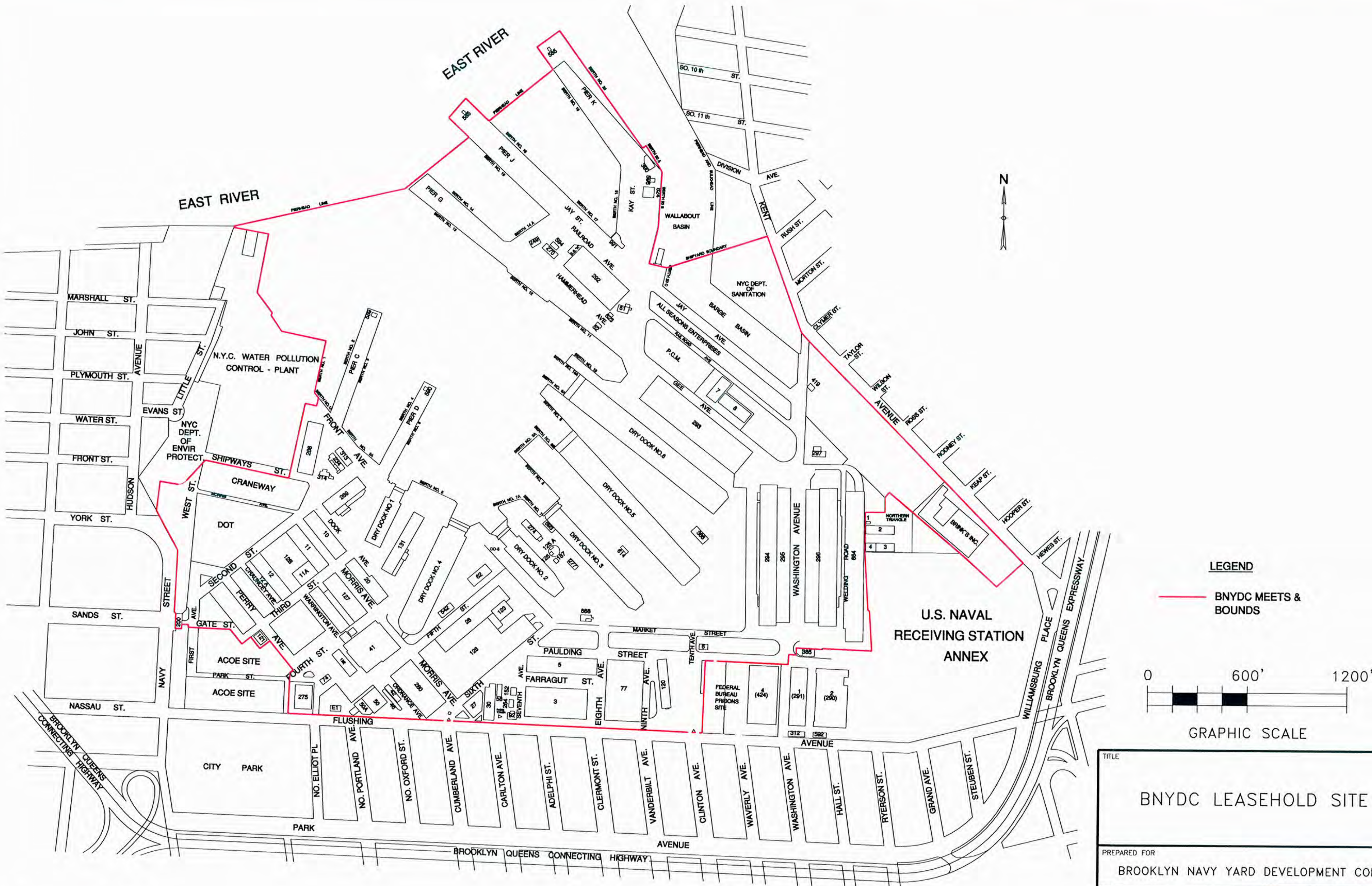
TITLE

SITE LOCATION MAP
BROOKLYN NAVY YARD
INDUSTRIAL PARK

PREPARED FOR

BROOKLYN NAVY YARD DEVELOPMENT CORP.

ERM Environmental Resources Management			SCALE 1"=2000'	FIGURE 1 – 1
DRAWN: Y.S.	JOB NO: X7701.02	FILE NAME: X7701041A	DATE 4/17/01	



TITLE

BNYDC LEASEHOLD SITE

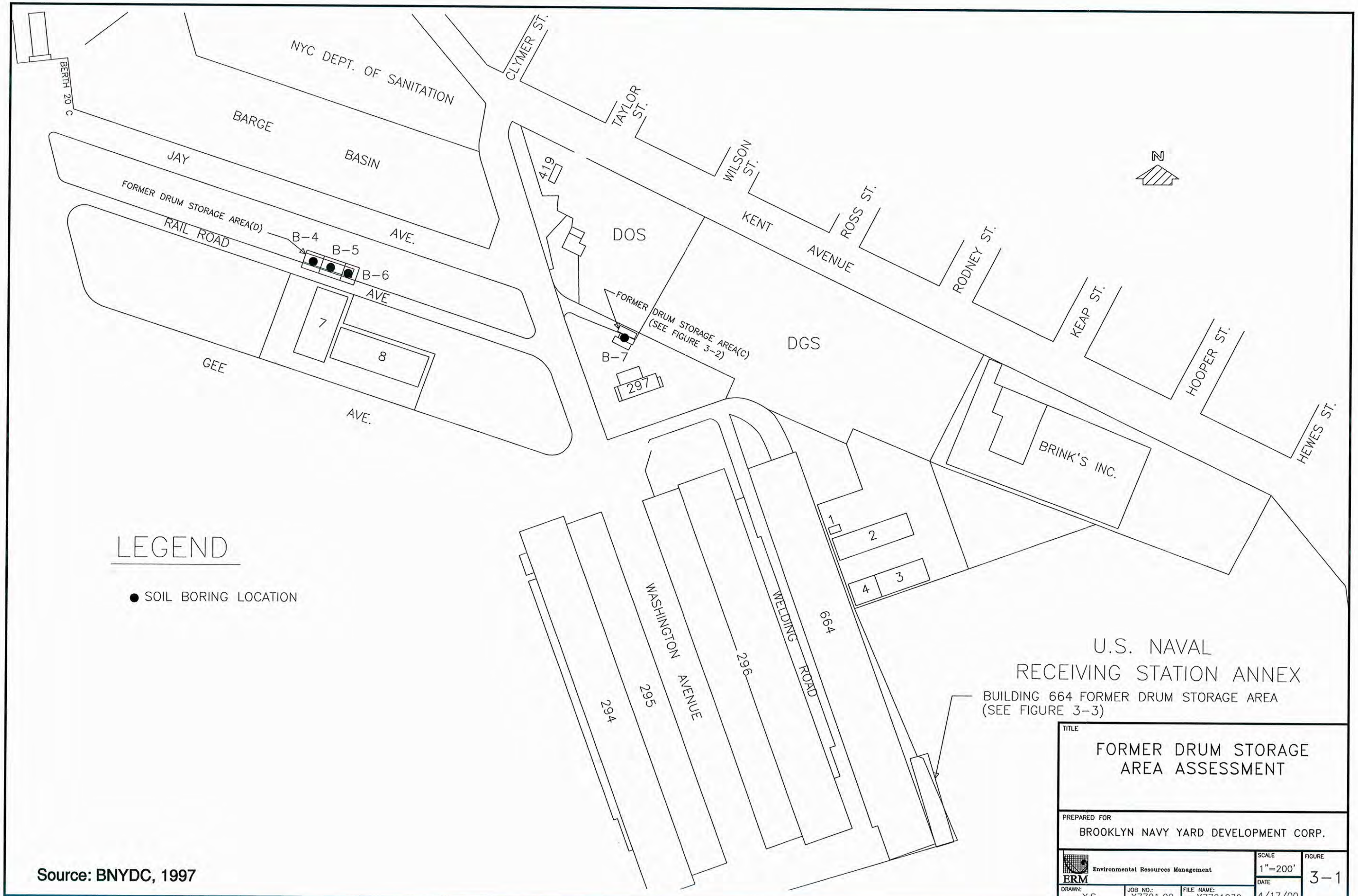
PREPARED FOR

BROOKLYN NAVY YARD DEVELOPMENT CORP.

ERM Environmental Resources Management

DRAWN:	JOB NO.:	FILE NAME:	SCALE	FIGURE
Y.S.	X7701.00	X7701042	1"=600'	1-2
			DATE 6/20/01	

Source: BNYDC, 1997



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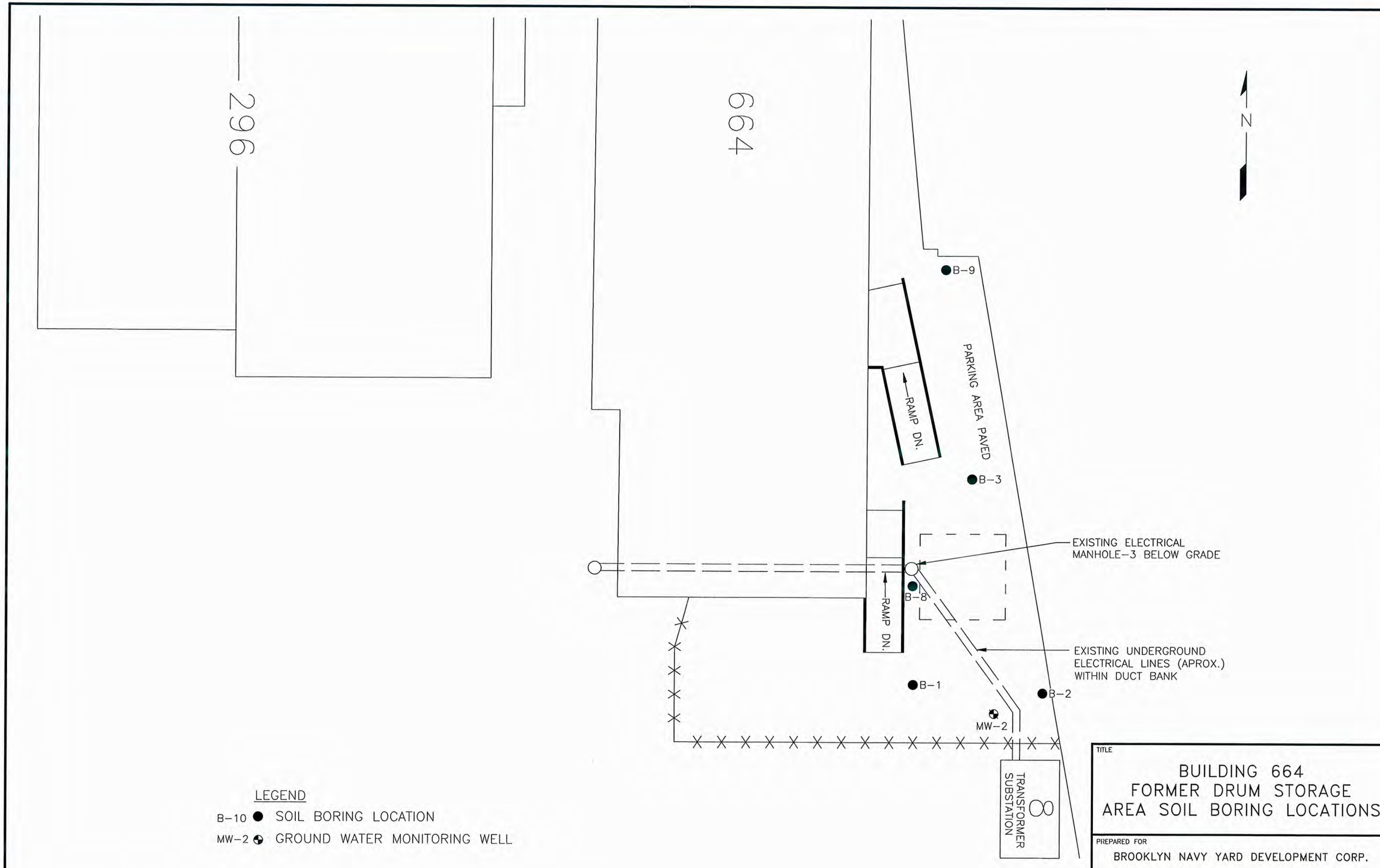


Source: BNYDC, 1997

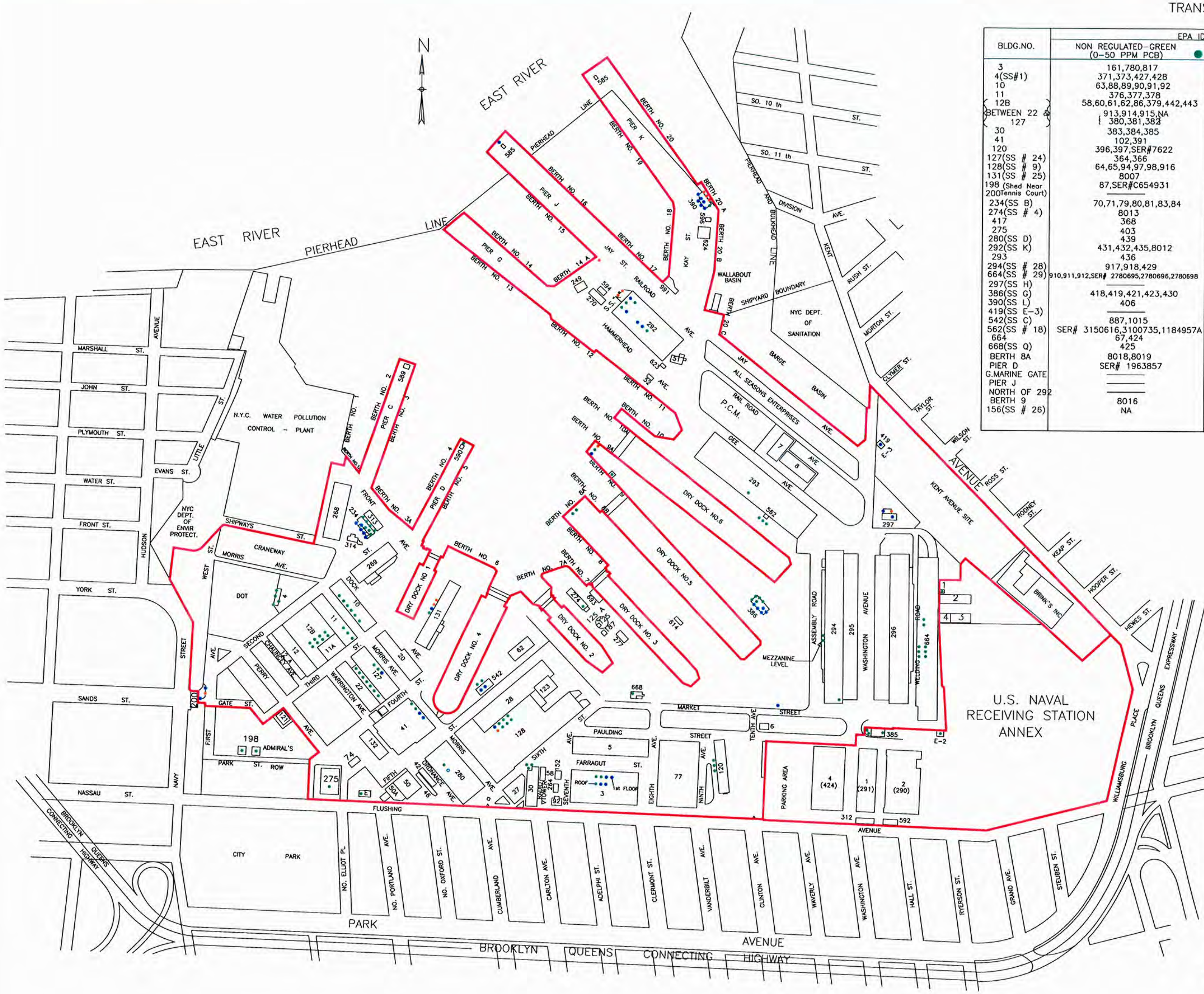
TITLE

BUILDING 664
FORMER DRUM STORAGE
AREA SOIL BORING LOCATIONS

PREPARED FOR

BROOKLYN NAVY YARD DEVELOPMENT CORP.

ERM Environmental Resources Management			SCALE 1"=40'	FIGURE 3-2
DRAWN: Y.S.	JOB NO.: X7701.02	FILE NAME: X7701075	DATE 6/20/01	



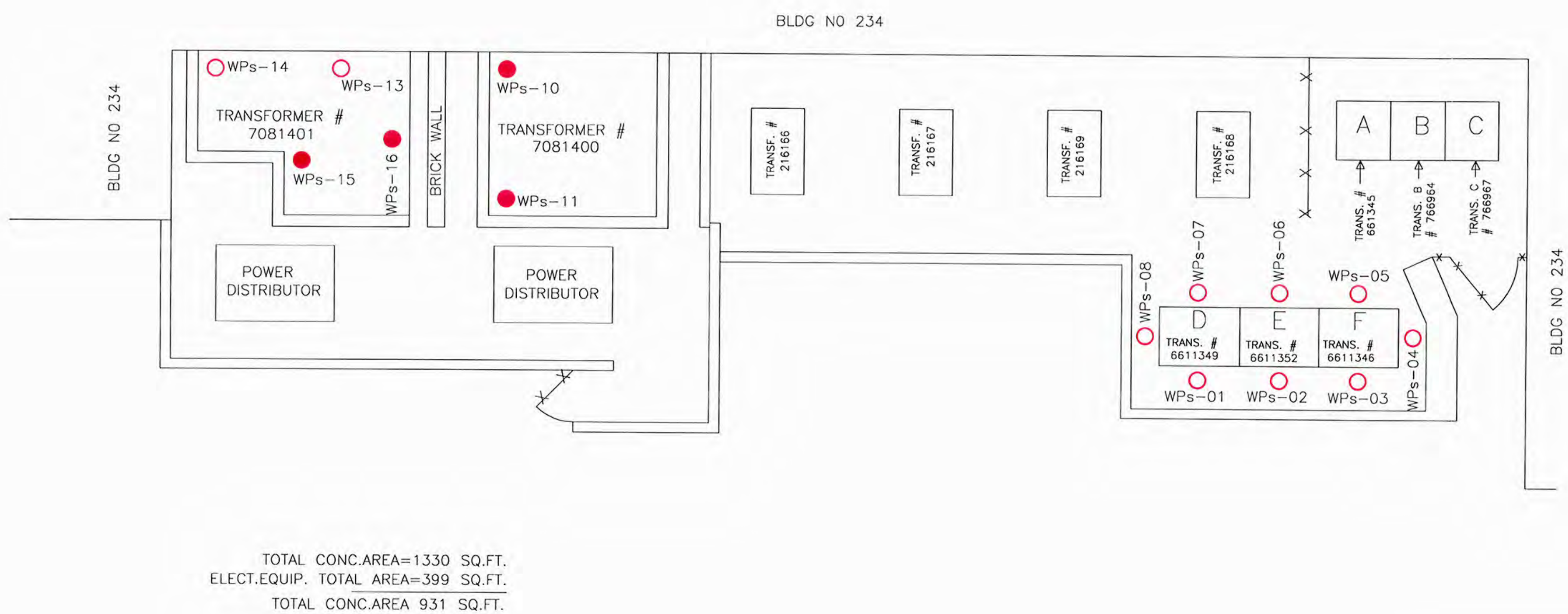
TRANSFORMER LEGEND

SS=SUBSTATION

BLDG.NO.	EPA IDENTIFICATION NUMBERS: NON REGULATED-GREEN (0-50 PPM PCB)	PCB CONTAMINATED-BLUE (50-500 PPM PCB)	PCB TRANSFORMER-ORANGE (GREATER 500 PPM)	TOTAL # OF TRANSFORMERS
3	161,780,817	815,816,374,375	—	7
4(SS#1)	371,373,427,428	—	—	4
10	63,88,89,90,91,92	—	—	6
11	376,377,378	—	—	3
12B	58,60,61,62,86,379,442,443	—	—	8
BETWEEN 22 & 127	913,914,915,NA 380,381,382	—	—	7
30	383,384,385	—	—	3
41	102,391	101,388	—	4
120	396,397,SER#7622		—	3
127(SS # 24)	364,366	365	—	3
128(SS # 9)	64,65,94,97,98,916	96	95	8
131(SS # 25)	8007	93	8008,8009	4
198 (Shed Near	87,SER#C654931	—	—	2
200 Tennis Court)	—	399,919	400	3
234(SS B)	70,71,79,80,81,83,84	69,72,78,82,405	—	12
274(SS # 4)	8013	—	—	1
417	368	—	—	1
275	403	—	—	1
280(SS D)	439	438	—	2
292(SS K)	431,432,435,8012	433,434,8010,8011	59,106	10
293	436	—	—	1
294(SS # 28)	917,918,429	—	—	3
664(SS # 29)	910,911,912,SER# 2780695,2780696,2780698	—	—	6
297(SS H)	—	411,416	85	3
386(SS G)	418,419,421,423,430	73,74,417,420,422	—	10
390(SS L)	406	159,407,408,409,921,8021	68,160,410	10
419(SS E-3)	—	922	—	1
542(SS C)	887,1015	77,104	—	4
562(SS # 18)	SER# 3150616,3100735,1184957A	—		3
664	67,424	—	—	2
668(SS Q)	425	—	—	1
BERTH 8A	8018,8019	—	—	2
PIER D	SER# 1963857	—	—	1
G.MARINE GATE	—	8022		1
PIER J	—	8023	—	1
NORTH OF 292	—		8024	1
BERTH 9	8016	8017	8015	3
156(SS # 26)	NA	—	—	

Source: BNYDC, 1997

TITLE	TRANSFORMER LOCATION PLAN			
PREPARED FOR	BROOKLYN NAVY YARD DEVELOPMENT CORP.			
ERM Environmental Resources Management			SCALE 1"=600'	FIGURE 4-1
DRAWN: Y.S.	JOB NO.: X7701.02	FILE NAME: X7701076	DATE 5/23/01	



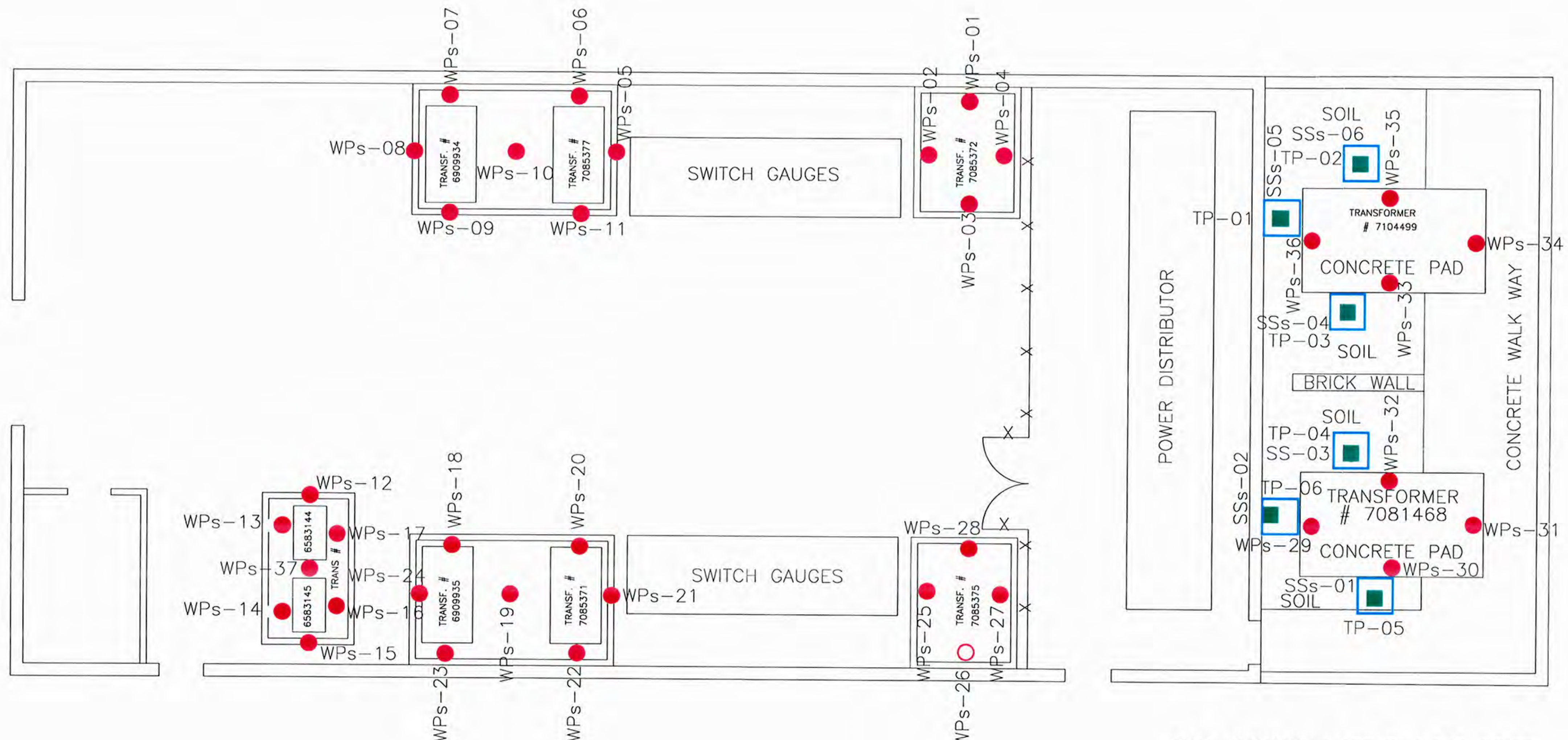
LEGEND

● WIPE SAMPLE LOCATION > 10 ug/wipe PCBs

○ WIPE SAMPLE LOCATION < 10 ug/wipe PCBs

Source: BNYDC, 1997

TITLE	SUBSTATION B – BUILDING 234 CONCRETE WIPE SAMPLING LOCATIONS
PREPARED FOR	BROOKLYN NAVY YARD DEVELOPMENT CORP.
ERM Environmental Resources Management	SCALE 1/8"=1'
FIGURE	4-2
DATE	4/17/01
DRAWN:	Y.S.
JOB NO.:	X7701.02
FILE NAME:	X7701035



TOTAL CONCRETE AREAS=1,345 SQ.FT.
TOTAL SOIL AREAS=357 SQ.FT.

LEGEND

- WIPE SAMPLE LOCATION > 10 ug/wipe PCBs
- WIPE SAMPLE LOCATION < 10 ug/wipe PCBs
- SOIL SAMPLE LOCATION > 10 mg/kg PCBs
- SOIL SAMPLE LOCATION < 10 mg/kg PCBs
- TP−01 TEST PIT LOCATION

Source: BNYDC, 1997

TITLE

SUBSTATION G − BUILDING 386
CONCRETE WIPE AND SOIL
SAMPLING LOCATIONS

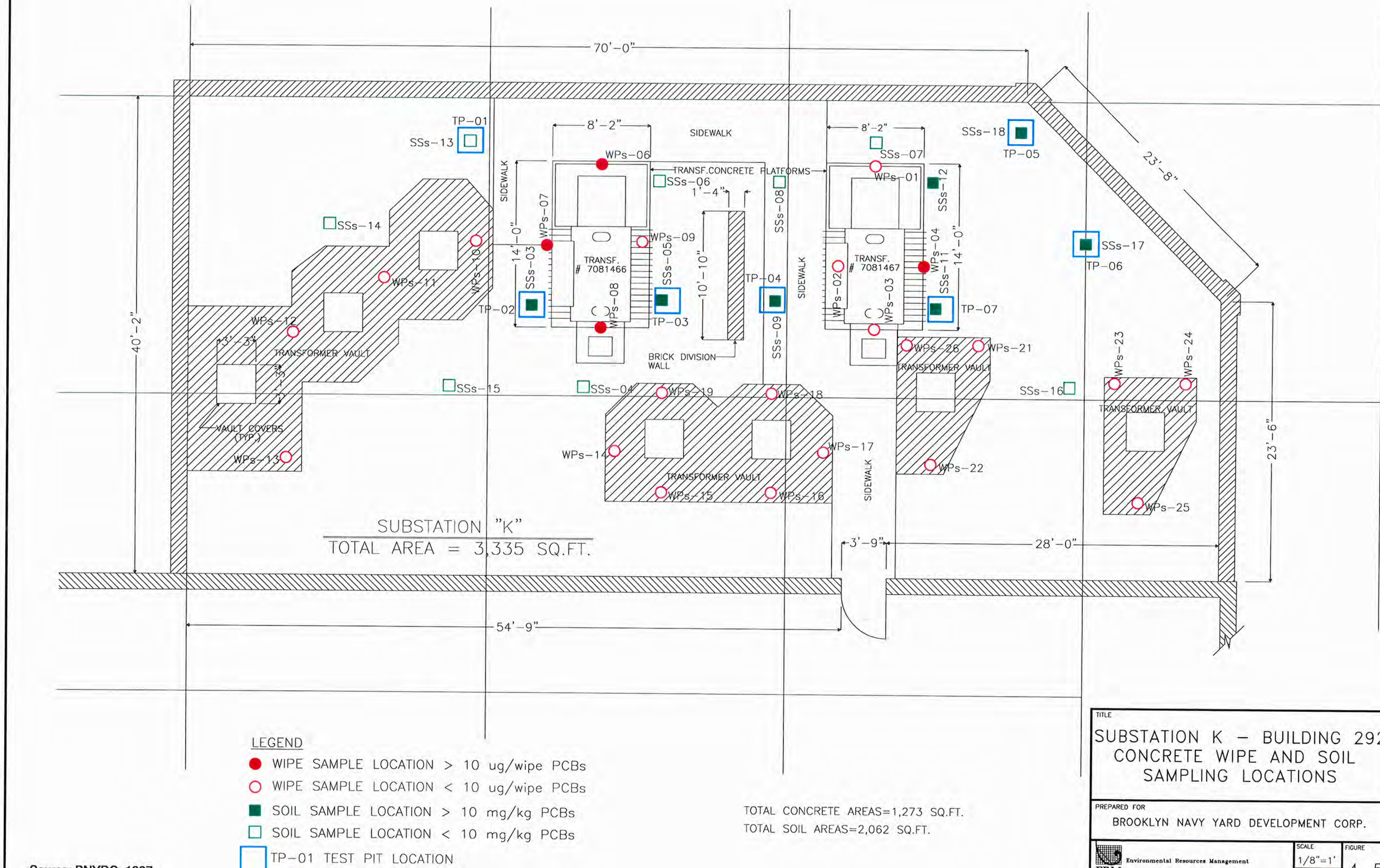
PREPARED FOR

BROOKLYN NAVY YARD DEVELOPMENT CORP.

ERM Environmental Resources Management

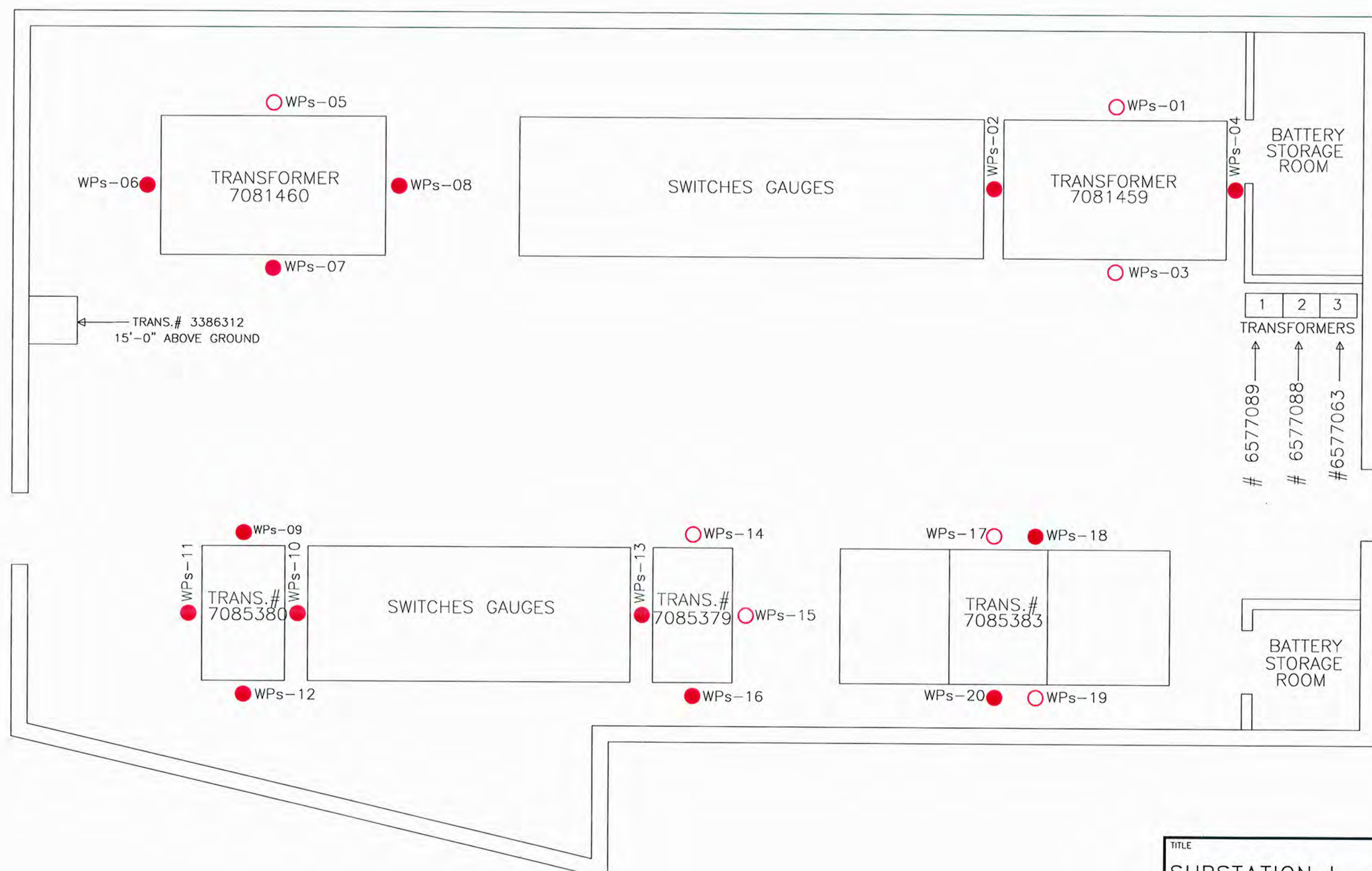
SCALE	FIGURE
3/32"=1'	4−3
DATE 4/17/01	

DRAWN:	JOB NO.:	FILE NAME:
Y.S.	X7701.02	X7701030



Source: BNYDC, 1997

TITLE	SUBSTATION K – BUILDING 292 CONCRETE WIPE AND SOIL SAMPLING LOCATIONS
PREPARED FOR	BROOKLYN NAVY YARD DEVELOPMENT CORP.
ERM Environmental Resources Management	SCALE 1/8"=1'
DATE	4/17/01
FIGURE	4-5
DRAWN:	Y.S.
JOB NO.:	X7701.02
FILE NAME:	X7701033



TOTAL CONC. AREA=3,625 SQ.FT.
TOTAL ELEC. EQUIP=956 SQ.FT.
TOTAL CONC. AREA=2,669 SQ.FT.

LEGEND

● WIPE SAMPLE LOCATION > 10 ug/wipe PCBs
○ WIPE SAMPLE LOCATION < 10 ug/wipe PCBs

Source: BNYDC, 1997

TITLE

SUBSTATION L – BUILDING 390
CONCRETE WIPE SAMPLING
LOCATIONS

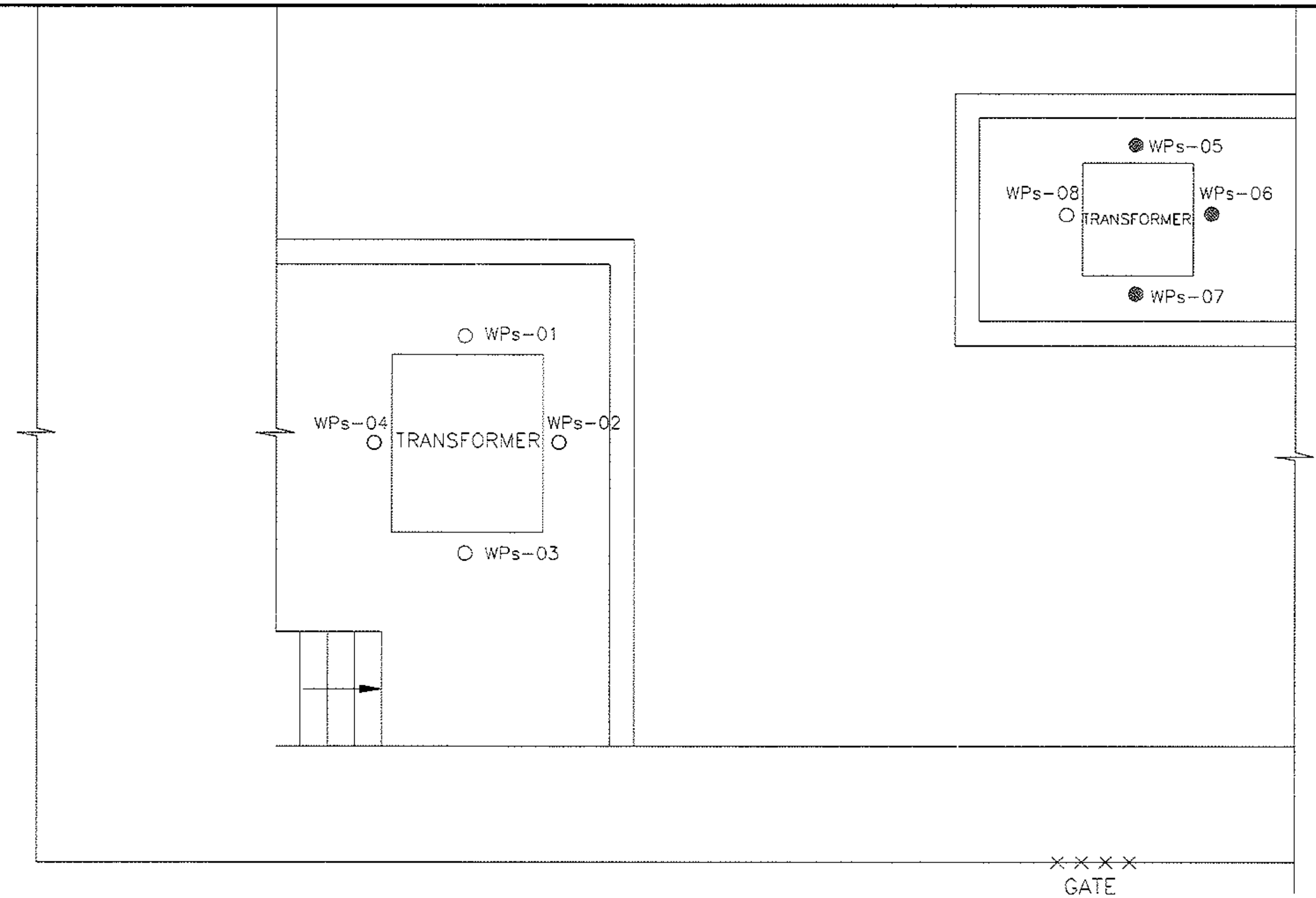
PREPARED FOR

BROOKLYN NAVY YARD DEVELOPMENT CORP.

ERM Environmental Resources Management

SCALE	FIGURE
3/32"=1'	4-6
DATE 4/17/01	

DRAWN:	JOB NO.:	FILE NAME:
Y.S.	X7701.02	X7701031



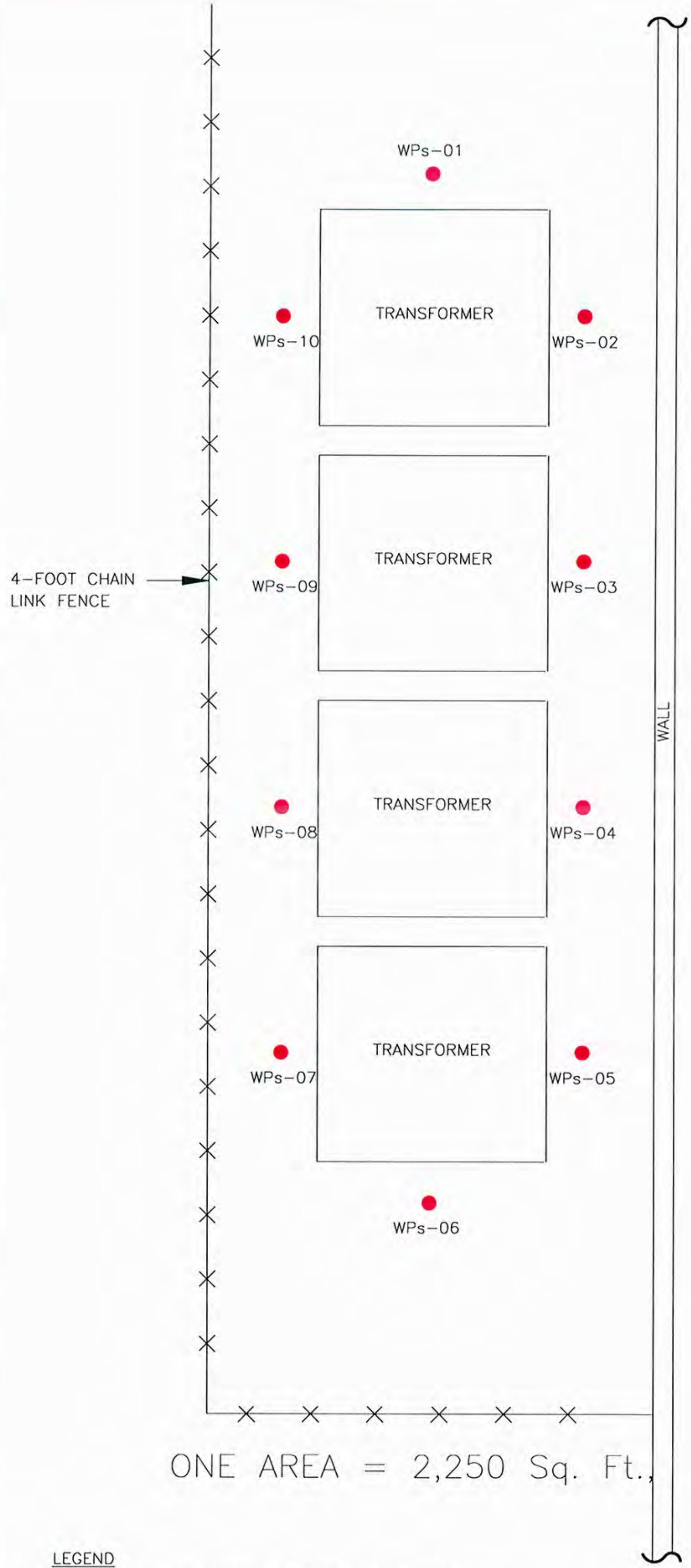
TWO AREAS = 410 Sq. Ft.

LEGEND
- WIPE SAMPLE LOCATION > 10 ug/wipe PCBs
- WIPE SAMPLE LOCATION < 10 ug/wipe PCBs

TITLE
SUBSTATION D – BUILDING #280
THIRD FLOOR
CONCRETE WIPE SAMPLING
LOCATIONS

PREPARED FOR
BROOKLYN NAVY YARD DEVELOPMENT CORP.

ERM Environmental Resources Management			SCALE N.T.S.		FIGURE 4–8
DRAWN G.G.	JOB NO. X7701.02	FILE NAME X7701047	DATE 4/17/01		

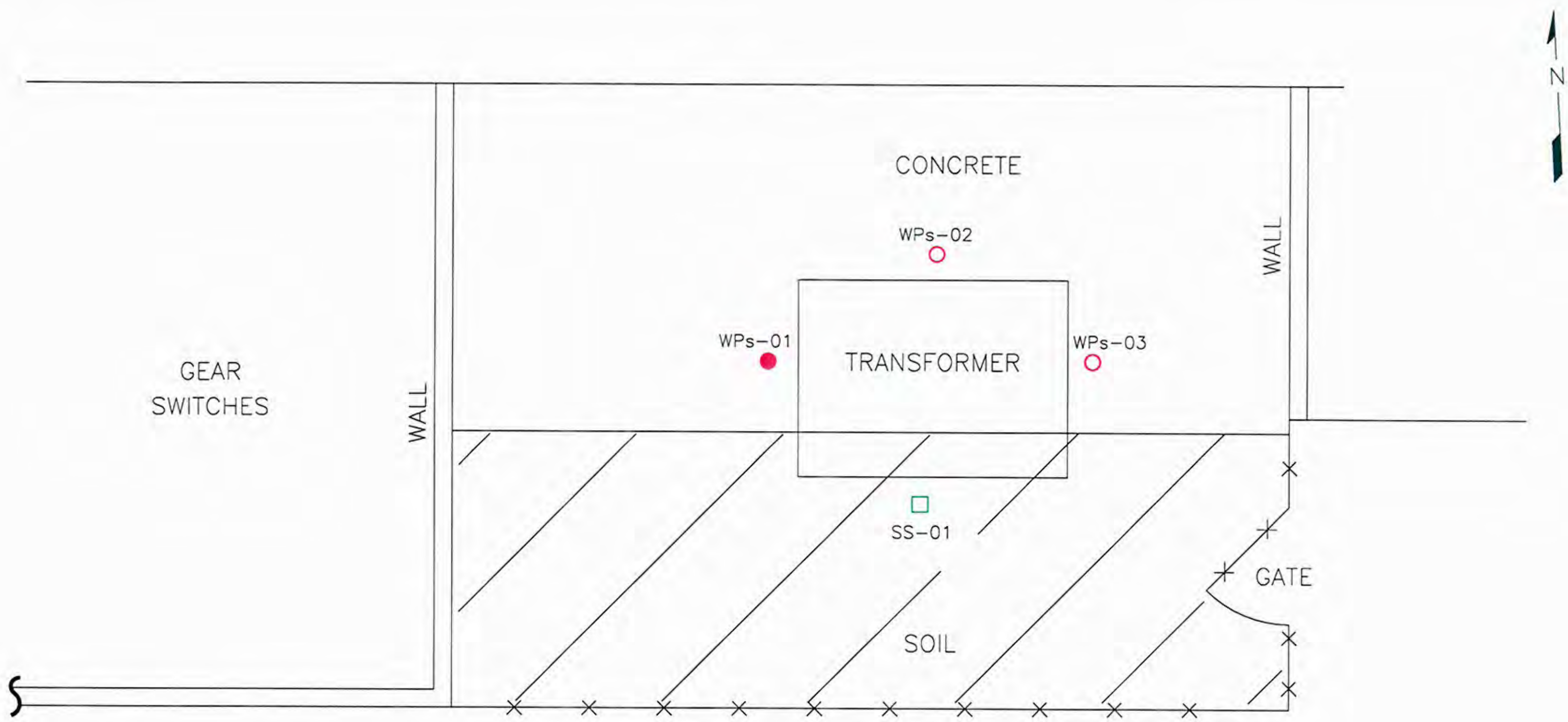


LEGEND

● WIPE SAMPLE LOCATION > 10 ug/wipe PCBs

○ WIPE SAMPLE LOCATION < 10 ug/wipe PCBs

TITLE				
SUBSTATION #1 – BUILDING #4 CONCRETE WIPE SAMPLING LOCATIONS				
PREPARED FOR: BROOKLYN NAVY YARD DEVELOPMENT CORP.				
ERM Environmental Resources Management			SCALE: N.T.S.	FIGURE: 4-9
DRAWN: G.G.	JOB NO.: X7701.02	FILE NAME: X7701048	DATE: 4/17/01	

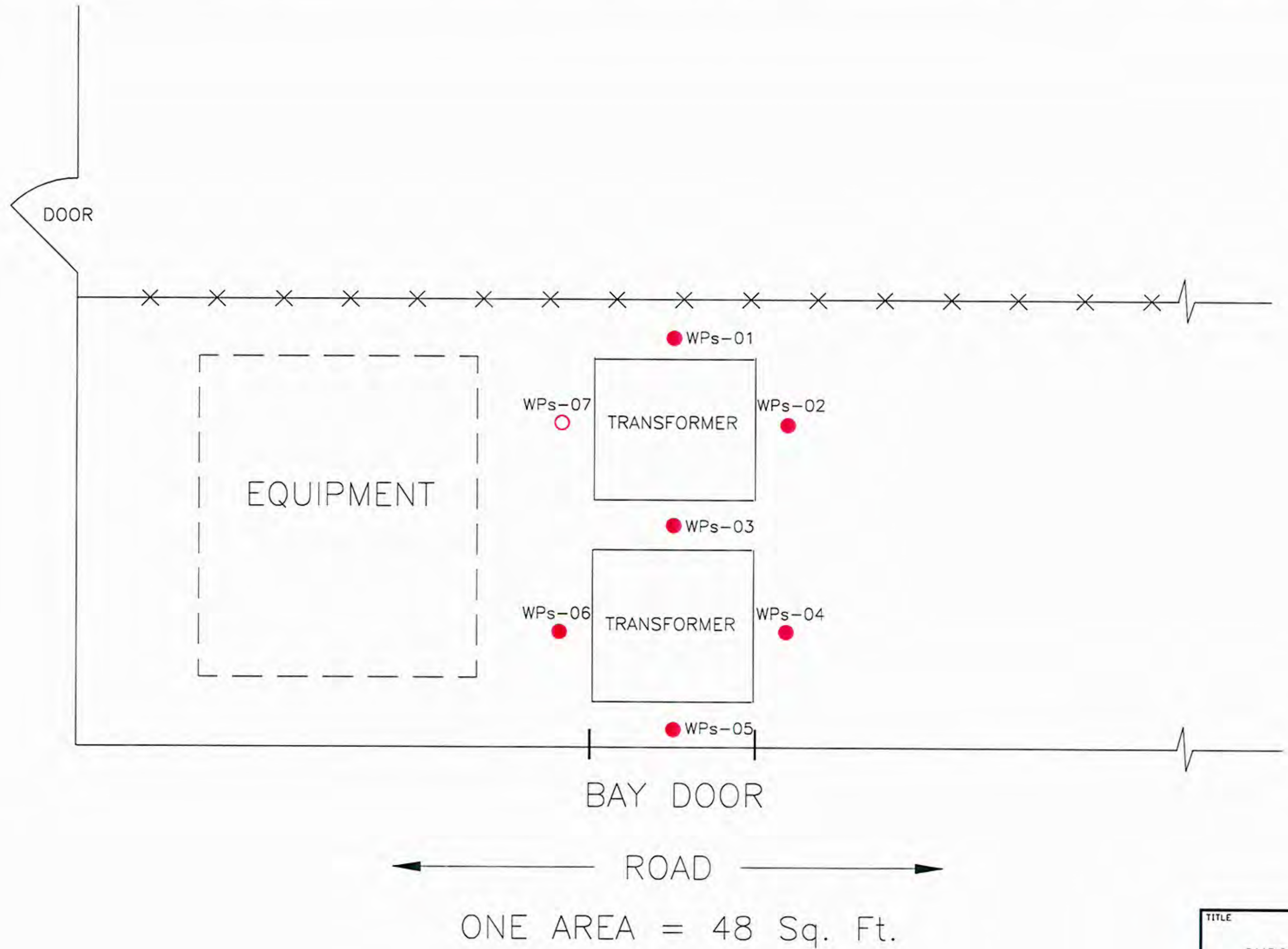


ONE AREA = 300 Sq. Ft.

LEGEND

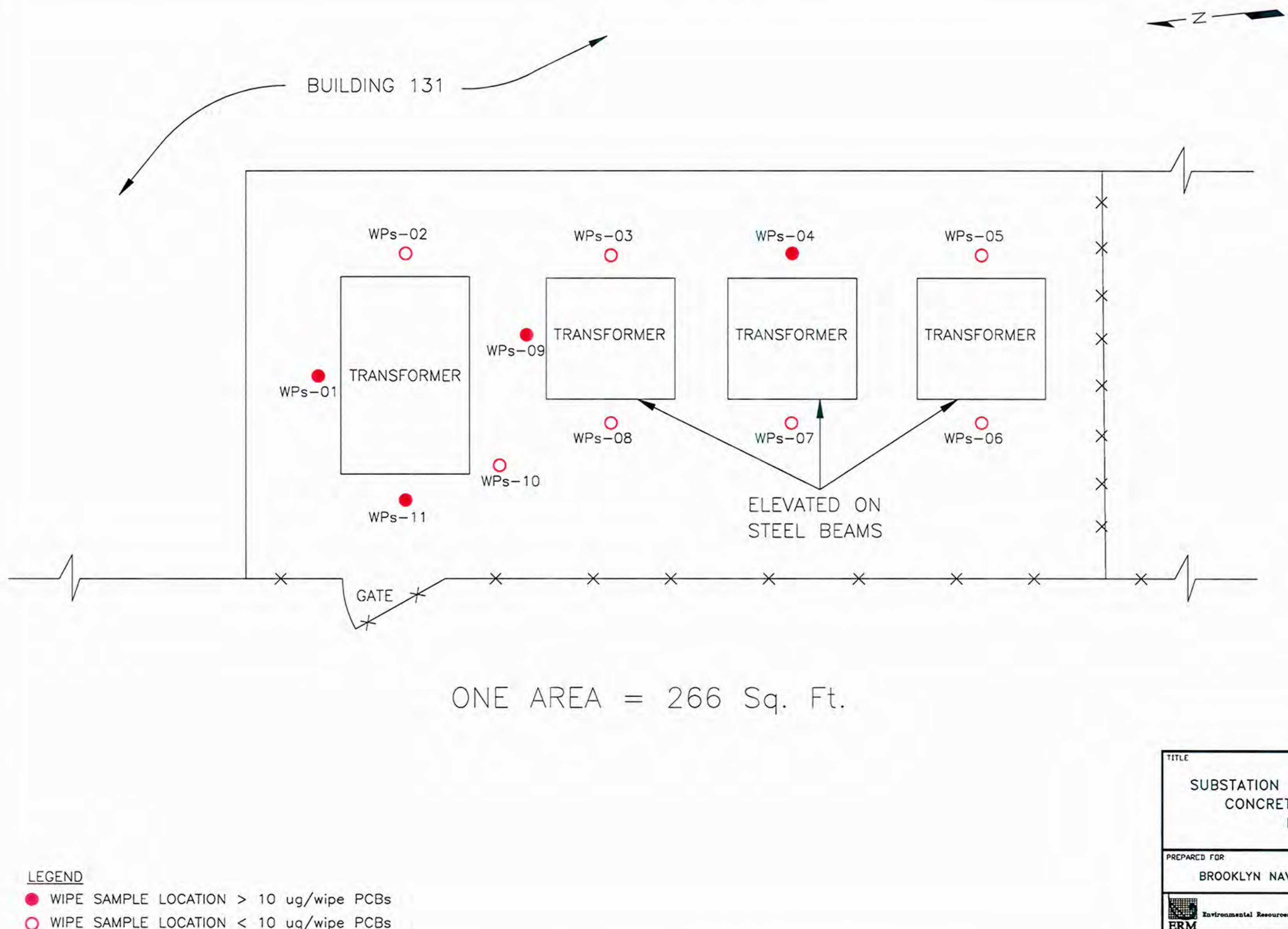
- ● WIPE SAMPLE LOCATION > 10 ug/wipe PCBs
- ○ WIPE SAMPLE LOCATION < 10 ug/wipe PCBs
- ■ SOIL SAMPLE LOCATION > 10 mg/kg PCBs
- □ SOIL SAMPLE LOCATION < 10 mg/kg PCBs

TITLE	SUBSTATION #18 – BUILDING #562 CONCRETE WIPE AND SOIL SAMPLING LOCATIONS
PREPARED FOR	BROOKLYN NAVY YARD DEVELOPMENT CORP.
ERM Environmental Resources Management	SCALE: N.T.S.
DATE	4/17/01
FIGURE	4-12
DRAWN	G.G.
JOB NO.	X7701.02
FILE NAME	X7701051

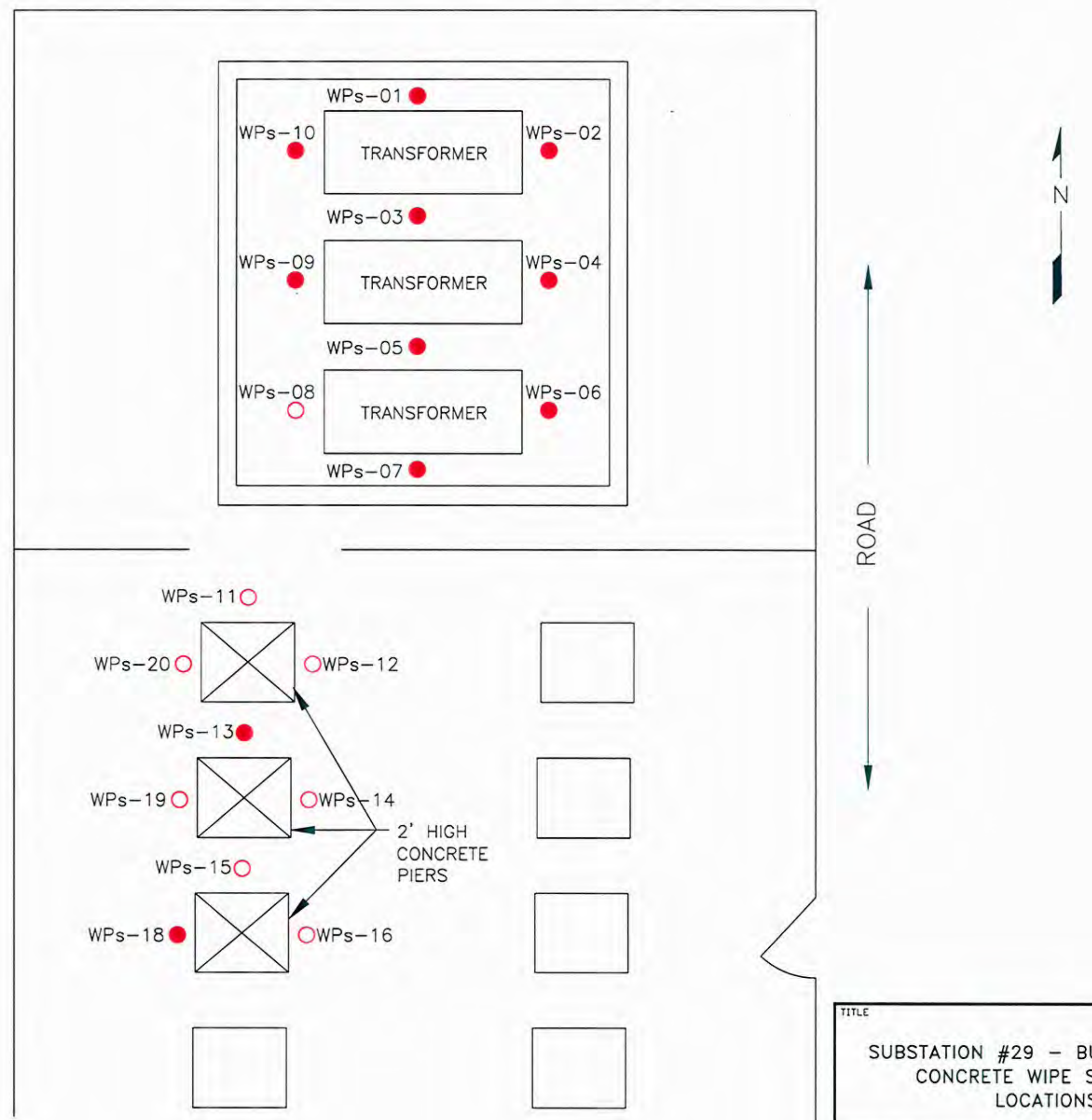


LEGEND
- ● WIPE SAMPLE LOCATION > 10 ug/wipe PCBs
- ○ WIPE SAMPLE LOCATION < 10 ug/wipe PCBs

TITLE			
SUBSTATION #19 - BUILDING #5 CONCRETE WIPE SAMPLING LOCATIONS			
PREPARED FOR: BROOKLYN NAVY YARD DEVELOPMENT CORP.			
ERM Environmental Resources Management		SCALE: N.T.S. / DATE: 4/17/01	FIGURE: 4-13
DRAWN: G.G.	JOB NO: X7701.02	FILE NAME: X7701052	



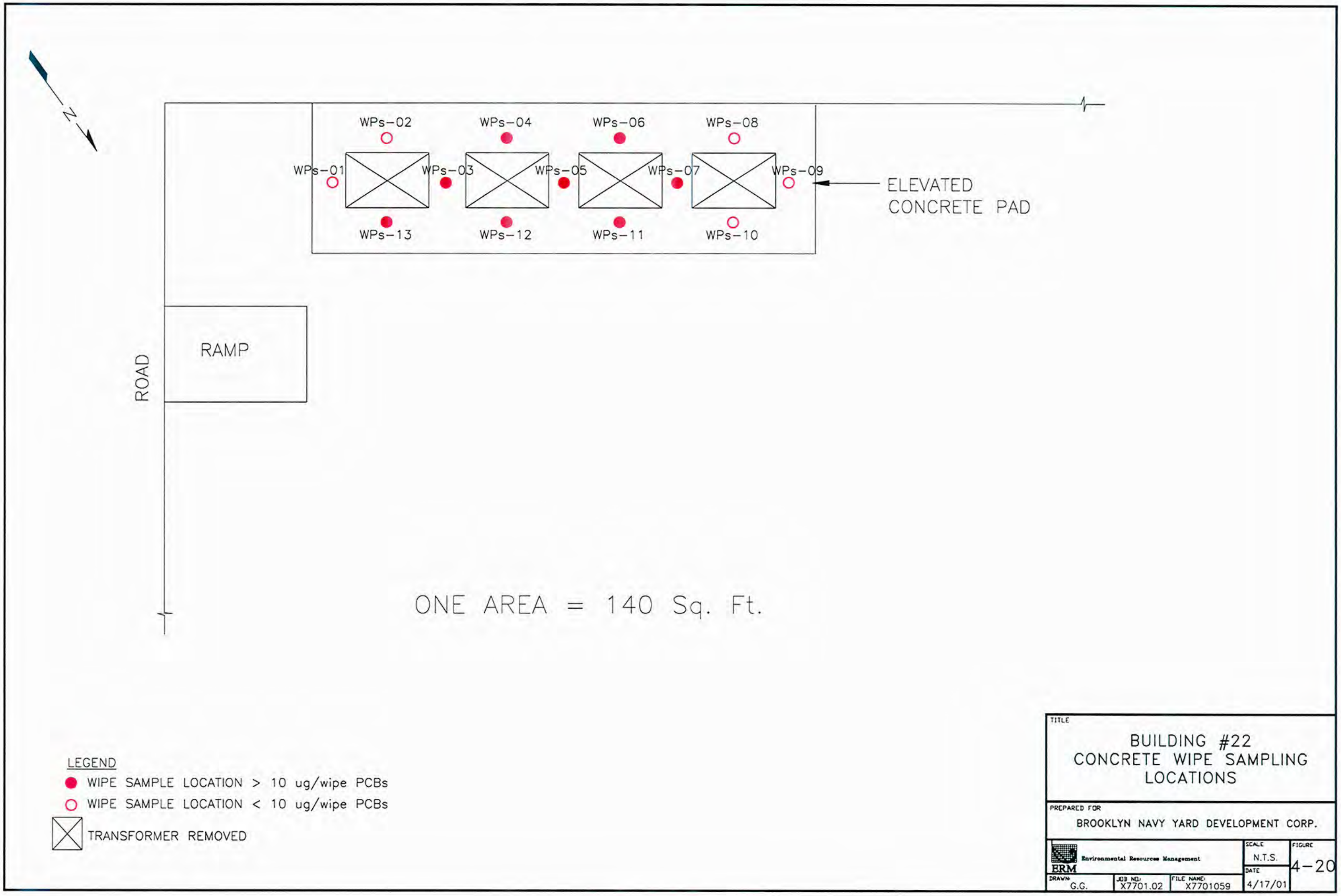
TITLE: SUBSTATION #25 – BUILDING #131 CONCRETE WIPE SAMPLING LOCATIONS				
PREPARED FOR: BROOKLYN NAVY YARD DEVELOPMENT CORP.				
ERM Environmental Resources Management			SCALE: N.T.S.	FIGURE: 4–16
DRAWN: G.G.	JOB NO.: X7701.02	FILE NAME: X7701055	DATE: 4/17/01	



LEGEND
- ● WIPE SAMPLE LOCATION > 10 ug/wipe PCBs
- ○ WIPE SAMPLE LOCATION < 10 ug/wipe PCBs
- ☒ TRANSFORMER REMOVED

ONE AREA = 341 Sq. Ft.

TITLE	SUBSTATION #29 – BUILDING #664 CONCRETE WIPE SAMPLING LOCATIONS
PREPARED FOR	BROOKLYN NAVY YARD DEVELOPMENT CORP.
ERM Environmental Resources Management	SCALE: N.T.S.
DRAWN: G.G./Y.S.	JOB NO: X7701.02
FILE NAME: X7701057	DATE: 5/23/01
FIGURE	4-18


N
WPs-01
WPs-02
WPs-03
WPs-04
WPs-05
WPs-06
WPs-07
WPs-08
WPs-09
WPs-10
WPs-11
WPs-12
WPs-13
ELEVATED CONCRETE PAD
RAMP
ROAD
ONE AREA = 140 Sq. Ft.
LEGEND
WIPE SAMPLE LOCATION > 10 ug/wipe PCBs
WIPE SAMPLE LOCATION < 10 ug/wipe PCBs
TRANSFORMER REMOVED
TITLE
BUILDING #22
CONCRETE WIPE SAMPLING LOCATIONS
PREPARED FOR
BROOKLYN NAVY YARD DEVELOPMENT CORP.
ERM Environmental Resources Management
DRAWN: G.G.
JOB NO.: X7701.02
FILE NAME: X7701059
SCALE N.T.S.
DATE 4/17/01
FIGURE 4-20

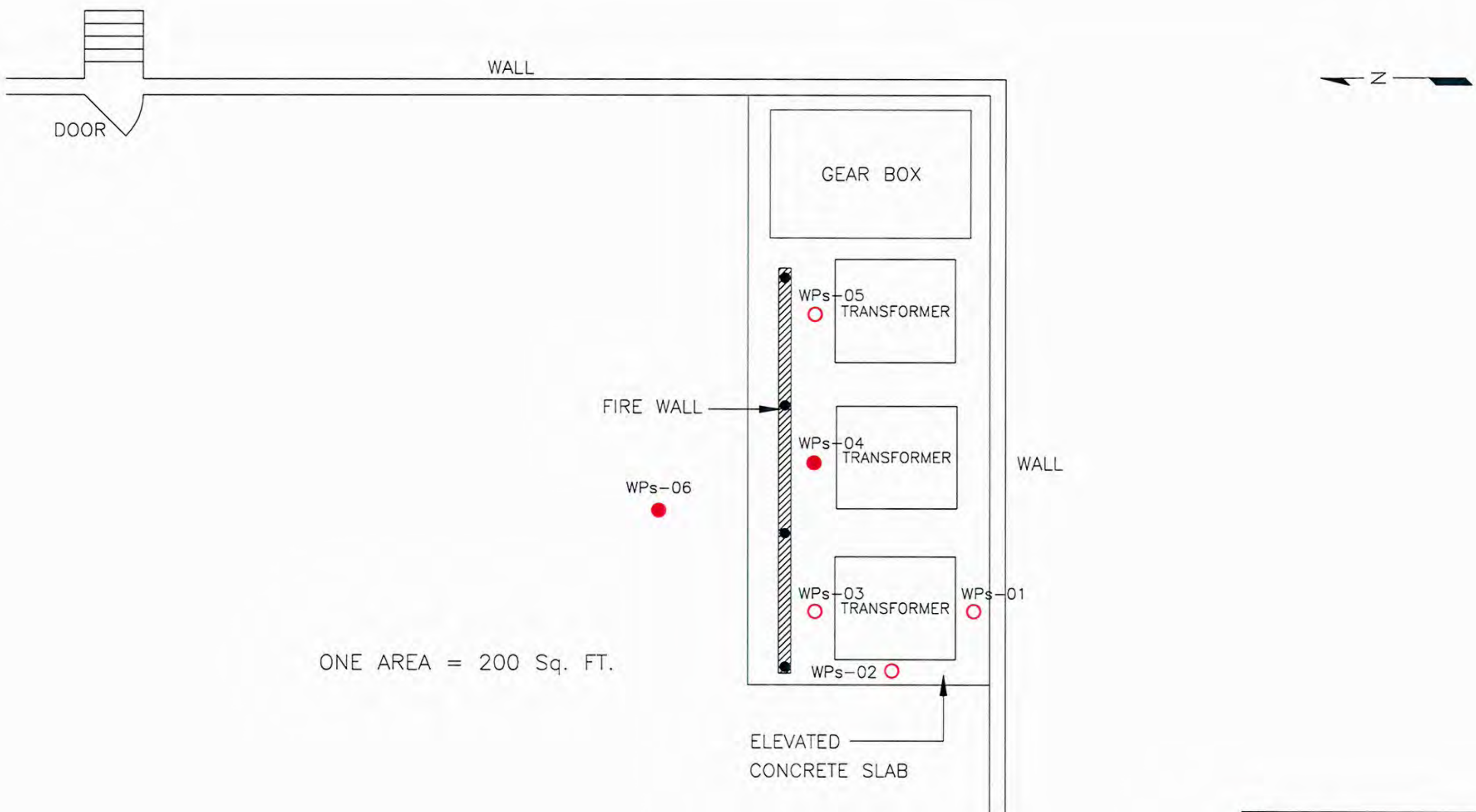
TITLE

BUILDING #41
CONCRETE WIPE SAMPLING
LOCATIONS

PREPARED FOR

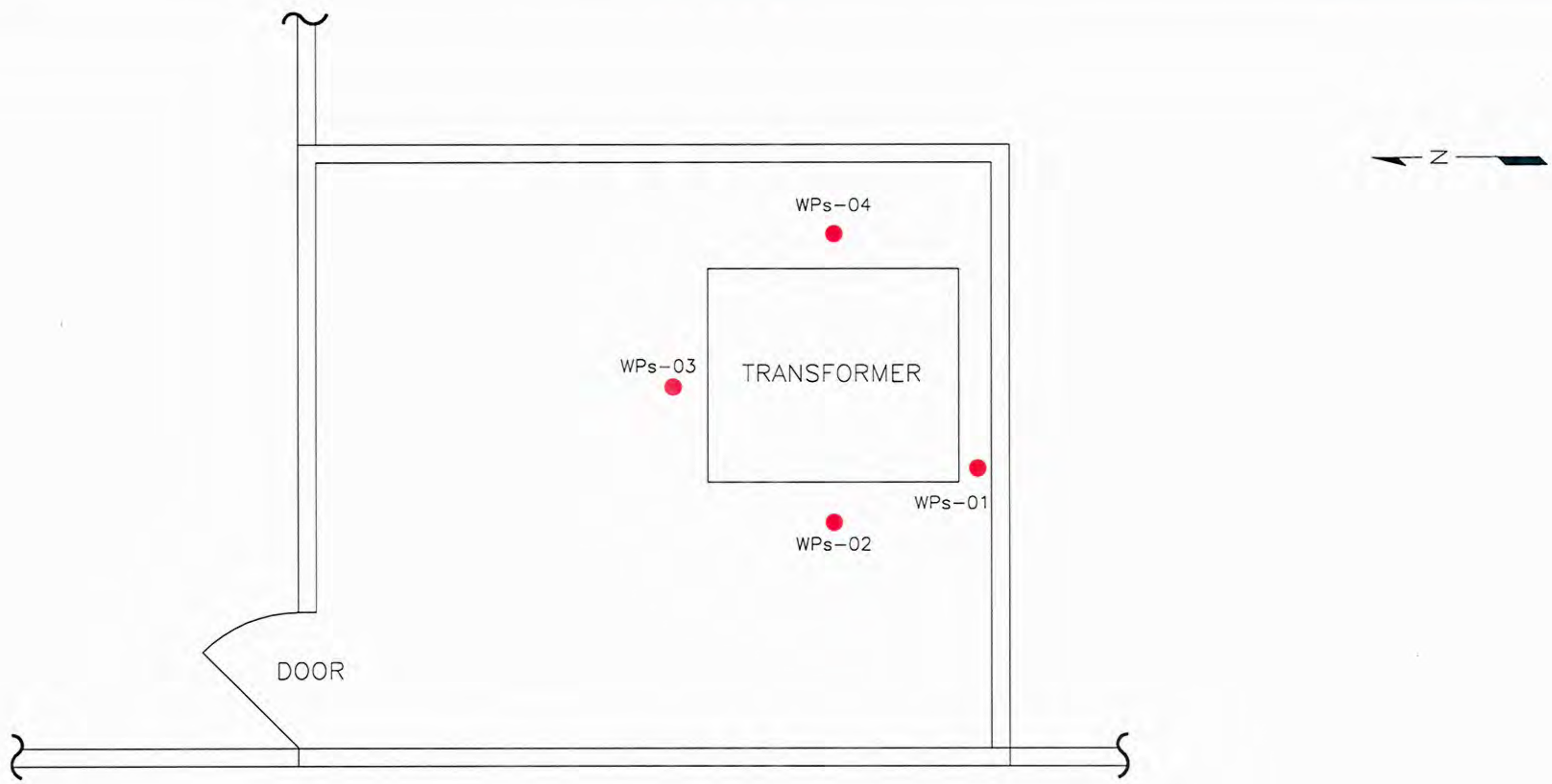
BROOKLYN NAVY YARD DEVELOPMENT CORP.

ERM Environmental Resources Management		SCALE N.T.S.	FIGURE 4-21
DRAWN G.G.	JOB NO: X7701.02	FILE NAME: X7701060	DATE 4/17/01



LEGEND
- ● WIPE SAMPLE LOCATION > 10 ug/wipe PCBs
- ○ WIPE SAMPLE LOCATION < 10 ug/wipe PCBs

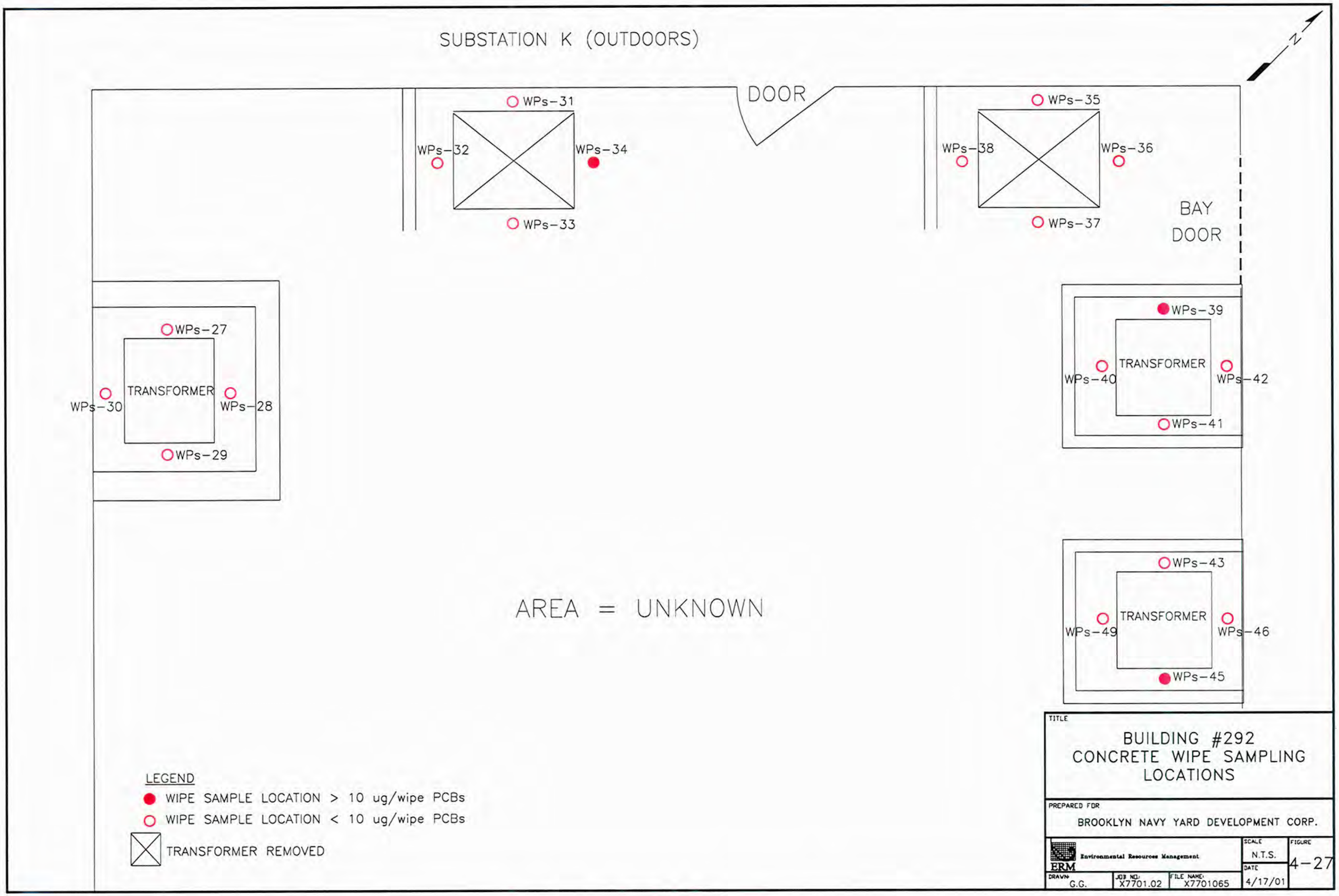
TITLE	BUILDING #200 CONCRETE WIPE SAMPLING LOCATIONS
PREPARED FOR	BROOKLYN NAVY YARD DEVELOPMENT CORP.
ERM Environmental Resources Management	SCALE N.T.S.
DATE	4/17/01
FIGURE	4-24
DRAWN	G.G.
JOB NO.	X7701.02
FILE NAME	X7701063



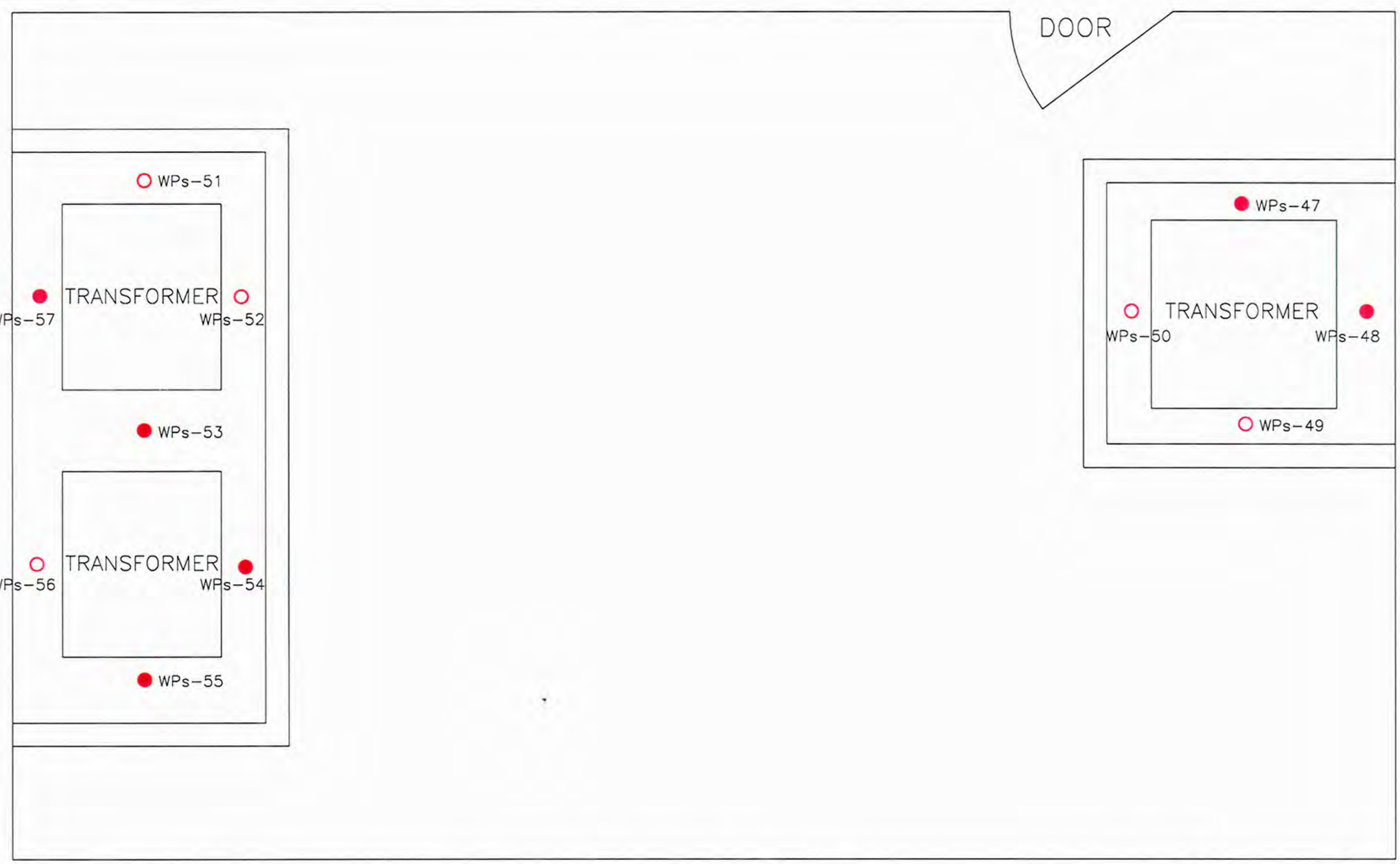
ONE AREA = 240 Sq. FT.

LEGEND
- ● WIPE SAMPLE LOCATION > 10 ug/wipe PCBs
- ○ WIPE SAMPLE LOCATION < 10 ug/wipe PCBs

TITLE	BUILDING #275 CONCRETE WIPE SAMPLING LOCATIONS
PREPARED FOR	BROOKLYN NAVY YARD DEVELOPMENT CORP.
ERM Environmental Resources Management	SCALE: N.T.S.
FIGURE	4-26
DRAWN	G.G.
JOB NO.	X7701.02
FILE NAME	X7701064
DATE	4/17/01



SUBSTATION K (OUTDOORS)
DOOR
BAY DOOR
WPs-27
WPs-28
WPs-29
WPs-30
TRANSFORMER
WPs-31
WPs-32
WPs-33
WPs-34
WPs-35
WPs-36
WPs-37
WPs-38
WPs-39
WPs-40
WPs-41
WPs-42
WPs-43
WPs-45
WPs-46
WPs-49
AREA = UNKNOWN
LEGEND
WIPE SAMPLE LOCATION > 10 ug/wipe PCBs
WIPE SAMPLE LOCATION < 10 ug/wipe PCBs
TRANSFORMER REMOVED
TITLE
BUILDING #292
CONCRETE WIPE SAMPLING LOCATIONS
PREPARED FOR
BROOKLYN NAVY YARD DEVELOPMENT CORP.
ERM Environmental Resources Management
SCALE N.T.S.
FIGURE 4-27
DATE 4/17/01
DRAWN G.G.
JOB NO: X7701.02
FILE NAME: X7701065



AREA = UNKNOWN

LEGEND

● WIPE SAMPLE LOCATION > 10 ug/wipe PCBs

○ WIPE SAMPLE LOCATION < 10 ug/wipe PCBs

☒ TRANSFORMER REMOVED

TITLE

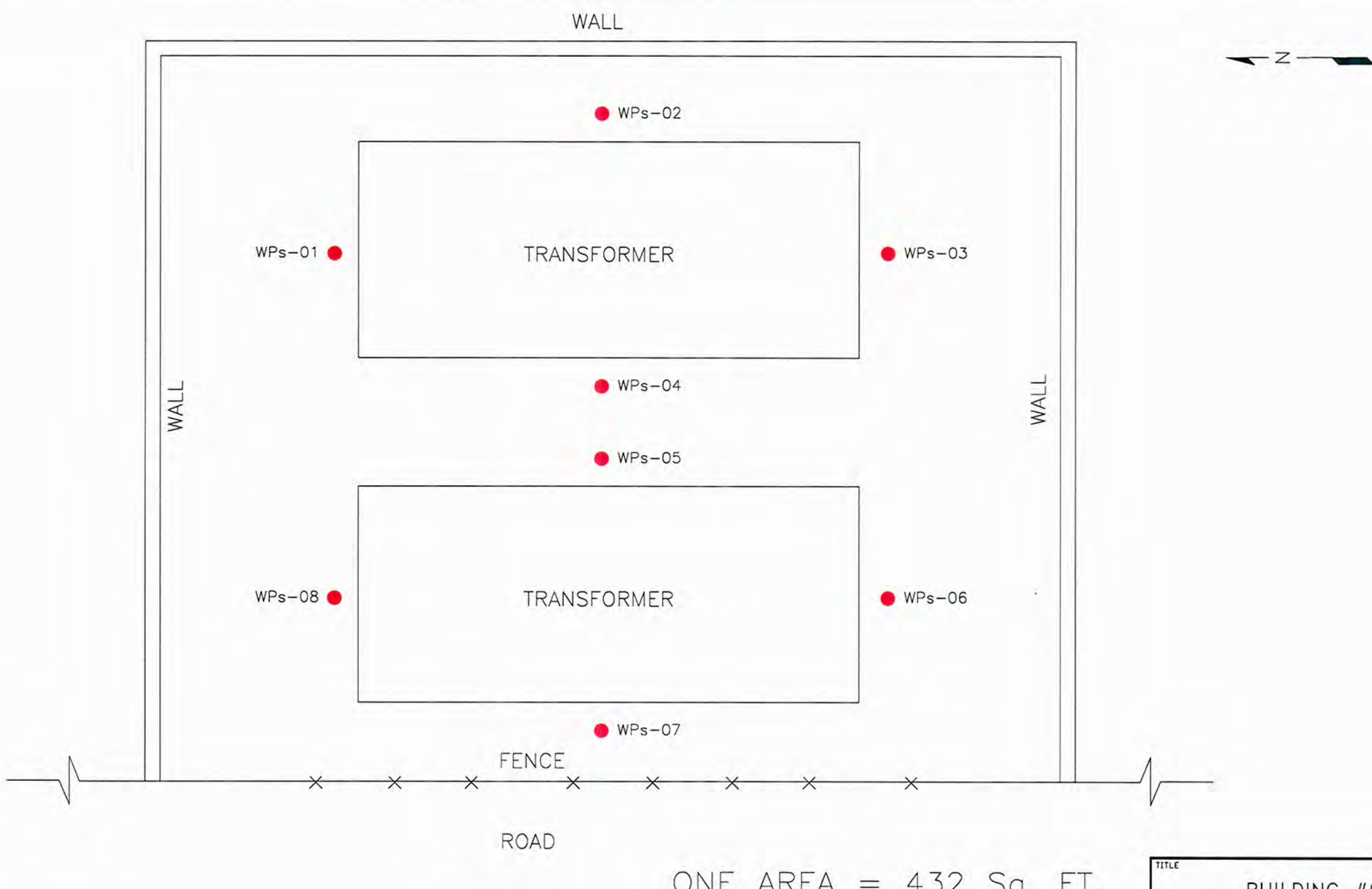
BUILDING #292
CONCRETE WIPE SAMPLING
LOCATIONS

PREPARED FOR

BROOKLYN NAVY YARD DEVELOPMENT CORP.

ERM Environmental Resources Management

DRAWN	JOB NO.	FILE NAME	SCALE / DATE	FIGURE
G.G.	X7701.02	X7701067	N.T.S. / 4/17/01	4-28



LEGEND
- ● WIPE SAMPLE LOCATION > 10 ug/wipe PCBs
- ○ WIPE SAMPLE LOCATION < 10 ug/wipe PCBs

TITLE	BUILDING #664 CONCRETE WIPE SAMPLING LOCATIONS
PREPARED FOR	BROOKLYN NAVY YARD DEVELOPMENT CORP.
ERM Environmental Resources Management	
SCALE	N.T.S.
DATE	4/17/01
FIGURE	4-29
DRAWN	G.G.
JOB NO.	X7701.02
FILE NAME	X7701068

FIGURE 4-31
IMMUNOASSAY VERSUS OFF-SITE LABORATORY WIPE SAMPLE PCB RESULTS
BROOKLYN NAVY YARD, BROOKLYN NEW YORK

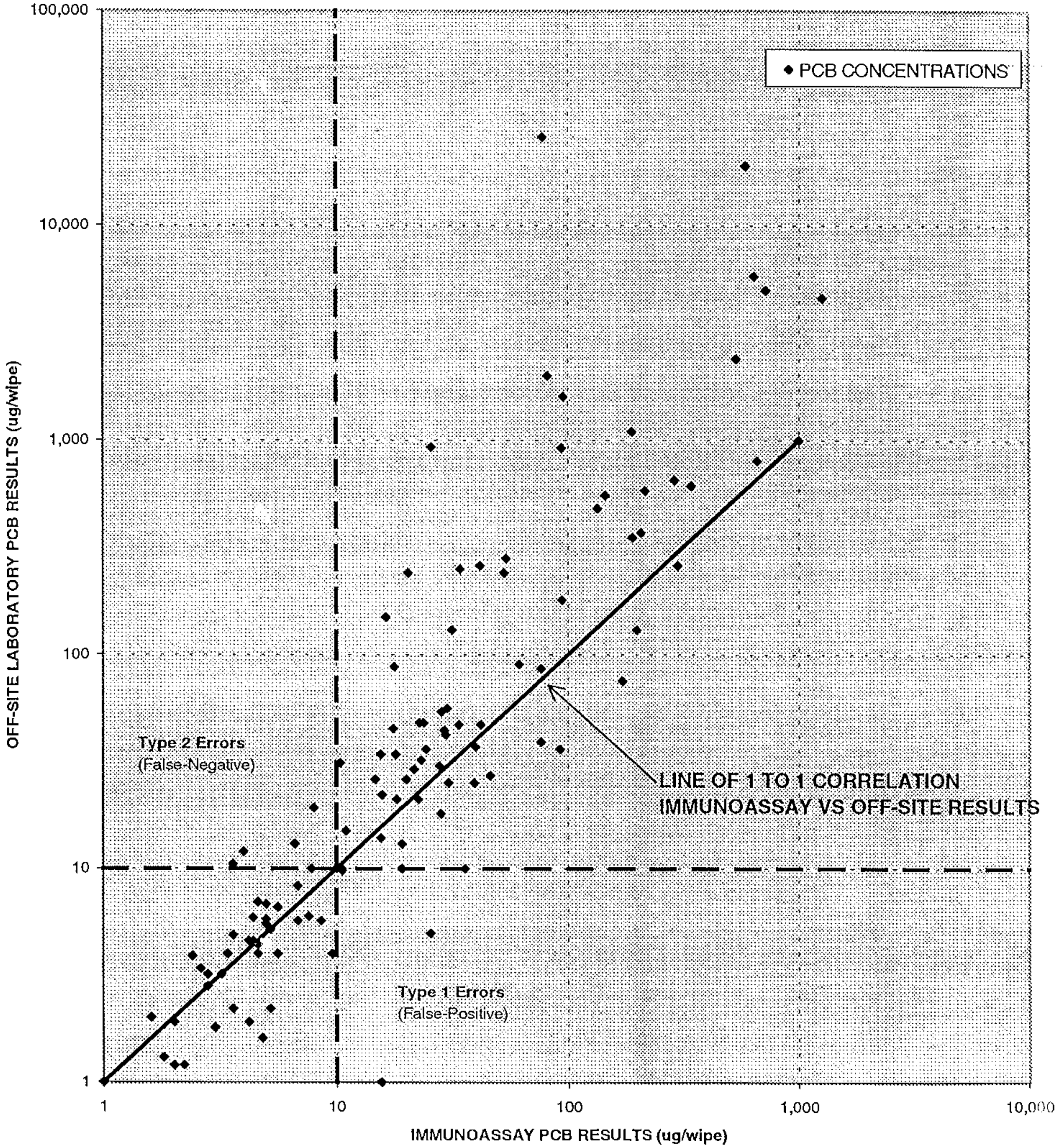


FIGURE 4-32
IMMUNOASSAY VERSUS OFF-SITE LABORATORY SURFICIAL SOIL SAMPLE PCB RESULTS
BROOKLYN NAVY YARD, BROOKLYN NEW YORK

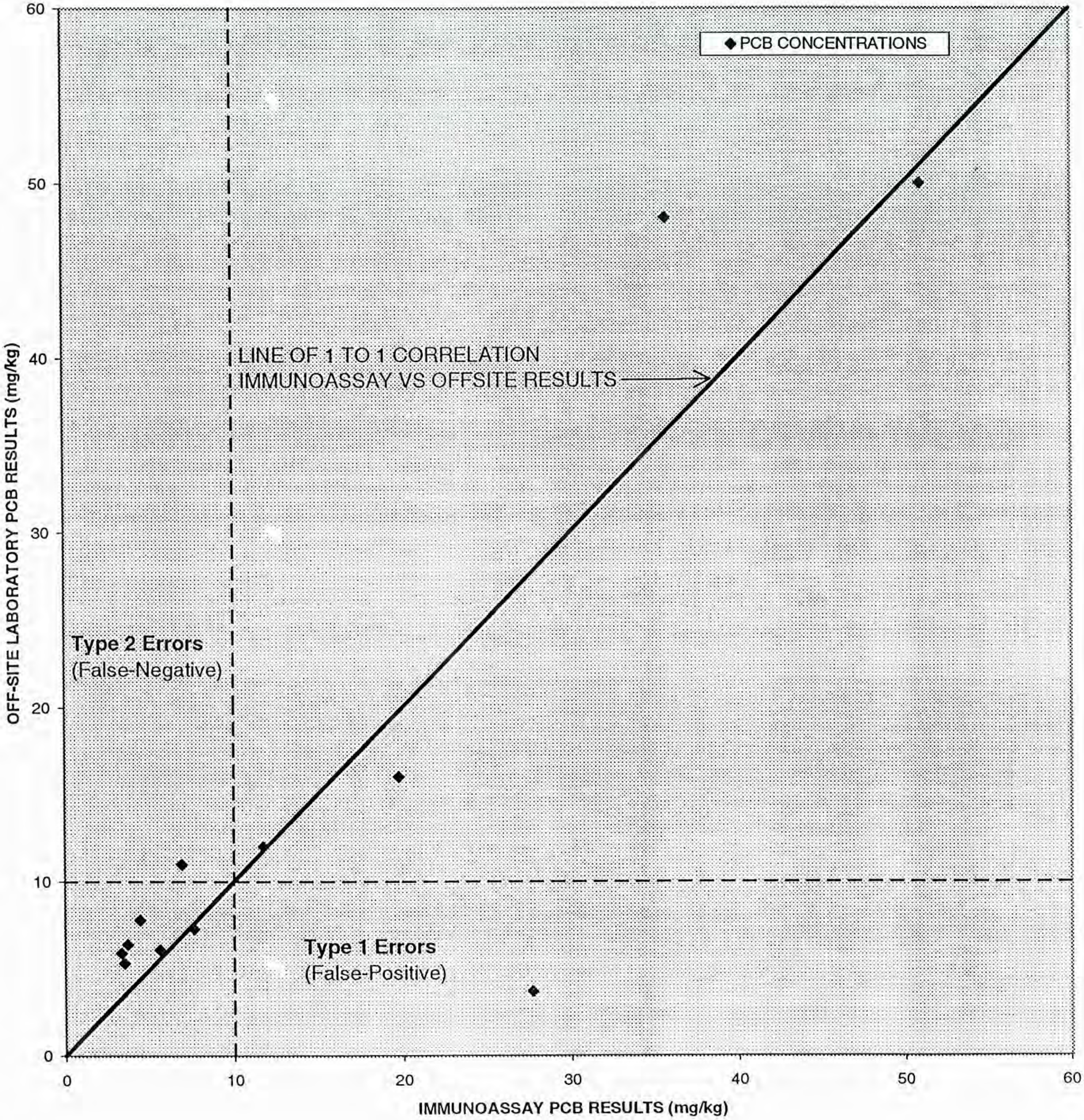
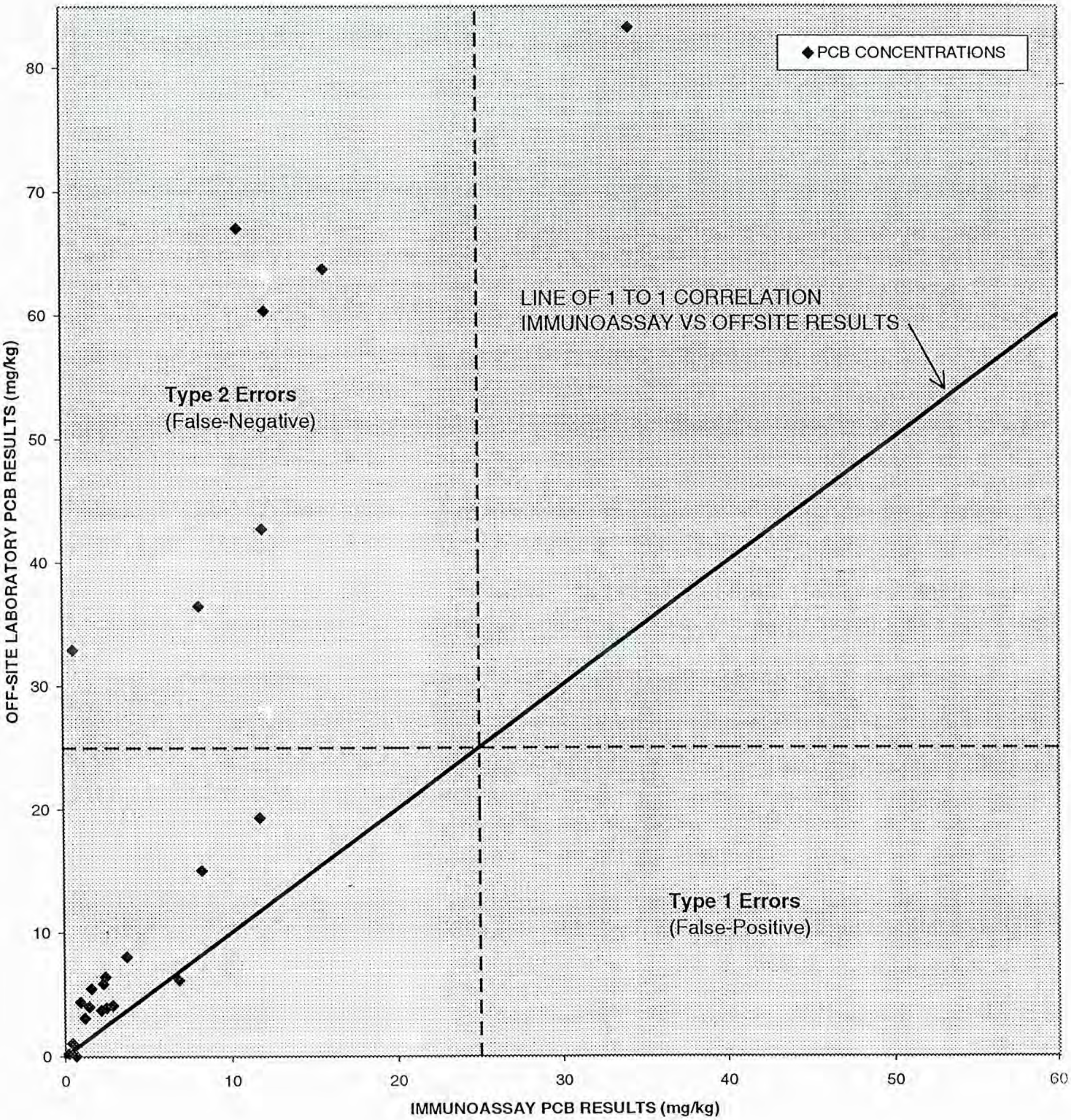
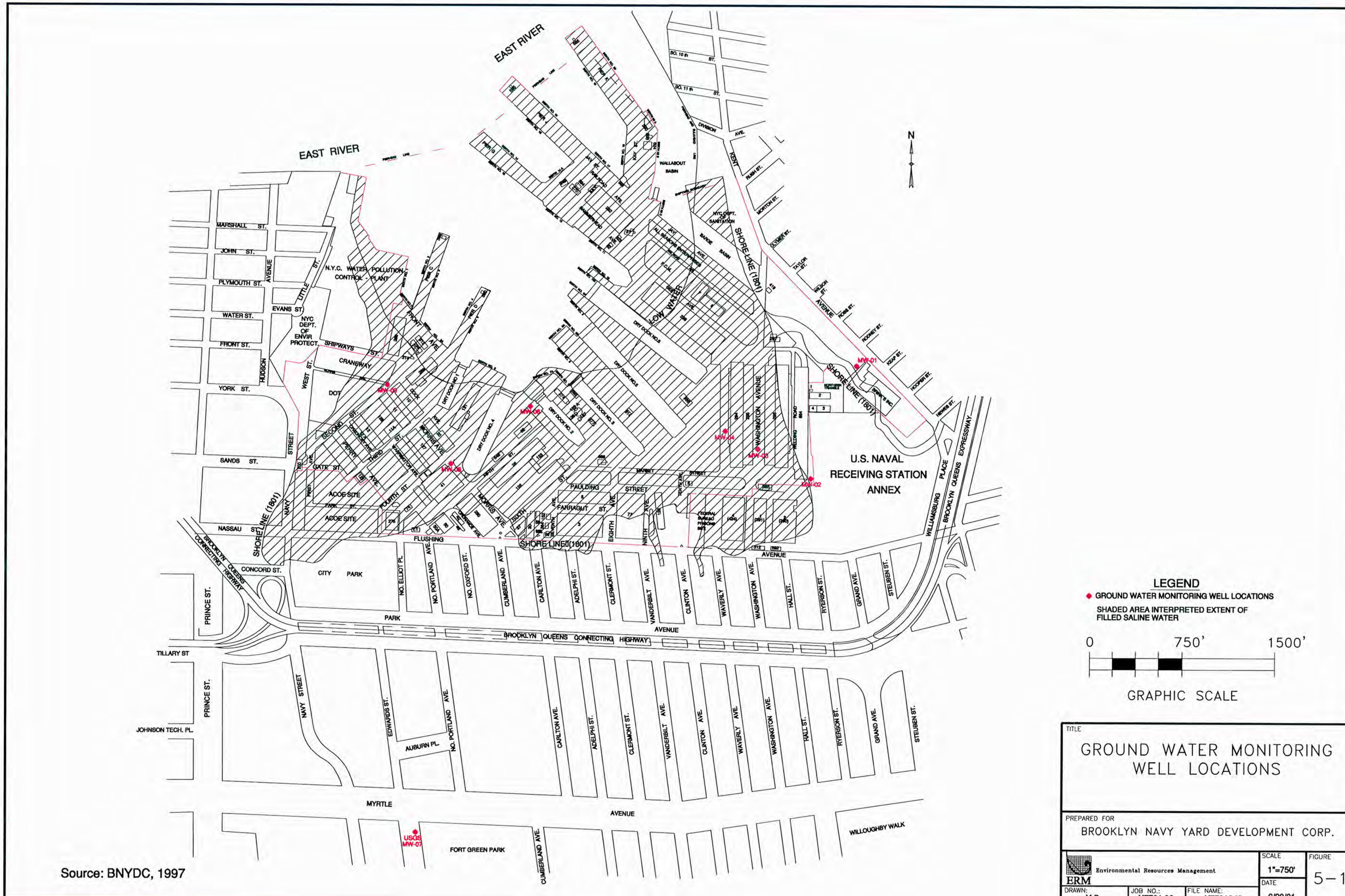


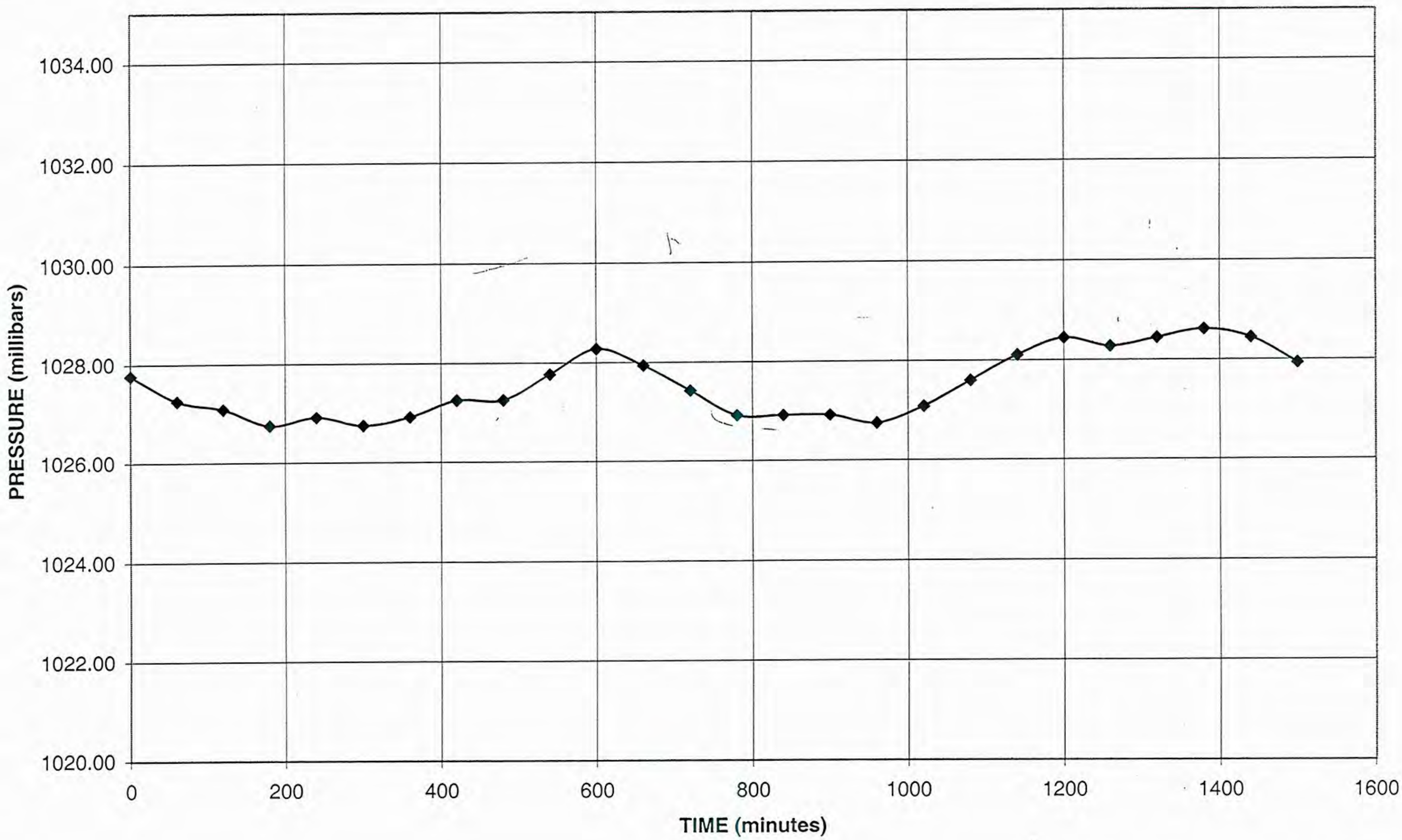
FIGURE 4-33
IMMUNOASSAY VERSUS OFF-SITE LABORATORY TEST PIT SOIL SAMPLE PCB RESULTS
BROOKLYN NAVY YARD, BROOKLYN NEW YORK





Source: BNYDC, 1997

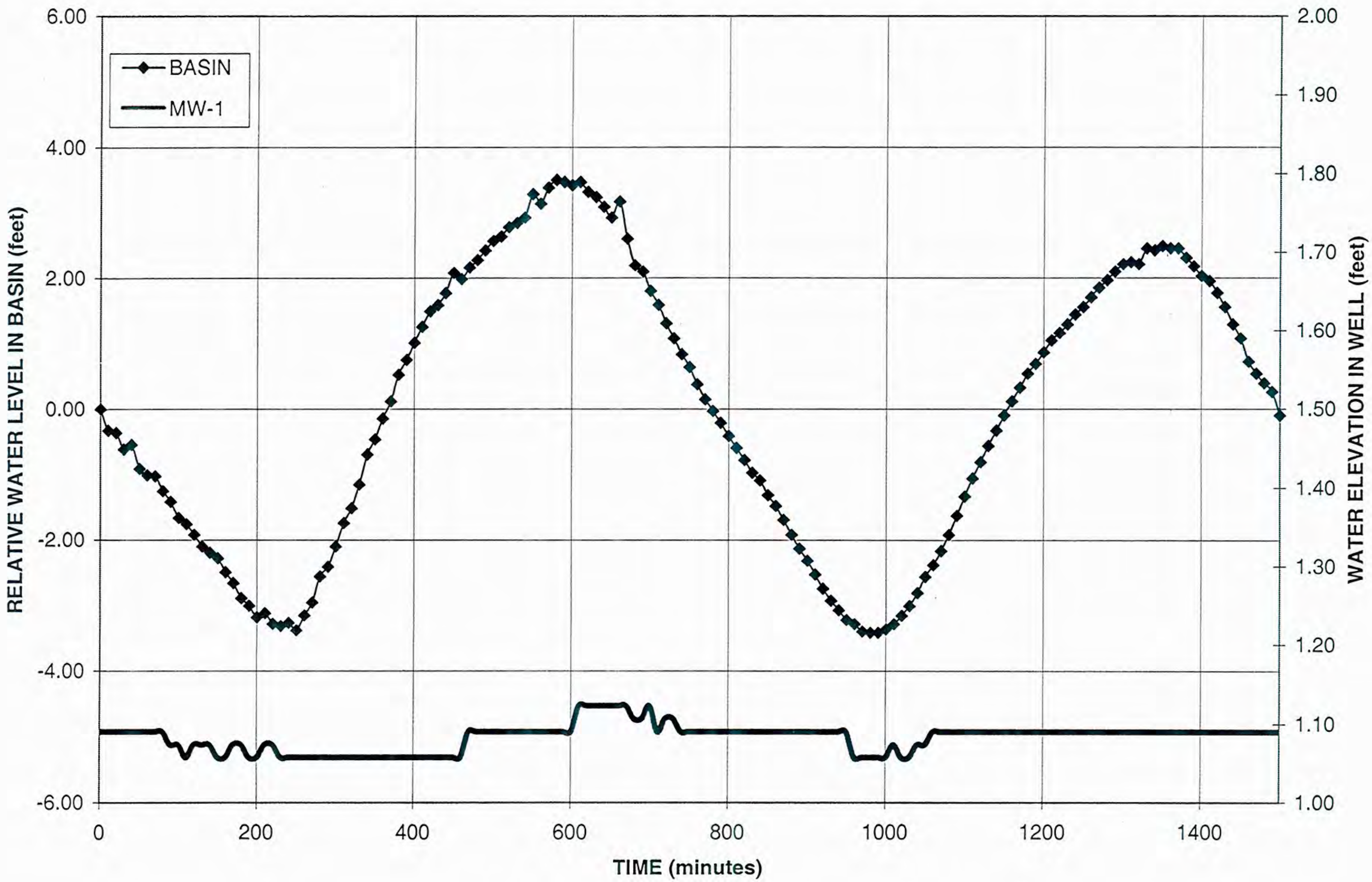
FIGURE 5-2
AVERAGE BAROMETRIC PRESSURE
TIDAL INFLUENCE STUDY, BROOKLYN NAVY YARD, BROOKLYN, NY



Source: NOAA, National Climatic Data Center
Average of Laguardia and JFK Airports

ERM Project X7701

FIGURE 5-3
TIDAL INFLUENCE STUDY GROUND WATER LEVELS: MW-1
BROOKLYN NAVY YARD, BROOKLYN, NY



ERM Project X7701

FIGURE 5-4
TIDAL INFLUENCE STUDY GROUND WATER LEVELS: MW-2
BROOKLYN NAVY YARD, BROOKLYN, NY

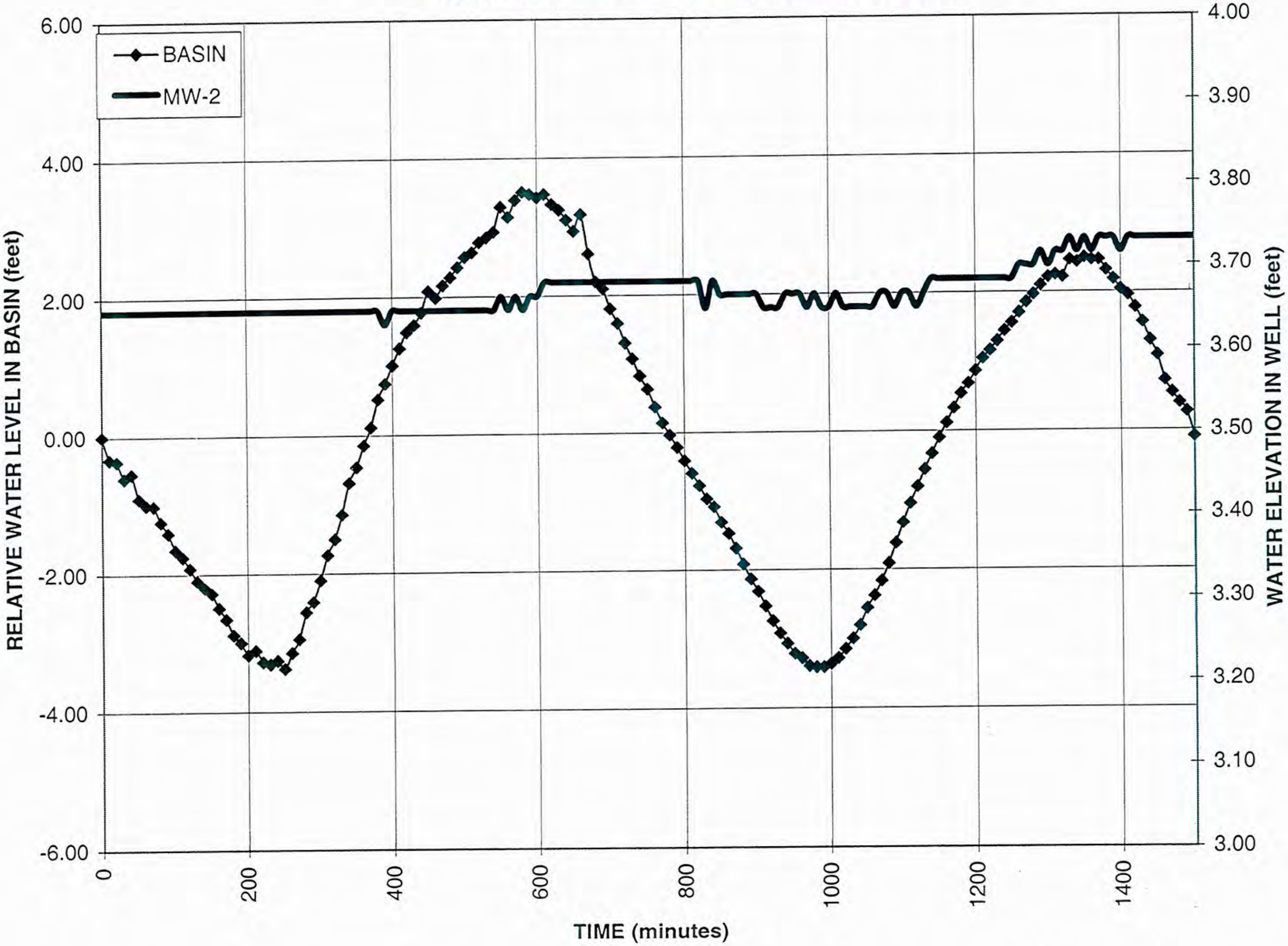


FIGURE 5-5
TIDAL INFLUENCE STUDY GROUND WATER LEVELS: MW-3
BROOKLYN NAVY YARD, BROOKLYN, NY

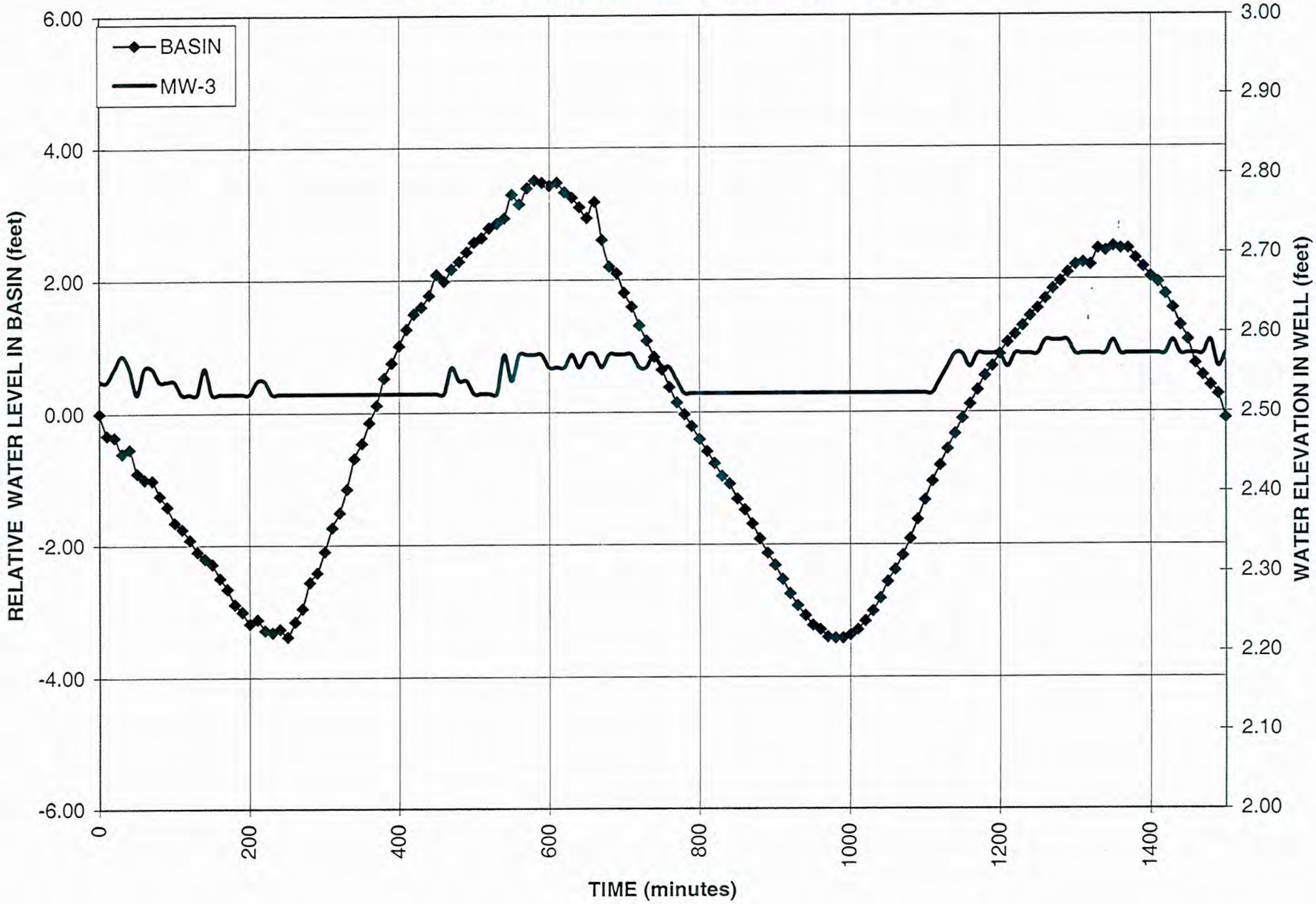


FIGURE 5-6
TIDAL INFLUENCE STUDY GROUND WATER LEVELS: MW-4
BROOKLYN NAVY YARD, BROOKLYN, NY

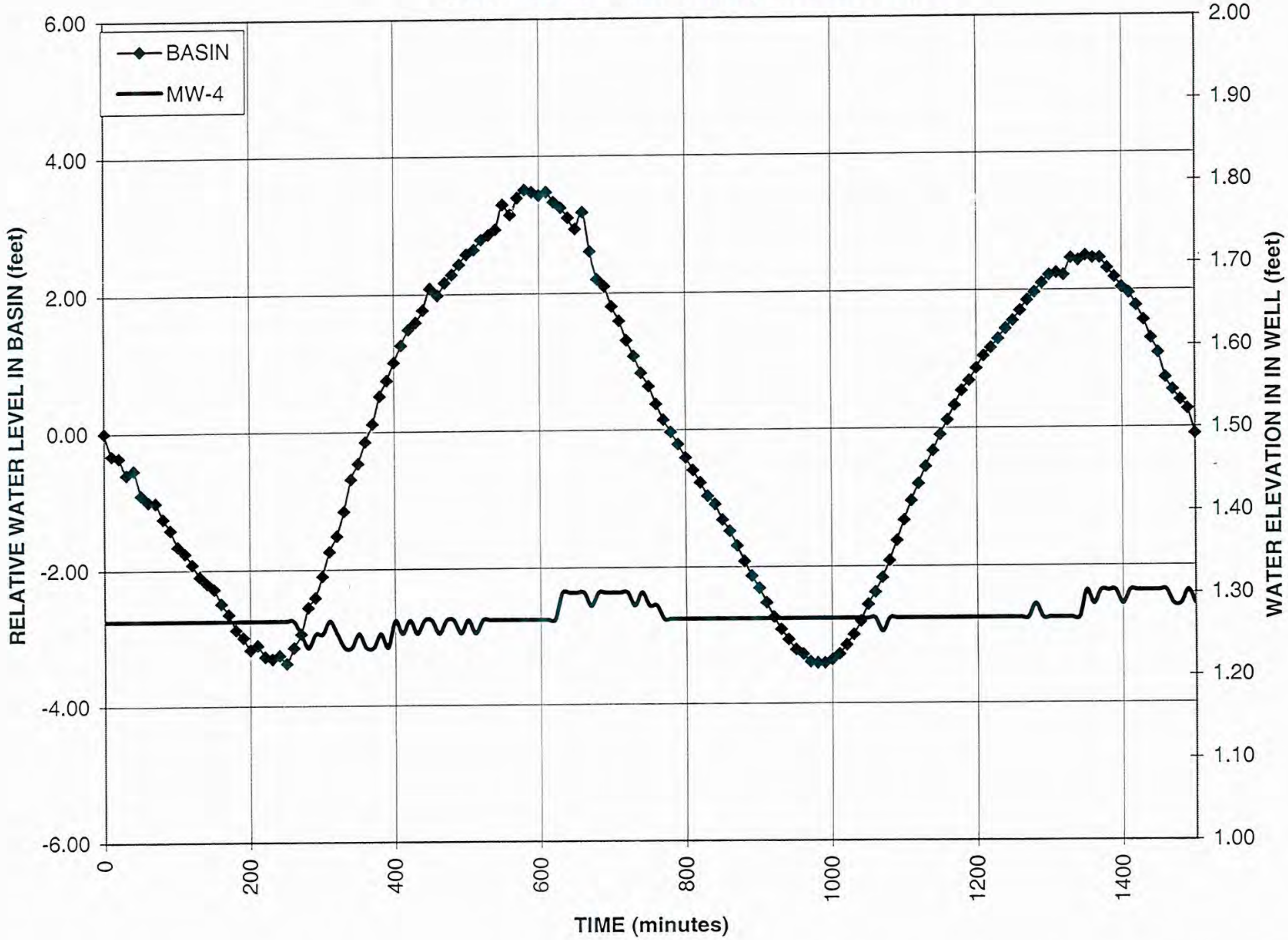


FIGURE 5-7
TIDAL INFLUENCE STUDY GROUND WATER LEVELS: MW-6
BROOKLYN NAVY YARD, BROOKLYN, NY

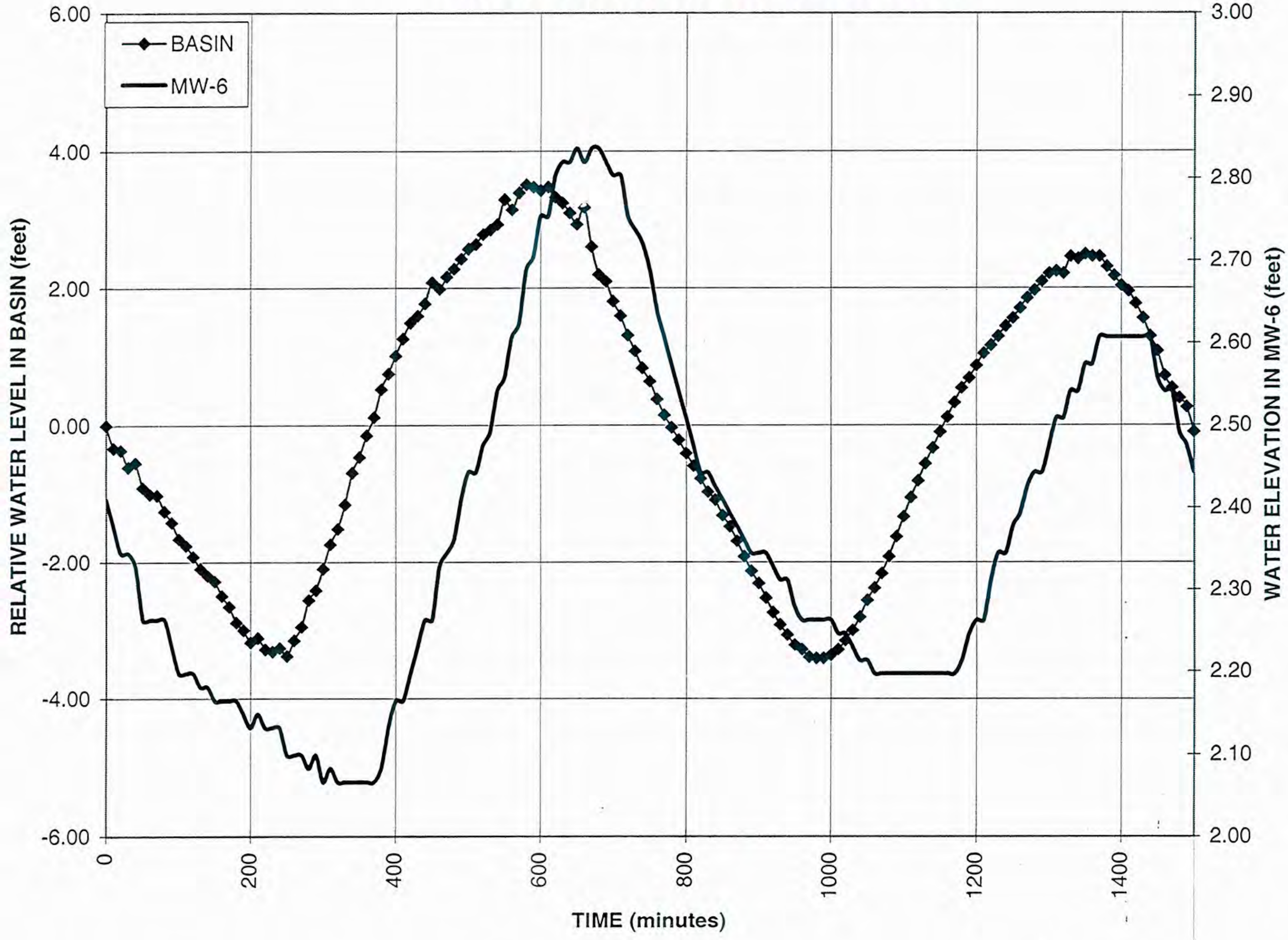


FIGURE 5-8
TIDAL INFLUENCE STUDY GROUND WATER LEVELS: MW-7
BROOKLYN NAVY YARD, BROOKLYN, NY

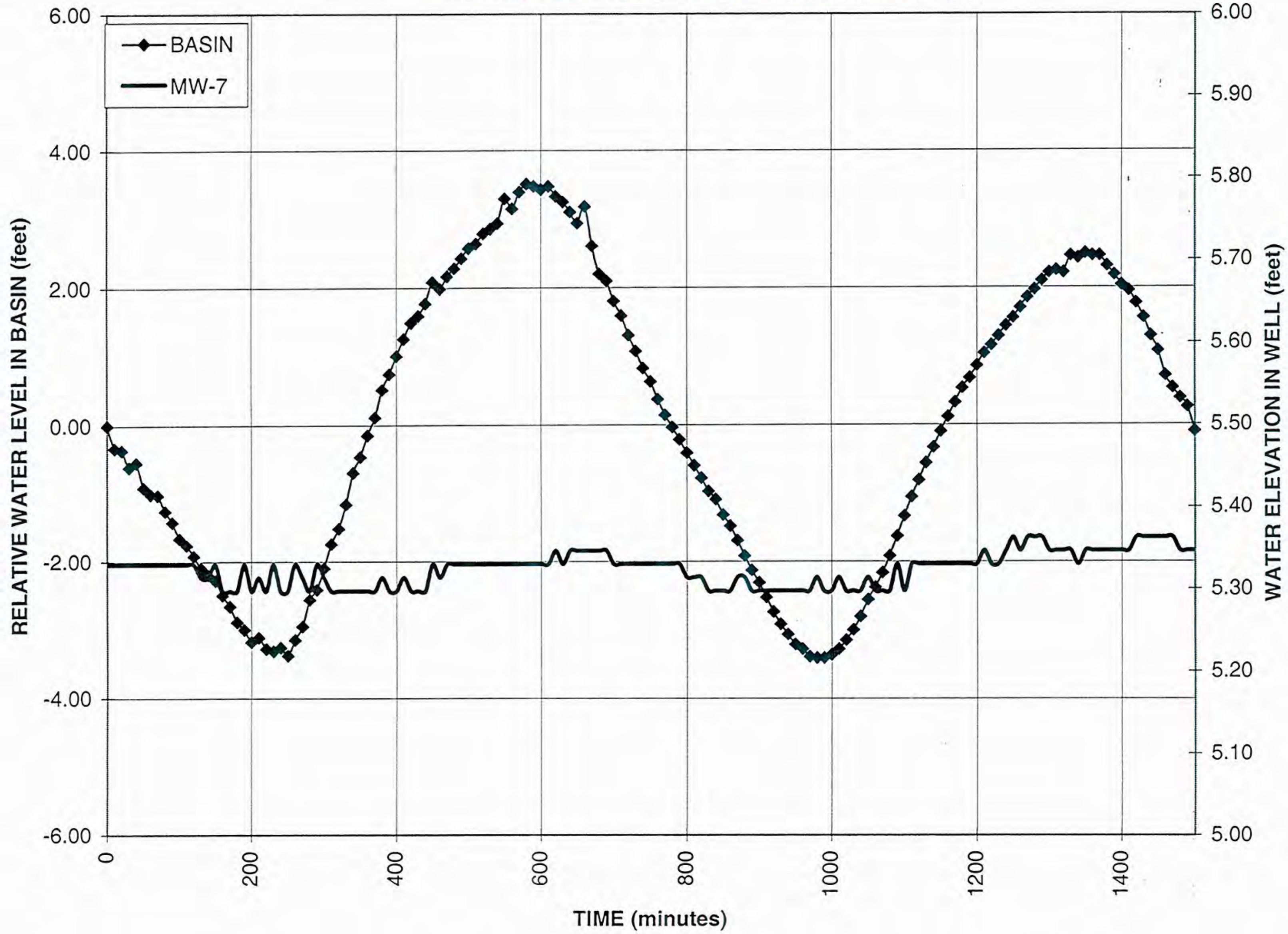


FIGURE 5-9
TIDAL INFLUENCE STUDY GROUND WATER LEVELS: MW-8
BROOKLYN NAVY YARD, BROOKLYN, NY

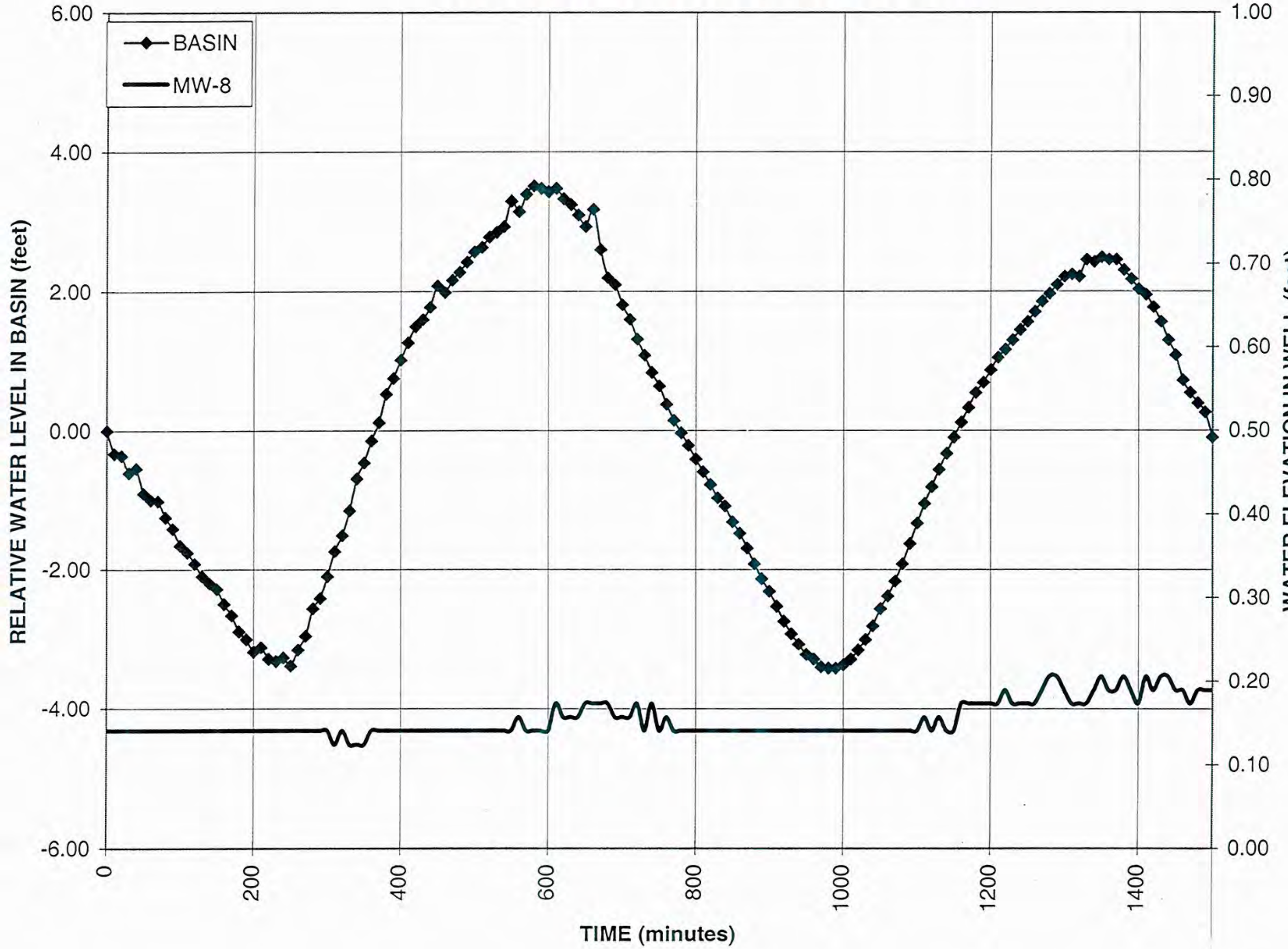
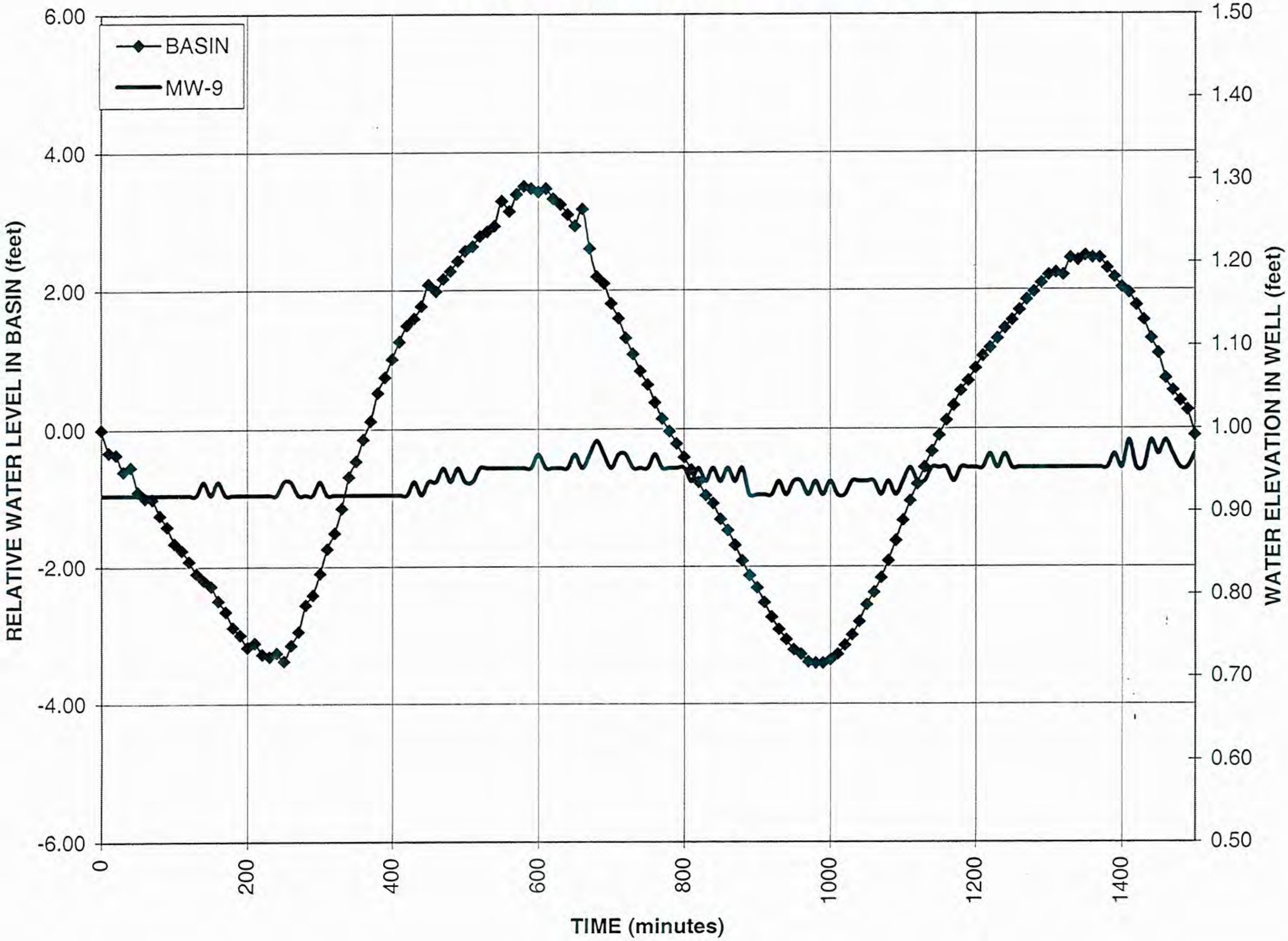
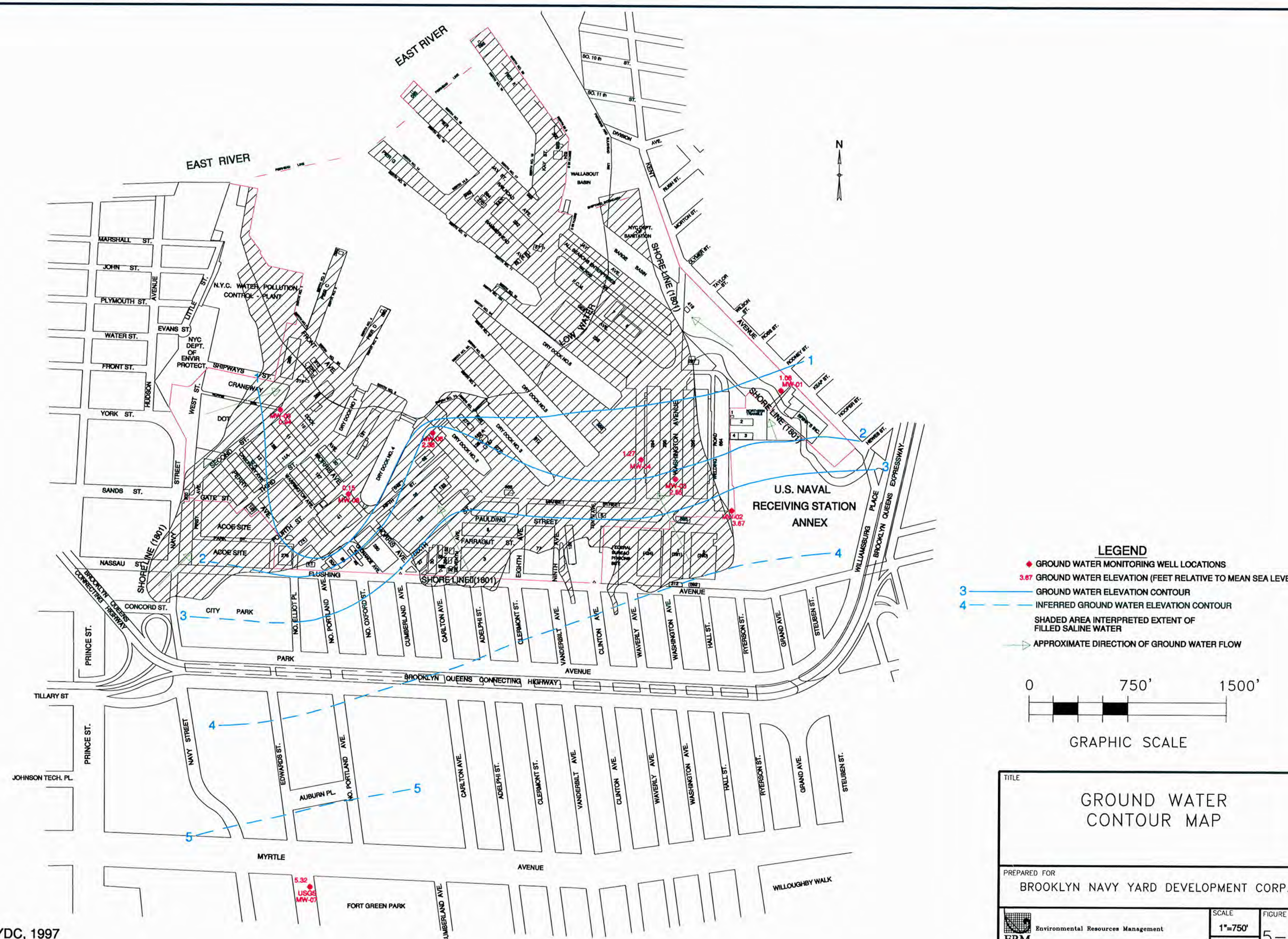


FIGURE 5-10
TIDAL INFLUENCE STUDY GROUND WATER LEVELS: MW-9
BROOKLYN NAVY YARD, BROOKLYN, NY





Source: BNYDC, 1997

TITLE

GROUND WATER CONTOUR MAP

PREPARED FOR

BROOKLYN NAVY YARD DEVELOPMENT CORP.

ERM Environmental Resources Management			SCALE 1"=750'	FIGURE
DRAWN: Y.S.	JOB NO.: X7701.00	FILE NAME: X7701044	DATE 6/20/01	5-11

TABLES

TABLE 2-1
SUMMARY OF DRY DOCK SEDIMENT SAMPLE ANALYTICAL RESULTS
DRY DOCKS 5 AND 6, BROOKLYN NAVY YARD, BROOKLYN, NEW YORK

Sample ID: / Collection Date:	NYSDEC TCLP HWRL	DD5-A 05/13/99	DD5-B 05/13/99	DD5-C 05/13/99	DD6-1 05/13/99	DD6-2 05/13/99	DD6-3 05/13/99	DD6-4 05/13/99	DD6-5 05/13/99	DD6-6 05/13/99	DD6-7 05/13/99	DD6-8 05/13/99	DD6-9 05/13/99	FB-051399 05/13/99
TCLP Volatiles														
1,1-Dichloroethene	700	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	500	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	200,000	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	**2 J**	10 U
Benzene	500	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	500	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	100,000	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	6,000	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	700	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	500	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl chloride	200	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
TCLP Semi-Volatiles														
1,4-Dichlorobenzene	7,500	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 UJ	10 U
2,4,5-Trichlorophenol	400,000	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
2,4,6-Trichlorophenol	200	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	130	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 UJ	10 U
3-Methylphenol/4-Methylphenol	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	**2 J**
Hexachlorobenzene	130	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 UJ	10 U
Hexachlorobutadiene	500	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 UJ	10 U
Hexachloroethane	3,000	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 UJ	10 U
Nitrobenzene	2,000	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 UJ	10 U
Pentachlorphenol	100,000	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Pyridine	5,000	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 UJ	10 UJ
TCLP Pesticides														
Endrin	20	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 UJ	0.20 U	0.20 U	0.20 U	0.20 U
Gamma-BHC (Lindane)	400	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 UJ	0.10 U	0.10 U	0.10 U	0.10 U
Heptachlor	8	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 UJ	0.10 U	0.10 U	0.10 U	0.10 U
Heptachlor Epoxide	8	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 UJ	0.10 U	0.10 U	0.10 U	0.10 U
Methoxychlor	10,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Technical Chlordane	30	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U
Toxaphene	500	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 UJ	10 U	10 U	10 U	10 U

Notes:
- Units are in micrograms per liter (ug/l).
- Detections are identified in bold format.
- TCLP HWRL- NYSDEC Toxicity Characteristic Leaching Procedure Hazardous Waste Regulatory Levels listed in NYSDEC STARS Memo #1, 8/92).
- Shaded cells represent detections above TCLP HWRL.

NL Not Listed.
U Undetected at the indicated detection limit.
J Estimated value (concentration less than quantification limit or validation deficiency).
R Rejected value.

TABLE 2-1
SUMMARY OF DRY DOCK SEDIMENT SAMPLE ANALYTICAL RESULTS
DRY DOCKS 5 AND 6, BROOKLYN NAVY YARD, BROOKLYN, NEW YORK

Sample ID:	NYSDEC	DD5-A	DD5-B	DD5-C	DD6-1	DD6-2	DD6-3	DD6-4	DD6-5	DD6-6	DD6-7	DD6-8	DD6-9	FB-051399
Collection Date:	TCLP	05/13/99	05/13/99	05/13/99	05/13/99	05/13/99	05/13/99	05/13/99	05/13/99	05/13/99	05/13/99	05/13/99	05/13/99	05/13/99
TCLP Herbicides	HWRL													
2,4-D	10,000	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4,5-TP	1,000	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
TCLP Metals														
Arsenic	5,000	11.3 U	5.2 U	11.6 U	9.8 U	11.3 U	8.9 U	12.1 U	14.1 U	2.5 U	10.9 U	12.7 U	11.8 U	2.4 U
Barium	100,000	**540**	**788**	**781**	**857**	**872**	**628**	**944**	**844**	**802**	**1190**	**1050**	**1170**	**82**
Cadmium	1,000	**20.5**	**17.8**	**28.0**	**19.9**	**19.2**	**18.3**	**20.0**	**26.8**	**21.9**	**14.7**	**20.2**	**4.2**	0.50 U
Chromium	5,000	**2.6**	0.90 U	**2.0**	**1.3**	**1.4**	**1.1**	**1.0**	**4.1**	**6.9**	**1.4**	**3.2**	0.90 U	0.90 U
Lead	5,000	**49.2**	**486**	**550**	**411**	**473**	**197**	**196**	**1040**	**755**	**795**	**1120**	**58.2**	1.0 U
Mercury	200	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Selenium	1,000	19.6 U	13.9 U	20.7 U	15.9 U	**24.6**	20.7 U	**23.0**	**25.3**	15.4 U	21.4 U	**23.4**	**23.7**	**2.5**
Silver	5,000	10.0 UJ	10.0 UJ	10.0 UJ	10.0 UJ	10.0 UJ	10.0 UJ	10.0 UJ	10.0 UJ	10.0 UJ	10.0 UJ	10.0 UJ	R	**10.0 J**

Sample ID:	NYSDEC	DD5-A1	DD5-A2	DD5-1	DD5-2	DD5-C1	DD5-C2	DD6-A1	DD6-A2	DD6-A3	DD6-A4	DD6-A5	DD6-A6	DD6-A7
Collection Date:	TCLP	05/13/99	05/13/99	05/13/99	05/13/99	05/13/99	05/13/99	05/13/99	05/13/99	05/13/99	05/13/99	05/13/99	05/13/99	05/13/99
TCLP Metals	HWRL													
Arsenic	5,000	**15.7**	**16.5**	13.9 U	11.8 U	**11.7**	**17.9**	**12.7**	**17.4**	**14.7**	**11.8**	**12.2**	**11.7**	**12.2**
Barium	100,000	**541**	**1020**	**1090**	**1320**	**2330**	**1990**	**788**	**1000**	**808**	**820**	**1030**	**868**	**852**
Cadmium	1,000	**23.7**	**17.6**	**20.2**	**18.7**	**21.5**	**21.0**	**18.7**	**15.9**	**22.3**	**15.1**	**31.0**	**22.2**	**22.4**
Chromium	5,000	**4.1**	**2.9**	**4.0**	**3.6**	**5.2**	**4.8**	**4.5**	**4.6**	**2.3**	**3.1**	**2.3**	**5.0**	**0.93**
Lead	5,000	**254**	**1260**	**1160**	**1130**	5100	**4510**	**1340**	**1630**	**226**	**214**	**1500**	**960**	**322**
Mercury	200	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Selenium	1,000	**23.3**	**22.7**	**19.1**	16.1 U	19.7 U	**24.3**	18.7 U	**25.6**	**25.1**	21.9 U	20.6 U	22.0 U	**23.0**
Silver	5,000	R	10.0 UJ	10.0 UJ	10.0 UJ	10.0 UJ	10.0 UJ	10.0 UJ	10.0 UJ	10.0 UJ	10.0 UJ	10.0 UJ	10.0 UJ	10.0 UJ

Sample ID:	NYSDEC	DD6-A8	DD6-A9	DD6-A10	DD6-B1	DD6-B2	DD6-B3	DD6-B4	DD6-B5	DD6-B6	DD6-B7	DD6-B8	DD6-B9	FB-051399
Collection Date:	TCLP	05/13/99	05/13/99	05/13/99	05/13/99	05/13/99	05/13/99	05/13/99	05/13/99	05/13/99	05/13/99	05/13/99	05/13/99	05/13/99
TCLP Metals	HWRL													
Arsenic	5,000	**11.1**	**15.9**	**16.2**	**14.2**	**11.3**	**20.9**	**27.5**	**24.8**	**23.6**	**13.0**	9.4 U	8.0 U	2.4 U
Barium	100,000	**954**	**923**	**1050**	**1070**	**1380**	**1460**	**1540**	**1510**	**1640**	**1420**	**1050**	**942**	**44.0**
Cadmium	1,000	**19.3**	**13.3**	**14.7**	**20.2**	**19.1**	**26.4**	**23.3**	**23.2**	**28.5**	**24.2**	**22.3**	**2.3**	0.50 U
Chromium	5,000	**1.5**	**2.0**	**2.4**	**3.4**	**2.6**	**2.1**	**6.2**	**8.9**	**9.6**	**1.4**	**2.2**	0.90 U	0.90 U
Lead	5,000	**407**	**607**	**746**	**875**	**1030**	**426**	**1090**	**1160 J**	**3060 J**	**1010 J**	**2620 J**	2.1 UJ	**2.9 J**
Mercury	200	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Selenium	1,000	18.8 U	**22.6**	**27.6**	**23.3**	22.4 U	**31.7**	**43.4**	**37.6 J**	**37.6 J**	**22.2 J**	18.1 UJ	18.6 UJ	**2.3 J**
Silver	5,000	10.0 UJ	10.0 UJ	10.0 UJ	10.0 UJ	10.0 UJ	10.0 UJ	10.0 UJ	R	10.0 UJ	10.0 UJ	10.0 UJ	10.0 UJ	10.0 UJ

Notes:

Units are in micrograms per liter (ug/l).
Detections are identified in bold format.
TCLP HWRL- NYSDEC Toxicity Characteristic Leaching Procedure Hazardous Waste Regulatory Levels listed in NYSDEC STARS Memo #1, 8/92).
Shaded cells represent detections above TCLP HWRL.

NL Not Listed.
U Undetected at the indicated detection limit.
J Estimated value (concentration less than quantification limit or validation deficiency).
R Rejected value.

TABLE 2-1
SUMMARY OF DRY DOCK SEDIMENT SAMPLE ANALYTICAL RESULTS
DRY DOCKS 5 AND 6, BROOKLYN NAVY YARD, BROOKLYN, NEW YORK

Sample ID:	DD5-B	DD5-C	DD6-1	DD6-2	DD6-3	DD6-4	DD6-5	DD6-6	DD6-7	DD6-8	DD6-9
Sample Date:	05/13/99	05/13/99	05/13/99	05/13/99	05/13/99	05/13/99	05/13/99	05/13/99	05/13/99	05/13/99	05/13/99
TAL Metals											
Aluminum	**3770**	**47400**	**32000**	**31800**	**30900**	**26900**	**32800**	**32100**	**37800**	**23900**	**26400**
Antimony	R	9.2 UJ	8.5 UJ	8.0 UJ	8.7 UJ	9.9 UJ	8.2 UJ	8.8 UJ	9.1 UJ	8.1 UJ	**20.0 J**
Arsenic	**3.2**	**4.1**	**3.6**	**2.7**	**4.6**	**4.7**	**4.0**	**4.3**	**2.0**	**2.0**	**4.9**
Barium	**768 J**	**1300 J**	**908 J**	**807 J**	**956 J**	**849 J**	**784 J**	**1060 J**	**1450 J**	**461 J**	**827 J**
Beryllium	**78.8 J**	**110 J**	**91.3 J**	**87.3 J**	**82.9 J**	**69.6 J**	**77.1 J**	**85.4 J**	**117 J**	**63.6 J**	**75.5 J**
Cadmium	0.34 U	**0.74**	0.36 U	0.33 U	0.36 U	**0.43**	0.34 U	0.37 U	0.38 U	0.34 U	0.34 U
Calcium	**37700**	**47900**	**38800**	**38600**	**36400**	**34700**	**34400**	**40100**	**51100**	**26200**	**32600**
Chromium	**124**	**97.5**	**137**	**113**	**134**	**112**	**151**	**141**	**147**	**81.6**	**115**
Cobalt	**131 J**	**154 J**	**161 J**	**170 J**	**149 J**	**156 J**	**142 J**	**159 J**	**213 J**	**106 J**	**141 J**
Copper	**8370 J**	**10400 J**	**14700 J**	**11500 J**	**12400 J**	**9310 J**	**10700 J**	**10000 J**	**11700 J**	**8630 J**	**19000 J**
Iron	**140000**	**174000**	**152000**	**152000**	**154000**	**145000**	**169000**	**166000**	**205000**	**104000**	**133000**
Lead	**3860 J**	**4330 J**	**5520 J**	**4630 J**	**5200 J**	**3570 J**	**5040 J**	**5480 J**	**6520 J**	**3370 J**	**5240 J**
Magnesium	**7830**	**8290**	**9660**	**9100**	**9490**	**9280**	**7980**	**10100**	**11600**	**5670**	**8050**
Manganese	**2630**	**3830**	**3070**	**2900**	**2830**	**2540**	**2820**	**2920**	**3490**	**1980**	**2420**
Mercury	**0.10 J**	R	**0.17 J**	**0.17 J**	**0.24 J**	**0.32 J**	**0.16 J**	**0.17 J**	R	**0.18 J**	**0.16 J**
Nickel	**775**	**882**	**1210**	**1140**	**1250**	**1120**	**1060**	**1400**	**1850**	**687**	**1860**
Potassium	**4700 J**	**5850 J**	**3130 J**	**3050 J**	**3240 J**	**2910 J**	**3520 J**	**3310 J**	**3690 J**	**2420 J**	**2750 J**
Selenium	4.1 U	4.7 U	4.4 U	4.6	4.5 U	5.1 U	**4.6**	4.5 U	**6.1**	4.2 U	4.2 U
Silver	**2.3**	**2.4**	**4.1**	**2.9**	**4.10**	3.0 U	2.9 U	2.8 U	2.9 U	2.2 U	**7.3**
Sodium	**9200 J**	**13200 J**	**11700 J**	**11600 J**	**11700 J**	**10300 J**	**10300 J**	**11500 J**	**14200 J**	**7320 J**	**9820 J**
Thallium	**11.2 J**	**24.2 J**	**10.6 J**	**13.0 J**	**15.1 J**	**13.0 J**	**13.5 J**	**16.7 J**	**16.2 J**	**11.3 J**	**11.5 J**
Vanadium	**55.1 J**	**60.0 J**	**36.9 J**	**35.6 J**	**39.5 J**	**44.4 J**	**41.6 J**	**36.9 J**	**38.2 J**	**30.1 J**	**30.4 J**
Zinc	**35500 J**	**45500 J**	**44600 J**	**43900 J**	**41600 J**	**36700 J**	**38300 J**	**44000 J**	**53700 J**	**28900 J**	**37200 J**

Notes:

Units are in milligrams per kilogram (mg/kg).
Detections are identified in bold format.
U Undetected at the indicated detection limit.
J Estimated value (concentration less than quantification limit or validation deficiency).
R Rejected Value
SB Site Background
TAL Target Analyte List

Note: After full TCLP analyses, there was insufficient remaining sample volume to perform TAL metals analyses on sample DD5-A. In addition, there was insufficient sample volume to perform a MS/MSD on sample DD6-9. Accordingly, the MS/MSD was performed on sample DD5-B.

TABLE 3-1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS - FORMER DRUM STORAGE AREAS
BROOKLYN NAVY YARD, BROOKLYN, NEW YORK

SAMPLE NO.: SAMPLE INTERVAL: SAMPLE DATE:	NYSDEC RSCO	B1 1'6"-1'-8" 4/15/99	B1 2'-2'6" 4/15/99	B1 3'-3'6" 4/15/99	B1 9'6"-10' 4/15/99	B2 0"-2" 4/15/99	B2 6"-12" 4/15/99	B3 0"-2" 4/15/99	B3 6"-12" 4/15/99	B3 18"-24" 4/15/99	B3 9'6"-10' 4/15/99	B4 2'-2'2" 4/16/99	B4 2'6"-3' 4/16/99
Volatiles													
Chloromethane	NL	11 U	11 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	11 U
Bromomethane	NL	11 U	11 U	11 U	12 UJ	11 U	12 U	11 U	12 U	11 UJ	12 UJ	11 UJ	11 UJ
Vinyl Chloride	200	11 UJ	11 UJ	11 UJ	12 UJ	11 UJ	12 UJ	11 UJ	12 UJ	11 UJ	12 UJ	11 UJ	11 UJ
Chloroethane	1,900	11 U	11 U	11 U	12 UJ	11 U	12 U	11 U	12 U	11 UJ	12 UJ	11 UJ	11 UJ
Methylene Chloride	100	11 U	11 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	11 U
Acetone	200	11 UJ	11 UJ	11 UJ	12 UJ	11 UJ	**26 J**	11 UJ	12 UJ	**4 J**	**15 J**	**5 J**	20 UJ
Carbon Disulfide	2,700	11 U	11 U	**2 J**	12 U	11 U	**2 J**	**3 J**	12 U	11 U	**1 J**	**6 J**	**41 J**
1,1-Dichloroethene	400	11 U	11 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	11 U
1,1-Dichloroethane	200	11 U	11 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	11 U
1,2-Dichloroethene (Total)	300	11 U	11 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	11 U
2-Butanone	300	11 UJ	11 UJ	11 UJ	12 UJ	11 UJ	12 UJ	11 UJ	12 UJ	11 UJ	12 UJ	11 UJ	**5 J**
Chloroform	300	11 U	11 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	11 U
1,2-Dichloroethane	100	11 U	11 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	11 U
1,1,1-Trichloroethane	800	11 U	11 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	11 U
Carbon Tetrachloride	600	11 U	11 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	11 U
Bromodichloromethane	NL	11 U	11 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	11 U
1,2-Dichloropropane	NL	11 U	11 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	11 U
cis-1,3-Dichloropropene	NL	11 U	11 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	11 U
Trichloroethene	700	11 U	11 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	11 U
Benzene	60	11 U	11 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	11 U
Dibromochloromethane	NL	11 U	11 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	11 U
trans-1,3-Dichloropropene	NL	11 U	11 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	11 U
1,1,2-Trichloroethane	NL	11 U	11 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	11 U
Bromoform	NL	11 U	11 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	11 U
4-Methyl-2-Pentanone	1,000	11 U	11 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	11 U
2-Hexanone	NL	11 UJ	11 UJ	11 UJ	12 U	11 UJ	12 UJ	11 UJ	12 UJ	11 U	12 U	11 U	11 U
Tetrachloroethene	600	**3 J**	**4 J**	**2 J**	12 U	11 U	12 U	11 U	12 U	**1 J**	12 U	11 U	11 U
1,1,2,2-Tetrachloroethane	1,400	11 U	11 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	11 U
Toluene	1,500	11 U	11 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	11 U
Chlorobenzene	1,700	11 U	11 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	11 U
Ethylbenzene	5,500	11 U	11 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	11 U
Styrene	NL	11 U	11 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	11 U
Xylenes (total)	1,200	11 U	11 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	12 U	11 U	11 U

Notes:

Units are in micrograms per kilogram (ug/kg).

Detections are identified in bold format.

Shaded cells represent detections above NYSDEC Recommended Soil Cleanup Objectives (RSCO) as per NYSDEC TAGM No. HWR-94-4046 (1/24/94).

NL Indicates that no RSCO value for this compound is listed in NYSDEC TAGM No. HWR-94-4046 (1/24/94).

U Undetected at the indicated detection limit.

J Estimated value (concentration less than quantification limit or validation deficiency).

TABLE 3-1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS - FORMER DRUM STORAGE AREAS
BROOKLYN NAVY YARD, BROOKLYN, NEW YORK

SAMPLE NO.: / SAMPLE INTERVAL: / SAMPLE DATE:	NYSDEC RSCO	B1 1'6"-1'-8" 4/15/99	B1 2'-2'6" 4/15/99	B1 3'-3'6" 4/15/99	B1 9'6"-10' 4/15/99	B2 0"-2" 4/15/99	B2 6"-12" 4/15/99	B3 0"-2" 4/15/99	B3 6"-12" 4/15/99	B3 18"-24" 4/15/99	B3 9'6"-10' 4/15/99	B4 2'-2'2" 4/16/99	B4 2'6"-3' 4/16/99
Semi-Volatiles													
Phenol	30	370 U	380 U	380 U	390 U	380 U	390 U	360 U	410 U	370 U	420 U	370 U	370 U
Bis(2-chloroethyl)ether	50,000	370 U	380 U	380 U	390 U	380 U	390 U	360 U	410 U	370 U	420 U	370 U	370 U
2-Chlorophenol	800	370 U	380 U	380 U	390 U	380 U	390 U	360 U	410 U	370 U	420 U	370 U	370 U
1,3-Dichlorobenzene	1,600	370 U	380 U	380 U	390 U	380 U	390 U	360 U	410 U	370 U	420 U	370 U	370 U
1,4-Dichlorobenzene	8,500	370 UJ	380 UJ	380 UJ	390 UJ	380 UJ	390 UJ	360 UJ	410 UJ	370 UJ	420 UJ	370 UJ	370 UJ
1,2-Dichlorobenzene	7,900	370 U	380 U	380 U	390 U	380 U	390 U	360 U	410 U	370 U	420 U	370 U	370 U
2-Methylphenol	100	370 U	380 U	380 U	390 U	380 U	390 U	360 U	410 U	370 U	420 U	370 U	370 U
2,2'-oxybis-(1-chloropropane)	NL	370 U	380 U	380 U	390 U	380 U	390 U	360 U	410 U	370 U	420 U	370 U	370 U
4-Methylphenol	900	370 U	380 U	380 U	390 U	380 U	390 U	360 U	410 U	370 U	420 U	370 U	**74 J**
N-Nitroso-di-n-propylamine	NL	370 U	380 U	380 U	390 U	380 U	390 U	360 U	410 U	370 U	420 U	370 U	370 U
Hexachloroethane	NL	370 U	380 U	380 U	390 U	380 U	390 U	360 U	410 U	370 U	420 U	370 U	370 U
Nitrobenzene	200	370 U	380 U	380 U	390 U	380 U	390 U	360 U	410 U	370 U	420 U	370 U	370 U
Isophorone	4,400	370 U	380 U	380 U	390 U	380 U	390 U	360 U	410 U	370 U	420 U	370 U	370 U
2-Nitrophenol	330	370 U	380 U	380 U	390 U	380 U	390 U	360 U	410 U	370 U	420 U	370 U	370 U
2,4-Dimethylphenol	NL	370 U	380 U	380 U	390 U	380 U	390 U	360 U	410 U	370 U	420 U	370 U	370 U
Bis(2-chloroethoxy)methane	NL	370 U	380 U	380 U	390 U	380 U	390 U	360 U	410 U	370 U	420 U	370 U	370 U
2,4-Dichlorophenol	400	370 U	380 U	380 U	390 U	380 U	390 U	360 U	410 U	370 U	420 U	370 U	370 U
1,2,4-Trichlorobenzene	NL	370 U	380 U	380 U	390 U	380 U	390 U	360 U	410 U	370 U	420 U	370 U	370 U
Naphthalene	13,000	**45 J**	380 U	380 U	390 U	**65 J**	**2400**	360 U	**180 J**	**290 J**	420 U	**450**	**130 J**
4-Chloroaniline	220	370 U	380 U	380 U	390 U	380 U	390 U	360 U	410 U	370 U	420 U	370 U	370 U
Hexachlorobutadiene	NL	370 U	380 U	380 U	390 U	380 U	390 U	360 U	410 U	370 U	420 U	370 U	370 U
4-Chloro-3-methylphenol	240	370 U	380 U	380 U	390 U	380 U	390 U	360 U	410 U	370 U	420 U	370 U	370 U
2-Methylnaphthalene	36,400	370 U	380 U	380 U	390 U	380 U	**1400**	360 U	**77 J**	**2400**	420 U	**320 J**	**110 J**
Hexachlorocyclopentadiene	NL	370 U	380 U	380 U	390 U	380 U	390 U	360 U	410 U	370 U	420 U	370 U	370 U
2,4,6-Trichlorophenol	NL	370 U	380 U	380 U	390 U	380 U	390 U	360 U	410 U	370 U	420 U	370 U	370 U
2,4,5-Trichlorophenol	100	920 U	960 U	960 U	990 U	950 U	970 U	900 U	1000 U	920 U	1000 U	920 U	920 U
2-Chloronaphthalene	NL	370 U	380 U	380 U	390 U	380 U	390 U	360 U	410 U	370 U	420 U	370 U	370 U
2-Nitroaniline	430	920 U	960 U	960 U	990 U	950 U	970 U	900 U	1000 U	920 U	1000 U	920 U	920 U
Dimethylphthalate	2,000	370 U	380 U	380 U	390 U	380 U	390 U	360 U	410 U	370 U	420 U	370 U	370 U
Acenaphthylene	41,000	**61 J**	**660**	**500**	390 U	**87 J**	**220 J**	**140 J**	**150 J**	370 U	420 U	**250 J**	**96 J**
2,6-Dinitrotoluene	1,000	370 U	380 U	380 U	390 U	380 U	390 U	360 U	410 U	370 U	420 U	370 U	370 U
3-Nitroaniline	500	920 U	960 U	960 U	990 U	950 U	970 U	900 U	1000 U	920 U	1000 U	920 U	920 U
Acenaphthene	50,000	370 U	**170 J**	**110 J**	390 U	**96 J**	**4900 J**	360 U	**57 J**	370 U	420 U	**380**	**150 J**
2,4-Dinitrophenol	200	920 U	960 U	960 U	990 U	950 U	970 U	900 U	1000 U	920 U	1000 U	920 U	920 U
4-Nitrophenol	100	920 UJ	960 UJ	960 UJ	990 UJ	950 UJ	970 UJ	900 UJ	1000 UJ	920 UJ	1000 UJ	920 UJ	920 UJ
Dibenzofuran	6,200	370 U	**74 J**	**53 J**	390 U	**58 J**	**3300 J**	360 U	**51 J**	370 U	420 U	**300 J**	370 U
2,4-Dinitrotoluene	NL	370 UJ	380 UJ	380 UJ	390 UJ	380 UJ	390 UJ	360 UJ	410 UJ	370 UJ	420 UJ	370 UJ	370 UJ

Notes:

Units are in micrograms per kilogram (ug/kg).

Detections are identified in bold format.

Shaded cells represent detections above NYSDEC Recommended Soil Cleanup Objectives (RSCO) as per NYSDEC TAGM No. HWR-94-4046 (1/24/94).

NL Indicates that no RSCO value for this compound is listed in NYSDEC TAGM No. HWR-94-4046 (1/24/94).

U Undetected at the indicated detection limit.

J Estimated value (concentration less than quantification limit or validation deficiency).

TABLE 3-1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS - FORMER DRUM STORAGE AREAS
BROOKLYN NAVY YARD, BROOKLYN, NEW YORK

SAMPLE NO.: / SAMPLE INTERVAL: / SAMPLE DATE:	NYSDEC RSCO	B1 1'6"-1'-8" 4/15/99	B1 2'-2'6" 4/15/99	B1 3'-3'6" 4/15/99	B1 9'6"-10' 4/15/99	B2 0"-2" 4/15/99	B2 6"-12" 4/15/99	B3 0"-2" 4/15/99	B3 6"-12" 4/15/99	B3 18"-24" 4/15/99	B3 9'6"-10' 4/15/99	B4 2'-2'2" 4/16/99	B4 2'6"-3' 4/16/99
Semi-Volatiles - Cont'd													
Diethylphthalate	7,100	370 U	380 U	380 U	390 U	380 U	390 U	360 U	410 U	370 U	420 U	370 U	370 U
Fluorene	50,000	370 U	240 J	150 J	390 U	95 J	4100 J	360 U	56 J	580	420 U	400	110 J
4-Chlorophenyl-phenylether	NL	370 U	380 U	380 U	390 U	380 U	390 U	360 U	410 U	370 U	420 U	370 U	370 U
4-Nitroaniline	NL	920 U	960 U	960 U	990 U	950 U	970 U	900 U	1000 U	920 U	1000 U	920 U	920 U
4,6-Dinitro-2-methylphenol	NL	920 U	960 U	960 U	990 U	950 U	970 U	900 U	1000 U	920 U	1000 U	920 U	920 U
N-Nitrosodiphenylamine	NL	370 U	380 U	380 U	390 U	380 U	390 U	360 U	410 U	370 U	420 U	370 U	370 U
4-Bromophenyl-phenylether	NL	370 U	380 U	380 U	390 U	380 U	390 U	360 U	410 U	370 U	420 U	370 U	370 U
Hexachlorobenzene	410	370 U	380 U	380 U	390 U	380 U	390 U	360 U	410 U	370 U	420 U	370 U	370 U
Pentachlorophenol	1,000	920 U	960 U	960 U	990 U	950 U	970 U	900 U	1000 U	920 U	1000 U	920 U	920 U
Phenanthrene	50,000	440	16000 J	8900	390 U	1100	35000	430	620	1700	420 U	1300	620
Anthracene	50,000	59 J	2000	1600	390 U	310 J	9000	180 J	250 J	240 J	420 U	680	290 J
Carbazole	NL	38 J	80 J	63 J	390 U	120 J	3700 J	360 U	75 J	370 U	420 U	130 J	67 J
di-n-Butylphthalate	NL	370 U	380 U	380 U	390 U	380 U	390 U	360 U	410 U	370 U	420 U	370 U	370 U
Fluoranthene	50,000	1300	11000 J	5900	390 U	1700	29000	1400	780	730	420 U	2200	1800
Pyrene	50,000	1500	9200 J	7400	390 U	2000	30000	1900	2000	1300	420 U	2700	1800
Butylbenzylphthalate	50,000	370 U	380 U	380 U	390 U	380 U	390 U	360 U	410 U	370 U	420 U	370 U	370 U
Benzo(a)anthracene	224	860	6900 J	4800	390 U	1100	12000	1700	1200	950	420 U	1600	1300
3,3'-Dichlorobenzidine	NL	370 U	380 U	380 U	390 U	380 U	390 U	360 U	410 U	370 U	420 U	370 U	370 U
Chrysene	400	1200	9700 J	6500	390 U	1200	12000	1700	1100	1100	420 U	1600	1400
Bis(2-ethylhexyl)phthalate	50,000	370 U	380 U	380 U	390 U	380 U	1300	360 U	570 U	370 U	420 U	370 U	370 U
di-n-Octylphthalate	50,000	370 UJ	380 UJ	380 UJ	390 UJ	380 UJ	390 UJ	120 J	410 UJ	370 UJ	420 UJ	370 UJ	370 U
Benzo(b)fluoranthene	1,100	1100	13000 J	5500	390 U	890	8100	1900	1200	1100	420 U	1500	1200
Benzo(k)fluoranthene	1,100	780	9100 J	2500	390 U	710	7800	1100	580	620	420 U	850	1200
Benzo(a)pyrene	61	1400	13000 J	8000	390 U	980	9900	1700	1200	1000	420 U	1400	1400
Indeno(1,2,3-cd)pyrene	3,200	1500	9200 J	6000	390 U	740	6900 J	1000	1300	860	420 U	910	910
Dibenz(a,h)anthracene	14	370 U	380 U	3000	390 U	380 U	2700	360 U	410 U	370 U	420 U	480	370 U
Benzo(g,h,i)perylene	50,000	2100	12000 J	7300	390 U	820	8300	1000	1400	820	420 U	900	970
GRO (mg/kg)	NL	35 U	35 U	35 U	35 U	35 U	44 J	35 U	210 J	260 J	35 U	81 J	52 J
DRO (mg/kg)	NL	35	180	210	35 U	130	75	92	150	120	35 U	170	62

Notes:

Units are in micrograms per kilogram (ug/kg).
Detections are identified in bold format.
Shaded cells represent detections above NYSDEC Recommended Soil Cleanup Objectives (RSCO) as per NYSDEC TAGM No. HWR-94-4046 (1/24/94).

NL Indicates that no RSCO value for this compound is listed in NYSDEC TAGM No. HWR-94-4046 (1/24/94).
U Undetected at the indicated detection limit.
J Estimated value (concentration less than quantification limit or validation deficiency).
GRO Gasoline range organics.
DRO Diesel range organics.

TABLE 3-1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS - FORMER DRUM STORAGE AREAS
BROOKLYN NAVY YARD, BROOKLYN, NEW YORK

SAMPLE NO.:	NYSDEC	B1	B1	B1	B1	B2	B2	B3	B3	B3	B3	B4	B4
SAMPLE INTERVAL:	RSCO	1'6"-1'-8"	2'-2'6"	3'-3'6"	9'6"-10'	0"-2"	6"-12"	0"-2"	6"-12"	18"-24"	9'6"-10'	2'-2'2"	2'6"-3'
SAMPLE DATE:		4/15/99	4/15/99	4/15/99	4/15/99	4/15/99	4/15/99	4/15/99	4/15/99	4/15/99	4/15/99	4/16/99	4/16/99
Pesticides/PCBs													
alpha-BHC	110	9.4 U	9.8 U	9.8 U	10 U	97 U	99 U	9.2 U	10 UJ	9.4 U	11 U	9.4 U	9.4 U
beta-BHC	200	9.4 U	9.8 U	9.8 U	10 U	97 U	99 U	9.2 U	10 UJ	9.4 U	11 U	9.4 U	9.4 U
delta-BHC	300	9.4 U	9.8 U	9.8 U	10 U	97 U	99 U	9.2 U	10 UJ	9.4 U	11 U	9.4 U	9.4 U
gamma-BHC(Lindane)	60	9.4 U	9.8 U	9.8 U	10 U	97 U	99 U	9.2 U	10 UJ	9.4 U	11 U	9.4 U	9.4 U
Heptachlor	100	9.4 U	9.8 U	9.8 U	10 U	97 U	99 U	9.2 U	10 UJ	9.4 U	11 U	9.4 U	9.4 U
Aldrin	41	9.4 U	9.8 U	9.8 U	10 U	97 U	99 U	9.2 U	10 UJ	9.4 U	11 U	9.4 U	9.4 U
Heptachlor epoxide	20	9.4 U	9.8 U	9.8 U	10 U	97 U	99 U	9.2 U	10 UJ	9.4 U	11 U	9.4 U	9.4 U
Endosulfan I	900	9.4 U	9.8 U	9.8 U	10 U	97 U	99 U	9.2 U	10 UJ	9.4 U	11 U	9.4 U	9.4 U
Dieldrin	44	18 U	19 U	19 U	20 U	190 U	190 U	18 U	20 UJ	18 U	21 U	18 U	18 U
4,4'-DDE	2,100	18 U	19 U	19 U	20 U	**200**	**530**	18 U	20 UJ	18 U	21 U	18 U	18 U
Endrin	100	18 U	19 U	19 U	20 U	190 U	190 U	18 U	20 UJ	18 U	21 U	18 U	18 U
Endosulfan II	900	18 U	19 U	19 U	20 U	190 U	190 U	18 U	20 UJ	18 U	21 U	18 U	18 U
4,4'-DDD	2,900	18 U	19 U	19 U	20 U	**30 J**	**53 J**	18 U	20 UJ	18 U	21 U	18 U	18 U
Endosulfan sulfate	1,000	18 U	19 U	19 U	20 U	190 U	190 U	18 U	20 UJ	18 U	21 U	18 U	18 U
4,4'-DDT	2,100	18 U	19 U	19 U	20 U	**1000**	**2400**	18 U	**13 J**	**16 J**	21 U	18 U	18 U
Methoxychlor	*	94 U	98 U	98 U	100 U	970 U	990 U	92 U	100 UJ	94 U	110 U	94 U	94 U
Endrin ketone	NL	18 U	**13 J**	**14 J**	20 U	190 U	190 U	18 U	20 UJ	18 U	21 U	18 U	18 U
Endrin aldehyde	NL	18 U	19 U	19 U	20 U	190 U	190 U	18 U	**14 J**	18 U	21 U	18 U	18 U
alpha-Chlordane	540	9.4 U	9.8 U	9.8 U	10 U	97 U	99 U	9.2 U	10 UJ	9.4 U	11 U	9.4 U	9.4 U
gamma-Chlordane	540	9.4 U	9.8 U	9.8 U	10 U	97 U	99 U	9.2 U	10 UJ	9.4 U	11 U	9.4 U	9.4 U
Toxaphene	NL	940 U	980 U	980 U	1000 U	9700 U	9900 U	180 U	1000 UJ	940 U	1100 U	940 U	940 U
Aroclor-1016	**	180 U	190 U	190 U	200 U	1900 U	1900 U	360 U	200 UJ	180 U	210 U	180 U	180 U
Aroclor-1221	**	370 U	390 U	390 U	400 U	3800 U	3900 U	180 U	410 UJ	370 U	420 U	370 U	370 U
Aroclor-1232	**	180 U	190 U	190 U	200 U	1900 U	1900 U	180 U	200 UJ	180 U	210 U	180 U	180 U
Aroclor-1242	**	180 U	190 U	190 U	200 U	1900 U	1900 U	180 U	200 UJ	180 U	210 U	180 U	180 U
Aroclor-1248	**	180 U	190 U	190 U	200 U	1900 U	1900 U	180 U	200 UJ	180 U	210 U	180 U	180 U
Aroclor-1254	**	180 U	190 U	190 U	200 U	1900 U	1900 U	180 U	200 UJ	180 U	210 U	180 U	180 U
Aroclor-1260	**	180 U	190 U	190 U	200 U	1900 U	1900 U	**120 J**	**740 J**	**240 J**	210 U	180 U	180 U

Notes:

Units are in micrograms per kilogram (ug/kg).
Detections are identified in bold format.
Shaded cells represent detections above NYSDEC Recommended Soil Cleanup Objectives (RSCO) as per NYSDEC TAGM No. HWR-94-4046 (1/24/94).
NL Indicates that no RSCO value for this compound is listed in NYSDEC TAGM No. HWR-94-4046 (1/24/94).
U Undetected at the indicated detection limit.
J Estimated value (concentration less than quantification limit or validation deficiency).
UJ Value undetermined due to peak saturation.
* As per TAGM NO. 4046, Total Pesticides<10 mg/kg.
** As per NYSDEC-approved January 1997 Final Project Work Plan, Cleanup levels for PCB's shall be 10 mg/kg for soil in the upper 12 inches, and 25 mg/kg for soils at depths greater than 12 inches.

TABLE 3-1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS - FORMER DRUM STORAGE AREAS
BROOKLYN NAVY YARD, BROOKLYN, NEW YORK

SAMPLE NO.:	EASTERN	NEW YORK		B1	B1	B1	B1	B2	B2	B3	B3	B3	B3	B4	B4
SAMPLE INTERVAL:	US[1]	REGION[2]	NYSDEC	1'6"-1'-8"	2'-2'6"	3'-3'6"	9'6"-10'	0"-2"	6"-12"	0"-2"	6"-12"	18"-24"	9'6"-10'	2'-2'2"	2'6"-3'
SAMPLE DATE:	(mg/kg)	(mg/kg)	RSCO	4/15/99	4/15/99	4/15/99	4/15/99	4/15/99	4/15/99	4/15/99	4/15/99	4/15/99	4/15/99	4/16/99	4/16/99
Inorganics															
Aluminum	7000 - >100000	33000	SB	**7160**	**7590**	**6890**	**5330**	**5470**	**6200**	**3810**	**6050**	**3670**	**7540**	**9720**	**5240**
Antimony	<1 - 8.8	N/A	SB	0.64 UJ	0.67 UJ	0.67 UJ	0.69 UJ	**4.7 J**	3.5 UJ	63 UJ	1 UJ	0.92 UJ	0.73 UJ	0.64 UJ	0.64 UJ
Arsenic	<0.1 - 73	3 - 12	7.5 or SB	4.7 U	3.6 U	5.4 U	2.4 U	**16.7**	**12.2**	**6**	**6.1**	4.4 U	1.6 U	**7.8**	4.5 U
Barium	10 - 1500	15 - 600	300 or SB	**80.9**	**60.3**	**112**	**13.1**	**106**	**144**	**90.4**	**132**	**75.4**	**15.8**	**596**	**61.5**
Beryllium	<1 - 7	0 - 1.75	0.16 or SB	**0.43**	**0.5**	**0.49**	**0.5**	**0.58**	**0.62**	**0.5**	**1.4**	**0.66**	**0.39**	**0.88**	**0.36**
Cadmium	N/A	0.1 - 1	1 or SB	0.11 U	0.12 U	0.12 U	0.12 U	**4.9**	**1.9**	**1.4**	**0.44**	0.11 U	0.13 U	0.11 U	0.11 U
Calcium	100 - 280000	130 - 35000	SB	**10500 J**	**2520 J**	**4300 J**	**637 J**	**7080 J**	**12300 J**	**39500 J**	**20500 J**	**7260 J**	**611 J**	**2400 J**	**4570 J**
Chromium	1 - 1000	1.5 - 40	10 or SB	**12.8**	**17.3**	**12.7**	**11**	**40.5**	**38.7**	**35**	**57.7**	**30.1**	**10.8**	**22.5**	**11.5**
Cobalt	<0.3 - 70	2.5 - 60	30 or SB	**5.9**	**5.9**	**5.8**	**6.1**	**6.9**	**7.1**	**6.3**	**14.9**	**7.7**	**6.5**	**8.5**	**13.3**
Copper	<1 - 700	<1 - 50	25 or SB	**1060**	**40.5**	**45.9**	**9.7**	**198**	**172**	**106**	**292**	**139**	**11.3**	**98.7**	**39.2**
Iron	100 - >100000	2000 - 550000	2,000 or SB	**17100**	**15900**	**17000**	**12500**	**21700**	**21500**	**38900**	**53700**	**40300**	**14900**	**18300**	**40600**
Lead	<10 - 300	200 - 500	SB****	**136**	**144**	**236**	**5.3**	**539**	**516**	**275**	**363**	**214**	**6.8**	**292**	**207**
Magnesium	50 - 50000	100 - 5000	SB	**2640 J**	**2330 J**	**2060 J**	**1360 J**	**3170 J**	**3090 J**	**19300 J**	**3720 J**	**2240 J**	**2440 J**	**1830 J**	**1830 J**
Manganese	<2 - 7000	50 - 5000	SB	**244 J**	**225 J**	**287 J**	**77.8 J**	**229 J**	**265 J**	**359 J**	**412 J**	**311 J**	**134 J**	**92.8 J**	**434 J**
Mercury	0.01 - 3.4	0.001 - 0.2	0.1	**0.67**	**1.9**	**3.3**	0.059 U	**1.2**	**1.9**	**2.5**	**2.9**	**2.4**	0.063 U	**0.67**	**2.3**
Nickel	<5 - 700	0.5 - 25	13 or SB	**20.7**	**13.5**	**13.2**	**9.3**	**38.1**	**34.7**	**40.3**	**113**	**60.1**	**12.8**	**27.9**	**11.7**
Potassium	50 - 37000	8500 - 43000	SB	**939 J**	**922 J**	**821 J**	**499 J**	**608 J**	**870 J**	**636 J**	**929 J**	**454 J**	**601 J**	**857 J**	**781 J**
Selenium	<0.1 - 3.9	<0.1 - 3.9	2 or SB	**0.69**	**0.64**	**0.69**	0.45 U	**0.84**	**1.7**	**1.9**	**1.8**	1.8 U	0.48 U	0.42 U	1.7 U
Silver	N/A	N/A	SB	**1.3**	0.41 U	0.7 U	0.16 U	0.87 U	0.94 U	**2.2**	0.75 U	0.42 U	1 U	0.40 U	0.33 U
Sodium	<500 - 50000	6000 - 8000	SB	86.2 U	**132**	**127**	**45.4**	**129**	**183**	**190**	**287**	**169**	**69**	**3690**	**3210**
Thallium	2.2 - 23	N/A	SB	0.48 U	0.28 U	0.28 U	0.28 U	0.54 U	0.29 U	0.26 U	0.7 U	0.42 U	0.49 U	0.47 U	0.26 U
Vanadium	<7 - 300	1 - 300	150 or SB	**18.6**	**19.7**	**19.6**	**19.1**	**111**	**94.7**	**24.7**	**21.8**	**12.5**	**15.2**	**22.2**	**16.5**
Zinc	<5 - 2900	9 - 50	20 or SB	**186 J**	**97.9 J**	**129 J**	**23.1 J**	**2070 J**	**898 J**	**282 J**	**1110 J**	**448 J**	**39.4 J**	**331 J**	**227 J**
Cyanide	N/A	N/A	***	0.28 U	0.29 U	0.29 U	0.3 U	**1.4**	**1.1**	0.27 U	**0.55**	**0.5**	0.31 U	**0.5**	0.28 U

Notes:

Units are in milligrams per kilogram(mg/kg).
Detections are identified in bold format.
Shaded cells represent detections above NYSDEC Recommended Soil Cleanup Objectives (RSCO) as per NYSDEC TAGM No. HWR-94-4046 (1/24/94).
U Undetected at the indicated detection limit.
J Estimated value (concentration less than quantification limit or validation deficiency).
1 Shacklette, HT and JG Boerngen, 1984. Element Concentrations in Soils and Other Surficial Materials of the Conterminous United States, USGS Professional Paper 1270.
2 Background Concentrations of 20 Elements in Soils with Special Regard for New York Sate, E. Carol McGovern,NYSDEC Wildlife Resources Center
SB Site Background
** New York State background as per TAGM 4046.
*** As per TAGM 4046, some forms of Cyanide are complex and very stable while other forms are pH dependent and unstable.
Site specific form(s) of Cyanide should be taken into account when establishing soil cleanup objectives.
**** Background levels for lead vary widely. Average levels in undeveloped, rural areas may range from 4-61mg/kg.
Average background levels in metropolitan suburban areas or near highways are much higher and typically range from 200-500 mg/kg.

TABLE 3-1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS - FORMER DRUM STORAGE AREAS
BROOKLYN NAVY YARD, BROOKLYN, NEW YORK

SAMPLE NO.: SAMPLE INTERVAL: SAMPLE DATE:	NYSDEC TCLP HWRL	B1 1'6"-1'-8" 4/15/99	B1 2'-2'6" 4/15/99	B1 3'-3'6" 4/15/99	B1 9'6"-10' 4/15/99	B2 0"-2" 4/15/99	B2 6"-12" 4/15/99	B3 0"-2" 4/15/99	B3 6"-12" 4/15/99	B3 18"-24" 4/15/99	B3 9'6"-10' 4/15/99	B4 2'-2'2" 4/16/99	B4 2'6"-3' 4/16/99
TCLP Metals:													
Arsenic	5,000	**9.1**	**12.6**	**15.6**	**5.7**	**8**	**3.8**	**3.7**	**4.8**	**5.8**	**10**	**4.7**	**9.4**
Barium	100,000	**1390**	**1100**	**892**	**850**	**1460**	**1560**	**1480**	**1060.0**	**1240**	**810**	**1510**	**548**
Cadmium	1,000	2 U	0.67 U	0.62 U	0.5 U	**52.2**	**20.8**	**3.5**	**23.1**	**17.1**	0.74 U	**23.7**	**9.2**
Chromium	5,000	**3**	**2**	**1.9**	**1.6**	**5.8**	**18.9**	0.9 U	0.9 U	7.3	**4.2**	**2.6**	**2.2**
Lead	5,000	**61.4 J**	**21.2 J**	**66.6 J**	**3.3 J**	**281 J**	**224 J**	**46 J**	**44.2 J**	**19.5 J**	**5.4 J**	**1170 J**	**244 J**
Mercury	200	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Selenium	1,000	9.4 U	**12.8**	**11.9**	9.1 U	8.7 U	4.8 U	8.5 U	9.2 U	10.5 U	10.7 U	7.3 U	**15.3**
Silver	5,000	10 U	10 U	10 U	10 U	10	10 U	**10**	10 U	**10**	**10**	10 U	**10**

Notes:
TCLP Toxic Characteristic Leaching Procedure.
HWRL Hazardous Waste Regulatory Levels as per 6 NYCRR Part 371 and 40 CFR Part 261.
Units are in micrograms per liter (ug/L).
Detections are identified in bold format.
Shaded cells represent detections above criteria.
U Undetected at the indicated detection limit.
J Estimated value (concentration less than quantification limit or validation deficiency).

TABLE 3-1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS - FORMER DRUM STORAGE AREAS
BROOKLYN NAVY YARD, BROOKLYN, NEW YORK

SAMPLE NO.:	NYSDEC	B4	B4	B4	B4	B5	B5	B5	B6	B6	B6	B6	B7
SAMPLE INTERVAL:	RSCO	3'6"-4'	4'-6'	6'-8'	13'-13'6"	1'-1'2"	1'6"-2'	9'-9'6"	1'-1'2"	1'6"-2'	2'6"-3'	8'6"-9'	0"-2"
SAMPLE DATE:		4/16/99	4/16/99	4/16/99	4/16/99	4/16/99	4/16/99	4/16/99	4/16/99	4/16/99	4/16/99	4/16/99	4/16/99
Volatiles													
Chloromethane	NL	11 U	57 U	12 U	12 U	11 U	11 U	12 U	11 U	11 U	15 U	11 U	11 U
Bromomethane	NL	11 UJ	57 U	12 UJ	12 UJ	11 UJ	11 U	12 UJ	11 U	11 U	15 U	11 U	11 U
Vinyl Chloride	200	11 UJ	57 U	12 UJ	12 UJ	11 UJ	11 UJ	12 UJ	11 U	11 U	15 U	11 U	11 U
Chloroethane	1,900	11 UJ	57 U	12 UJ	12 UJ	11 UJ	11 U	12 UJ	11 U	11 U	15 U	11 U	11 U
Methylene Chloride	100	11 U	57 U	12 U	12 U	11 U	11 U	12 U	11 U	11 U	15 U	11 U	11 U
Acetone	200	**16 J**	57 UJ	**9 J**	**14 J**	**8 J**	13 UJ	**11 J**	11 U	**8 J**	**13 J**	11 U	11 U
Carbon Disulfide	2,700	**6 J**	**10 J**	**4 J**	**5 J**	**4 J**	**6 J**	**5 J**	11 U	11 U	15 U	11 U	**1 J**
1,1-Dichloroethene	400	11 U	57 U	12 U	12 U	11 U	11 U	12 U	11 U	11 U	15 U	11 U	11 U
1,1-Dichloroethane	200	11 U	57 U	12 U	12 U	11 U	11 U	12 U	11 U	11 U	15 U	11 U	11 U
1,2-Dichloroethene (Total)	300	11 U	57 U	12 U	12 U	11 U	11 U	12 U	11 U	11 U	15 U	11 U	11 U
2-Butanone	300	11 UJ	57 UJ	**2 J**	**5 J**	**2 J**	**3 J**	12 UJ	11 U	11 U	15 U	11 U	11 U
Chloroform	300	11 U	57 U	12 U	12 U	11 U	11 U	12 U	11 U	11 U	15 U	11 U	11 U
1,2-Dichloroethane	100	11 U	57 U	12 U	12 U	11 U	11 U	12 U	11 U	11 U	15 U	11 U	11 U
1,1,1-Trichloroethane	800	11 U	57 U	12 U	12 U	11 U	11 U	12 U	11 U	11 U	15 U	11 U	11 U
Carbon Tetrachloride	600	11 U	57 U	12 U	12 U	11 U	11 U	12 U	11 U	11 U	15 U	11 U	11 U
Bromodichloromethane	NL	11 U	57 U	12 U	12 U	11 U	11 U	12 U	11 U	11 U	15 U	11 U	11 U
1,2-Dichloropropane	NL	11 U	57 U	12 U	12 U	11 U	11 U	12 U	11 U	11 U	15 U	11 U	11 U
cis-1,3-Dichloropropene	NL	11 U	57 U	12 U	12 U	11 U	11 U	12 U	11 U	11 U	15 U	11 U	11 U
Trichloroethene	700	11 U	57 U	12 U	12 U	11 U	11 UJ	12 U	11 U	11 U	15 U	11 U	11 U
Benzene	60	**2 J**	57 U	12 U	12 U	11 U	11 U	12 U	11 U	11 U	15 U	11 U	11 U
Dibromochloromethane	NL	11 U	57 U	12 U	12 U	11 U	11 U	12 U	11 U	11 U	15 U	11 U	11 U
trans-1,3-Dichloropropene	NL	11 U	57 U	12 U	12 U	11 U	11 U	12 U	11 U	11 U	15 U	11 U	11 U
1,1,2-Trichloroethane	NL	11 U	57 U	12 U	12 U	11 U	11 U	12 U	11 U	11 U	15 U	11 U	11 U
Bromoform	NL	11 U	57 U	12 U	12 U	11 U	11 U	12 U	11 UJ	11 UJ	15 UJ	11 UJ	11 UJ
4-Methyl-2-Pentanone	1,000	11 U	57 U	12 U	12 U	11 U	11 U	12 U	11 U	11 U	15 U	11 U	11 U
2-Hexanone	NL	11 U	57 U	12 U	12 U	11 U	11 UJ	12 U	11 U	11 U	15 U	11 U	11 U
Tetrachloroethene	600	11 U	57 U	12 U	12 U	11 U	11 U	12 U	11 U	11 U	15 U	11 U	11 U
1,1,2,2-Tetrachloroethane	1,400	11 U	57 U	12 U	12 U	11 U	11 U	12 U	11 U	11 U	15 U	11 U	11 U
Toluene	1,500	**1 J**	57 U	12 U	12 U	11 U	11 U	12 U	11 U	11 U	15 U	11 U	11 U
Chlorobenzene	1,700	11 U	57 U	12 U	12 U	11 U	11 UJ	12 U	11 U	11 U	15 U	11 U	11 U
Ethylbenzene	5,500	11 U	57 U	12 U	12 U	11 U	11 U	12 U	11 U	11 U	15 U	11 U	11 U
Styrene	NL	11 U	57 U	12 U	12 U	11 U	11 U	12 U	11 U	11 U	15 U	11 U	11 U
Xylenes (total)	1,200	11 U	**6 J**	12 U	**2 J**	**4 J**	11 U	**3 J**	11 U	11 U	15 U	11 U	11 U

Notes:

Units are in micrograms per kilogram (ug/kg).
Detections are identified in bold format.
Shaded cells represent detections above NYSDEC Recommended Soil Cleanup Objectives (RSCO) as per NYSDEC TAGM No. HWR-94-4046 (1/24/94).
NL Indicates that no RSCO value for this compound is listed in NYSDEC TAGM No. HWR-94-4046 (1/24/94).
U Undetected at the indicated detection limit.
J Estimated value (concentration less than quantification limit or validation deficiency).

TABLE 3-1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS - FORMER DRUM STORAGE AREAS
BROOKLYN NAVY YARD, BROOKLYN, NEW YORK

SAMPLE NO.: / SAMPLE INTERVAL: / SAMPLE DATE:	NYSDEC RSCO	B4 3'6"-4' 4/16/99	B4 4'-6' 4/16/99	B4 6'-8' 4/16/99	B4 13'-13'6" 4/16/99	B5 1'-1'2" 4/16/99	B5 1'6"-2' 4/16/99	B5 9'-9'6" 4/16/99	B6 1'-1'2" 4/16/99	B6 1'6"-2' 4/16/99	B6 2'6"-3' 4/16/99	B6 8'6"-9' 4/16/99	B7 0"-2" 4/16/99
Semi-Volatiles													
Phenol	30	370 U	380 U	400 U	400 U	360 U	360 U	410 U	360 U	370 U	510 U	770 U	3600 U
Bis(2-chloroethyl)ether	50,000	370 U	380 U	400 U	400 U	360 U	360 U	410 U	360 U	370 U	510 U	770 U	3600 U
2-Chlorophenol	800	370 U	380 U	400 U	400 U	360 U	360 U	410 U	360 U	370 U	510 U	770 U	3600 U
1,3-Dichlorobenzene	1,600	370 U	380 U	400 U	400 U	360 U	360 U	410 U	360 U	370 U	510 U	770 U	3600 U
1,4-Dichlorobenzene	8,500	370 UJ	380 UJ	400 UJ	400 UJ	360 UJ	360 UJ	410 UJ	360 UJ	370 UJ	510 UJ	770 UJ	**540 J**
1,2-Dichlorobenzene	7,900	370 U	380 U	400 U	400 U	360 U	360 U	410 U	360 U	370 U	510 U	770 U	3600 U
2-Methylphenol	100	370 U	380 U	400 U	400 U	360 U	360 U	410 U	360 U	370 U	510 U	770 U	3600 U
2,2'-oxybis-(1-chloropropane)	NL	370 U	380 U	400 U	400 U	360 U	360 U	410 U	360 U	370 U	510 U	770 UJ	3600 UJ
4-Methylphenol	900	370 U	380 U	400 U	400 U	360 U	360 U	410 U	360 U	**100 J**	**150 J**	770 U	3600 U
N-Nitroso-di-n-propylamine	NL	370 U	380 U	400 U	400 U	360 U	360 U	410 U	360 U	370 U	510 U	770 UJ	3600 U
Hexachloroethane	NL	370 U	380 U	400 U	400 U	360 U	360 U	410 U	360 U	370 U	510 U	770 U	3600 U
Nitrobenzene	200	370 U	380 U	400 U	400 U	360 U	360 U	410 U	360 U	370 U	510 U	770 U	3600 U
Isophorone	4,400	370 U	380 U	400 U	400 U	360 U	360 U	410 U	360 U	370 U	510 U	770 U	3600 U
2-Nitrophenol	330	370 U	380 U	400 U	400 U	360 U	360 U	410 U	360 U	370 U	510 U	770 U	3600 U
2,4-Dimethylphenol	NL	370 U	380 U	400 U	400 U	360 U	360 U	410 U	360 U	370 U	510 U	770 U	3600 U
Bis(2-chloroethoxy)methane	NL	370 U	380 U	400 U	400 U	360 U	360 U	410 U	360 U	370 U	510 U	770 U	3600 U
2,4-Dichlorophenol	400	370 U	380 U	400 U	400 U	360 U	360 U	410 U	360 U	370 U	510 U	770 U	3600 U
1,2,4-Trichlorobenzene	NL	370 U	380 U	400 U	400 U	360 U	360 U	410 U	360 U	370 U	510 U	770 U	**19000**
Naphthalene	13,000	**560**	**780**	**930**	**1100**	**460**	**190 J**	**850**	**1200**	**410**	**580**	**260 J**	3600 U
4-Chloroaniline	220	**37 J**	380 U	400 U	400 U	360 U	360 U	410 U	360 U	370 U	510 U	770 U	3600 U
Hexachlorobutadiene	NL	370 U	380 U	400 U	400 U	360 U	360 U	410 U	360 U	370 U	510 U	770 U	3600 U
4-Chloro-3-methylphenol	240	370 U	380 U	400 U	400 U	360 U	360 U	410 U	360 U	370 U	510 U	770 U	3600 U
2-Methylnaphthalene	36,400	**600**	**340 J**	**610**	**470**	**530**	**120 J**	**420**	**470**	**150 J**	**210 J**	**180 J**	3600 U
Hexachlorocyclopentadiene	NL	370 U	380 U	400 U	400 U	360 U	360 U	410 U	360 U	370 U	510 U	770 UJ	3600 UJ
2,4,6-Trichlorophenol	NL	370 U	380 U	400 U	400 U	360 U	360 U	410 U	360 U	370 U	510 U	770 U	3600 U
2,4,5-Trichlorophenol	100	930 U	950 U	990 U	1000 U	900 U	910 U	1000 U	890 U	920 U	1300 U	1900 U	8900 U
2-Chloronaphthalene	NL	370 U	380 U	400 U	400 U	360 U	360 U	410 U	360 U	370 U	510 U	770 U	3600 U
2-Nitroaniline	430	930 U	950 U	990 U	1000 U	900 U	910 U	1000 U	890 U	920 U	1300 U	1900 U	8900 U
Dimethylphthalate	2,000	370 U	380 U	400 U	400 U	360 U	360 U	410 U	360 U	370 U	510 U	770 U	3600 U
Acenaphthylene	41,000	**140 J**	**340 J**	**430**	**110 J**	**420**	**71 J**	**130 J**	**220 J**	**57 J**	**78 J**	770 U	3600 U
2,6-Dinitrotoluene	1,000	370 U	380 U	400 U	400 U	360 U	360 U	410 U	360 U	370 U	510 U	770 U	3600 U
3-Nitroaniline	500	930 U	950 U	990 U	1000 U	900 U	910 U	1000 U	890 U	920 U	1300 U	1900 U	8900 U
Acenaphthene	50,000	**290 J**	**450**	**1500**	**620**	**2600**	**180 J**	**530**	**600**	**230 J**	**320 J**	**360 J**	3600 U
2,4-Dinitrophenol	200	930 U	950 U	990 U	1000 U	900 U	910 UJ	1000 U	890 U	920 U	1300 U	1900 U	8900 UJ
4-Nitrophenol	100	930 UJ	950 UJ	**66 J**	1000 UJ	**110 J**	910 UJ	1000 UJ	890 UJ	920 UJ	1300 UJ	1900 UJ	8900 UJ
Dibenzofuran	6,200	370 U	**490**	**1300**	**380 J**	**1600**	**140 J**	**330 J**	**480**	**150 J**	**230 J**	**210 J**	3600 U
2,4-Dinitrotoluene	NL	370 UJ	380 UJ	400 UJ	400 UJ	360 UJ	360 UJ	410 UJ	360 UJ	370 UJ	510 UJ	770 UJ	3600 UJ

Notes:

Units are in micrograms per kilogram (ug/kg).

Detections are identified in bold format.

Shaded cells represent detections above NYSDEC Recommended Soil Cleanup Objectives (RSCO) as per NYSDEC TAGM No. HWR-94-4046 (1/24/94).

NL Indicates that no RSCO value for this compound is listed in NYSDEC TAGM No. HWR-94-4046 (1/24/94).

U Undetected at the indicated detection limit.

J Estimated value (concentration less than quantification limit or validation deficiency).

TABLE 3-1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS - FORMER DRUM STORAGE AREAS
BROOKLYN NAVY YARD, BROOKLYN, NEW YORK

SAMPLE NO.: SAMPLE INTERVAL: SAMPLE DATE:	NYSDEC RSCO	B4 3'6"-4' 4/16/99	B4 4'-6' 4/16/99	B4 6'-8' 4/16/99	B4 13'-13'6" 4/16/99	B5 1'-1'2" 4/16/99	B5 1'6"-2' 4/16/99	B5 9'-9'6" 4/16/99	B6 1'-1'2" 4/16/99	B6 1'6"-2' 4/16/99	B6 2'6"-3' 4/16/99	B6 8'6"-9' 4/16/99	B7 0"-2" 4/16/99
Semi-Volatiles - Cont'd													
Diethylphthalate	7,100	370 U	380 U	400 U	400 U	360 U	360 U	410 U	360 U	370 U	510 U	770 U	3600 U
Fluorene	50,000	**280 J**	**860**	**1800**	**680**	**2400**	**230 J**	**610**	**720**	**220 J**	**310 J**	**500 J**	3600 U
4-Chlorophenyl-phenylether	NL	370 U	380 U	400 U	400 U	360 U	360 U	410 U	360 U	370 U	510 U	770 U	3600 U
4-Nitroaniline	NL	930 U	950 U	990 U	1000 U	900 U	910 U	1000 U	890 U	920 U	1300 U	1900 U	8900 U
4,6-Dinitro-2-methylphenol	NL	930 U	950 U	990 U	1000 U	900 U	910 U	1000 U	890 U	920 U	1300 U	1900 U	8900 U
N-Nitrosodiphenylamine	NL	370 U	380 U	400 U	400 U	360 U	360 U	410 U	360 U	370 U	510 U	770 U	3600 U
4-Bromophenyl-phenylether	NL	370 U	380 U	400 U	400 U	360 U	360 U	410 U	360 U	370 U	510 U	770 U	3600 U
Hexachlorobenzene	410	370 U	380 U	400 U	400 U	360 U	360 U	410 U	360 U	370 U	510 U	770 U	3600 U
Pentachlorophenol	1,000	930 U	950 U	990 U	1000 U	900 U	910 U	1000 U	890 U	920 U	1300 U	1900 U	8900 UJ
Phenanthrene	50,000	**1100**	**4300**	**6100**	**2600**	**12000**	**1000**	**2100**	**3900**	**1100**	**1500**	**2400**	3600 U
Anthracene	50,000	**450**	**1600**	**2100**	**960**	**7300**	**280 J**	**750**	**1400**	**380**	**500 J**	**530 J**	3600 U
Carbazole	NL	**110 J**	**170 J**	**440**	**260 J**	**940**	**110 J**	**210 J**	**240 J**	**120 J**	**150 J**	**110 J**	3600 U
di-n-Butylphthalate	NL	370 U	380 U	400 U	400 U	360 U	360 U	410 U	360 U	370 U	510 U	770 U	3600 U
Fluoranthene	50,000	**2300**	**4200**	**6100**	**2600**	**23000**	**1000**	**2300**	**4300**	**1100**	**1400**	**1700**	3600 U
Pyrene	50,000	**2300**	**4400**	**6400**	**2400**	**19000**	**1000**	**2100**	**5000**	**940**	**1400**	**2000**	3600 U
Butylbenzylphthalate	50,000	370 U	380 U	400 U	400 U	360 U	360 U	410 U	360 U	370 U	510 U	770 U	3600 U
Benzo(a)anthracene	224	**1700**	**2500**	**3100**	**1600**	**7200**	**580**	**1200**	**2500**	**530**	**730**	**820**	3600 U
3,3'-Dichlorobenzidine	NL	370 U	380 U	400 U	400 U	360 U	360 U	410 U	360 U	370 U	510 U	770 U	3600 U
Chrysene	400	**1700**	**2400**	**3300**	**1700**	**7700**	**600**	**1200**	**2500**	**560**	**790**	**830**	3600 U
Bis(2-ethylhexyl)phthalate	50,000	370 U	380 U	400 U	400 U	360 U	360 U	410 U	360 U	370 U	510 U	770 UJ	3600 U
di-n-Octylphthalate	50,000	370 U	**51**	**44 J**	400 U	360 U	360 U	410 U	360 U	**99 J**	**140 J**	770 UJ	3600 U
Benzo(b)fluoranthene	1,100	**1400**	**1700**	**2300**	**2200 J**	**5400**	**520**	**1000 J**	**1900**	**350 J**	**540**	**690 J**	3600 U
Benzo(k)fluoranthene	1,100	**1200**	**1100**	**1700**	**1300**	**2300**	**470**	**890**	**1300**	**410**	**510 J**	**560 J**	3600 U
Benzo(a)pyrene	61	**1400**	**1700**	**2400**	**1900**	**4300**	**510**	**1200**	**2000**	**460**	**620**	**770**	3600 U
Indeno(1,2,3-cd)pyrene	3,200	**860**	**1100**	**1700**	**1300**	**1900**	**340 J**	**960**	**1500**	**310 J**	**460 J**	**630 J**	3600 U
Dibenz(a,h)anthracene	14	370 U	380 U	400 U	400 U	360 U	360 U	410 U	360 U	370 U	510 U	770 U	3600 U
Benzo(g,h,i)perylene	50,000	**970**	**1200**	**2000**	**1500**	**2000**	**410**	**1200**	**1700**	**350 J**	**530**	**730 J**	3600 U
GRO (mg/kg)	NL	**180 J**	**370 J**	**90 J**	**35 J**	**62 J**	35 UJ	**41 J**	**108 J**	35 U	35 U	**45 J**	**62 J**
DRO (mg/kg)	NL	**91**	**78**	**140**	**84 J**	**120**	**75 J**	**250 J**	**80**	**66**	**78**	**122**	**160**

Notes:

Units are in micrograms per kilogram (ug/kg).
Detections are identified in bold format.
Shaded cells represent detections above NYSDEC Recommended Soil Cleanup Objectives (RSCO) as per NYSDEC TAGM No. HWR-94-4046 (1/24/94).
NL Indicates that no RSCO value for this compound is listed in NYSDEC TAGM No. HWR-94-4046 (1/24/94).
U Undetected at the indicated detection limit.
J Estimated value (concentration less than quantification limit or validation deficiency).
GRO Gasoline range organics.
DRO Diesel range organics.

TABLE 3-1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS - FORMER DRUM STORAGE AREAS
BROOKLYN NAVY YARD, BROOKLYN, NEW YORK

SAMPLE NO.: SAMPLE INTERVAL: SAMPLE DATE:	NYSDEC RSCO	B4 3'6"-4' 4/16/99	B4 4'-6' 4/16/99	B4 6'-8' 4/16/99	B4 13'-13'6" 4/16/99	B5 1'-1'2" 4/16/99	B5 1'6"-2' 4/16/99	B5 9'-9'6" 4/16/99	B6 1'-1'2" 4/16/99	B6 1'6"-2' 4/16/99	B6 2'6"-3' 4/16/99	B6 8'6"-9' 4/16/99	B7 0"-2" 4/16/99
Pesticides/PCBs													
alpha-BHC	110	9.4 U	9.6 U	10 U	10 U	9.2 U	9.3 U	10 U	9.1 U	9.4 U	13 U	9.8 U	9.1 U
beta-BHC	200	9.4 U	9.6 U	10 U	10 U	9.2 U	9.3 U	10 U	9.1 U	9.4 U	13 U	9.8 U	9.1 U
delta-BHC	300	9.4 U	9.6 U	10 U	10 U	9.2 U	9.3 U	10 U	9.1 U	9.4 U	13 U	9.8 U	9.1 U
gamma-BHC(Lindane)	60	9.4 U	9.6 U	10 U	10 U	9.2 U	9.3 U	10 U	9.1 U	9.4 U	13 U	9.8 U	9.1 U
Heptachlor	100	9.4 U	9.6 U	10 U	10 U	9.2 U	9.3 U	10 U	9.1 U	9.4 U	13 U	9.8 U	9.1 U
Aldrin	41	9.4 U	9.6 U	10 U	10 U	9.2 U	9.3 U	10 U	9.1 U	9.4 U	13 U	9.8 U	9.1 U
Heptachlor epoxide	20	9.4 U	9.6 U	10 U	10 U	9.2 U	9.3 U	10 U	9.1 U	9.4 U	13 U	9.8 U	**16 J**
Endosulfan I	900	9.4 U	9.6 U	10 U	10 U	9.2 U	**4.9 J**	10 U	9.1 U	9.4 U	13 U	9.8 U	9.1 U
Dieldrin	44	18 U	**12 J**	20 U	20 U	18 U	18 U	20 U	18 U	18 U	25 U	19 U	18 U
4,4'-DDE	2,100	18 U	19 U	20 U	20 U	18 U	18 U	20 U	18 U	18 U	25 U	19 U	18 U
Endrin	100	18 U	19 U	20 U	20 U	18 U	18 U	20 U	18 U	18 U	25 U	19 U	**590 J**
Endosulfan II	900	18 U	19 U	20 U	20 U	18 U	18 U	20 U	18 U	18 U	25 U	19 U	18 U
4,4'-DDD	2,900	18 U	19 U	20 U	20 U	18 U	18 U	20 U	18 U	18 U	25 U	19 U	**670 J**
Endosulfan sulfate	1,000	18 U	19 U	20 U	20 U	18 U	18 U	20 U	18 U	18 U	25 U	19 U	18 U
4,4'-DDT	2,100	18 U	**11 J**	20 U	20 U	18 U	18 U	20 U	18 U	18 U	25 U	19 U	18 U
Methoxychlor	*	94 U	96 U	100 U	100 U	92 U	93 U	100 U	91 U	94 U	130 U	98 U	**2600 J**
Endrin ketone	NL	18 U	19 U	20 U	20 U	18 U	18 U	20 U	18 U	18 U	25 U	19 U	**1600 J**
Endrin aldehyde	NL	18 U	**13 J**	20 U	20 U	**52 J**	18 U	20 U	**21 J**	**15 J**	25 U	**14 J**	**16000 J**
alpha-Chlordane	540	9.4 U	9.6 U	10 U	10 U	9.2 U	9.3 U	10 U	9.1 U	9.4 U	13 U	9.8 U	9.1 U
gamma-Chlordane	540	9.4 U	9.6 U	10 U	10 U	9.2 U	9.3 U	10 U	9.1 U	9.4 U	13 U	9.8 U	9.1 U
Toxaphene	NL	940 U	960 U	1000 U	1000 U	920 U	930 U	1000 U	910 U	940 U	1300 U	980 U	910 UJ
Aroclor-1016	**	180 U	190 U	200 U	200 U	180 U	180 U	200 U	180 U	180 U	250 U	190 U	**180 UJ***
Aroclor-1221	**	370 U	380 U	400 U	400 U	360 U	360 U	420 U	360 U	370 U	520 U	380 U	**360 UJ***
Aroclor-1232	**	180 U	190 U	200 U	200 U	180 U	180 U	200 U	180 U	180 U	250 U	190 U	**180 UJ***
Aroclor-1242	**	180 U	190 U	200 U	200 U	180 U	180 U	200 U	180 U	80 U	250 U	190 U	**180 UJ***
Aroclor-1248	**	180 U	**1400**	200 U	200 U	180 U	180 U	200 U	180 U	180 U	250 U	190 U	**180 UJ***
Aroclor-1254	**	180 U	190 U	200 U	200 U	180 U	180 U	200 U	180 U	180 U	250 U	190 U	**180 UJ***
Aroclor-1260	**	180 U	**340 J**	**160 J**	200 UJ	**4700**	**720**	**200 J**	**2200**	**1500**	**1200**	**1200**	**1400000**

Notes:

Units are in micrograms per kilogram (ug/kg).
Detections are identified in bold format.
Shaded cells represent detections above NYSDEC Recommended Soil Cleanup Objectives (RSCO) as per NYSDEC TAGM No. HWR-94-4046 (1/24/94).
NL Indicates that no RSCO value for this compound is listed in NYSDEC TAGM No. HWR-94-4046 (1/24/94).
U Undetected at the indicated detection limit.
J Estimated value (concentration less than quantification limit or validation deficiency).
UJ Value undetermined due to peak saturation.
* As per TAGM NO. 4046, Total Pesticides<10 mg/kg.
** As per NYSDEC-approved January 1997 Final Project Work Plan, Cleanup levels for PCB's shall be 10 mg/kg for soil in the upper 12 inches, and 25 mg/kg for soils at depths greater than 12 inches.

TABLE 3-1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS - FORMER DRUM STORAGE AREAS
BROOKLYN NAVY YARD, BROOKLYN, NEW YORK

SAMPLE NO.: / SAMPLE INTERVAL: / SAMPLE DATE:	EASTERN US[1] (mg/kg)	New York Region[2] (mg/kg)	NYSDEC RSCO	B4 3'6"-4' 4/16/99	B4 4'-6' 4/16/99	B4 6'-8' 4/16/99	B4 13'-13'6" 4/16/99	B5 1'-1'2" 4/16/99	B5 1'6"-2' 4/16/99	B5 9'-9'6" 4/16/99	B6 1'-1'2" 4/16/99	B6 1'6"-2' 4/16/99	B6 2'6"-3' 4/16/99	B6 8'6"-9' 4/16/99	B7 0"-2" 4/16/99
Inorganics															
Aluminum	7000 - >100000	33000	SB	6500	7410	3650	6210	6250	7250	5660	6450	8380	9800	6030	3600
Antimony	<1 - 8.8	N/A	SB	0.65 UJ	0.66 UJ	0.69 UJ	0.7 UJ	0.63 UJ	0.63 UJ	0.72 UJ	0.62 UJ	0.64 UJ	0.89 UJ	0.76 UJ	0.62 UJ
Arsenic	<0.1 - 73	3 - 12	7.5 or SB	4.0 U	2.1 U	6.9	3.2 U	3.2 U	2.2 U	3.9 U	3.4 J	2.7 J	14.4 J	3.7 J	3.7 J
Barium	10 - 1500	15 - 600	300 or SB	87.3	61.3	76.1	83.7	67.5	57	58	86.6	51.1	128	91.2	37.4
Beryllium	<1 - 7	0 - 1.75	0.16 or SB	0.38	0.46	0.3	0.35	0.39	0.41	0.35	0.35 J	0.45 J	0.57 J	0.36 J	0.32 UJ
Cadmium	N/A	0.1 - 1	1 or SB	0.11 U	0.11 U	0.12 U	0.12 U	0.11 U	0.11 UJ	0.12 UJ	0.11 U	0.11 U	13	0.12 U	0.11 U
Calcium	100 - 280000	130 - 35000	SB	3580 J	5630 J	2510 J	4510 J	33100 J	6300 J	3310 J	4470 J	5480 J	8380 J	10300 J	2010 J
Chromium	1 - 1000	1.5 - 40	10 or SB	14.1	15.3	13.6	18.3	15.9	16.5	13.5	15.1 J	18.6 J	22.4 J	17 J	15.4 J
Cobalt	<0.3 - 70	2.5 - 60	30 or SB	8.9	6.8	6.2	7.3	6.4	6.1	6.3	6.4	7.5	10 J	7.1	7.4
Copper	<1 - 700	<1 - 50	25 or SB	46.3	45	53.6	60.4	72	27.3	35.6	79	29.1	77.7	43.5	43.7
Iron	100 - >100000	2000 - 550000	2,000 or SB	30000	15900	21000	14600	15400	13700	18900	13100	16000	28100	14100	14600
Lead	<10 - 300	200 - 500	SB****	175	107	159	132	93.1	49.9	140	88.4 J	34.2 J	553 J	86.2 J	524 J
Magnesium	50 - 50000	100 - 5000	SB	1990 J	2670 J	1480 J	2400 J	9330 J	3690 J	2470 J	2640 J	4350 J	2700 J	2920 J	6830 J
Manganese	<2 - 7000	50 - 5000	SB	397 J	276 J	133 J	210 J	231 J	285 J	308 J	230 J	305 J	556 J	230 J	221 J
Mercury	0.01 - 3.4	0.001 - 0.2	0.1	1.1	0.15	0.49	0.18	0.34	0.24	0.25	0.32 J	0.1 J	0.82 J	0.24 J	0.091 J
Nickel	<5 - 700	0.5 - 25	13 or SB	14.8	13.9	14.5	14.5	11	12.8	13.2	10.9 J	12.9 J	19 J	12.9 J	70.1 J
Potassium	50 - 37000	8500 - 43000	SB	750 J	1030 J	789 J	981 J	862 J	1020 J	1190 J	852 J	1360 J	861 J	1010 J	671 J
Selenium	<0.1 - 3.9	<0.1 - 3.9	2 or SB	1.6 U	0.60 U	1.2 U	0.65 U	0.45 U	1.5	0.47 U	0.74	0.44	3.3	0.84	0.41 U
Silver	N/A	N/A	SB	0.32 U	0.33 U	0.23 U	0.14 U	0.15 U	0.17 U	0.40 U	0.28	0.18	0.41	0.21	0.23
Sodium	<500 - 50000	6000 - 8000	SB	3130	4120	2250	773	263	216 U	757	197	323	260	311	108
Thallium	2.2 - 23	N/A	SB	0.48 U	0.37 U	0.52 U	0.44 U	0.26 U	0.39 U	0.3 U	0.45 U	0.26 U	0.76 UJ	0.47 U	0.26 U
Vanadium	<7 - 300	1 - 300	150 or SB	17.6	19.1	18.2	18.3	16.4	20	19.1	23.1	27.4	32.4	21.5	18
Zinc	<5 - 2900	9 - 50	20 or SB	164 J	89.1 J	119 J	506 J	314 J	62.7 J	86.8 J	92.8	58	5630	235	96.1
Cyanide	N/A	N/A	***	0.28 U	0.28 U	0.54	0.3 U	0.27 U	0.27 U	0.31 U	0.53 U	0.55 U	4.2	0.58 U	0.53 U

Notes:

Units are in milligrams per kilogram(mg/kg).
Detections are identified in bold format.
Shaded cells represent detections above NYSDEC Recommended Soil Cleanup Objectives (RSCO) as per NYSDEC TAGM No. HWR-94-4046 (1/24/94).
U Undetected at the indicated detection limit.
J Estimated value (concentration less than quantification limit or validation deficiency).
1 Shacklette, HT and JG Boerngen, 1984. Element Concentrations in Soils and Other Surficial Materials of the Conterminous United States, USGS Professional Paper 1270.
2 Background Concentrations of 20 Elements in Soils with Special Regard for New York Sate, E. Carol McGovern,NYSDEC Wildlife Resources Center
SB Site Background
** New York State background as per TAGM 4046.
*** As per TAGM 4046, some forms of Cyanide are complex and very stable while other forms are pH dependent and unstable.
Site specific form(s) of Cyanide should be taken into account when establishing soil cleanup objectives.
**** Background levels for lead vary widely. Average levels in undeveloped, rural areas may range from 4-61mg/kg.
Average background levels in metropolitan suburban areas or near highways are much higher and typically range from 200-500 mg/kg.

TABLE 3-1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS - FORMER DRUM STORAGE AREAS
BROOKLYN NAVY YARD, BROOKLYN, NEW YORK

SAMPLE NO.: SAMPLE INTERVAL: SAMPLE DATE:	NYSDEC HWRL	B4 3'6"-4' 4/16/99	B4 4'-6' 4/16/99	B4 6'-8' 4/16/99	B4 13'-13'6" 4/16/99	B5 1'-1'2" 4/16/99	B5 1'6"-2' 4/16/99	B5 9'-9'6" 4/16/99	B6 1'-1'2" 4/16/99	B6 1'6"-2' 4/16/99	B6 2'6"-3' 4/16/99	B6 8'6"-9' 4/16/99	B7 0"-2" 4/16/99
TCLP Metals:													
Arsenic	5,000	**8**	NA	**8.3**	**5.4**	NA	NA	**4.7**	NA	NA	11.7 U	NA	10 U
Barium	100,000	**1140**	NA	**901**	**1040**	NA	NA	**1200**	NA	NA	**1510**	NA	**1270**
Cadmium	1,000	**6.7**	NA	**5.5**	**3.6**	NA	NA	**4.2**	NA	NA	**48.7 J**	NA	2.9 UJ
Chromium	5,000	**3.5**	NA	**2.3**	**1.5**	NA	NA	**2.3**	NA	NA	1.2 U	NA	1 U
Lead	5,000	**304 J**	NA	**353 J**	**156 J**	NA	NA	**212 J**	NA	NA	**1340 J**	NA	**2320 J**
Mercury	200	1 U	NA	1 U	1 U	NA	NA	1 U	NA	NA	1 U	NA	1 U
Selenium	1,000	10.6 U	NA	11.1 U	10 U	NA	NA	8.3 U	NA	NA	21.2 U	NA	17.4 U
Silver	5,000	10.0 U	NA	**10**	**10**	NA	NA	**10**	NA	NA	10 U	NA	10 U

Notes:
TCLP Toxic Characteristic Leaching Procedure.
HWRL Hazardous Waste Regulatory Levels as per 6 NYCRR Part 371 and 40 CFR Part 261.
Units are in micrograms per liter (ug/L).
Detections are identified in bold format.
Shaded cells represent detections above criteria.
U Undetected at the indicated detection limit.
J Estimated value (concentration less than quantification limit or validation deficiency).

TABLE 3-1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS - FORMER DRUM STORAGE AREAS
BROOKLYN NAVY YARD, BROOKLYN, NEW YORK

SAMPLE NO.: SAMPLE INTERVAL: SAMPLE DATE:	NYSDEC RSCO	B7 6"-12" 4/16/99	B7 2'-4' 4/16/99	B7 4'-6' 4/16/99	B7 7'-7'6" 4/16/99	B8 1'-1'2" 4/16/99	B8 1'6"-2' 4/16/99	B8 5'-7' 4/16/99	B8 8'6"-9' 4/16/99	B8 13'-13'6" 4/16/99	B9 0"-12" 4/16/99	FIELD BLANK 4/16/99	FIELD BLANK 4/17/99
Volatiles													
Chloromethane	NL	11 U	11 U	11 U	13 U	11 U	11 U	12 U	12 U	12 U	11 U	10 U	10 U
Bromomethane	NL	11 U	11 U	11 U	13 U	11 U	11 U	12 UJ	12 U	12 UJ	11 U	10 U	10 U
Vinyl Chloride	200	11 U	11 U	11 U	13 U	11 U	11 U	12 UJ	12 U	12 UJ	11 U	10 U	10 U
Chloroethane	1,900	11 U	11 U	11 U	13 U	11 U	11 U	12 UJ	12 U	12 UJ	11 U	10 U	10 U
Methylene Chloride	100	11 U	11 U	11 U	13 U	11 U	11 U	12 U	12 U	12 U	11 U	10 UJ	10 UJ
Acetone	200	11 U	11 U	11 U	**15**	11 U	11 U	12 UJ	12 U	**4 J**	11 U	10 UJ	10 UJ
Carbon Disulfide	2,700	11 U	11 U	11 U	**3 J**	11 U	11 U	12 U	12 U	12 U	11 U	10 U	10 U
1,1-Dichloroethene	400	11 U	11 U	11 U	13 U	11 U	11 U	12 U	12 U	12 U	11 UJ	10 U	10 U
1,1-Dichloroethane	200	11 U	11 U	11 U	13 U	11 U	11 U	12 U	12 U	12 U	11 U	10 U	10 U
1,2-Dichloroethene (Total)	300	11 U	11 U	11 U	13 U	11 U	11 U	12 U	12 U	12 U	11 U	10 U	10 U
2-Butanone	300	11 U	11 U	11 U	13 U	11 U	11 U	12 UJ	12 U	12 UJ	11 U	10 U	10 U
Chloroform	300	11 U	11 U	11 U	13 U	11 U	11 U	12 U	12 U	12 U	11 U	10 U	10 U
1,2-Dichloroethane	100	11 U	11 U	11 U	13 U	11 U	11 U	12 U	12 U	12 U	11 U	10 U	10 U
1,1,1-Trichloroethane	800	11 U	11 U	11 U	13 U	11 U	11 U	12 U	12 U	12 U	11 U	10 U	10 U
Carbon Tetrachloride	600	11 U	11 U	11 U	13 U	11 U	11 U	12 U	12 U	12 U	11 U	10 U	10 U
Bromodichloromethane	NL	11 U	11 U	11 U	13 U	11 U	11 U	12 U	12 U	12 U	11 U	10 U	10 U
1,2-Dichloropropane	NL	11 U	11 U	11 U	13 U	11 U	11 U	12 U	12 U	12 U	11 U	10 U	10 U
cis-1,3-Dichloropropene	NL	11 U	11 U	11 U	13 U	11 U	11 U	12 U	12 U	12 U	11 U	10 U	10 U
Trichloroethene	700	11 U	11 U	11 U	13 U	11 U	11 U	12 U	12 U	12 U	11 UJ	10 U	10 U
Benzene	60	11 U	11 U	11 U	13 U	11 U	11 U	12 U	12 U	12 U	11 UJ	10 U	10 U
Dibromochloromethane	NL	11 U	11 U	11 U	13 U	11 U	11 U	12 U	12 U	12 U	11 U	10 U	10 U
trans-1,3-Dichloropropene	NL	11 U	11 U	11 U	13 U	11 U	11 U	12 U	12 U	12 U	11 U	10 U	10 U
1,1,2-Trichloroethane	NL	11 U	11 U	11 U	13 U	11 U	11 U	12 U	12 U	12 U	11 U	10 U	10 U
Bromoform	NL	11 UJ	11 UJ	11 UJ	13 UJ	11 UJ	11 UJ	12 U	12 UJ	12 U	11 UJ	10 UJ	10 UJ
4-Methyl-2-Pentanone	1,000	11 U	11 U	11 U	13 U	11 U	11 U	12 U	12 U	12 U	11 U	10 U	10 U
2-Hexanone	NL	11 U	11 U	11 U	13 U	11 U	11 U	12 U	12 U	12 U	11 U	10 UJ	10 UJ
Tetrachloroethene	600	11 U	11 U	11 U	13 U	11 U	11 U	12 U	12 U	12 U	11 U	10 U	10 U
1,1,2,2-Tetrachloroethane	1,400	11 U	11 U	11 U	13 U	11 U	11 U	12 U	12 U	12 U	11 U	10 UJ	10 UJ
Toluene	1,500	11 U	11 U	11 U	13 U	11 U	11 U	12 U	12 U	12 U	11 UJ	10 U	10 U
Chlorobenzene	1,700	11 U	11 U	11 U	**180**	11 U	11 U	12 U	12 U	12 U	11 UJ	10 U	10 U
Ethylbenzene	5,500	11 U	11 U	11 U	13 U	11 U	11 U	12 U	12 U	12 U	11 U	10 U	10 U
Styrene	NL	11 U	11 U	11 U	13 U	11 U	11 U	12 U	12 U	12 U	11 U	10 U	10 U
Xylenes (total)	1,200	11 U	11 U	11 U	13 U	11 U	11 U	12 U	12 U	12 U	11 U	10 U	10 U

Notes:

Units are in micrograms per kilogram (ug/kg).
Detections are identified in bold format.
Shaded cells represent detections above NYSDEC Recommended Soil Cleanup Objectives (RSCO) as per NYSDEC TAGM No. HWR-94-4046 (1/24/94).
NL Indicates that no RSCO value for this compound is listed in NYSDEC TAGM No. HWR-94-4046 (1/24/94).
U Undetected at the indicated detection limit.
J Estimated value (concentration less than quantification limit or validation deficiency).

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SAMPLE NO.: SAMPLE INTERVAL: SAMPLE DATE:	NYSDEC RSCO	B7 6"-12" 4/16/99	B7 2'-4' 4/16/99	B7 4'-6' 4/16/99	B7 7'-7'6" 4/16/99	B8 1'-1'2" 4/16/99	B8 1'6"-2' 4/16/99	B8 5'-7' 4/16/99	B8 8'6"-9' 4/16/99	B8 13'-13'6" 4/16/99	B9 0"-12" 4/16/99	FIELD BLANK 4/16/99	FIELD BLANK 4/17/99
Semi-Volatiles													
Phenol	30	3800 U	3800 U	7600 U	4200 U	370 U	360 U	410 U	410 U	390 U	**44 J**	10 UJ	10 U
Bis(2-chloroethyl)ether	50,000	3800 U	3800 U	7600 U	4200 U	370 U	360 U	410 U	410 U	390 U	380 U	10 UJ	10 U
2-Chlorophenol	800	3800 U	3800 U	7600 U	4200 U	370 U	360 U	410 U	410 U	390 U	380 U	10 UJ	10 U
1,3-Dichlorobenzene	1,600	3800 U	3800 U	7600 U	**39000 J**	370 U	360 U	410 U	410 U	390 U	380 U	10 UJ	10 U
1,4-Dichlorobenzene	8,500	3800 UJ	3800 UJ	7600 UJ	**33000 J**	370 UJ	360 UJ	410 UJ	410 UJ	390 UJ	380 UJ	10 UJ	10 U
1,2-Dichlorobenzene	7,900	3800 U	3800 U	7600 U	**1800 J**	370 U	360 U	410 U	410 U	390 U	380 U	10 UJ	10 U
2-Methylphenol	100	3800 U	3800 U	7600 U	4200 U	370 U	360 U	410 U	410 U	390 U	380 U	10 UJ	10 U
2,2'-oxybis-(1-chloropropane)	NL	3800 UJ	3800 UJ	7600 U	4200 UJ	370 UJ	360 UJ	410 UJ	410 UJ	390 UJ	380 UJ	10 UJ	10 U
4-Methylphenol	900	3800 U	3800 U	7600 U	4200 U	370 U	360 U	410 U	410 U	390 U	**95 J**	10 UJ	10 U
N-Nitroso-di-n-propylamine	NL	3800 U	3800 U	7600 U	4200 U	370 UJ	360 UJ	410 UJ	410 UJ	390 UJ	380 UJ	10 UJ	10 U
Hexachloroethane	NL	3800 U	3800 U	7600 U	4200 U	370 U	360 U	410 U	410 U	390 U	380 U	10 UJ	10 U
Nitrobenzene	200	3800 U	3800 U	7600 U	4200 U	370 U	360 U	410 U	410 U	390 U	380 U	10 UJ	10 U
Isophorone	4,400	3800 U	3800 U	7600 U	4200 U	370 U	360 U	410 U	410 U	390 U	**42 J**	10 UJ	10 U
2-Nitrophenol	330	3800 U	3800 U	7600 U	4200 U	370 U	360 U	410 U	410 U	390 U	380 U	10 UJ	10 U
2,4-Dimethylphenol	NL	3800 U	3800 U	7600 U	4200 U	370 U	360 U	410 U	410 U	390 U	380 U	10 UJ	10 U
Bis(2-chloroethoxy)methane	NL	3800 U	3800 U	7600 U	4200 U	370 U	360 U	410 U	410 U	390 U	380 U	10 UJ	10 U
2,4-Dichlorophenol	400	3800 U	3800 U	7600 U	4200 U	370 U	360 U	410 U	410 U	390 U	380 U	10 UJ	10 U
1,2,4-Trichlorobenzene	NL	**7100**	3800 U	**35000**	**590000**	**330 J**	**640 J**	410 U	**81 J**	390 UJ	380 U	10 UJ	10 U
Naphthalene	13,000	3800 U	3800 U	7600 U	4200 U	370 U	**160 J**	**68 J**	**81 J**	**200 J**	**100 J**	10 UJ	10 U
4-Chloroaniline	220	3800 U	3800 U	7600 U	4200 U	370 U	360 U	410 U	410 U	390 U	380 U	10 UJ	10 U
Hexachlorobutadiene	NL	3800 U	3800 U	7600 U	4200 U	370 U	360 U	410 U	410 U	390 U	380 U	10 UJ	10 U
4-Chloro-3-methylphenol	240	3800 U	3800 U	7600 U	4200 U	370 U	360 U	410 U	410 U	390 U	380 U	10 UJ	10 U
2-Methylnaphthalene	36,400	3800 U	3800 U	7600 U	4200 U	370 U	**76 J**	**49 J**	**55 J**	**160 J**	**55 J**	10 UJ	10 U
Hexachlorocyclopentadiene	NL	3800 UJ	3800 UJ	7600 UJ	4200 UJ	370 UJ	360 UJ	410 UJ	410 UJ	390 UJ	380 UJ	10 UJ	10 U
2,4,6-Trichlorophenol	NL	3800 U	3800 U	7600 U	4200 U	370 U	360 U	410 U	410 U	390 U	380 U	10 UJ	10 U
2,4,5-Trichlorophenol	100	9500 U	9400 U	19000 U	11000 U	930 U	910 U	1000 U	1000 U	960 U	960 U	25 UJ	25 U
2-Chloronaphthalene	NL	3800 U	3800 U	7600 U	4200 U	370 U	360 U	410 U	410 U	390 U	380 U	10 UJ	10 U
2-Nitroaniline	430	9500 U	9400 U	19000 U	11000 U	930 U	910 U	1000 U	1000 U	960 U	960 U	25 UJ	25 U
Dimethylphthalate	2,000	3800 U	3800 U	7600 U	4200 U	370 U	360 U	410 U	410 U	390 U	**330 J**	10 UJ	10 U
Acenaphthylene	41,000	3800 U	3800 U	7600 U	4200 U	370 U	360 UJ	**75 J**	**57 J**	**140 J**	**70 J**	10 UJ	10 U
2,6-Dinitrotoluene	1,000	3800 U	3800 U	7600 U	4200 U	370 U	360 U	410 U	410 U	390 U	380 U	10 UJ	10 U
3-Nitroaniline	**500**	**9500 U**	**9400 U**	**19000 U**	**11000 U**	**930 U**	**910 U**	**1000 U**	**1000 U**	**960 U**	**960 U**	**25 UJ**	**25 U**
Acenaphthene	50,000	3800 U	3800 U	7600 U	4200 U	370 U	**210 J**	**99 J**	**61 J**	**410 J**	**120 J**	10 UJ	10 U
2,4-Dinitrophenol	200	9500 UJ	9400 UJ	19000 U	11000 UJ	930 U	910 U	1000 U	1000 U	960 U	960 U	25 UJ	25 U
4-Nitrophenol	100	9500 UJ	9400 UJ	19000 UJ	11000 UJ	930 UJ	910 UJ	1000 UJ	1000 UJ	960 UJ	**59 J**	25 UJ	25 U
Dibenzofuran	6,200	3800 U	3800 U	7600 U	4200 U	370 U	**170 J**	**94 J**	**57 J**	**280 J**	**58 J**	10 UJ	10 U
2,4-Dinitrotoluene	NL	3800 UJ	3800 UJ	7600 UJ	4200 UJ	370 UJ	360 UJ	410 UJ	410 UJ	390 UJ	380 UJ	10 UJ	10 U

Notes:

Units are in micrograms per kilogram (ug/kg).
Detections are identified in bold format.
Shaded cells represent detections above NYSDEC Recommended Soil Cleanup Objectives (RSCO) as per NYSDEC TAGM No. HWR-94-4046 (1/24/94).
NL Indicates that no RSCO value for this compound is listed in NYSDEC TAGM No. HWR-94-4046 (1/24/94).
U Undetected at the indicated detection limit.
J Estimated value (concentration less than quantification limit or validation deficiency).

TABLE 3-1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS - FORMER DRUM STORAGE AREAS
BROOKLYN NAVY YARD, BROOKLYN, NEW YORK

SAMPLE NO.: SAMPLE INTERVAL: SAMPLE DATE:	NYSDEC RSCO	B7 6"-12" 4/16/99	B7 2'-4' 4/16/99	B7 4'-6' 4/16/99	B7 7'-7'6" 4/16/99	B8 1'-1'2" 4/16/99	B8 1'6"-2' 4/16/99	B8 5'-7' 4/16/99	B8 8'6"-9' 4/16/99	B8 13'-13'6" 4/16/99	B9 0"-12" 4/16/99	FIELD BLANK 4/16/99	FIELD BLANK 4/17/99
Semi-Volatiles - Cont'd													
Diethylphthalate	7,100	3800 U	3800 U	7600 U	4200 U	370 U	360 U	410 U	410 U	390 U	**46 J**	10 UJ	10 U
Fluorene	50,000	3800 U	3800 U	7600 U	4200 U	370 U	**190 J**	**170 J**	**58 J**	**400 J**	**110 J**	10 UJ	10 U
4-Chlorophenyl-phenylether	NL	3800 U	3800 U	7600 U	4200 U	370 U	360 U	410 U	410 U	390 U	380 U	10 UJ	10 U
4-Nitroaniline	NL	9500 U	9400 U	19000 U	11000 U	930 U	910 U	1000 U	1000 U	960 U	960 U	25 UJ	25 U
4,6-Dinitro-2-methylphenol	NL	9500 U	9400 U	19000 U	11000 U	930 U	910 U	1000 U	1000 U	960 U	960 U	25 UJ	25 U
N-Nitrosodiphenylamine	NL	3800 U	3800 U	7600 U	4200 U	370 U	360 U	410 U	410 U	390 U	380 U	10 UJ	10 U
4-Bromophenyl-phenylether	NL	3800 U	3800 U	7600 U	4200 U	370 U	360 U	410 U	410 U	390 U	380 U	10 UJ	10 U
Hexachlorobenzene	410	3800 U	3800 U	7600 U	4200 U	370 U	360 U	410 U	410 U	390 U	380 U	10 UJ	10 U
Pentachlorophenol	1,000	9500 UJ	9400 UJ	19000 U	11000 UJ	930 U	910 U	1000 U	1000 U	960 U	960 U	25 UJ	25 U
Phenanthrene	50,000	3800 U	**1200 J**	7600 U	4200 U	**280 J**	**2100**	**1200**	**840**	**3500**	**990**	10 UJ	10 U
Anthracene	50,000	3800 U	3800 U	7600 U	4200 U	**83 J**	**390 J**	**350 J**	**280 J**	**1000 J**	**270 J**	10 UJ	10 U
Carbazole	NL	3800 U	3800 U	7600 U	4200 U	**43 J**	**240 J**	**80 J**	**80 J**	**510 J**	**110 J**	10 UJ	10 U
di-n-Butylphthalate	NL	3800 U	3800 U	7600 U	4200 U	370 U	360 U	410 U	410 U	390 U	380 U	10 UJ	10 U
Fluoranthene	50,000	3800 U	**1800 J**	7600 U	**1300 J**	**370 J**	**1700 J**	**1200**	**1200**	**3700 J**	**1000**	10 UJ	10 U
Pyrene	50,000	3800 U	**1700 J**	**950 J**	**2600 J**	**390**	**1900 J**	**1300**	**1300**	**4500 J**	**1400**	10 UJ	10 U
Butylbenzylphthalate	50,000	3800 U	3800 U	7600 U	4200 U	370 U	360 U	410 U	410 U	390 U	380 U	10 UJ	10 U
Benzo(a)anthracene	224	3800 U	**950 J**	7600 U	4200 U	**230 J**	**960 J**	**720**	**800**	**2500 J**	**690**	10 UJ	10 U
3,3'-Dichlorobenzidine	NL	3800 U	3800 U	7600 U	4200 U	370 U	360 U	410 U	410 U	390 U	380 U	10 UJ	10 U
Chrysene	400	3800 U	**790 J**	7600 U	4200 U	**250 J**	**1000 J**	**760**	**850**	**2500 J**	**790**	10 UJ	10 U
Bis(2-ethylhexyl)phthalate	50,000	3800 U	**6800**	7600 U	4200 U	370 UJ	**2800 J**	**910 J**	**1800 J**	**700 J**	**1900 J**	**3 J**	10 U
di-n-Octylphthalate	50,000	3800 U	3800 U	7600 U	**480 J**	370 UJ	360 UJ	**76 J**	**56 J**	390 UJ	380 UJ	10 UJ	10 U
Benzo(b)fluoranthene	1,100	3800 U	**1000 J**	**960 J**	**630 J**	**210 J**	**820 J**	**680**	**840**	**2000 J**	**710**	10 UJ	10 U
Benzo(k)fluoranthene	1,100	3800 U	**830 J**	**1200 J**	**910 J**	**200 J**	**590 J**	**430**	**660**	**1200 J**	**500**	10 UJ	10 U
Benzo(a)pyrene	61	3800 U	**940 J**	7600 U	**880 J**	**230 J**	**740**	**660**	**750**	**1900**	**740**	10 UJ	10 U
Indeno(1,2,3-cd)pyrene	3,200	3800 U	**680 J**	7600 U	**710 J**	**240 J**	**890**	**590**	**730**	**1900**	**780**	10 UJ	10 U
Dibenz(a,h)anthracene	14	3800 U	3800 U	7600 U	4200 U	370 U	360 U	410 U	410 U	390 U	380 U	10 UJ	10 U
Benzo(g,h,i)perylene	50,000	3800 U	**770 J**	7600 U	**790 J**	**290 J**	**1000**	**680**	**830**	**2200**	**960**	10 UJ	10 U
GRO (mg/kg)	NL	**37 J**	**35 J**	**90 J**	**230 J**	35 U	35 UJ	35 U	35 U	**53 J**	**92 J**	35 U	35 U
DRO (mg/kg)	NL	**37**	**110**	**920**	**120**	**102**	**130 J**	**91**	**70**	**57 J**	**42 J**	35 U	35 U

Notes:

Units are in micrograms per kilogram (ug/kg).

Detections are identified in bold format.

Shaded cells represent detections above NYSDEC Recommended Soil Cleanup Objectives (RSCO) as per NYSDEC TAGM No. HWR-94-4046 (1/24/94).

NL Indicates that no RSCO value for this compound is listed in NYSDEC TAGM No. HWR-94-4046 (1/24/94).

U Undetected at the indicated detection limit.

J Estimated value (concentration less than quantification limit or validation deficiency).

GRO Gasoline range organics.

DRO Diesel range organics.

TABLE 3-1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS - FORMER DRUM STORAGE AREAS
BROOKLYN NAVY YARD, BROOKLYN, NEW YORK

SAMPLE NO.: SAMPLE INTERVAL: SAMPLE DATE:	NYSDEC RSCO	B7 6"-12" 4/16/99	B7 2'-4' 4/16/99	B7 4'-6' 4/16/99	B7 7'-7'6" 4/16/99	B8 1'-1'2" 4/16/99	B8 1'6"-2' 4/16/99	B8 5'-7' 4/16/99	B8 8'6"-9' 4/16/99	B8 13'-13'6" 4/16/99	B9 0"-12" 4/16/99	FIELD BLANK 4/16/99	FIELD BLANK 4/17/99
Pesticides/PCBs													
alpha-BHC	110	9.6 U		9.7 U	11 U	9.5 U	9.3 U	10 U	10 U	9.8 U	9.8 U	0.050 U	0.050 U
beta-BHC	200	9.6 U	I	**9.7 J**	**13 J**	9.5 U	9.3 U	10 U	10 U	9.8 U	9.8 U	0.050 U	0.050 U
delta-BHC	300	9.6 U	N	9.7 U	11 U	9.5 U	9.3 U	10 U	10 U	9.8 U	9.8 U	0.050 U	0.050 U
gamma-BHC(Lindane)	60	9.6 U	S	9.7 U	11 U	9.5 U	9.3 U	10 U	10 U	9.8 U	9.8 U	0.050 U	0.050 U
Heptachlor	100	9.6 U	U	9.7 U	11 U	9.5 U	9.3 U	10 U	10 U	9.8 U	9.8 U	0.050 U	0.050 U
Aldrin	41	9.6 U	F	9.7 U	11 U	9.5 U	9.3 U	10 U	10 U	9.8 U	9.8 U	0.050 U	0.050 U
Heptachlor epoxide	20	9.6 U	F	**130 J**	**51 J**	9.5 U	9.3 U	10 U	10 U	9.8 U	9.8 U	0.050 U	0.050 U
Endosulfan I	900	9.6 U	I	9.7 U	11 U	9.5 U	9.3 U	10 U	10 U	9.8 U	9.8 U	0.050 U	0.050 U
Dieldrin	44	19 U	C	19 U	21 U	18 U	18 U	20 U	20 U	19 U	19 U	0.10 U	0.10 U
4,4'-DDE	2,100	**60 J**	I	19 U	21 U	18 U	18 UJ	20 U	20 U	**13 J**	19 U	0.10 U	0.10 U
Endrin	100	**190 J**	E	19 U	**810 J**	18 U	18 U	20 U	20 U	19 U	19 U	0.10 U	0.10 U
Endosulfan II	900	19 U	N	19 U	21 U	18 U	18 U	20 U	20 U	19 U	19 U	0.10 U	0.10 U
4,4'-DDD	2,900	19 U	T	19 U	21 U	18 U	18 UJ	**10 J**	**10 J**	**11 J**	19 U	0.10 U	0.10 U
Endosulfan sulfate	1,000	19 U		19 U	21 U	18 U	18 U	20 U	20 U	19 U	19 U	0.10 U	0.10 U
4,4'-DDT	2,100	19 U	S	19 U	21 U	18 U	18 UJ	20 U	20 U	**54 J**	19 U	0.10 U	0.10 U
Methoxychlor	*	96 U	A	97 U	110 U	95 U	93 U	100 U	100 U	98 U	98 U	0.50 U	0.50 U
Endrin ketone	NL	**1700 J**	M	19 U	**2000 J**	18 U	18 U	20 U	20 U	19 U	19 U	0.10 U	0.10 U
Endrin aldehyde	NL	19 U	P	**130000 J**	**57000 J**	**54 J**	**91 J**	**140 J**	**140 J**	**31 J**	**13 J**	0.10 U	0.10 U
alpha-Chlordane	540	9.6 U	L	9.7 U	11 U	9.5 U	9.3 UJ	10 U	10 U	**6.1 J**	9.8 U	0.050 U	0.050 U
gamma-Chlordane	540	9.6 U	E	9.7 U	11 U	9.5 U	9.3 UJ	10 U	10 U	**8.6 J**	9.8 U	0.050 U	0.050 U
Toxaphene	NL	960 UJ		970 UJ	1100 U	950 U	930 U	1000 U	1000 U	980 U	980 U	5.0 U	5.0 U
Aroclor-1016	**	**190 UJ***	V	**190 UJ***	**210 UJ***	180 U	180 U	200 U	200 U	190 U	190 U	1.0 U	1.0 U
Aroclor-1221	**	**380 UJ***	O	**380 UJ***	**430 UJ***	380 U	370 U	410 U	410 U	380 U	380 U	2.0 U	2.0 U
Aroclor-1232	**	**190 UJ***	L	**190 UJ***	**210 UJ***	180 U	180 U	200 U	200 U	190 U	190 U	1.0 U	1.0 U
Aroclor-1242	**	**190 UJ***	U	**190 UJ***	**210 UJ***	180 U	180 U	200 U	200 U	190 U	190 U	1.0 U	1.0 U
Aroclor-1248	**	**190 UJ***	M	**190 UJ***	**210 UJ***	180 U	180 U	200 U	200 U	190 U	190 U	1.0 U	1.0 U
Aroclor-1254	**	**190 UJ***	E	**190 UJ***	**210 UJ***	180 U	180 U	200 U	200 U	190 U	190 U	1.0 U	1.0 U
Aroclor-1260	**	**300000**		**11,000,000**	**4,700,000**	**4,600**	**7,200 J**	**12,000**	**12,000**	**2,000 J**	**920**	1 U	1 U

Notes:

Units are in micrograms per kilogram (ug/kg).
Detections are identified in bold format.
Shaded cells represent detections above NYSDEC Recommended Soil Cleanup Objectives (RSCO) as per NYSDEC TAGM No. HWR-94-4046 (1/24/94).
NL Indicates that no RSCO value for this compound is listed in NYSDEC TAGM No. HWR-94-4046 (1/24/94).
U Undetected at the indicated detection limit.
J Estimated value (concentration less than quantification limit or validation deficiency).
UJ Value undetermined due to peak saturation.
* As per TAGM NO. 4046, Total Pesticides<10 mg/kg.
** As per NYSDEC-approved January 1997 Final Project Work Plan, Cleanup levels for PCB's shall be 10 mg/kg for soil in the upper 12 inches, and 25 mg/kg for soils at depths greater than 12 inches.

TABLE 3-1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS - FORMER DRUM STORAGE AREAS
BROOKLYN NAVY YARD, BROOKLYN, NEW YORK

SAMPLE NO.: / SAMPLE INTERVAL: / SAMPLE DATE:	EASTERN US[1] (mg/kg)	New York Region[2] (mg/kg)	NYSDEC RSCO	B7 6"-12" 4/16/99	B7 2'-4' 4/16/99	B7 4'-6' 4/16/99	B7 7'-7'6" 4/16/99	B8 1'-1'2" 4/16/99	B8 1'6"-2' 4/16/99	B8 5'-7' 4/16/99	B8 8'6"-9' 4/16/99	B8 13'-13'6" 4/16/99	B9 0"-12" 4/16/99	FIELD BLANK 4/16/99	FIELD BLANK 4/17/99
Inorganics															
Aluminum	7000 - >100000	33000	SB	11600	9940	7510	5940	3910	4510	6870	7660	6640	23200	28.8	19.7
Antimony	<1 - 8.8	N/A	SB	0.66 UJ	0.65 UJ	2.3 UJ	0.74 UJ	2.8 J	3.4 J	3.6 J	11.1 J	2.6 J	6.2 J	2.9 U	2.9 U
Arsenic	<0.1 - 73	3 - 12	7.5 or SB	3.0 J	1.9 J	7.8 J	5.7 J	3.3 J	3.1 J	8.2 J	12.5 J	4.9 J	17.7 J	2.4 U	2.4 U
Barium	10 - 1500	15 - 600	300 or SB	54.9	50.6	157	79.7	69.4	86.4	193	187	143	551	0.65	0.4 U
Beryllium	<1 - 7	0 - 1.75	0.16 or SB	0.60 J	0.46 J	0.50 J	0.34 J	1.6 J	2.0 J	2.1 J	4.1 J	1.8 J	11.9 J	0.3 U	0.3 U
Cadmium	N/A	0.1 - 1	1 or SB	1.0	0.38	0.74	0.52	0.37	0.11 UJ	0.18	0.13	1.1 J	0.12 U	0.5 U	0.5 U
Calcium	100 - 280000	130 - 35000	SB	604 J	6170 J	10100 J	8710 J	4900 J	5200 J	9640 J	15200 J	22600 J	12000 J	299	301
Chromium	1 - 1000	1.5 - 40	10 or SB	22.4 J	21 J	28.4 J	29.9 J	45.6 J	45.4 J	77.9 J	60.6 J	60.7 J	149 J	0.9 U	1.7
Cobalt	<0.3 - 70	2.5 - 60	30 or SB	7.0	9.8	10	6.2	11.6	16.1	19.3	27	17.4	39.8	3.6 U	3.6 U
Copper	<1 - 700	<1 - 50	25 or SB	56.2	38.7	131	33.1	224	555	433	809	418	1230	2.2 U	2.2 U
Iron	100 - >100000	2000 - 550000	2,000 or SB	16200	17900	17600	15900	22500	22100	26500	33900	29600	66900	28.5	59.1
Lead	<10 - 300	200 - 500	SB****	15.2 J	15.4 J	294 J	138 J	285 J	320 J	755 J	873 J	410 J	870 J	1.0 U	1.4
Magnesium	50 - 50000	100 - 5000	SB	1980 J	2730 J	5070 J	2310 J	1460 J	1890 J	2610 J	2760 J	3960 J	4040 J	11.4	12.7
Manganese	<2 - 7000	50 - 5000	SB	226 J	614 J	569 J	236 J	246 J	297 J	306 J	387 J	309 J	493 J	0.9 U	0.9 U
Mercury	0.01 - 3.4	0.001 - 0.2	0.1	0.054 U	0.067 J	0.73 J	0.73 J	0.17 J	0.13 J	0.68 J	0.85 J	0.42 J	1.5 J	0.1 U	0.1 U
Nickel	<5 - 700	0.5 - 25	13 or SB	18 J	19.3 J	34.3 J	15.4 J	109 J	254 J	170 J	337 J	200 J	296 J	3.2 U	3.2 U
Potassium	50 - 37000	8500 - 43000	SB	494 J	1180 J	866 J	769 J	409 J	775 J	843 J	913 J	1050 J	3250 J	14.6	19.7
Selenium	<0.1 - 3.9	<0.1 - 3.9	2 or SB	1.1 U	0.68	0.7	1.2 U	1.9 U	2.0 U	2.6	3.9	2.4 U	4.6	1.9 U	1.9 U
Silver	N/A	N/A	SB	0.14 U	0.28	0.52	0.73	0.74	0.66	0.82	1.1	0.74	1.5	0.6 U	0.6 U
Sodium	<500 - 50000	6000 - 8000	SB	92.6	213	167	181	240	235	459	661	384	1110	100	106
Thallium	2.2 - 23	N/A	SB	0.29	0.38 U	0.28 U	0.31 U	0.27 U	0.26 U	0.3 U	0.29 U	0.28 U	1.6 U	1.2 U	1.2 U
Vanadium	<7 - 300	1 - 300	150 or SB	30.4	40.1	23.8	18.3	12.8	14.7	27.5	30	22.3	47.7	1.9 U	1.9 U
Zinc	<5 - 2900	9 - 50	20 or SB	282	491	607	211	976	1160	1150	2240	1240	6270	5.6 U	7.1
Cyanide	N/A	N/A	***	0.57 U	0.56 U	0.57 U	0.64 U	0.56 U	0.55 U	0.62 U	0.61 U	0.58 U	0.58 U	5.0 U	10 U

Notes:

Units are in milligrams per kilogram(mg/kg).
Detections are identified in bold format.
Shaded cells represent detections above NYSDEC Recommended Soil Cleanup Objectives (RSCO) as per NYSDEC TAGM No. HWR-94-4046 (1/24/94).
U Undetected at the indicated detection limit.
J Estimated value (concentration less than quantification limit or validation deficiency).
1 Shacklette, HT and JG Boerngen, 1984. Element Concentrations in Soils and Other Surficial Materials of the Conterminous United States, USGS Professional Paper 1270.
2 Background Concentrations of 20 Elements in Soils with Special Regard for New York Sate, E. Carol McGovern,NYSDEC Wildlife Resources Center
SB Site Background
** New York State background as per TAGM 4046.
*** As per TAGM 4046, some forms of Cyanide are complex and very stable while other forms are pH dependent and unstable.
Site specific form(s) of Cyanide should be taken into account when establishing soil cleanup objectives.
**** Background levels for lead vary widely. Average levels in undeveloped, rural areas may range from 4-61mg/kg.
Average background levels in metropolitan suburban areas or near highways are much higher and typically range from 200-500 mg/kg.

TABLE 3-1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS - FORMER DRUM STORAGE AREAS
BROOKLYN NAVY YARD, BROOKLYN, NEW YORK

SAMPLE NO.:	NYSDEC	B7	B7	B7	B7	B8	B8	B8	B8	B8	B9	FIELD	FIELD
SAMPLE INTERVAL:	TCLP	6"-12"	2'-4'	4'-6'	7'-7'6"	1'-1'2"	1'6"-2'	5'-7'	8'6"-9'	13'-13'6"	0"-12"	BLANK	BLANK
SAMPLE DATE:	HWRL	4/16/99	4/16/99	4/16/99	4/16/99	4/16/99	4/16/99	4/16/99	4/16/99	4/16/99	4/16/99	4/16/99	4/17/99
TCLP Metals:													
Arsenic	5,000	NA	NA	6.2 U	3.4 U	11.3 U	8.9 U	11.1 U	2.4 U	**26.1**	**12.5**	NA	NA
Barium	100,000	NA	NA	**992**	**1090**	**776**	**1170**	**850**	**559**	**749**	**1020**	NA	NA
Cadmium	1,000	NA	NA	**6.8 J**	**15.1 J**	**10.8 J**	**8.8 J**	**3.1 J**	2.2 UJ	0.68 UJ	**30.3 J**	NA	NA
Chromium	5,000	NA	NA	0.90 U	**12.1**	0.90 U	1.3 U	0.90 U	3.1 U	0.90 U	1.8 U	NA	NA
Lead	5,000	NA	NA	**39.0 J**	**198 J**	**20.1 J**	**43.2 J**	**74.3 J**	**51.7 J**	**5.7 J**	**331 J**	NA	NA
Mercury	200	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA
Selenium	1,000	NA	NA	14.5 U	11.1 U	21.2 U	17.9 U	16.8 U	5.3 U	19.2 U	20.7 U	NA	NA
Silver	5,000	NA	NA	10 U	**10**	10 U	10 U	10 U	10 U	10 U	10 U	NA	NA

Notes:
TCLP Toxic Characteristic Leaching Procedure.
HWRL Hazardous Waste Regulatory Levels as per 6 NYCRR Part 371 and 40 CFR Part 261.
Units are in micrograms per liter (ug/L).
Detections are identified in bold format.
Shaded cells represent detections above criteria.
U Undetected at the indicated detection limit.
J Estimated value (concentration less than quantification limit or validation deficiency).

TABLE 3-2
SOIL SAMPLE PCB ANALYTICAL RESULTS
FORMER DRUM STORAGE AREA C
BROOKLYN NAVY YARD, BROOKLYN, NY

Sample Number	Depth	Date Collected	Date Analyzed	Sample ID	Raw Result (mg/kg)	Qual.	Final Result (mg/kg)	Confirmatory Sample Result (mg/kg)	Confirmatory Sample Blind Duplicate Result (mg/kg)
1	0-8 (in)	01/17/00	01/18/00	A1	0.18	nd	<2	-	-
2	0-8 (in)	01/17/00	01/18/00	A2	0.18	nd	<2	-	-
3	0-8 (in)	01/17/00	01/18/00	A3	5.57	hi	>40	359.00J	-
4	0-8 (in)	01/17/00	01/18/00	A4	6.54	hi	>40	238.00J	-
5	0-8 (in)	01/17/00	01/18/00	A5	0.07	nd	<2	-	-
6	0-8 (in)	01/17/00	01/18/00	A6	17.04	hi	>40	1670.00J	-
7	0-8 (in)	01/17/00	01/18/00	B1	0.07	nd	<2	-	-
8	0-8 (in)	01/17/00	01/18/00	B2	0.14	nd	<2	-	-
9	0-8 (in)	01/17/00	01/18/00	B3	0.04	nd	<2	-	-
10	0-8 (in)	01/17/00	01/18/00	B4	0.07	nd	<2	0.977J	-
11	0-8 (in)	01/17/00	01/18/00	B5	0.07	nd	<2	-	-
12	0-8 (in)	01/17/00	01/18/00	B6	0.72		5.76	17.00J	-
13	0-8 (in)	01/17/00	01/18/00	C1	0.10	nd	<2	-	-
14	0-8 (in)	01/17/00	01/18/00	C2	0.08	nd	<2	-	-
15	0-8 (in)	01/17/00	01/18/00	C3	nd	nd	<2	-	-
16	0-8 (in)	01/17/00	01/18/00	C4	0.08	nd	<2	-	-
17	0-8 (in)	01/17/00	01/18/00	C5	0.32		2.56	1.19J	-
18	0-8 (in)	01/17/00	01/18/00	C6	0.11	nd	<2	5.89J	-
19	0-8 (in)	01/17/00	01/18/00	D1	0.10	nd	<2	-	-
20	0-8 (in)	01/17/00	01/18/00	D2	0.11	nd	<2	-	-
21	0-8 (in)	01/17/00	01/18/00	D3	0.14	nd	<2	0.336J	-
22	0-8 (in)	01/17/00	01/18/00	D4	0.08	nd	<2	-	-
23	0-8 (in)	01/17/00	01/18/00	D5	0.12	nd	<2	1.95J	-
24	0-8 (in)	01/17/00	01/18/00	D6	0.05	nd	<2	-	-
25	0-8 (in)	01/17/00	01/18/00	E1	0.12	nd	<2	-	-
26	0-8 (in)	01/17/00	01/18/00	E2	0.00	nd	<2	0.536J	-
27	0-8 (in)	01/17/00	01/18/00	E3	0.08	nd	<2	-	-
28	0-8 (in)	01/17/00	01/18/00	E4	0.09	nd	<2	-	-
29	0-8 (in)	01/17/00	01/18/00	E5	0.07	nd	<2	-	-
30	0-8 (in)	01/17/00	01/18/00	E6	0.09	nd	<2	0.245J	-
31	0-8 (in)	01/17/00	01/18/00	F2	0.10	nd	<2	-	-
32	0-8 (in)	01/17/00	01/18/00	F3	0.12	nd	<2	-	-
33	0-8 (in)	01/17/00	01/18/00	F4	0.10	nd	<2	-	-
34	0-8 (in)	01/17/00	01/18/00	F5	0.07	nd	<2	-	-
35	0-8 (in)	01/17/00	01/18/00	F6	0.10	nd	<2	0.288J	-

Notes:

Units are in milligrams per kilogram(mg/kg)

Detections are identified in bold format.

Shaded cells represent detections above NYSDEC Recommended Soil Cleanup Objectives (RSCO) as per NYSDEC-approved January 1997 Final Project Work Plan, Cleanup levels for PCB's shall be 10ppm for soil in the upper 12 inches, and 25ppm for soils at depths greater than 12 inches.

U - Indicates that compound was undetected at or above the indicated detection limit.

J - Estimated value (concentration less than quantification limit or validation deficiency).

TABLE 3-2
SOIL SAMPLE PCB ANALYTICAL RESULTS
FORMER DRUM STORAGE AREA C
BROOKLYN NAVY YARD, BROOKLYN, NY

Sample Number	*Depth*	*Date Collected*	*Date Analyzed*	*Sample ID*	*Raw Result (mg/kg)*	*Qual.*	*Final Result (mg/kg)*	*Confirmatory Sample Result (mg/kg)*	*Confirmatory Sample Blind Duplicate Result (mg/kg)*
1	0-8 (in)	01/27/00	1/31/00	A7	0.12		<2	1.10J	1.10J
2	0-8 (in)	01/27/00	1/31/00	B7	0.11		<2	1.60J	1.60J
3	0-8 (in)	01/27/00	1/31/00	C7	0.14		<2	-	-
4	0-8 (in)	01/27/00	1/31/00	A'2	0.05	nd	<2	-	-
5	0-8 (in)	01/27/00	1/31/00	A'3	0.06	nd	<2	-	-
6	0-8 (in)	01/27/00	1/31/00	A'4	0.07	nd	<2	-	-
7	0-8 (in)	01/27/00	1/31/00	A'5	0.11		<2	-	-
8	0-8 (in)	01/27/00	1/31/00	A'6	0.06	nd	<2	-	-
9	0-8 (in)	01/27/00	1/31/00	A'7	0.06	nd	<2	0.029J	0.033UJ
10	0-2 (ft)	02/02/00	2/3/00	B-15 (0-2)	0.03	nd	<2	0.048	-
11	2-4 (ft)	02/02/00	2/3/00	B-15 (2-4)	0.04	nd	<2	-	-
12	4-6 (ft)	02/02/00	2/3/00	B-15 (4-6)	0.03	nd	<2	-	-
13	6-9 (ft)	02/02/00	2/3/00	B-15 (6-9)	0.06	nd	<2	0.30	-
14	1-3 (ft)	02/02/00	2/3/00	B-16 (1-3)	0.54		4.32	0.52	-
15	35- (ft)	02/02/00	2/3/00	B-16 (35-)	0.04	nd	<2		-
16	5-7 (ft)	02/02/00	2/3/00	B-16 (5-7)	0.06	nd	<2		-
17	8.5-9 (ft)	02/02/00	2/3/00	B-16 (8.5-9)	0.03	nd	<2	0.037U	-
18	1-3 (ft)	02/02/00	2/3/00	B-17 (1-3)	0.07	nd	<2		-
19	5-7 (ft)	02/02/00	2/3/00	B-17 (5-7)	0.02	nd	<2	0.23J	-
20	7-8 (ft)	02/02/00	2/3/00	B-17 (7-8)	0.09	nd	<2		-
21	1-3 (ft)	02/02/00	2/3/00	B-18 (1-3)	0.01	nd	<2	0.019J	-
22	3-5 (ft)	02/02/00	2/3/00	B-18 (3-5)	0.07	nd	<2		-
23	5-7 (ft)	02/02/00	2/3/00	B-18 (5-7)	0.02	nd	<2		-
24	8.5-9 (ft)	02/02/00	2/3/00	B-18 (8.5-9)	0.03	nd	<2	0.040U	0.036U

Notes:

Units are in milligrams per kilogram(mg/kg)

Detections are identified in bold format.

Shaded cells represent detections above NYSDEC Recommended Soil Cleanup Objectives (RSCO) as per NYSDEC-approved January 1997 Final Project Work Plan, Cleanup levels for PCB's shall be 10ppm for soil in the upper 12 inches, and 25ppm for soils at depths greater than 12 inches.

U - Indicates that compound was undetected at or above the indicated detection limit.

J - Estimated value (concentration less than quantification limit or validation deficiency).

TABLE 4-1
HISTORIC/CURRENT TRANSFORMER INVENTORY
BROOKLYN NAVY YARD, BROOKLYN, NEW YORK

NYCDEP/EPA Code	Unit Location	Manufacturer	Serial Number	KVA Rating	Transformer Type	Current Classification	Initial PPM/%	Current PPM/%	Retrofill Cycle	Action (Proposed Electrical Rehabilitation)
780	Building 3 (Northside Interior)	American	544317	450	308 G / Askarel	Non-PCB/Jan 95	169	29.9	4	Retrofill
815	Building 3 (Northside Interior)	Allis Chambers	1793450	200	88 G / Askarel	PCB-Contaminated	51.1	49	4	Retrofill
816	Building 3 (Northside Interior)	Allis Chambers	1793448	200	88 G / Askarel	PCB-Contaminated	56	56	4	Retrofill
817	Building 3 (Northside Interior)	Allis Chambers	1793449	200	88 G / Askarel	Non-PCB/July 95	53.5	44.1	4	Completed
161	Building 3 (Roof/Northside)	Westinghouse	3100034	200	150 G / Min. Oil	Non-PCB	3.6	3.6	-	-
374	Building 3 (Roof/Northside)	Westinghouse	3080925	200	150 G / Min. Oil	PCB-Contaminated	141	141	-	Retrofill
375	Building 3 (Roof/Northside)	Westinghouse	3100025	200	150 G / Min. Oil	PCB-Contaminated	368	368	-	Retrofill
371	Building 4 (Sub Station #1)	Allis Chambers	1793454	100	55 G / Askarel	Non-PCB/May 93	36.6	26	4	Completed
372	Building 4 (Sub Station #1)	Allis Chambers	1793450	100	75 G / Askarel	Destroyed 10/89	44.6	44.6	-	-
373	Building 4 (Sub Station #1)	Allis Chambers	1793452	100	55 G / Askarel	Non-PCB/May 93	32.9	18	4	Completed
427	Building 4 (Sub Station #1)	Allis Chambers	1793451	100	55 G / Askarel	Non-PCB/June 94	37.8	37.8	4	Completed
428	Building 4 (Sub Station #1)	Allis Chambers	1793453	100	55 G / Askarel	Non-PCB/June 95	34.8	29.5	4	Completed
8014	Building 4 (Sub Station #1)	No Plate	7148284	500	280 G / Min. Oil	Destroyed 10/89	10900	10900	-	-
99	Building 5 (Sub Station #19)	Standard	93175	500	285 G / Askarel	Destroyed 01/89	1373	1373	-	-
370	Building 5 (Sub Station #19)	Allis Chambers	1826183	500	288 G / Askarel	Destroyed 01/90	1371	1371	-	-
63	Building 10 (Storeroom)	Packard	76296	100	85 G / Min. Oil	Non-PCB	0	0	-	Phase V Removal
88	Building 10 (Storeroom)	Packard	27185	15	15 G / Min. Oil	Non-PCB	5	5	-	Disposed 1997
89	Building 10 (Storeroom)	Newark	27187	15	15 G / Min. Oil	Non-PCB	5	5	-	Disposed 1997
90	Building 10 (Storeroom)	Packard	76297	100	85 G / Min. Oil	Non-PCB	0	0	-	Phase V Removal
91	Building 10 (Storeroom)	Packard	78854	100	85 G / Min. Oil	Non-PCB	0	0	-	Phase V Removal
92	Building 10 (Storeroom)	Newark	27186	15	15 G / Min. Oil	Non-PCB	3	3	-	Disposed 1997
376	Building 11 (1st Floor/N.E.)	Westinghouse	2600267	200	120 G / Min. Oil	Non-PCB	5.2	5.2	-	Phase V Removal
377	Building 11 (1st Floor/N.E.)	Westinghouse	2600268	200	120 G / Min. Oil	Non-PCB	3.7	3.7	-	Phase V Removal
378	Building 11 (1st Floor/N.E.)	Westinghouse	2600269	200	120 G / Min. Oil	Non-PCB	3.7	3.7	-	Phase V Removal
58	Building 12B (Ground Fl./East)	American	216136	75	63 G / Min. Oil	Non-PCB	0	0	-	Phase V Removal
60	Building 12B (Ground Fl./East)	American	216132	200	177 G / Min. Oil	Non-PCB	0	0	-	Phase V Removal
61	Building 12B (Ground Fl./East)	American	216131	200	177 G / Min. Oil	Non-PCB	0	0	-	Phase V Removal
62	Building 12B (Ground Fl./East)	American	216133	200	177 G / Min. Oil	Non-PCB	0	0	-	Phase V Removal
86	Building 12B (Ground Fl./East)	American	216138	75	63 G / Min. Oil	Non-PCB	0	0	-	Phase V Removal
379	Building 12B (Ground Fl./East)	Standard	13197	500	360 G / Min. Oil	Non-PCB	3.7	3.7	-	Phase V Removal
442	Building 12B (Ground Fl./East)	American	216134	200	177 G / Min. Oil	Non-PCB	<1.0	<1.0	-	Phase V Removal
443	Building 12B (Ground Fl./East)	American	216135	75	63 G / Min. Oil	Non-PCB	<1.0	<1.0	-	Phase V Removal
913	Building 22 & 127 (Sub Station #24)	Moloney	734181	25	30 G / Min. Oil	Non-PCB	<1.0	<1.0	-	Disposed 1997
914	Building 22 & 127 (Sub Station #24)	Moloney	734145	25	30 G / Min. Oil	Non-PCB	<1.0	<1.0	-	Disposed 1997
915	Building 22 & 127 (Sub Station #24)	Moloney	734154	25	30 G / Min. Oil	Non-PCB	<1.1	<1.1	-	Disposed 1997
380	Building 22 & 127 (Sub Station #24)	Moloney	734137	25	30 G / Min. Oil	Non-PCB	6	6	-	Disposed 1997
381	Building 22 & 127 (Sub Station #24)	Moloney	734142	25	30 G / Min. Oil	Non-PCB	21.8	21.8	-	Disposed 1997
-	Building 22 & 127 (Sub Station #24)	-	1899	-	-	Non-PCB	-	-	-	Disposed 1997
382	Building 22 & 127 (Sub Station #24)	Moloney	734164	25	30 G / Min. Oil	Non-PCB	19.5	19.5	-	Disposed 1997

TABLE 4-1
HISTORIC/CURRENT TRANSFORMER INVENTORY
BROOKLYN NAVY YARD, BROOKLYN, NEW YORK

NYCDEP/EPA Code	Unit Location	Manufacturer	Serial Number	KVA Rating	Transformer Type	Current Classification	Initial PPM/%	Current PPM/%	Retrofill Cycle	Action (Proposed Electrical Rehabilitation)
383	Building 30 (Outside/NW)	American	183529	100	90 G / Min. Oil	Non-PCB	<1.0	<1.0	-	-
384	Building 30 (Outside/NW)	American	183260	100	90 G / Min. Oil	Non-PCB	<1.0	<1.0	-	-
385	Building 30 (Outside/NW)	American	183261	100	90 G / Min Oil	Non-PCB	<1.0	<1.0	-	-
102	Building 41 (Inside/West Side)	General Electric	7024218	4500	1410 G / Askarel	Non-PCB/June 93	826	38.5	4	Phase II Removal
101	Building 41 (Inside/West Side)	Westinghouse	3061017	750	417 G / Askarel	PCB-Contaminated	238	54	4	Retrofill/Phase II Removal
386	Building 41	Westinghouse	3061016	750	417 G / Askarel	Destroyed Feb/95	241	72	-	-
387	Building 41	Westinghouse	3061569	750	417 G / Askarel	Destroyed Feb/95	236	72	-	-
388	Building 41 (Inside/West Side)	Westinghouse	3061570	750	417 G / Askarel	PCB-Contaminated	244	51	4A	Retrofill/Phase II Removal
389	Building 41	Westinghouse	3061571	750	417 G / Askarel	Destroyed Feb/95	233	71	-	-
390	Building 41	Westinghouse	3151131	750	417 G / Askarel	Destroyed Feb/95	248	47	-	-
391	Building 41 (Inside/West Side)	General Electric	7024219	4500	1410 G / Askarel	Non-PCB	816	22.4	4	Phase II Removal
909	Building 41	General Electric	6814077	75	35 G / Askarel	Destroyed Feb/95	70	70	-	-
66	Building 77 (Sub Station #22)	General Electric	6609571	500	242 G / Askarel	Destroyed 12/88	1150	1150	-	-
367	Building 77 (Sub Station #22)	General Electric	USN105527	500	242 G / Askarel	Destroyed 1/89	1158	1158	-	-
392	Building 77 (Sub Station #22)	General Electric	6609570	500	242 G / Askarel	Destroyed 12/88	1150	1150	-	-
393	Building 77 (Sub Station #22)	General Electric	6609572	500	242 G / Askarel	Destroyed 12/88	1150	1150	-	-
394	Building 77 (Sub Station #22)	General Electric	6609573	500	242 G / Askarel	Destroyed 12/88	1150	1150	-	-
395	Building 77 (Sub Station #22)	General Electric	USN105528	500	242 G / Askarel	Destroyed 1/89	1150	1150	-	-
396	Building 120 (Outside)	Sylvania	7621	75	47 G / Min. Oil	Non-PCB	1.7	1.7	-	-
397	Building 120 (Outside)	Sylvania	7623	75	47 G / Min. Oil	Non-PCB	<1.0	<1.0	-	-
-	Building 120 (Outside)	Sylvania	7622	75	47 G / Min. Oil	Non-PCB	<1.1	<1.1	-	-
8025	Building 125A (Outside)	General Electric	6583196	150	105 G / Askarel	Destroyed 10/89	477	477	-	-
364	Building 127 (Sub Station #24)	Westinghouse	3100002	200	100 G / Min. Oil	Non-PCB	16.4	16.4	-	-
365	Building 127 (Sub Station #24)	Westinghouse	3110812B	200	100 G / Min. Oil	PCB-Contaminated	50.6	50.6	-	Retrofill
366	Building 127 (Sub Station #24)	Westinghouse	3110812	200	100 G / Min. Oil	Non-PCB	16.4	16.4	-	-
64	Building 128 (Sub Station #9)	Westinghouse	3031269	333	153 G / Inerteen	Non-PCB	82	25.7	2B	Retrofill
97	Building 128 (Sub Station #9)	American	539273	500	266 G / Askarel	Non-PCB	156	35	4	Phase II Removal
65	Building 128 (Sub Station #9)	Westinghouse	3030270	333	153 G / Inerteen	Non-PCB	57.9	18.5	4	Retrofill
94	Building 128 (Sub Station #9)	Standard	49783	200	100 G / Askarel	Non-PCB	57.9	31.7	3	Completed
95	Building 128 (Sub Station #9)	Standard	49784	200	100 G / Askarel	PCB-Transformer	2006	2006	-	Retrofill
96	Building 128 (Sub Station #9)	Standard	49788	200	100 G / Askarel	PCB-Contaminated	60.7	55	3	Retrofill
98	Building 128 (Sub Station #9)	American	539272	500	266 G / Askarel	Non-PCB	155	41.2	4	Phase II Removal
916	Building 128 (Sub Station #9)	Westinghouse	USN105150	333	153 G / Askarel	Non-PCB	89.8	27.1	4	Retrofill
93	Building 131 (Sub Station #25)	American	252641	600	570 G / Min. Oil	PCB-Contamianted	203	203	-	Retrofill/Phase V Removal
8007	Building 131 (Sub Station #25)	Standard	USN104757	100	100 G / Min. Oil	Non-PCB	38.2	38.2	-	Phase V Removal
8008	Building 131 (Sub Station #25)	General Electric	USN104756	100	100 G / Min. Oil	PCB-Transformer	862	862	-	Retrofill/Phase V Removal
8009	Building 131 (Sub Station #25)	Standard	USN467	100	100 G / Min. Oil	PCB-Transformer	855	855	-	Retrofill/Phase V Removal
87	Building 198 (Tennis Crt.)	Standard	544318	450	308 G / Askarel	Non-PCB	187	17.6	4	Phase II Removal
-	Building 198 (Near Bldg. 275)	General Electric	C654931	500	215 G / Min. Oil	Non-PCB	0	0	-	-

TABLE 4-1
HISTORIC/CURRENT TRANSFORMER INVENTORY
BROOKLYN NAVY YARD, BROOKLYN, NEW YORK

NYCDEP/EPA Code	Unit Location	Manufacturer	Serial Number	KVA Rating	Transformer Type	Current Classification	Initial PPM/%	Current PPM/%	Retrofill Cycle	Action (Proposed Electrical Rehabilitation)
399	Building 200 (N.E. Side)	Penn Trans.	7651	100	58 G / Min. Oil	PCB-Contaminated	304	304	-	Retrofill/Phase V Removal
400	Building 200 (N.E. Side)	Penn Trans.	7654	100	58 G / Min. Oil	PCB-Transformer	535	535	-	Retrofill/Phase V Removal
919	Building 200 (N.E. Side)	Penn Trans.	7655	100	58 G / Min. Oil	PCB-Contamianted	141	141	-	Retrofill/Phase V Removal
69	Building 234 (Sub Station B)	General Electric	6611352	500	265 G / Min. Oil	PCB-Contaminated	65.4	65.4	-	Disposed 1997
78	Building 234 (Sub Station B)	General Electric	6611346	500	265 G / Min. Oil	PCB-Contaminated	73.4	73.4	-	Disposed 1997
81	Building 234 (Sub Station B)	Maloney	661345	100	60 G / Uknown	Non-PCB	0	0	-	Disposed 1997
82	Building 234 (Sub Station B)	General Electric	6611349	500	265 G / Pyranol	PCB-Contaminated	60.5	60.5	-	Disposed 1997
70	Building 234 (Sub Station B)	American	216167	600	570 G / Min. Oil	Non-PCB	0	0	-	Disposed 1997
71	Building 234 (Sub Station B)	American	216168	600	570 G / Min. Oil	Non-PCB	0	0	-	Disposed 1997
83	Building 234 (Sub Station B)	American	216166	600	570 G / Unknown	Non-PCB	0	0	-	Disposed 1997
84	Building 234 (Sub Station B)	American	216169	600	571 G / Unknown	Non-PCB	0	0	-	-
72	Building 234 (Sub Station B)	General Electric	7081401	4500	1620 G / Min. Oil	PCB-Contaminated	211	211	-	Retrofill/Phase V Removal
79	Building 234 (Sub Station B)	Maloney	766967	100	59 G / Uknown	Non-PCB	0	0	-	Disposed 1997
80	Building 234 (Sub Station B)	Maloney	766964	100	60 G / Uknown	Non-PCB	0	0	-	Disposed 1997
405	Building 234 (Sub Station B)	General Electric	7081400	4500	1620 G / Min. Oil	PCB-Contaminated	276	276	-	Retrofill/Phase V Removal
75	Building 249 (Sub Station #13)	American	354727	600	570 G / Min. Oil	Destroyed 6/88	14.6	15.6	-	-
76	Building 249 (Sub Station #13)	Newark	32108	50	52 G / Min. Oil	Destroyed 6/88	<1.1	<1.0	-	-
105	Building 249 (Sub Station #13)	American	354728	600	570 G / Min. Oil	Destroyed 6/88	14.3	15.3	-	-
401	Building 249 (Sub Station #13)	Newark	32110	50	52 G /Min. Oil	Destroyed 6/88	<1.0	<1.0	-	-
402	Building 249 (Sub Station #13)	Newark	32109	50	52 G /Min. Oil	Destroyed 6/88	<1.1	<1.1	-	-
368	E-1	General Electric	L252295	15000	2940 G / Min.Oil	Non-PCB	0	0	-	-
403	Building 275 (Inside/Center)	Standard	27948	300	135 G / Askarel	Non-PCB	83.2	15.1	4	Completed
438	Building 280 (Sub Station D)	General Electric	7082164	4500	2743 G / Askarel	PCB-Contaminated	1585	77	4A	Disposed 1997
439	Building 280 (Sub Station D)	Kuhlman	3783	300	171 G / Askarel	Non-PCB	132	3.2	4	Complete/Phase III Removal
59	Building 292 (Sub Station K)	General Electric	7081466	4500	1620 G / Min. Oil	PCB-Contaminated	443	443	-	Retrofill/Phase III Removal
106	Building 292 (Sub Station K)	General Electric	7081467	4500	1620 G / Min. Oil	PCB-Transformer	798	798	-	Retrofill/Phase III Removal
431	Building 292 (Sub Station K)	General Electric	7085373	2000	482 G / Askarel	Non-PCB	271	19.2	4	Completed/Phase III Removal
432	Building 292 (Sub Station K)	General Electric	7085374	2000	482 G / Askarel	Non-PCB	274	26.3	4	Completed/Phase III Removal
433	Building 292 (Sub Station K)	General Electric	7085381	1500	604 G / Askarel	PCB-Contaminated	334	100	4A	Disposed 1997
434	Building 292 (Sub Station K)	General Electric	7085378	2000	482 G / Askarel	PCB-Transformer	288	95	4B	Retrofill/Phase III Removal
435	Building 292 (Sub Station K)	General Electric	7085382	1500	604 G / Askarel	Non-PCB	351	34	4B	Disposed 1997
8010	Building 292 (Sub Station K)	General Electric	6910042	750	404 G / Pyranol	PCB-Contaminated	217	122	4B	Retrofill/Phase III Removal
8011	Building 292 (Sub Station K)	General Electric	6910043	200	135 G / Pyranol	PCB-Transformer	71.8	75	4A	Retrofill/Phase III Removal
8012	Building 292 (Sub Station K)	General Electric	6910064	200	135 G / Pyranol	Non-PCB	71.8	29.5	4B	Phase III Removal
436	Building 293 (Outside)	Westinghouse	PBV0004	2500	400 G / Askarel	Non-PCB	400	0.9	4	Sample/95/Phase III Removal
917	Building 294 (Sub Station #28)	Westinghouse	PAV2286-05	1500	318 G / Askarel	Non-PCB	318	3.1	4	Disposed 1997
918	Building 294 (Sub Station #28)	Westinghouse	PAV2286-02	1500	318 G / Askarel	Non-PCB	318	31	3	Disposed 1997
429	Building 294 (Sub Station #28)	Kulhman	950225	200	206 G / Min. Oil	Non-PCB	24.9	24.9	-	Disposed 1997

TABLE 4-1
HISTORIC/CURRENT TRANSFORMER INVENTORY
BROOKLYN NAVY YARD, BROOKLYN, NEW YORK

NYCDEP/EPA Code	Unit Location	Manufacturer	Serial Number	KVA Rating	Transformer Type	Current Classification	Initial PPM/%	Current PPM/%	Retrofill Cycle	Action (Proposed Electrical Rehabilitation)
85	Building 297 (Sub Station H)	General Electric	7081463	4500	1620 G / Min. Oil	PCB-Transformer	742	742	-	Retrofill
411	Building 297 (Sub Station H)	General Electric	6909927	200	115 G /Askarel	PCB-Contaminated	56	56	4A	Retrofill
413	Building 297 (Sub Station H)	Westinghouse	3385542	25	105 G /Inerteen	Destroyed 10/89	519	519	-	-
414	Building 297 (Sub Station H)	Westinghouse	3385541	25	105 G /Inerteen	Destroyed 10/89	500	500	-	-
415	Building 297 (Sub Station H)	Westinghouse	3385540	26	105 G /Inerteen	Destroyed 10/89	500	500	-	-
416	Building 297 (Sub Station H)	General Electric	7081461	4500	1620 G / Min. Oil	PCB-Contaminated	186	186	-	Retrofill
73	Building 386 (Outside/South Side)	General Electric	7081468	4500	1620 G /Min. Oil	PCB-Contaminated	424	424	-	Retrofill/Phase IV Removal
74	Building 386 (Outside/South Side)	General Electric	7104499	4500	1620 G /Min. Oil	PCB-Contaminated	382	382	-	Retrofill/Phase IV Removal
417	Building 386 (Sub Station G)	General Electric	6909935	450	262 G / Askarel	PCB-Contaminated	74	74	4A	Retrofill/Phase IV Removal
418	Building 386 (Sub Station G)	General Electric	6583145	100	55 G / Askarel	Non-PCB	47	47	4	Retrofill/Phase IV Removal
419	Building 386 (Sub Station G)	General Electric	6583144	100	55 G / Askarel	Non-PCB	6.5	6.5	4	Completed/Phase IV Removal
430	Building 386 (Sub Station G)	General Electric	7085371	2000	482 G / Askarel	Non-PCB	26	26	3	Completed/Phase IV Removal
420	Building 386 (Sub Station G)	General Electric	6909934	450	262 G / Askarel	PCB-Contaminated	115	115	4A	Retrofill/Phase IV Removal
421	Building 386 (Sub Station G)	General Electric	7085377	2000	482 G / Askarel	Non-PCB	12	12	4	Completed/Phase IV Removal
422	Building 386 (Sub Station G)	General Electric	7085375	2000	482 G / Askarel	PCB-Contaminated	55	55	3	Retrofill/Phase IV Removal
423	Building 386 (Sub Station G)	General Electric	7085372	2000	482 G / Askarel	Non-PCB	7.5	7.5	4	Completed/Phase IV Removal
68	Building 390 (Sub Station L)	General Electric	7081460	4500	1620 G / Min. Oil	PCB-Transformer	600	600	-	Disposed 1997
159	Building 390 (Sub Station L)	General Electric	6577088	15	15 G / Min. Oil	PCB-Contaminated	182	182	-	Disposed 1997
160	Building 390 (Sub Station L)	General Electric	7081459	4500	1620 G / Min. Oil	PCB-Transformer	656	656	-	Retrofill
406	Building 390 (Sub Station L)	Westinghouse	3386313	225	17 G / Min. Oil	Non-PCB	24	24	-	Disposed 1997
407	Building 390 (Sub Station L)	General Electric	7085383	1500	604 G / Min. Oil	PCB-Contaminated	345	98	4	Disposed 1997
408	Building 390 (Sub Station L)	General Electric	6577089	15	15 G / Min. Oil	PCB-Contaminated	171	121	-	Disposed 1997
409	Building 390 (Sub Station L)	General Electric	7085379	2000	482 G / Min. Oil	PCB-Contaminated	279	116	4	Retrofill
410	Building 390 (Sub Station L)	General Electric	7085380	2000	482 G / Min. Oil	PCB-Transformer	676	676	4	Retrofill
921	Building 390 (Sub Station L)	General Electric	6577063	15	15 G / Min. Oil	PCB-Contaminated	82.6	82.6	-	Disposed 1997
922	Building 419(Substation E-3)	General Electric	7081435	3585	1500 G / Min. Oil	PCB-Contaminated	359	359	-	Removal DOS
77	Building 542 (Sub Station C)	General Electric	6410021	4500	1620 G / Min. Oil	PCB-Contaminated	157	157	-	Disposed 1997
100	Building 542 (Sub Station C)	American	252640	600	570 G / Pyranol	Destroyed 12/88	175	175	-	-
104	Building 542 (Sub Station C)	General Electric	6410020	4500	1620 G / Min. Oil	PCB-Contaminated	128	128	-	Disposed 1997
NA	Building 542 (Sub Station C)	General Electric	USN105087	150	83 G / Unknown	Non-PCB	18	18	-	Disposed 1998
NA	Building 542 (Sub Station C)	Unknown	USN105083	1500	450 G / Pyranol	Destroyed 6/91	2.7	2.7	-	-
887	Building 542 (Sub Station C)	Harrison	66089	1500	533 G / Unknown	Non-PCB	10.3	10.3	-	Disposed 1998
NA	Building 562 (Sub Station #18)	Westinghouse	3150616	200	100 G / Min. Oil	Non-PCB	10	10	-	-
NA	Building 562 (Sub Station #18)	Westinghouse	3100735	200	100 G / Min. Oil	Non-PCB	22.8	22.8	-	-
NA	Building 562 (Sub Station #18)	Westinghouse	1184957A	200	100 G / Min. Oil	Non-PCB	6.2	6.2	-	-

TABLE 4-1
HISTORIC/CURRENT TRANSFORMER INVENTORY
BROOKLYN NAVY YARD, BROOKLYN, NEW YORK

NYCDEP/EPA Code	Unit Location	Manufacturer	Serial Number	KVA Rating	Transformer Type	Current Classification	Initial PPM/%	Current PPM/%	Retrofill Cycle	Action (Proposed Electrical Rehabilitation)
67	Building 664 (Inside)	Westinghouse	PAV2286-04	1500	318 G /Askarel	Non-PCB	318	6.7	4	Complete
424	Building 664 (Inside)	Westinghouse	PAV2286-08	1500	318 G /Askarel	Non-PCB	318	26	4	Complete
910	Building 664 (Sub Station # 29)Subbasement	Westinghouse	PAV2286-03	1500	318 G /Askarel	Non-PCB	318	6.2	4	Completed
911	Building 664 (Sub Station # 29)Subbasement	Westinghouse	PAV2286-07	1500	318 G /Askarel	Non-PCB	318	10.8	4	Completed
912	Building 664 (Sub Station # 29)Subbasement	Westinghouse	PAV2286-01	1500	318 G /Askarel	Non-PCB	318	33.8	3	Completed
-	Building 664 (Sub Station # 29)Subbasement	Westinghouse	2780695	150	90 G / 10C Oil	Non-PCB	0	0	-	-
-	Building 664 (Sub Station # 29)Subbasement	Westinghouse	2780696	150	90 G / 10C Oil	Non-PCB	0	0	-	-
-	Building 664 (Sub Station # 29)Subbasement	Westinghouse	2780698	150	90 G / 10C Oil	Non-PCB	0	0	-	-
425	Building 668 (Sub Station Q)	Westinghouse	6530116	5000	1928 G / Min.Oil	Non-PCB	4.1	4.1	-	Phase III Removal
8015	Berth 9 (Outside)	General Electric	7662795	50	35 G / Min. Oil	PCB-Transformer	1340	1340	-	Phase III/Replace
8016	Berth 9 (Outside)	General Electric	766279	50	35 G / Min. Oil	Non-PCB	12.8	12.8	-	-
8017	Berth 9 (Outside)	General Electric	7662796	50	35 G / Min. Oil	PCB-Contaminated	435	435	-	Phase III/Replace
103	Pier C (End)	Penn Trans	3484-1	1200	600 G / Unknown	Destroyed 8/95	3	3	-	-
426	Pier C (Pole Mounted)	Allis Chambers	1963920	50	58 G / Pyranol	Non-PCB	2	2	-	Phase II Removal
NA	Pier D (Pole Mounted)	Allis Chambers	1963857	50	58 G / Min. Oil	Non-PCB	<1.1	<1.0	-	Disposed 1997
8018	Berth 8A (Btwn. D.D. 5/6)	Allis Chambers	1963918	50	58 G /Min. Oil	Disposed/ 95	11	11	-	-
8019	Berth 8A (Pole Mounted)	Allis Chambers	1965919	50	58 G /Min. Oil	Non-PCB	9	9	-	Phase II Removal
8020	Pier G	Allis Chambers	1963859	25	24 G / Min. Oil	Disposed/93	12	12	-	-
8021	Pier K (End)	Westinghouse	3386314	15	17 G / Min. Oil	PCB-Contaminated	58.6	58.6	-	Disposed 1997
8022	Building 386 (Pole Mounted)	Westinghouse	3386315	15	17 G / Min. Oil	PCB-Contaminated	51.9	51.9	-	Disposed 1997
8023	Pier J (End)	Westinghouse	3386316	15	17 G / Min. Oil	PCB-Contaminated	101	101	-	Phase I Removal
8024	Building 292 (Pole Mounted)	Westinghouse	33863	15	17 G / Min. Oil	PCB-Transformer	1500	1500	-	Disposed 1997
NA	G.Marine Main Gate (Pole Mounted)	Allis Chambers	336687	45	30 G /Min. Oil	Non-PCB	26.1	26.1	-	Phase II Removal
8013	Building 274 (Pole Mounted)	Uptegraff	62550	225	149 G / Askarel	Non-PCB	44.3	44.3	4A	Completed
8014	Building 4 (Near 12B,S.S.1.)	No Plate	7148284	500	280 G / Min. Oil	Destroyed/88	10900	10900	-	-

TABLE 4-2
CONCRETE WIPE SAMPLING SUMMARY
ELECTRICAL TRANSFORMER INVESTIGATION
BROOKLYN NAVY YARD, BROOKLYN, NY

SAMPLING LOCATION	TOTAL TRANS-FORMER UNITS	INVESTIGATION REQUIRED	CONCRETE WIPE SAMPLING					
			Containment (Sq. Ft.)	Proposed Number of Screening Samples	Actual Number of Screening Samples	Proposed Number of Analytical Samples	Actual Number of Analytical Samples	Comments
Substation B (Bldg #234)	12	Yes	Three Areas = 330	16	14	5	0	The Work Plan called for the collection of 16 wipe samples but access was restricted on one side of one of the transformer unit and therefore, 14 wipe samples were collected.
Substation C (Bldg #542)	4	Yes	Three Areas = 1,427	See Comments	See Comments	See Comments	See Comments	This substation was addressed as a separate project as described in the text of this report.
Substation D (Bldg #280)	2	Yes	Two Areas = 410	8	8	2	8	No Comments Required
Substation G (Bldg #386)	10	Yes	Two Areas = 1,345	37	37	10	30	No Comments Required
Substation H (Bldg #297)	3	Yes	Two Area = 3,170	12	12	4	0	No Comments Required
Substation K (Bldg #292)	10	Yes	Nine Areas = 2,141	25	55	8	31	The 25 samples proposed for this location in the Work Plan only accounted for the outdoor units in Substation K. The Work Plan depicted 24 locations labelled WPs 1-26 because locations for WPs 5 and 20 were not shown. An additional 8 transformers (6 existing and 2 removed) were located within the building. There were 6 single units, and therefore, 4 wipe samples were obtained per transformer (24 samples). The remaining 2 units were located side by side and an additional 7 samples were collected here. In summary, 24 wipe samples were collected from the outdoor transformer areas and 31 samples were collected from the indoor transformers for a total of 55
Substation L (Bldg #390)	9	Yes	One Area = 2,669	20	20	6	0	No Comments Required
Substation Q (Bldg #668)	1	Yes	One Area = 197	4	5	1	0	It was proposed that 4 wipe and 4 sediment samples be obtained. Due to the location of 1 proposed sediment sample being located on concrete it was replaced with a wipe sample. Therefore, 5 wipe samples and 3 sediment samples were obtained.
Substation #1 (Bldg #4)	4	Yes	One Area = 2,250	10	10	3	0	No Comments Required
Substation #4 (Bldg #274)	1	Yes	One Area = 180	0	8	1	0	While locating the transformer for Bldg. 125A, 1 existing and 1 former transformer location were identified at Building 274, therefore at total of 8 samples were collected at this location. This transformer location is presumed to be Substation #4 listed on the Transformer Location Plan (Figure 4-1).
Substation #9 (Bldg #128)	8	Yes	Four Areas = 200	10	22	3	13	Work plan called for 10 wipe samples but the observed field conditions related to the layout of former and existing transformer locations required the collection of 22 wipe samples to provide adequate
Substation #13 (Bldg #249)	0	Yes	One Area = 72	8	8	2	0	No Comments Required
Substation #18 (Bldg #562)	3	Yes	One Area = 300	12	3	4	0	Only 1 transformer was present at this location instead of 3. A soil area was identified adjacent to the 1 existing transformer. A total of 3 wipes and 1 sediment sample were obtained at this location.
Substation #19 (Bldg #5)	2	Yes	One Area = 48	8	7	2	0	This location was incorrectly referred to as Substation 19 in the SAP and Work Plan. There were 2 side by side transformers existing at this location. A total of 7 wipe samples covered the area instead of 8.
Substation #22 (Bldg #77)	6	Yes	One Area = 128	16	16	5	12	No Comments Required

TABLE 4-2
CONCRETE WIPE SAMPLING SUMMARY
ELECTRICAL TRANSFORMER INVESTIGATION
BROOKLYN NAVY YARD, BROOKLYN, NY

SAMPLING LOCATION	TOTAL TRANS-FORMER UNITS	INVESTIGATION REQUIRED	CONCRETE WIPE SAMPLING					
			Containment (Sq. Ft.)	Proposed Number of Screening Samples	Actual Number of Screening Samples	Proposed Number of Analytical Samples	Actual Number of Analytical Samples	Comments
Substation #24 (Bldg #127)	3	Yes	One Area = 90	12	10	4	0	Bldg. 127 is also Substation #24, so there were extra samples listed in the Work Plan documents (i.e., this location was counted twice, once under the Substation list and again under Buildings 22 & 127). In addition, Bldg. 127 had three existing transformers located side by side in a concrete berm. Therefore, 10 wipe samples covered the area completely instead of the 12 proposed.
Substation #25 (Bldg #131)	4	Yes	One Area = 266	16	11	5	0	A total of 4 transformers were present. The transformers were located side by side, and therefore, 11 wipe samples covered the area
Substation #28 (Bldg #294)	3	Yes	One Area = 10,000	12	11	4	0	Two former transformers locations were found on the mezzanine level of the building on individual steel containment pans. A total of 8 wipe samples (4 per unit) were obtained at this location. One former transformer location was found on the first floor in the corner of the building in a 4'X4' space, 6-inches below grade. Three wipe samples sufficiently covered this small area instead of the 4
Substation #29 (Bldg # 664)	6	Yes	One Area = 341	24	20	7	17	There were 2 groups of 3 side by side transformer units at this location. A total of 20 wipe samples covered the area of the 6 transformers instead of 24 samples proposed.
Building #3 (Roof)	3	Yes	One Area = 320	12	10	4	0	On the roof, three side by side transformer units were located on elevated steel beams. Samples were obtained from the roof surface below the units (9 samples) plus one sample by the roof drain. A total of 10 samples were collected at this location.
Building #3 (1st Floor)	4	Yes	One Area = 84	16	13	5	0	On the first floor, three transformers were side by side with one end blocked by a gear box, therefore, only 9 wipe samples could be collected. One solo transformer was located in a separate room and 4 wipe samples obtained from this location. A total of 13 samples were collected instead of the 16 proposed.
Building #10	6	No	Not Applicable	-	-	-	-	No Comments Required
Building #11	3	No	Not Applicable	-	-	-	-	No Comments Required
Building #12B	8	No	Not Applicable	-	-	-	-	No Comments Required
Building #22 & 127	6	Yes	One Area = 140	24	13	7	0	Bldg. 127 is also Substation #24 (see above), so there were extra samples listed in the Work Plan documents (i.e., this location was counted twice, once under the Substation list and again under Buildings 22 & 127). In addition, Bldg. 127 had three existing transformers located side by side in a concrete berm. Therefore, 10 wipe samples covered the area completely instead of the 12 proposed. Finally, Bldg. 22 was listed as having 6 transformers. However, only 4 transformers were noted in field. As a result, 13 wipe samples were
Building #30	3	No	Not Applicable	-	-	-	-	No Comments Required
Building #41	4	Yes	Four Areas = 905	16	20	5	0	There are 4 transformers listed on the transformer inventory, however 5 were identified to exist in individual rooms. A total of 20 wipe samples were collected at a rate of 4 wipe samples per unit.
Building #120	3	No	Not Applicable	-	-	-	-	No Comments Required

TABLE 4-2
CONCRETE WIPE SAMPLING SUMMARY
ELECTRICAL TRANSFORMER INVESTIGATION
BROOKLYN NAVY YARD, BROOKLYN, NY

SAMPLING LOCATION	TOTAL TRANS-FORMER UNITS	INVESTIGATION REQUIRED	CONCRETE WIPE SAMPLING					
			Containment (Sq. Ft.)	Proposed Number of Screening Samples	Actual Number of Screening Samples	Proposed Number of Analytical Samples	Actual Number of Analytical Samples	Comments
Building #125A	0	Yes	One Area = 16	4	4	1	0	No Comments Required
Building #198	2	Yes	One Area = 32	4	4	1	0	No Comments Required
Building #200	3	Yes	One Area = 200	12	6	4	0	A total of three transformers were present. The transformers were live and located on one continuous elevated slab. Only six wipe samples were obtained due to minimal access. Sampling behind the units was impeded by the transformers being within 6-12 inches of the back wall, sampling in between the units was not possible due to a "firewall" along the front of the transformers, and the left side of the last transformer was blocked by the gear box. Consequently, the samples were obtained on three sides of the right transformer, in front of the #2 and #3 transformer (just below the firewall), and on the floor of the building.
Building #275	1	Yes	One Area = 240	4	4	1	0	No Comments Required
Building #293	1	Yes	One Area = 200	4	0	1	0	As per BNYDC, no transformers existed at this building and the list was incorrect.
Building #664	2	Yes	One Area = 432	8	8	2	0	No Comments Required
Berth 9 (Berth 8)	3	Yes	One Area = 180	12	4	4	0	As per BNYDC electricians, no transformers were ever located at Berth 9 and upon inspection there was no evidence that any ever existed at this location. The electricians did indicate that one unit did exist at Berth 8. This unit was on an elevated concrete pier approximately 4 feet high. The unit was located on the edge of the pier. Therefore, 3 samples were obtained from 3 sides on the pier and a fourth was obtained from the ground level on the fourth side.
TOTAL	143		28,306	366	363	111	111	

TABLE 4-3
CONCRETE WIPE SAMPLE PCB ANALYTICAL RESULTS
ELECTRICAL TRANSFORMER INVESTIGATION
BROOKLYN NAVY YARD, BROOKLYN, NY

No. Of Samples	Sample Number		Initial Run or Dilution	Date of Collection & Analysis	Screening Result (ug/wipe)	Confirm. Lab Sample Results (ug/wipe)	Qual.
1	Berth8	WP01		12/10/98	<5		
2	Berth8	WP02		12/10/98	<5		
3	Berth8	WP03		12/10/98	<5		
4	Berth8	WP04		12/10/98	<5		
5	Bldg125A	WP01		12/10/98	<5		
6	Bldg125A	WP02		12/10/98	<5		
7	Bldg125A	WP03		12/10/98	<5		
8	Bldg125A	WP04		12/10/98	5.6		
9	Bldg131	WP01		12/10/98	10.2		
10	Bldg131	WP02		12/10/98	7.2		
11	Bldg131	WP03		12/10/98	9.2		
12	Bldg131	WP04		12/10/98	18.4		
13	Bldg131	WP05		12/10/98	5		
14	Bldg131	WP06		12/10/98	9.4		
15	Bldg131	WP07		12/10/98	5.4		
16	Bldg131	WP08		12/10/98	9		
17	Bldg131	WP09		12/10/98	15.4		
18	Bldg131	WP10		12/10/98	<5		
19	Bldg131	WP11		12/10/98	16.2		
20	Bldg198	WP01	Diluted Run X2	12/11/98	>200		
21	Bldg198	WP02	Diluted Run X2	12/11/98	>200		
22	Bldg198	WP03	Diluted Run X3	12/11/98	>300		
23	Bldg198	WP04	Diluted Run X3	12/11/98	>300		
24	Bldg200	WP01		12/10/98	9.2		
25	Bldg200	WP02		12/10/98	<5		
26	Bldg200	WP03		12/10/98	<5		
27	Bldg200	WP04		12/10/98	12.8		
28	Bldg200	WP05		12/10/98	5		
29	Bldg200	WP06		12/10/98	15.8		
30	Bldg22	WP01		12/09/98	5.6		
31	Bldg22	WP02		12/09/98	7		
32	Bldg22	WP03		12/09/98	27.6		
33	Bldg22	WP04		12/09/98	23.4		
34	Bldg22	WP05		12/09/98	16		
35	Bldg22	WP06		12/09/98	13.8		
36	Bldg22	WP07		12/09/98	15.8		
37	Bldg22	WP08		12/09/98	<5		
38	Bldg22	WP09		12/09/98	7.2		
39	Bldg22	WP10		12/09/98	7.6		
40	Bldg22	WP11		12/09/98	14.4		
41	Bldg22	WP12		12/09/98	22.8		
42	Bldg22	WP13		12/09/98	22		
43	Bldg274	WP01		12/10/98	32		
44	Bldg274	WP02	Diluted Run X2	12/11/98	158.4		
45	Bldg274	WP03		12/10/98	37.8		
46	Bldg274	WP04		12/10/98	27		
47	Bldg274	WP05		12/10/98	12.4		
48	Bldg274	WP06		12/10/98	11.2		
49	Bldg274	WP07		12/10/98	9.4		
50	Bldg274	WP08		12/10/98	11		

Shading indicates detected PCB concentrations equal/greater than 10 ug/wipe.
U - Undetected.
J - Estimated value.

TABLE 4-3
CONCRETE WIPE SAMPLE PCB ANALYTICAL RESULTS
ELECTRICAL TRANSFORMER INVESTIGATION
BROOKLYN NAVY YARD, BROOKLYN, NY

No. Of Samples	Sample Number		Initial Run or Dilution	Date of Collection & Analysis	Screening Result (ug/wipe)	Confirm. Lab Sample Results (ug/wipe)	Qual.
51	Bldg275	WP01		12/10/98	46		
52	Bldg275	WP02		12/10/98	55.2		
53	Bldg275	WP03		12/10/98	48.6		
54	Bldg275	WP04	Diluted Run X2	12/11/98	125.6		
55	Bldg3	FLWP01		12/09/98	82.4		
56	Bldg3	FLWP02		12/09/98	65.2		
57	Bldg3	FLWP03		12/09/98	80		
58	Bldg3	FLWP04		12/09/98	60.2		
59	Bldg3	FLWP05		12/09/98	47		
60	Bldg3	FLWP06	Diluted Run X2	12/11/98	164.8		
61	Bldg3	FLWP07		12/09/98	83.6		
62	Bldg3	FLWP08	Diluted Run X2	12/11/98	>200		
63	Bldg3	FLWP09	Diluted Run X3	12/11/98	>300		
64	Bldg3	FLWP10		12/09/98	72.6		
65	Bldg3	FLWP11		12/09/98	53.6		
66	Bldg3	FLWP12		12/09/98	27		
67	Bldg3	FLWP13	Diluted Run X2	12/11/98	168.4		
68	Bldg3	RFWP01		12/09/98	<5		
69	Bldg3	RFWP02		12/09/98	<5		
70	Bldg3	RFWP03		12/09/98	<5		
71	Bldg3	RFWP04		12/09/98	<5		
72	Bldg3	RFWP05		12/09/98	<5		
73	Bldg3	RFWP06		12/09/98	<5		
74	Bldg3	RFWP07		12/09/98	<5		
75	Bldg3	RFWP08		12/09/98	<5		
76	Bldg3	RFWP09		12/09/98	<5		
77	Bldg3	RFWP10		12/09/98	<5		
78	Bldg41	WP01		12/09/98	18.6		
79	Bldg41	WP02		12/09/98	90.4		
80	Bldg41	WP03		12/09/98	88.2		
81	Bldg41	WP04		12/09/98	32.6		
82	Bldg41	WP05	Diluted Run X4	12/11/98	84.8		
83	Bldg41	WP06		12/09/98	6		
84	Bldg41	WP07		12/09/98	12.8		
85	Bldg41	WP08		12/09/98	72.8		
86	Bldg41	WP09		12/09/98	34		
87	Bldg41	WP10		12/09/98	10		
88	Bldg41	WP11		12/09/98	9.8		
89	Bldg41	WP12		12/09/98	63.6		
90	Bldg41	WP13		12/09/98	30.4		
91	Bldg41	WP14		12/09/98	6		
92	Bldg41	WP15		12/09/98	27.4		
93	Bldg41	WP16		12/09/98	55.4		
94	Bldg41	WP17		12/09/98	59.8		
95	Bldg41	WP18		12/09/98	56.8		
96	Bldg41	WP19	Diluted Run X4	12/11/98	>400		
97	Bldg41	WP20		12/09/98	67.2		

Shading indicates detected PCB concentrations equal/greater than 10 ug/wipe.
U - Undetected.
J - Estimated value.

TABLE 4-3
CONCRETE WIPE SAMPLE PCB ANALYTICAL RESULTS
ELECTRICAL TRANSFORMER INVESTIGATION
BROOKLYN NAVY YARD, BROOKLYN, NY

No. Of Samples	Sample Number		Initial Run or Dilution	Date of Collection & Analysis	Screening Result (ug/wipe)	Confirm. Lab Sample Results (ug/wipe)	Qual.
98	Bldg5	WP01		12/10/98	12.2		
99	Bldg5	WP02		12/10/98	12.4		
100	Bldg5	WP03		12/10/98	12.6		
101	Bldg5	WP04		12/10/98	59.4		
102	Bldg5	WP05		12/10/98	28.6		
103	Bldg5	WP06		12/10/98	26.4		
104	Bldg5	WP07		12/10/98	8.8		
105	Bldg664	WP01		12/08/98	11.8		
106	Bldg664	WP02		12/08/98	70		
107	Bldg664	WP03	Diluted Run X4	12/11/98	>400		
108	Bldg664	WP04	Diluted Run X2	12/11/98	171.6		
109	Bldg664	WP05		12/08/98	34.6		
110	Bldg664	WP06		12/08/98	25.4		
111	Bldg664	WP07	Diluted Run X4	12/11/98	>400		
112	Bldg664	WP08		12/08/98	16.4		
113	Bldg77	WP01		12/10/98	24.4	36.0	
114	Bldg77	WP02		12/10/98	22.6	21.0	
115	Bldg77	WP03		12/10/98	77.2	26,000.0	
116	Bldg77	WP04	Diluted Run X2	12/11/98	188.8	1,100.0	J
117	Bldg77	WP05	Diluted Run X4	12/11/98	>400		
118	Bldg77	WP06		12/10/98	30	56.0	
119	Bldg77	WP07	Diluted Run X3	12/11/98	251.4		
120	Bldg77	WP08	Diluted Run X4	12/11/98	>400		
121	Bldg77	WP09		12/10/98	76.2	39.0	
122	Bldg77	WP10	Diluted Run X4	12/11/98	>400		
123	Bldg77	WP11		12/10/98	23.2	32.0	
124	Bldg77	WP12		12/10/98	15.6	4.0	U
125	Bldg77	WP13		12/10/98	21.6	29.0	
126	Bldg77	WP14		12/10/98	95.4	1,600.0	
127	Bldg77	WP15		12/10/98	33.6	47.0	
128	Bldg77	WP16		12/10/98	18.2	21.0	
129	Substation1	WP01		12/10/98	10.4		
130	Substation1	WP02		12/10/98	29.6		
131	Substation1	WP03		12/10/98	13.6		
132	Substation1	WP04		12/10/98	65.6		
133	Substation1	WP05	Diluted Run X2	12/11/98	138		
134	Substation1	WP06		12/10/98	22		
135	Substation1	WP07	Diluted Run X3	12/11/98	>300		
136	Substation1	WP08		12/10/98	>100		
137	Substation1	WP09		12/10/98	56.2		
138	Substation1	WP10		12/10/98	76.2		
139	Substation13	WP01		12/10/98	8.2		
140	Substation13	WP02		12/10/98	16.6		
141	Substation13	WP03		12/10/98	<5		
142	Substation13	WP04		12/10/98	<5		
143	Substation13	WP05		12/10/98	6.2		
144	Substation13	WP06		12/10/98	9.4		
145	Substation13	WP07		12/10/98	16.2		
146	Substation13	WP08		12/10/98	21.2		

Shading indicates detected PCB concentrations equal/greater than 10 ug/wipe.
U - Undetected.
J - Estimated value.

TABLE 4-3
CONCRETE WIPE SAMPLE PCB ANALYTICAL RESULTS
ELECTRICAL TRANSFORMER INVESTIGATION
BROOKLYN NAVY YARD, BROOKLYN, NY

No. Of Samples	Sample Number		Initial Run or Dilution	Date of Collection & Analysis	Screening Result (ug/wipe)	Confirm. Lab Sample Results (ug/wipe)	Qual.
147	Substation18	WP01		12/08/98	15.6		
148	Substation18	WP02		12/08/98	<5		
149	Substation18	WP03		12/08/98	5.8		
150	Substation24	WP01		12/09/98	<5		
151	Substation24	WP02		12/09/98	<5		
152	Substation24	WP03		12/09/98	<5		
153	Substation24	WP04		12/09/98	<5		
154	Substation24	WP05		12/09/98	<5		
155	Substation24	WP06		12/09/98	6.8		
156	Substation24	WP07		12/09/98	9.6		
157	Substation24	WP08		12/09/98	<5		
158	Substation24	WP09		12/09/98	<5		
159	Substation24	WP10		12/09/98	7		
160	Substation28	WP01		12/08/98	<5		
161	Substation28	WP02		12/08/98	<5		
162	Substation28	WP03		12/08/98	<5		
163	Substation28	WP04		12/08/98	<5		
164	Substation28	WP05		12/08/98	<5		
165	Substation28	WP06		12/08/98	<5		
166	Substation28	WP07		12/08/98	<5		
167	Substation28	WP08		12/08/98	<5		
168	Substation28	WP09		12/08/98	<5		
169	Substation28	WP10		12/08/98	<5		
170	Substation28	WP11		12/08/98	<5		
171	Substation29	WP01		12/08/98	25.4	5.0	
172	Substation29	WP02		12/08/98	29.6	42.0	
173	Substation29	WP03	Diluted Run X2	12/11/98	188		
174	Substation29	WP04	Diluted Run X2	12/11/98	167.2		
175	Substation29	WP05		12/08/98	15.6	13.9	J
176	Substation29	WP06		12/08/98	11	15.0	
177	Substation29	WP07		12/08/98	10.6	10.0	
178	Substation29	WP08		12/08/98	9.6	4.0	
179	Substation29	WP09	Diluted Run X3	12/11/98	>300		
180	Substation29	WP10		12/08/98	39.4	25.0	
181	Substation29	WP11		12/08/98	7.6	6.0	
182	Substation29	WP12		12/08/98	<5	1.8	J
183	Substation29	WP13		12/08/98	8	19.1	
184	Substation29	WP14		12/08/98	<5	3.2	J
185	Substation29	WP15		12/08/98	<5	4.6	
186	Substation29	WP16		12/08/98	<5	3.9	J
187	Substation29	WP17		12/08/98	<5	7.0	
188	Substation29	WP18		12/08/98	<5	10.5	J
189	Substation29	WP19		12/08/98	<5	4.4	J
190	Substation29	WP20		12/08/98	6.8	5.7	
191	Substation9	WP01	Diluted Run X1(	12/11/98	>1000	4,600.0	
192	Substation9	WP02	Diluted Run X3	12/11/98	>300	5,800.0	
193	Substation9	WP03		12/09/98	81.4	2,000.0	
194	Substation9	WP04	Diluted Run X2	12/11/98	>200	580.0	
195	Substation9	WP05	Diluted Run X2	12/11/98	>200		
196	Substation9	WP06	Diluted Run X4	12/11/98	>400	2,400.0	
197	Substation9	WP07	Diluted Run X3	12/11/98	>300		
198	Substation9	WP08	Diluted Run X2	12/11/98	145.2	550.0	

Shading indicates detected PCB concentrations equal/greater than 10 ug/wipe.
U - Undetected.
J - Estimated value.

TABLE 4-3
CONCRETE WIPE SAMPLE PCB ANALYTICAL RESULTS
ELECTRICAL TRANSFORMER INVESTIGATION
BROOKLYN NAVY YARD, BROOKLYN, NY

No. Of Samples	Sample Number		Initial Run or Dilution	Date of Collection & Analysis	Screening Result (ug/wipe)	Confirm. Lab Sample Results (ug/wipe)	Qual.
199	Substation9	WP09	Diluted Run X4	12/11/98	>400		
200	Substation9	WP10	Diluted Run X3	12/11/98	>300		
201	Substation9	WP11	Diluted Run X3	12/11/98	>300		
202	Substation9	WP12	Diluted Run X2	12/11/98	198.8	130.0	
203	Substation9	WP13	Diluted Run X2	12/11/98	190.4	350.0	
204	Substation9	WP14	Diluted Run X2	12/11/98	175.6		
205	Substation9	WP15	Diluted Run X2	12/11/98	140.4		
206	Substation9	WP16	Diluted Run X3	12/11/98	>300	260.0	
207	Substation9	WP17	Diluted Run X2	12/11/98	134.4	480.0	
208	Substation9	WP18		12/09/98	33.8		
209	Substation9	WP19		12/09/98	41		
210	Substation9	WP20		12/09/98	76.4	86.0	
211	Substation9	WP21	Diluted Run X2	12/11/98	172.4	75.0	
212	Substation9	WP22		12/09/98	28.4	54.0	
213	SubstationB	WP01		12/09/98	<5		
214	SubstationB	WP02		12/09/98	<5		
215	SubstationB	WP03		12/09/98	<5		
216	SubstationB	WP04		12/09/98	<5		
217	SubstationB	WP05		12/09/98	<5		
218	SubstationB	WP06		12/09/98	<5		
219	SubstationB	WP07		12/09/98	<5		
220	SubstationB	WP08		12/09/98	<5		
221	SubstationB	WP10		12/10/98	48.4		
222	SubstationB	WP11		12/10/98	44.8		
223	SubstationB	WP13		12/09/98	<5		
224	SubstationB	WP14		12/09/98	<5		
225	SubstationB	WP15		12/09/98	29.2		
226	SubstationB	WP16		12/09/98	24.4		
227	SubstationD	WP01		12/09/98	<5	4.0	
228	SubstationD	WP02		12/09/98	<5	4.6	
229	SubstationD	WP03		12/09/98	<5	5.9	
230	SubstationD	WP04		12/09/98	5.6	4.0	J
231	SubstationD	WP05		12/09/98	46	27.0	
232	SubstationD	WP06		12/09/98	53.8	280.0	
233	SubstationD	WP07		12/09/98	7.8	10.0	
234	SubstationD	WP08		12/09/98	<5	3.2	
235	SubstationG	WP01		12/08/98	30.4	25.0	
236	SubstationG	WP02		12/08/98	27.8	30.0	
237	SubstationG	WP03		12/08/98	22.8	48.0	J
238	SubstationG	WP04	Diluted Run X2	12/11/98	>200	650.0	J
239	SubstationG	WP05	Diluted Run X2	12/11/98	>200	370.0	
240	SubstationG	WP06		12/08/98	52.8	240.0	
241	SubstationG	WP07		12/08/98	94	180.0	
242	SubstationG	WP08	Diluted Run X4	12/11/98	>400	5,000.0	
243	SubstationG	WP09		12/08/98	93.6	920.0	J
244	SubstationG	WP10	Diluted Run X3	12/11/98	>300	610.0	J
245	SubstationG	WP11	Diluted Run X3	12/11/98	>300		
246	SubstationG	WP12		12/08/98	15.6	34.0	
247	SubstationG	WP13	Diluted Run X4	12/11/98	>400		
248	SubstationG	WP14	Diluted Run X4	12/11/98	>400		
249	SubstationG	WP15		12/08/98	25.6	930.0	
250	SubstationG	WP16	Diluted Run X3	12/11/98	>300		

Shading indicates detected PCB concentrations equal/greater than 10 ug/wipe.
U - Undetected.
J - Estimated value.

TABLE 4-3
CONCRETE WIPE SAMPLE PCB ANALYTICAL RESULTS
ELECTRICAL TRANSFORMER INVESTIGATION
BROOKLYN NAVY YARD, BROOKLYN, NY

No. Of Samples	Sample Number		Initial Run or Dilution	Date of Collection & Analysis	Screening Result (ug/wipe)	Confirm. Lab Sample Results (ug/wipe)	Qual.
251	SubstationG	WP17		12/08/98	14.8	26.0	
252	SubstationG	WP18	Diluted Run X4	12/11/98	>400	800.0	
253	SubstationG	WP19		12/08/98	20	26.0	
254	SubstationG	WP20		12/08/98	29.2	44.0	
255	SubstationG	WP21		12/08/98	15.8	22.0	
256	SubstationG	WP22		12/08/98	19.2	10.0	
257	SubstationG	WP23	Diluted Run X4	12/11/98	>400	19,000.0	
258	SubstationG	WP24		12/08/98	61.4	90.0	J
259	SubstationG	WP25		12/08/98	28.2	18.0	
260	SubstationG	WP26		12/08/98	6.6		
261	SubstationG	WP27	Diluted Run X4	12/11/98	>400		
262	SubstationG	WP28		12/08/98	41.8	47.0	
263	SubstationG	WP29		12/08/98	16.4	150.0	J
264	SubstationG	WP30		12/08/98	17.8	88.0	J
265	SubstationG	WP31		12/08/98	18	34.0	
266	SubstationG	WP32		12/08/98	34.2	250.0	
267	SubstationG	WP33		12/08/98	17.6	45.0	
268	SubstationG	WP34		12/08/98	31.4	130.0	
269	SubstationG	WP35		12/08/98	42		
270	SubstationG	WP36		12/08/98	41.6	260.0	
271	SubstationG	WP37		12/08/98	23.8	48.0	
272	SubstationH	WP01		12/08/98	<5		
273	SubstationH	WP02		12/08/98	69.4		
274	SubstationH	WP03		12/08/98	7		
275	SubstationH	WP04		12/08/98	<5		
276	SubstationH	WP05		12/08/98	11		
277	SubstationH	WP06		12/08/98	<5		
278	SubstationH	WP07		12/08/98	5.2		
279	SubstationH	WP08		12/08/98	24.6		
280	SubstationH	WP09		12/08/98	5.2		
281	SubstationH	WP10		12/08/98	52		
282	SubstationH	WP11		12/08/98	41.2		
283	SubstationH	WP12		12/08/98	57.2		
284	SubstationK	WP01		12/07/98	<5		
285	SubstationK	WP02		12/07/98	5.8		
286	SubstationK	WP03		12/07/98	6.4		
287	SubstationK	WP04		12/07/98	18		
288	SubstationK	WP06		12/07/98	23.4		
289	SubstationK	WP07		12/07/98	10.6		
290	SubstationK	WP08		12/07/98	22		
291	SubstationK	WP09		12/07/98	<5		
292	SubstationK	WP10		12/07/98	<5		
293	SubstationK	WP11		12/07/98	<5		
294	SubstationK	WP12		12/07/98	<5		
295	SubstationK	WP13		12/07/98	<5		
296	SubstationK	WP14		12/07/98	<5		
297	SubstationK	WP15		12/07/98	<5		
298	SubstationK	WP16		12/07/98	<5		
299	SubstationK	WP17		12/07/98	<5		
300	SubstationK	WP18		12/07/98	<5		
301	SubstationK	WP19		12/07/98	<5		
302	SubstationK	WP21		12/07/98	<5		

Shading indicates detected PCB concentrations equal/greater than 10 ug/wipe.
U - Undetected.
J - Estimated value.

TABLE 4-3
CONCRETE WIPE SAMPLE PCB ANALYTICAL RESULTS
ELECTRICAL TRANSFORMER INVESTIGATION
BROOKLYN NAVY YARD, BROOKLYN, NY

No. Of Samples	Sample Number		Initial Run or Dilution	Date of Collection & Analysis	Screening Result (ug/wipe)	Confirm. Lab Sample Results (ug/wipe)	Qual.
303	SubstationK	WP22		12/07/98	<5		
304	SubstationK	WP23		12/07/98	<5		
305	SubstationK	WP24		12/07/98	<5		
306	SubstationK	WP25		12/07/98	<5		
307	SubstationK	WP26		12/07/98	<5		
308	SubstationK	WP27		12/07/98	5	5.8	
309	SubstationK	WP28		12/07/98	<5	2.0	
310	SubstationK	WP29		12/07/98	<5	2.0	
311	SubstationK	WP30		12/07/98	<5	2.2	J
312	SubstationK	WP31		12/07/98	<5	1.2	J
313	SubstationK	WP32		12/07/98	<5	4.9	J
314	SubstationK	WP33		12/07/98	<5	4.0	
315	SubstationK	WP34		12/07/98	<5	12.0	
316	SubstationK	WP35		12/07/98	<5	1.3	J
317	SubstationK	WP36		12/07/98	<5	2.8	
318	SubstationK	WP37		12/07/98	<5	4.0	
319	SubstationK	WP38		12/07/98	6.8	8.3	J
320	SubstationK	WP39		12/07/98	19.2	13.0	
321	SubstationK	WP40		12/07/98	<5	1.2	J
322	SubstationK	WP41		12/07/98	5.2	5.2	
323	SubstationK	WP42		12/07/98	5	6.8	
324	SubstationK	WP43		12/07/98	<5	3.4	
325	SubstationK	WP44		12/07/98	<5	1.9	J
326	SubstationK	WP45		12/07/98	10.6	9.8	
327	SubstationK	WP46		12/07/98	<5	1.6	J
328	SubstationK	WP47		12/07/98	92.4	36.0	J
329	SubstationK	WP48		12/07/98	35.8	10.0	
330	SubstationK	WP49		12/07/98	5.2	2.2	
331	SubstationK	WP50		12/07/98	<5	1.9	J
332	SubstationK	WP51		12/07/98	8.6	5.7	
333	SubstationK	WP52		12/07/98	5.6	6.6	
334	SubstationK	WP53		12/07/98	20.4	240.0	
335	SubstationK	WP54		12/07/98	10.4	31.0	
336	SubstationK	WP55		12/07/98	6.6	13.0	
337	SubstationK	WP56		12/07/98	5	5.5	
338	SubstationK	WP57		12/07/98	39.8	37.0	
339	SubstationL	WP01		12/07/98	5.8		
340	SubstationL	WP02		12/07/98	24.6		
341	SubstationL	WP03		12/07/98	<5		
342	SubstationL	WP04		12/07/98	46.2		
343	SubstationL	WP05		12/07/98	<5		
344	SubstationL	WP06		12/07/98	10.4		
345	SubstationL	WP07		12/07/98	19.6		
346	SubstationL	WP08		12/07/98	14.8		
347	SubstationL	WP09		12/07/98	17.2		
348	SubstationL	WP10		12/07/98	63.2		
349	SubstationL	WP11	Diluted Run X2	12/11/98	>200		
350	SubstationL	WP12		12/07/98	52.2		
351	SubstationL	WP13		12/07/98	24.4		
352	SubstationL	WP14		12/07/98	5.2		
353	SubstationL	WP15		12/07/98	9.2		
354	SubstationL	WP16		12/07/98	11.8		

Shading indicates detected PCB concentrations equal/greater than 10 ug/wipe.
U - Undetected.
J - Estimated value.

TABLE 4-3
CONCRETE WIPE SAMPLE PCB ANALYTICAL RESULTS
ELECTRICAL TRANSFORMER INVESTIGATION
BROOKLYN NAVY YARD, BROOKLYN, NY

No. Of Samples	Sample Number		Initial Run or Dilution	Date of Collection & Analysis	Screening Result (ug/wipe)	Confirm. Lab Sample Results (ug/wipe)	Qual.
355	SubstationL	WP17		12/07/98	<5		
356	SubstationL	WP18		12/07/98	27.6		
357	SubstationL	WP19		12/07/98	8.2		
358	SubstationL	WP20		12/07/98	16.4		
359	SubstationQ	WP01		12/09/98	<5		
360	SubstationQ	WP02		12/09/98	<5		
361	SubstationQ	-WP03		12/09/98	<5		
362	SubstationQ	WP04		12/09/98	7.4		
363	SubstationQ	WP05		12/09/98	5.4		
364	Field Blank	12/7/98		12/07/98	<5		
365	Field Blank	12/8/98		12/09/98	<5		
366	Field Blank	12/9/98		12/10/98	<5		
367	Field Blank	12/10/98		12/10/98	<5		

Shading indicates detected PCB concentrations equal/greater than 10 ug/wipe.
U - Undetected.
J - Estimated value.

TABLE 4-4
SUMMARY OF CONCRETE WIPE SAMPLING RESULTS
ELECTRICAL TRANSFORMER INVESTIGATION
BROOKLYN NAVY YARD, BROOKLYN, NY

Location	Estimated Impacted Surface Area (Sq. Ft.)	Number of Exceedences	Location of Exceedences
Substation B	165	4 of 14 wipes at 2 of the 5 transformers	WPs 10, 11, 15 and 16
Substation D	120	3 of 8 wipes at 1of 2 transformers	WPs 05, 06 and 07
Substation G	1,345	37 of 37 wipes at 10 of 10 transformers	All Wipe Samples
Substation H	200	6 of 12 wipes at 3 of the 3 transformers	WPs 02, 05, 08, 10, 11 and 12
Substation K - Outdoor	150	4 of the 24 wipes at 2 existing transformers	WPs 04, 06, 07 and 08
Substation L	2,150	13 of 20 wipes at 5 of 5 transformers	WPs 02, 04, 06 to 13, 16, 18 and 20
Substation Q	No Impacts	0 of 5 wipes	No Exceedences
Substation 1, Bldg. 4	2,250	10 of the 10 wipes at 4 of 4 transformers	All Wipe Samples
Substation 9, Bldg. 128	200	22 of the 22 wipes at 8 of 8 transformers	All Wipe Samples
Substation 13, Bldg. 294	36	3 of the 8 samples, there are no existing transformers	WPs 02, 07 and 08
Substation 18, Bldg. 562	100	1of 3 wipes at 1 transformer	WP-01
Substation 19, Bldg. 5	48	6 of 7 wipes at 2 of 2 transformers	WPs 01 to 06
Substation 22, Bldg. 77	128	16 of 16 wipes at 4 of 4 removed transformers	All Wipe Samples
Substation 24, Bldg. 127	No Impacts	0 of 10 wipes	No Exceedences
Substation 25, Bldg. 131	90	4 of 11 wipes at 4 existing transformers	WP 01, 04, 09 and 11
Substation 28, Bldg. 294	No Impacts	0 of 11 wipes	No Exceedences
Substation 29, Bldg. 664	200	11 of 20 wipes at 3 existing and 2 removed transformers	WPs 01 to 07, 09, 10, 13 and 18
Bldg. 3 - First Floor	84	13 of 13 wipes at 4 transformers within two bermed areas	All Wipe Samples
Bldg. 3 - Roof	No Impacts	0 of 10 wipes	No Exceedences
Bldg. 22	100	8 of 13 wipes at 4 removed transformers on elevated pad	WPs 03 to 07 and 11 to 13
Bldg. 41	1,130	17 of 20 wipes at 5 transformers in separate rooms	WPs 01 to 05, 07 to 10, 12, 13 and 15 to 20
Bldg. 125A	No Impacts	0 of 4 wipes	No Exceedences
Bldg. 198	32	4 of 4 wipes at 1 transformer	All Wipe Samples
Bldg. 200	50	2 of 6 wipes at 3 transformers on elevated pad	WPs 04 and 06
Bldg. 274	100*	7 of 8 wipes at 2 transformers	WPs 01 to 06 and 08
Bldg. 275	240	4 of 4 wipes at 1 transformer	All Wipe Samples
Bldg. 292	100*	9 of the 31 wipes at 5 of 8 transformers	WPs 34, 39, 45, 47, 48, 53, 54, 55 and 57
Bldg. 664	432	8 of 8 wipes at 2 transformers	All Wipe Samples
Berth 8	No Impacts	0 of 4 wipes	No Exceedences

* Area is estimated pending verification of dimensions.

TABLE 4-5
SURFICIAL SOIL SAMPLING SUMMARY
ELECTRICAL TRANSFORMER INVESTIGATION
BROOKLYN NAVY YARD, BROOKLYN, NY

SAMPLING LOCATION	TOTAL TRANS-FORMER UNITS	INVESTIGATION REQUIRED	SOIL SAMPLING					
			Soil (Sq. Ft.)	Proposed Number of Screening Samples	Actual Number of Screening Samples	Proposed Number of Analytical Samples	Actual Number of Analytical Samples	Comments
Substation C (Bldg #542)	4	Yes	Total Area = 340	See Comments	See Comments	See Comments	See Comments	This substation was addressed as a separate project as described in the text of this report.
Substation G (Bldg #386)	10	Yes	Total Area = 360	6	6	2	0	No Comments Required
Substation H (Bldg #297)	3	Yes	Total Area = 1,033	8	8	2	0	No Comments Required
Substation K (Bldg #292)	10	Yes	Total Area = 2,060	17	15	5	11	Soil samples SS-01, SS-02 and SS-10, were located on concrete, and therefore, it was not possible to collect a soil sample. Additional wipe samples were not obtained because the area was judged to be sufficiently covered by sample locations.
Substation Q (Bldg #668)	1	Yes	Total Area =272	4	3	1	0	It was proposed that 4 wipe and 4 soil samples be obtained. Due to the location of 1 proposed soil sample being located on concrete it was replaced with a wipe sample. Therefore, 5 wipe samples and 3 soil samples were obtained.
Substation #13 (Bldg #249)	0	Yes	Unknown	0	2	-	1	A soil area was identified adjacent to this former transformer location. A total of 8 wipes and 2 soil samples were therefore collected.
Substation #18 (Bldg #562)	3	Yes	Unknown	0	1	-	-	Only 1 transformer was present at this location instead of 3. A soil area was identified adjacent to the 1 existing transformer. A total of 3 wipes and 1 soil sample were obtained at this location.
TOTAL	119		4,065	35	35	10	12	

TABLE 4-6
SURFICIAL SOIL SAMPLE PCB ANALYTICAL RESULTS
ELECTRICAL TRANSFORMER INVESTIGATION
BROOKLYN NAVY YARD, BROOKLYN, NY

No.of Samples	Sample Location & Number		Date of Collection & Analysis	Soil Concentration (mg/kg)	Confirm. Lab Results (mg/kg)	Qual.
1	Substation18	SS-01	12/11/98	2.4		
2	Substation13	SS-01	12/11/98	2.5		
3	Substation13	SS-02	12/11/98	27.7	3.7	J
4	SubstationG	SS-01	12/11/98	12.3		
5	SubstationG	SS-02	12/11/98	22.1		
6	SubstationG	SS-03	12/11/98	14.4		
7	SubstationG	SS-04	12/11/98	19.1		
8	SubstationG	SS-05	12/11/98	37.4		
9	SubstationG	SS-06	12/11/98	21.4		
10	SubstationH	SS-01	12/11/98	>50		
11	SubstationH	SS-02	12/11/98	5.6		
12	SubstationH	SS-03	12/11/98	22.7		
13	SubstationH	SS-04	12/11/98	29.2		
14	SubstationH	SS-05	12/11/98	3.4		
15	SubstationH	SS-06	12/11/98	12.5		
16	SubstationH	SS-07	12/11/98	8.6		
17	SubstationH	SS-08	12/11/98	18.9		
18	SubstationK	SS-03	12/11/98	19.8	16	J
19	SubstationK	SS-04	12/11/98	6.8		
20	SubstationK	SS-05	12/11/98	35.8	48	J
21	SubstationK	SS-06	12/11/98	3.5	5.3	J
22	SubstationK	SS-07	12/11/98	4.4	7.8	J
23	SubstationK	SS-08	12/11/98	5.6	6.1	J
24	SubstationK	SS-09	12/11/98	14.3		
25	SubstationK	SS-11	12/11/98	11.5		
26	SubstationK	SS-12	12/11/98	6.9	11	J
27	SubstationK	SS-13	12/11/98	9.5		
28	SubstationK	SS-14	12/11/98	3.7	6.4	J
29	SubstationK	SS-15	12/11/98	3.3	5.9	J
30	SubstationK	SS-16	12/11/98	7.6	7.3	J
31	SubstationK	SS-17	12/11/98	51	50	J
32	SubstationK	SS-18	12/11/98	11.8	12	J
33	SubstationQ	SS-02	12/11/98	2.3		
34	SubstationQ	SS-03	12/11/98	2.3		
35	SubstationQ	SS-04	12/11/98	1.8		

Shading indicates detected PCB concentrations equal/greater than 10 mg/kg.
J - Estimated value.

TABLE 4-7
SUMMARY OF SURFICIAL SOIL SAMPLING RESULTS
ELECTRICAL TRANSFORMER INVESTIGATION
BROOKLYN NAVY YARD, BROOKLYN, NY

Location	Number of Exceedences	Location of Exceedences
Substation G (Bldg #386)	6 of 6 Soil Samples	Samples SS-01 through SS-06
Substation H (Bldg #297)	5 of 8 Soil Samples	Samples SS-01, SS-03, SS-04, SS-6 and SS-8
Substation K (Bldg #292)	7 of 15 Soil Samples	Samples SS-03, SS-05, SS-09, SS-11, SS-12 (confirmatory only), SS-17 and SS-18
Substation Q (Bldg #668)	0 of 3 Soil Samples	No Exceedences
Substation #13 (Bldg #249)	1 of 2 Soil Samples By Immunoassay Only, However, The Corresponding Confirmatory Result Was Below 10 mg/kg	No Exceedences
Substation #18 (Bldg #562)	0 of 1 Soil Samples	No Exceedences

TABLE 4-8
TEST PIT SOIL SAMPLE PCB ANALYTICAL RESULTS
ELECTRICAL TRANSFORMER SUBSTATIONS G, H AND K
BROOKLYN NAVY YARD, BROOKLYN, NY

Sample Number	Substation	Test Pit (TP)	Depth (ft)	Date Collected	Date Analyzed	Sample ID	Final Result (mg/kg) Lot 9G1113	Confirmatory Sample Result (mg/kg) - Wet Weight	Qual
1	G	TP-01	1-2	11/10/99	11/20/99	G1 1-2	8.15	36.42	J
2	G	TP-01	2-3	11/10/99	11/20/99	G1 2-3	<1.25	NA	
3	G	TP-01	3-4	11/10/99	11/20/99	G1 3-4	2.15	NA	
4	G	TP-02	1-2	11/10/99	11/20/99	G2 1-2	10.55	67.06	J
5	G	TP-02	2-3	11/10/99	11/20/99	G2 2-3	7.45	NA	
6	G	TP-02	3-4	11/10/99	11/20/99	G2 3-4	2.50	3.92	J
7	G	TP-02	4-5	11/10/99	11/20/99	G2 4-5	9.20	NA	
8	G	TP-02	5-6	11/10/99	11/20/99	G2 5-6	7.00	NA	
9	G	TP-03	1-2	11/10/99	11/20/99	G3 1-2	12.20	60.37	J
10	G	TP-03	2-3	11/10/99	11/20/99	G3 2-3	15.75	63.76	J
11	G	TP-03	3-4	11/10/99	11/20/99	G3 3-4	<1.25	NA	
12	G	TP-04	1-2	11/10/99	11/20/99	G4 1-2	6.85	6.14	
13	G	TP-04	2-3	11/10/99	11/20/99	G4 2-3	<1.25	NA	
14	G	TP-04	3-4	11/10/99	11/20/99	G4 3-4	<1.25	NA	
15	G	TP-04	4-5	11/10/99	11/20/99	G4 4-5	<1.25	NA	
16	G	TP-04	5-6	11/10/99	11/20/99	G4 5-6	<1.25	NA	
17	G	TP-05	1-2	11/10/99	11/20/99	G5 1-2	14.05	NA	
18	G	TP-05	2-3	11/10/99	11/20/99	G5 2-3	11.75	19.32	J
19	G	TP-05	3-4	11/10/99	11/20/99	G5 3-4	4.80	NA	
20	G	TP-05	4-5	11/10/99	11/20/99	G5 4-5	9.55	NA	
21	G	TP-05	5-6	11/10/99	11/20/99	G5 5-6	<1.25	NA	
22	G	TP-06	1-2	11/10/99	11/20/99	G6 1-2	12.00	42.72	J
1	H	TP-01	1-2	10/27/99	11/20/99	H1 1-2	8.25	15.01	J
2	H	TP-01	2-3	10/27/99	11/20/99	H1 2-3	<1.25	NA	
3	H	TP-01	3-4	10/27/99	11/20/99	H1 3-4	3.75	8.03	J
4	H	TP-01	4-5	10/27/99	11/20/99	H1 4-5	<1.25	NA	
5	H	TP-02	1-2	10/27/99	11/20/99	H2 1-2	>25	NA	
6	H	TP-02	2-3	10/27/99	11/20/99	H2 2-3	>25	NA	
7	H	TP-02	3-4	10/27/99	11/20/99	H2 3-4	<1.25	4.41	J
8	H	TP-02	4-5	10/27/99	11/20/99	H2 4-5	3.70	NA	
9	H	TP-02	5-6	10/27/99	11/20/99	H2 5-6	<1.25	NA	
10	H	TP-03	1-2	10/27/99	11/20/99	H3 1-2	1.60	5.48	J
11	H	TP-03	2-3	10/27/99	11/20/99	H3 2-3	<1.25	NA	
12	H	TP-03	3-4	10/27/99	11/20/99	H3 3-4	<1.25	NA	
13	H	TP-03	4-5	10/27/99	11/20/99	H3 4-5	<1.25	NA	
14	H	TP-00	4-5	10/28/99	11/20/99	H0 4-5	<1.25	NA	
15	H	TP-04	1-2	10/28/99	11/20/99	H4 1-2	1.45	4.01	J
16	H	TP-04	2-3	10/28/99	11/20/99	H4 2-3	<1.25	NA	
17	H	TP-04	3-4	10/28/99	11/20/99	H4 3-4	<1.25	NA	
18	H	TP-04	4-5	10/28/99	11/20/99	H4 4-5	<1.25	NA	

Note: Sample Substation H #14 (TP-00 4'-5') is a blind dulicate of sample TP-04 4'-5'.
Shading indicates detected PCB concentrations equal/greater than 25 mg/kg.

TABLE 4-8
TEST PIT SOIL SAMPLE PCB ANALYTICAL RESULTS
ELECTRICAL TRANSFORMER SUBSTATIONS G, H AND K
BROOKLYN NAVY YARD, BROOKLYN, NY

Sample Number	Substation	Test Pit (TP)	Depth (ft)	Date Collected	Date Analyzed	Sample ID	Final Result (mg/kg) Lot 9G1113	Confirmatory Sample Result (mg/kg) - Wet Weight	Qual
1	K	TP-01	1-2	11/07/99	11/20/99	K1 1-2	2.90	4.14	J
2	K	TP-01	2-3	11/07/99	11/20/99	K1 2-3	<1.25	NA	
3	K	TP-01	3-4	11/07/99	11/20/99	K1 3-4	<1.25	0.25	
4	K	TP-01	4-5	11/07/99	11/20/99	K1 4-5	<1.25	NA	
5	K	TP-01	5-6	11/07/99	11/20/99	K1 5-6	<1.25	NA	
6	K	TP-01	6-7	11/07/99	11/20/99	K1 6-7	<1.25	NA	
7	K	TP-02	1-2	11/07/99	11/20/99	K2 1-2	<1.25	1.07	J
8	K	TP-02	2-3	11/07/99	11/20/99	K2 2-3	<1.25	NA	
9	K	TP-02	3-4	11/07/99	11/20/99	K2 3-4	<1.25	NA	
10	K	TP-03	1-2	11/07/99	11/20/99	K3 1-2	<1.25	3.08	J
11	K	TP-03	2-3	11/07/99	11/20/99	K3 2-3	3.95	NA	
12	K	TP-03	3-4	11/07/99	11/20/99	K3 3-4	<1.25	NA	
13	K	TP-03	4-5	11/07/99	11/20/99	K3 4-5	<1.25	NA	
14	K	TP-04	1-2	11/07/99	11/20/99	K4 1-2	2.35	5.88	J
15	K	TP-04	2-3	11/07/99	11/20/99	K4 2-3	<1.25	NA	
16	K	TP-04	3-4	11/07/99	11/20/99	K4 3-4	<1.25	NA	
17	K	TP-04	4-5	11/07/99	11/20/99	K4 4-5	<1.25	NA	
18	K	TP-04	5-6	11/07/99	11/20/99	K4 5-6	<1.25	NA	
19	K	TP-05	1-2	11/07/99	11/20/99	K5 1-2	2.20	3.74	J
20	K	TP-05	2-3	11/07/99	11/20/99	K5 2-3	<1.25	NA	
21	K	TP-05	3-4	11/07/99	11/20/99	K5 3-4	<1.25	NA	
22	K	TP-05	4-5	11/07/99	11/20/99	K5 4-5	<1.25	NA	
23	K	TP-05	5-6	11/07/99	11/20/99	K5 5-6	<1.25	NA	
24	K	TP-05	6-7	11/07/99	11/20/99	K5 6-7	<1.25	NA	
25	K	TP-06	1-2	11/07/99	11/20/99	K6 1-2	>25	83.25	J
26	K	TP-06	2-3	11/07/99	11/20/99	K6 2-3	<1.25	0.04	UJ
27	K	TP-06	3-4	11/07/99	11/20/99	K6 3-4	<1.25	NA	
28	K	TP-06	4-5	11/07/99	11/20/99	K6 4-5	<1.25	NA	
29	K	TP-06	5-6	11/07/99	11/20/99	K6 5-6	<1.25	NA	
30	K	TP-07	1-2	11/07/99	11/20/99	K7 1-2	2.45	6.42	J
31	K	TP-07	2-3	11/07/99	11/20/99	K7 2-3	<1.25	0.04	UJ
32	K	TP-07	3-4	11/07/99	11/20/99	K7 3-4	<1.25	NA	
33	K	TP-07	4-5	11/07/99	11/20/99	K7 4-5	<1.25	NA	
34	K	TP-07	5-6	11/07/99	11/20/99	K7 5-6	<1.25	NA	
35	K	TP-00	5-6	11/07/99	11/20/99	K0 5-6	>25	NA	

Note: Sample Substation K #35 (TP-00 5'-6') is a blind dulicate of sample TP-06 1'-2'.
Shading indicates detected PCB concentrations equal/greater than 25 mg/kg.

TABLE 4-9
SUMMARY OF TEST PIT SOIL SAMPLING RESULTS
ELECTRICAL TRANSFORMER INVESTIGATION
BROOKLYN NAVY YARD, BROOKLYN, NY

SAMPLING LOCATION	TOTAL XMFR UNITS	Total Soil Area (Sq. Ft.)	Test Pit Location/Surficial Soil Sample	Depth of First Zone With <25 mg/kg PCBs	Average Depth (Ft.)	Estimated Area of PCB-Impacted Soil (Ft^2)	Estimated In-Place Volume of Stone & Soil To Be Removed* (Yds^3)	Comments
Substation G (Bldg #386)	10	Total Area = 360	TP-01/SS-05	2 - 3				
			TP-02/SS-06	3 - 4				
			TP-03/SS-04	3 - 4	2.8	360	37	
			TP-04/SS-03	1 - 2				
			TP-05/SS-01	2 - 3				
			TP-06/SS-02	>2				TP-06 was terminated at 2 feet due to an obstruction
Substation H (Bldg #297)	3	Total Area = 1,033	TP-01/SS-03	1 - 2				
			TP-02/SS-01	3 - 4				
			TP-03/SS-04	1 - 2	2.0	1033	77	
			TP-04/SS-08	1 - 2				
			TP-05/SS-06	>1				TP-05 was not installed due to inaccessibility.
Substation K (Bldg #292)	10	Total Area = 2,060	TP-01/SS-13	1 - 2				
			TP-02/SS-03	1 - 2				
			TP-03/SS-05	1 - 2				
			TP-04/SS-09	1 - 2	1.6	1030	63	
			TP-05/SS-18	1 - 2				
			TP-06/SS-17	2 - 3				
			TP-07/SS-11	1 - 2				
TOTAL	23	3,453	-	-	-	1393	176	

TABLE 5-1
SUMMARY OF GROUND WATER MONITORING WELL SAMPLE ANALYTICAL RESULTS
BROOKLYN NAVY YARD, BROOKLYN, NEW YORK

Sample ID:		MW-01HT	MW-01LT	MW-02HT	MW-02LT	MW-03HT	MW-03LT	MW-00HT	MW-04HT	MW-04LT	MW-06HT	MW-06LT	MW-07HT	MW-07LT
Collection Date:	NYSDEC	05/05/99	05/06/99	05/05/99	05/06/99	05/05/99	05/06/99	05/05/99	05/07/99	05/07/99	05/06/99	05/07/99	05/06/99	05/07/99
Units:	AGWS	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
Volatiles								(MW-03HT)						
1,1,1-Trichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	5	**2 J**	10 U	**5 J**	**7 J**	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	0.6	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene (Total)	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	**1 J**	**1 J**	10 U	10 U	10 U	10 U
1,2-Dichloropropane	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	50	10 UJ	10 U	10 U	10 U	10 U	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	50	10 UJ	10 U	**5 J**	10 U	10 U	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide	60	10 U	10 U	10 UJ	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	7	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	**5 J**
Chloromethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	0.4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	5	10 UJ	10 U	10 UJ	10 U	**2 J**	10 U	10 UJ	**1 J**	10 U	10 U	10 U	10 U	10 U
Styrene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	0.4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	5	10 U	10 U	10 U	**1 J**	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Xylenes (total)	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

Notes:
Units are in micrograms per liter (ug/l).
Detections are identified in bold format.
Shaded cells represent detections above NYSDEC
NYS Ambient Ground Water Quality Standards And Guidance Values (AWGS) as listed in TOGS 1.1.1 (June 1998) and in 6 NYCRR 703.5.
NL- Indicates that no regulatory guidance value is listed in TOGS 1.1.1 (June 1998) and in 6 NYCRR 703.5.
U Undetected at the indicated detection limit.
J Estimated value (concentration less than quantification limit or validation deficiency).
NA Not Analyzed.
HT High Tide
LT Low Tide

TABLE 5-1
SUMMARY OF GROUND WATER MONITORING WELL SAMPLE ANALYTICAL RESULTS
BROOKLYN NAVY YARD, BROOKLYN, NEW YORK

Sample ID:		MW-08HT	MW-08LT	MW-09HT	MW-09LT	FB050599	TRIPBK 5/5	FB050699	TRIPBK 5/6	FB050799	TRIPBK 5/7
Collection Date:	NYSDEC	05/05/99	05/06/99	05/06/99	05/07/99	05/05/99	05/05/99	05/06/99	05/06/99	05/07/99	05/07/99
Units:	AGWS	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
Volatiles											
1,1,1-Trichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	0.6	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene (Total)	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	50	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	50	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide	60	10 U	10 U	10 U	10 U	10 UJ	10 UJ	10 U	10 U	10 U	10 U
Carbon Tetrachloride	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	7	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloromethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	0.4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	5	10 UJ	10 U	10 U	10 U	10 UJ	10 UJ	**1 J**	10 U	10 U	10 U
Styrene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	0.4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	5	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Xylenes (total)	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

Notes:
Units are in micrograms per liter (ug/l).
Detections are identified in bold format.
Shaded cells represent detections above NYSDEC
NYS Ambient Ground Water Quality Standards And Guidance Values (AWGS) as listed in TOGS 1.1.1 (June 1998) and in 6 NYCRR 703.5.
NL- Indicates that no regulatory guidance value is listed in TOGS 1.1.1 (June 1998) and in 6 NYCRR 703.5.
U Undetected at the indicated detection limit.
J Estimated value (concentration less than quantification limit or validation deficiency).
NA Not Analyzed.
HT High Tide
LT Low Tide

TABLE 5-1
SUMMARY OF GROUND WATER MONITORING WELL SAMPLE ANALYTICAL RESULTS
BROOKLYN NAVY YARD, BROOKLYN, NEW YORK

Sample ID:		MW-01HT	MW-01LT	MW-02HT	MW-02LT	MW-03HT	MW-03LT	MW-00HT	MW-04HT	MW-04LT	MW-06HT	MW-06LT	MW-07HT	MW-07LT
Collection Date:	NYSDEC	05/05/99	05/06/99	05/05/99	05/06/99	05/05/99	05/06/99	05/05/99	05/07/99	05/07/99	05/06/99	05/07/99	05/06/99	05/07/99
Units:	AGWS	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
Semi-Volatiles								(MW-03HT)						
Phenol	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bis(2-chloroethyl)ether	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	1*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	1*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,2'-oxybis-(1-chloropropane)	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol	1*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	0.4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	1*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bis(2-chloroethoxy)methane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	**4 J**	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	0.5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	1*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	1*	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
2-Chloronaphthalene	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	5	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Dimethylphthalate	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline	5	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Acenaphthene	20	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	10	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 UJ	25 UJ	25 U	25 UJ	25 U	25 UJ
4-Nitrophenol	1*	25 UJ	25 UJ	25 UJ	25 UJ	25 UJ	25 UJ	25 UJ	25 UJ	25 UJ	25 UJ	25 UJ	25 UJ	25 UJ
Dibenzofuran	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

Notes:
Units are in micrograms per liter (ug/l).
Detections are identified in bold format.
Shaded cells represent detections above NYSDEC
NYS Ambient Ground Water Quality Standards And Guidance Values (AWGS) as listed in TOGS 1.1.1 (June 1998) and in 6 NYCRR 703.5.
NL- Indicates that no regulatory guidance value is listed in TOGS 1.1.1 (June 1998) and in 6 NYCRR 703.5.
U Undetected at the indicated detection limit.
J Estimated value (concentration less than quantification limit or validation deficiency).
NA Not Analyzed.
HT High Tide
LT Low Tide
* Value obtained from the "Phenolic Compounds (total phenols)" guidance values.

TABLE 5-1
SUMMARY OF GROUND WATER MONITORING WELL SAMPLE ANALYTICAL RESULTS
BROOKLYN NAVY YARD, BROOKLYN, NEW YORK

Sample ID:		*MW-08HT*	*MW-08LT*	*MW-09HT*	*MW-09LT*	*FB050599*	*TRIPBK 5/5*	*FB050699*	*TRIPBK 5/6*	*FB050799*	*TRIPBK 5/7*
Collection Date:	*NYSDEC*	*05/05/99*	*05/06/99*	*05/06/99*	*05/07/99*	*05/05/99*	*05/05/99*	*05/06/99*	*05/06/99*	*05/07/99*	*05/07/99*
Units:	*AGWS*	*(ug/L)*	*(ug/L)*	*(ug/L)*	*(ug/L)*	*(ug/L)*	*(ug/L)*	*(ug/L)*	*(ug/L)*	*(ug/L)*	*(ug/L)*
Semi-Volatiles											
Phenol	1	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
Bis(2-chloroethyl)ether	1	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
2-Chlorophenol	1*	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
1,3-Dichlorobenzene	3	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
1,4-Dichlorobenzene	3	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
1,2-Dichlorobenzene	3	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
2-Methylphenol	1*	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
2,2'-oxybis-(1-chloropropane)	5	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
4-Methylphenol	1*	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
N-Nitroso-di-n-propylamine	NL	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
Hexachloroethane	5	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
Nitrobenzene	0.4	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
Isophorone	50	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
2-Nitrophenol	1*	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
2,4-Dimethylphenol	50	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
Bis(2-chloroethoxy)methane	5	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
2.4-Dichlorophenol	10	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
1,2,4-Trichlorobenzene	5	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
Naphthalene	10	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
4-Chloroaniline	5	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
Hexachlorobutadiene	0.5	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
4-Chloro-3-methylphenol	NL	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
2-Methylnaphthalene	NL	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
Hexachlorocyclopentadiene	5	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
2,4,6-Trichlorophenol	1*	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
2,4,5-Trichlorophenol	1*	25 U	25 U	25 U	25 U	25 U	NA	25 U	NA	25 U	NA
2-Chloronaphthalene	10	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
2-Nitroaniline	5	25 U	25 U	25 U	25 U	25 U	NA	25 U	NA	25 U	NA
Dimethylphthalate	50	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
Acenaphthylene	NL	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
2,6-Dinitrotoluene	5	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
3-Nitroaniline	5	25 U	25 U	25 U	25 U	25 U	NA	25 U	NA	25 U	NA
Acenaphthene	20	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
2,4-Dinitrophenol	10	25 U	25 U	25 U	25 UJ	25 U	NA	25 U	NA	25 UJ	NA
4-Nitrophenol	1*	25 UJ	25 UJ	25 UJ	25 UJ	25 UJ	NA	25 UJ	NA	25 UJ	NA
Dibenzofuran	NL	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
2,4-Dinitrotoluene	5	10 UJ	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA

Notes:
Units are in micrograms per liter (ug/l).
Detections are identified in bold format.
Shaded cells represent detections above NYSDEC
NYS Ambient Ground Water Quality Standards And Guidance Values (AWGS) as listed in TOGS 1.1.1 (June 1998) and in 6 NYCRR 703.5.
NL- Indicates that no regulatory guidance value is listed in TOGS 1.1.1 (June 1998) and in 6 NYCRR 703.5.
U Undetected at the indicated detection limit.
J Estimated value (concentration less than quantification limit or validation deficiency).
NA Not Analyzed.
HT High Tide
LT Low Tide
* Value obtained from the "Phenolic Compounds (total phenols)" guidance values.

TABLE 5-1
SUMMARY OF GROUND WATER MONITORING WELL SAMPLE ANALYTICAL RESULTS
BROOKLYN NAVY YARD, BROOKLYN, NEW YORK

Sample ID:		MW-01HT	MW-01LT	MW-02HT	MW-02LT	MW-03HT	MW-03LT	MW-00HT	MW-04HT	MW-04LT	MW-06HT	MW-06LT	MW-07HT	MW-07LT
Collection Date:	NYSDEC	05/05/99	05/06/99	05/05/99	05/06/99	05/05/99	05/06/99	05/05/99	05/07/99	05/07/99	05/06/99	05/07/99	05/06/99	05/07/99
Units:	AGWS	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
Semi-Volatiles - Cont'd								(MW-03HT)						
Diethylphthalate	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	5	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
4,6-Dinitro-2-methylphenol	NL	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
N-Nitrosodiphenylamine	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	0.04	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	1*	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Phenanthrene	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butylphthalate	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Butylbenzylphthalate	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)anthracene	0.002	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.002	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bis(2-ethylhexyl)phthalate	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	15 U	10 U	10 U	22 U	10 U	25 U
di-n-Octylphthalate	50	10 U	10 U	10 U	10 U	**2 J**	10 U	**1 J**	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	0.002	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	0.002	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	Not Detectable	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	0.002	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

Notes:
Units are in micrograms per liter (ug/l).
Detections are identified in bold format.
Shaded cells represent detections above NYSDEC NYS Ambient Ground Water Quality Standards And Guidance Values (AWGS) as listed in TOGS 1.1.1 (June 1998) and in 6 NYCRR 703.5.
NL- Indicates that no regulatory guidance value is listed in TOGS 1.1.1 (June 1998) and in 6 NYCRR 703.5.
U Undetected at the indicated detection limit.
J Estimated value (concentration less than quantification limit or validation deficiency).
NA Not Analyzed.
HT High Tide
LT Low Tide
* Value obtained from the "Phenolic Compounds (total phenols)" guidance values.

TABLE 5-1
SUMMARY OF GROUND WATER MONITORING WELL SAMPLE ANALYTICAL RESULTS
BROOKLYN NAVY YARD, BROOKLYN, NEW YORK

Sample ID:		*MW-08HT*	*MW-08LT*	*MW-09HT*	*MW-09LT*	*FB050599*	*TRIPBK 5/5*	*FB050699*	*TRIPBK 5/6*	*FB050799*	*TRIPBK 5/7*
Collection Date:	*NYSDEC*	*05/05/99*	*05/06/99*	*05/06/99*	*05/07/99*	*05/05/99*	*05/05/99*	*05/06/99*	*05/06/99*	*05/07/99*	*05/07/99*
Units:	*AGWS*	*(ug/L)*	*(ug/L)*	*(ug/L)*	*(ug/L)*	*(ug/L)*	*(ug/L)*	*(ug/L)*	*(ug/L)*	*(ug/L)*	*(ug/L)*
Semi-Volatiles - Cont'd											
Diethylphthalate	50	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
Fluorene	50	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
4-Chlorophenyl-phenylether	NL	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
4-Nitroaniline	5	25 U	25 U	25 U	25 U	25 U	NA	25 U	NA	25 U	NA
4,6-Dinitro-2-methylphenol	NL	25 U	25 U	25 U	25 U	25 U	NA	25 U	NA	25 U	NA
N-Nitrosodiphenylamine	50	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
4-Bromophenyl-phenylether	NL	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
Hexachlorobenzene	0.04	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
Pentachlorophenol	1*	25 UJ	25 U	25 U	25 U	25 U	NA	25 U	NA	25 U	NA
Phenanthrene	50	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
Anthracene	50	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
Carbazole	NL	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
di-n-Butylphthalate	50	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
Fluoranthene	50	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
Pyrene	50	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
Butylbenzylphthalate	50	10 U	10 U	10 U	10 U	10 U	NA	**1 J**	NA	10 U	NA
Benzo(a)anthracene	0.002	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
3,3'-Dichlorobenzidine	5	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
Chrysene	0.002	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
Bis(2-ethylhexyl)phthalate	5	10 U	10 U	10 U	**49**	**4 J**	NA	**7 J**	NA	**3 J**	NA
di-n-Octylphthalate	50	10 U	10 U	10 U	**1 J**	10 U	NA	**2 J**	NA	10 U	NA
Benzo(b)fluoranthene	0.002	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
Benzo(k)fluoranthene	0.002	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
Benzo(a)pyrene	Not Detectable	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
Indeno(1,2,3-cd)pyrene	0.002	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
Dibenz(a,h)anthracene	NL	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA
Benzo(g,h,i)perylene	NL	10 U	10 U	10 U	10 U	10 U	NA	10 U	NA	10 U	NA

Notes:
Units are in micrograms per liter (ug/l).
Detections are identified in bold format.
Shaded cells represent detections above NYSDEC
NYS Ambient Ground Water Quality Standards And Guidance Values (AWGS) as listed in TOGS 1.1.1 (June 1998) and in 6 NYCRR 703.5.
NL- Indicates that no regulatory guidance value is listed in TOGS 1.1.1 (June 1998) and in 6 NYCRR 703.5.
U Undetected at the indicated detection limit.
J Estimated value (concentration less than quantification limit or validation deficiency).
NA Not Analyzed.
HT High Tide
LT Low Tide
* Value obtained from the "Phenolic Compounds (total phenols)" guidance values.

TABLE 5-1
SUMMARY OF GROUND WATER MONITORING WELL SAMPLE ANALYTICAL RESULTS
BROOKLYN NAVY YARD, BROOKLYN, NEW YORK

Sample ID:		MW-01HT	MW-01LT	MW-02HT	MW-02LT	MW-03HT	MW-03LT	MW-00HT	MW-04HT	MW-04LT	MW-06HT	MW-06LT	MW-07HT	MW-07LT
Collection Date:	NYSDEC	05/05/99	05/06/99	05/05/99	05/06/99	05/05/99	05/06/99	05/05/99	05/07/99	05/07/99	05/06/99	05/07/99	05/06/99	05/07/99
Units:	AGWS	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
Pesticides/PCBs								(MW-03HT)						
alpha-BHC	0.01	0.050 U	0.050 U	0.050 U	0.050 UJ	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
beta-BHC	0.04	0.050 U	0.050 U	0.050 U	0.050 UJ	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
delta-BHC	0.04	0.050 U	0.050 U	0.050 U	0.050 UJ	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
gamma-BHC(Lindane)	0.05	0.050 U	0.050 U	0.050 U	0.050 UJ	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Heptachlor	0.04	0.050 U	0.050 U	0.050 U	0.050 UJ	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Aldrin	ND	0.050 U	0.050 U	0.050 U	0.050 UJ	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Heptachlor epoxide	0.03	0.050 U	0.050 U	0.050 U	0.050 UJ	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Endosulfan I	NL	0.050 U	0.050 U	0.050 U	0.050 UJ	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Dieldrin	0.004	0.10 U	0.10 U	0.10 U	0.10 UJ	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
4,4'-DDE	0.2	0.10 U	0.10 U	0.10 U	0.10 UJ	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Endrin	ND	0.10 U	0.10 U	0.10 U	0.10 UJ	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Endosulfan II	NL	0.10 U	0.10 U	0.10 U	0.10 UJ	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
4,4'-DDD	0.3	0.10 U	0.10 U	0.10 U	0.10 UJ	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Endosulfan sulfate	NL	0.10 U	0.10 U	0.10 U	0.10 UJ	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
4,4'-DDT	0.2	0.10 U	0.10 U	0.10 U	0.10 UJ	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Methoxychlor	35	0.50 U	0.50 U	0.50 U	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Endrin ketone	5	0.10 U	0.10 U	0.10 U	0.10 UJ	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Endrin aldehyde	5	0.10 U	0.10 U	0.10 U	0.10 UJ	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
alpha-Chlordane	0.05	0.050 U	0.050 U	0.050 U	0.050 UJ	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
gamma-Chlordane	0.05	0.050 U	0.050 U	0.050 U	0.050 UJ	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Toxaphene	0.06	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Aroclor-1016	0.09	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Aroclor-1221	0.09	2.0 U	2.0 U	2.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Aroclor-1232	0.09	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Aroclor-1242	0.09	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Aroclor-1248	0.09	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Aroclor-1254	0.09	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Aroclor-1260	0.09	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Notes:
Units are in micrograms per liter (ug/l).
Detections are identified in bold format.
Shaded cells represent detections above NYSDEC
NYS Ambient Ground Water Quality Standards And Guidance
Values (AWGS) as listed in TOGS 1.1.1 (June 1998) and
in 6 NYCRR 703.5.
NL- Indicates that no regulatory guidance value is listed in
TOGS 1.1.1 (June 1998) and in 6 NYCRR 703.5.
ND Not detectable (as a AWGS guidance value).
U Undetected at the indicated detection limit.
J Estimated value (concentration less than
quantification limit or validation deficiency).
NA Not Analyzed.
HT High Tide
LT Low Tide

TABLE 5-1
SUMMARY OF GROUND WATER MONITORING WELL SAMPLE ANALYTICAL RESULTS
BROOKLYN NAVY YARD, BROOKLYN, NEW YORK

Sample ID:		*MW-08HT*	*MW-08LT*	*MW-09HT*	*MW-09LT*	*FB050599*	*TRIPBK 5/5*	*FB050699*	*TRIPBK 5/6*	*FB050799*	*TRIPBK 5/7*
Collection Date:	*NYSDEC*	*05/05/99*	*05/06/99*	*05/06/99*	*05/07/99*	*05/05/99*	*05/05/99*	*05/06/99*	*05/06/99*	*05/07/99*	*05/07/99*
Units:	*AGWS*	*(ug/L)*	*(ug/L)*	*(ug/L)*	*(ug/L)*	*(ug/L)*	*(ug/L)*	*(ug/L)*	*(ug/L)*	*(ug/L)*	*(ug/L)*
Pesticides/PCBs											
alpha-BHC	0.01	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	NA	0.050 U	NA	0.050 U	NA
beta-BHC	0.04	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	NA	0.050 U	NA	0.050 U	NA
delta-BHC	0.04	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	NA	0.050 U	NA	0.050 U	NA
gamma-BHC(Lindane)	0.05	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	NA	0.050 U	NA	0.050 U	NA
Heptachlor	0.04	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	NA	0.050 U	NA	0.050 U	NA
Aldrin	ND	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	NA	0.050 U	NA	0.050 U	NA
Heptachlor epoxide	0.03	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	NA	0.050 U	NA	0.050 U	NA
Endosulfan I	NL	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	NA	0.050 U	NA	0.050 U	NA
Dieldrin	0.004	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	NA	0.10 U	NA	0.10 U	NA
4,4'-DDE	0.2	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	NA	0.10 U	NA	0.10 U	NA
Endrin	ND	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	NA	0.10 U	NA	0.10 U	NA
Endosulfan II	NL	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	NA	0.10 U	NA	0.10 U	NA
4,4'-DDD	0.3	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	NA	0.10 U	NA	0.10 U	NA
Endosulfan sulfate	NL	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	NA	0.10 U	NA	0.10 U	NA
4,4'-DDT	0.2	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	NA	0.10 U	NA	0.10 U	NA
Methoxychlor	35	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	NA	0.50 U	NA	0.50 U	NA
Endrin ketone	5	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	NA	0.10 U	NA	0.10 U	NA
Endrin aldehyde	5	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	NA	0.10 U	NA	0.10 U	NA
alpha-Chlordane	0.05	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	NA	0.050 U	NA	0.050 U	NA
gamma-Chlordane	0.05	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	NA	0.050 U	NA	0.050 U	NA
Toxaphene	0.06	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U	NA	5.0 U	NA
Aroclor-1016	0.09	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	NA
Aroclor-1221	0.09	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	NA
Aroclor-1232	0.09	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	NA
Aroclor-1242	0.09	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	NA
Aroclor-1248	0.09	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	NA
Aroclor-1254	0.09	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	NA
Aroclor-1260	0.09	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	NA

Notes:
Units are in micrograms per liter (ug/l).
Detections are identified in bold format.
Shaded cells represent detections above NYSDEC NYS Ambient Ground Water Quality Standards And Guidance Values (AWGS) as listed in TOGS 1.1.1 (June 1998) and in 6 NYCRR 703.5.
NL- Indicates that no regulatory guidance value is listed in TOGS 1.1.1 (June 1998) and in 6 NYCRR 703.5.
ND Not detectable (as a AWGS guidance value).
U Undetected at the indicated detection limit.
J Estimated value (concentration less than quantification limit or validation deficiency).
NA Not Analyzed.
HT High Tide
LT Low Tide

TABLE 5-1
SUMMARY OF GROUND WATER MONITORING WELL SAMPLE ANALYTICAL RESULTS
BROOKLYN NAVY YARD, BROOKLYN, NEW YORK

Sample ID:		MW-01HT	MW-01LT	MW-02HT	MW-02LT	MW-03HT	MW-03LT	MW-00HT	MW-04HT	MW-04LT	MW-06HT	MW-06LT	MW-07HT	MW-07LT
Collection Date:	NYSDEC	05/05/99	05/06/99	05/05/99	05/06/99	05/05/99	05/06/99	05/05/99	05/07/99	05/07/99	05/06/99	05/07/99	05/06/99	05/07/99
Units:	AGWS	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
Inorganics								(MW-03HT)						
Aluminum	NL	192 U	**905**	**2570**	**610**	**1490**	**877**	**1090**	**10300**	**10700**	**2400**	**2810**	**139**	**271**
Antimony	3	2.9 U	2.9 U	2.9 U	2.9 U	2.9 U	2.9 U	2.9 U	2.9 U	2.9 U	2.9 U	2.9 U	2.9 U	**6.0**
Arsenic	25	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	**12.5**	**8.9**	**5.7**	**3.1**	2.4 U	2.4 U
Barium	1000	**110**	**117**	**270**	**136**	**235**	**238**	**240**	**153**	**181**	**241**	**235**	**167**	**180**
Beryllium	3	0.30 U	0.30 U	**0.90**	0.30 U	**0.43**	0.30 U	**0.38**	**1.0**	**0.97**	**0.69**	**0.78**	0.30 U	**0.32**
Cadmium	5	0.50 U	**0.55**	**0.64**	0.50 U	**1.1**	0.50 U	**0.89**	**2.5**	**3.4**	**40.0**	**18.9**	**0.74**	**0.71**
Calcium	NL	**64100**	**61600**	**91200**	**93000**	**238000**	**242000**	**244000**	**47100**	**47000**	**121000**	**101000**	**148000**	**113000**
Chromium	50	0.90 U	**1.5**	**3.9**	**1.3**	**3.3**	0.90 U	**2.1**	**32.3**	**32.4**	**17.0**	**17.6**	**3.1**	**9.0**
Cobalt	NL	3.6 U	3.6 U	**17.2**	**5.3**	3.6 U	3.6 U	3.6 U	**10.0**	**12.5**	**5.9**	**4.6**	3.6 U	3.6 U
Copper	200	2.2 U	**7.4**	**33.1**	**6.4**	**32.9**	**21.2**	**34.5**	**201**	**217**	**268**	**190**	**6.8**	**21.2**
Iron	300	**204 J**	**2190 J**	**971 J**	**422 J**	**2970 J**	**3040 J**	**2270 J**	**15200 J**	**16000 J**	**9690 J**	**9800 J**	**4760 J**	**5100 J**
Lead	25	1.0 U	**13.2 J**	**120 J**	**28.3 J**	**19.2 J**	**38.5 J**	**14.8 J**	**363 J**	**412 J**	**329 J**	**208 J**	**40.0 J**	**220 J**
Magnesium	35000	**30800 J**	**30200 J**	**28800 J**	**29200 J**	**28500 J**	**28000 J**	**28900 J**	**7630 J**	**7260 J**	**86100 J**	**81400 J**	**31200 J**	**31000 J**
Manganese	300	**2570**	**2300**	**2560**	**1950**	**900**	**746**	**725**	**537**	**786**	**712**	**649**	**109**	**105**
Mercury	0.7	0.10 U	0.10 U	**2.3**	**0.25**	**0.13**	0.10 U	0.10 U	**2.2**	**2.6**	**1.6**	**1.3**	0.10 U	0.10 U
Nickel	100	**3.9**	**5.3**	**22.9**	**7.7**	3.2 U	3.2 U	3.2 U	**25.3**	**29.1**	**40.4**	**29.7**	**4.0**	**7.0**
Potassium	NL	**11700 J**	**10700 J**	**20200 J**	**17600 J**	**11200 J**	**11500 J**	**11600 J**	**5350 J**	**5130 J**	**55100 J**	**56200 J**	**3640 J**	**4310 J**
Selenium	10	1.9 U	**2.0**	3.9 U	**5.5**	1.9 U	1.9 U	3.7 U	**3.9**	1.9 U	**2.7**	**2.6**	**8.3**	**4.6**
Silver	50	**0.74 J**	0.60 U	**1.0 J**	0.60 U	**0.60 J**	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	**0.64 J**	0.60 U	0.60 U
Sodium	20000	93000	87000	67400	70600	288000	303000	313000	35000	23700	567000	555000	23700	23500
Thallium	0.5	1.2 UJ	1.2 UJ	1.2 UJ	1.2 UJ	1.2 UJ	1.2 UJ	**1.5 J**	1.2 UJ	1.2 UJ	**2.2 J**	1.2 UJ	1.2 UJ	1.2 UJ
Vanadium	NL	**2.5**	**8.5**	**6.0**	**2.0**	**5.5**	**3.3**	**4.7**	**32.2**	**34.7**	**12.7**	**11.2**	1.9 U	1.9 U
Zinc	2000	**14.4**	28.7 U	**68.4**	23.0 U	**67.0**	54.0 U	**53.3**	**910**	**1030**	**2250**	**1450**	**1870**	**804**
Cyanide	200	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U

Notes:
Units are in micrograms per liter (ug/l).
Detections are identified in bold format.
Shaded cells represent detections above NYSDEC
NYS Ambient Ground Water Quality Standards And Guidance Values (AWGS) as listed in TOGS 1.1.1 (June 1998) and in 6 NYCRR 703.5.
NL- Indicates that no regulatory guidance value is listed in TOGS 1.1.1 (June 1998) and in 6 NYCRR 703.5.
U Undetected at the indicated detection limit.
NA Not Analyzed.
HT High Tide
LT Low Tide

Sample ID:	MW-04
Collection Date:	05/03/99
Units:	(mg/kg)
Petroleum Product Identification	
Gasoline	N.D
Lubricating Oils	PRESENT
Total Fuel Oils	N.D.
Kerosene	N.D.

Notes:
N.D. Non-detect at the associated value.

TABLE 5-1
SUMMARY OF GROUND WATER MONITORING WELL SAMPLE ANALYTICAL RESULTS
BROOKLYN NAVY YARD, BROOKLYN, NEW YORK

Sample ID:		MW-08HT	MW-08LT	MW-09HT	MW-09LT	FB050599	TRIPBK 5/5	FB050699	TRIPBK 5/6	FB050799	TRIPBK 5/7
Collection Date:	NYSDEC	05/05/99	05/06/99	05/06/99	05/07/99	05/05/99	05/05/99	05/06/99	05/06/99	05/07/99	05/07/99
Units:	AGWS	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
Inorganics											
Aluminum	NL	**478**	**366**	**343**	**632**	**39.6**	NA	6.5 U	NA	**13.1**	NA
Antimony	3	2.9 U	2.9 U	2.9 U	2.9 U	2.9 U	NA	2.9 U	NA	2.9 U	NA
Arsenic	25	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	NA	2.4 U	NA	2.4 U	NA
Barium	1000	**215**	**166**	**133**	**137**	0.40 U	NA	0.40 U	NA	0.40 U	NA
Beryllium	3	**0.87**	0.30 U	030 U	0.30 U	0.30 U	NA	0.30 U	NA	0.30 U	NA
Cadmium	5	**3.8**	**5.6**	**0.70**	0.50 U	0.50 U	NA	0.50 U	NA	0.50 U	NA
Calcium	NL	**175000**	**128000**	**139000**	**112000**	**117**	NA	**101**	NA	**366**	NA
Chromium	50	**2.10**	**2.1**	**1.3**	**2.2**	0.90 U	NA	0.90 U	NA	0.90 U	NA
Cobalt	NL	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	NA	3.6 U	NA	3.6 U	NA
Copper	200	**19.0**	2.2 U	**4.2**	**4.1**	2.2 U	NA	2.2 U	NA	2.2 U	NA
Iron	300	**1150 J**	**2320 J**	**7030 J**	**6420 J**	**23.0 J**	NA	20.7 UJ	NA	20.7 UJ	NA
Lead	25	**126 J**	**58.4 J**	**52.0 J**	**34.6 J**	1.0 U	NA	1.0 U	NA	1.0 U	NA
Magnesium	35000	**406000 J**	**217000 J**	**37200 J**	**35000 J**	9.5 U	NA	9.5 U	NA	9.5 U	NA
Manganese	300	**201**	**416**	**920**	**789**	0.90 U	NA	0.90 U	NA	0.90 U	NA
Mercury	0.7	**0.50**	**0.32**	0.10 U	0.10 U	0.10 U	NA	0.10 U	NA	0.10 U	NA
Nickel	100	3.2 U	**3.4**	3.2 U	3.2 U	3.2 U	NA	3.2 U	NA	3.2 U	NA
Potassium	NL	**136000 J**	**109000 J**	**25600 J**	**27000 J**	12.8 U	NA	12.8 U	NA	12.8 U	NA
Selenium	10	3.9 U	**3.0**	1.9 U	1.9 U	**2.1**	NA	1.9 U	NA	1.9 U	NA
Silver	50	**3.0 J**	0.60 U	0.60 U	0.60 U	0.60 U	NA	0.60 U	NA	0.60 U	NA
Sodium	20000	**3240000**	**1450000**	**112000**	**110000**	**627**	NA	**91.7**	NA	56.6 U	NA
Thallium	0.5	**2.8 J**	2.3 UJ	1.2 UJ	1.2 UJ	1.2 UJ	NA	1.2 UJ	NA	1.2 UJ	NA
Vanadium	NL	**2.1**	1.9 U	1.9 U	1.9 U	1.9 U	NA	1.9 U	NA	1.9 U	NA
Zinc	2000	**346**	**206**	40.0 U	**24.6**	5.6 U	NA	**12.0**	NA	5.6 U	NA
Cyanide	200	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	NA	10.0 U	NA	10.0 U	NA

Notes:
Units are in micrograms per liter (ug/l).
Detections are identified in bold format.
Shaded cells represent detections above NYSDEC
NYS Ambient Ground Water Quality Standards And Guidance
Values (AWGS) as listed in TOGS 1.1.1 (June 1998) and
in 6 NYCRR 703.5.
NL- Indicates that no regulatory guidance value is listed in
TOGS 1.1.1 (June 1998) and in 6 NYCRR 703.5.
U Undetected at the indicated detection limit.
NA Not Analyzed.
HT High Tide
LT Low Tide

TABLE 5-2
TIDAL INFLUENCE STUDY
GROUND WATER ELEVATION DATA SUMMARY
BROOKLYN NAVY YARD INDUSTRIAL PARK, BROOKLYN, N.Y.

	START LEVEL (ft)	MAXIMUM LEVEL (ft)	MINIMUM LEVEL (ft)	RANGE (ft)	AVERAGE LEVEL (ft)
BASIN	0.00	3.51	-3.41	6.92	-0.019

NOTE: Levels relative to mean water level in basin.

WELL	START ELEV. (ft)	MAXIMUM ELEV. (ft)	MINIMUM ELEV. (ft)	RANGE (ft)	AVERAGE ELEV. (ft)
MW-1	1.09	1.12	1.06	0.07	1.08
MW-2	3.65	3.73	3.63	0.10	3.67
MW-3	2.54	2.59	2.52	0.07	2.55
MW-4	1.27	1.30	1.24	0.07	1.27
MW-6	2.41	2.84	2.07	0.77	2.38
MW-7	5.33	5.36	5.30	0.07	5.32
MW-8	0.14	0.21	0.12	0.08	0.15
MW-9	0.92	0.99	0.92	0.066	0.94

NOTE: Elevations relative to mean sea level.

Table 6-1
Summary of Community Health and Safety Monitoring

Date	Time	Field Activity	Organic Vapors (ppm)	Dust - MINIRAM	LEL/0_2
4/7/99	9:52	Well Installations	0.0	0.033	13/20.4
4/7/99	10:40	"	0.0	0.003	13/20.4
4/7/99	13:11	"	0.0	0.121	13/20.4
4/7/99	14:34	"	0.0	0.053	13/20.4
4/7/99	15:05	"	0.0	0.022	13/20.5
4/7/99	16:52	"	0.0	0.041	13/20.4
4/7/99	17:15	"	0.0	0.102	13/20.4
4/7/99	17:35	"	0.0	0.097	13/20.3
4/8/99	8:09	"	0.0	0.018	13/20.4
4/8/99	10:10	"	0.0	0.205	13/20.4
4/8/99	11:08	"	0.0	0.037	13/20.4
4/8/99	11:58	"	0.0	0.054	13/20.4
4/8/99	13:33	"	0.0	0.005	13/20.4
4/8/99	14:18	"	0.0	0.083	13/20.4
4/8/99	15:15	"	0.0	0.067	13/20.4
4/8/99	16:22	"	0.0	0.001	13/20.4
4/8/99	16:45	"	0.0	0.099	13/20.4
4/9/99	12:00	"	0.0	0.035	13/20.4
4/9/99	14:15	"	0.0	0.000	13/20.4
4/9/99	16:05	"	0.0	0.046	13/20.3
4/15/99	9:35	Drum Storage Area Soil Borings	0.0	0.030	13/20.4
4/15/99	11:30	"	0.0	0.052	13/20.4
4/15/99	13:40	"	0.0	0.305	13/20.4
4/16/99	9:15	"	0.0	0.015	13/20.4
4/16/99	11:15	"	0.0	0.315	13/20.4
4/16/99	13:42	"	0.0	0.010	13/20.4
5/5/99	10:30	Ground Water Sampling	0.0	N/A	13/20.8
5/5/99	11:35	"	0.0	N/A	13/20.8
5/5/99	13:45	"	0.0	N/A	13/20.8
5/5/99	14:25	"	0.0	N/A	13/20.8
5/6/99	7:23	"	0.0	N/A	13/20.8
5/6/99	8:15	"	0.0	N/A	13/20.8
5/6/99	9:20	"	0.0	N/A	13/20.8
5/6/99	9:45	"	0.0	N/A	13/20.8
5/6/99	11:38	"	0.0	N/A	13/20.8
5/6/99	12:30	"	0.0	N/A	13/20.8
5/6/99	14:22	"	0.0	N/A	13/20.8
5/7/99	7:10	"	0.0	N/A	13/20.8
5/7/99	8:25	"	0.0	N/A	13/20.8
5/7/99	9:20	"	0.0	N/A	13/20.8
5/7/99	10:25	"	0.0	N/A	13/20.8
5/7/99	14:52	"	0.0	N/A	13/20.8
5/13/99	10:00	Dry Dock Sediment Sampling	0.0	0.000	13/20.8
5/13/99	10:49	"	0.0	0.015	13/20.8
5/13/99	11:36	"	0.0	0.033	13/20.8
5/13/99	12:08	"	0.0	0.090	13/20.8
5/13/99	12:49	"	0.0	0.102	13/20.8
5/13/99	13:15	"	0.0	0.064	13/20.8
5/13/99	13:54	"	0.0	0.049	13/20.8
5/13/99	14:16	"	0.0	0.008	13/20.8
5/13/99	14:35	"	0.0	0.012	13/20.8

ppm = parts per million
N/A = Not available or equipment malfunction
PID = Photoionization detector
LEL/O2 = Lower explosive limit/oxygen

Table 6-1
Summary of Community Health and Safety Monitoring

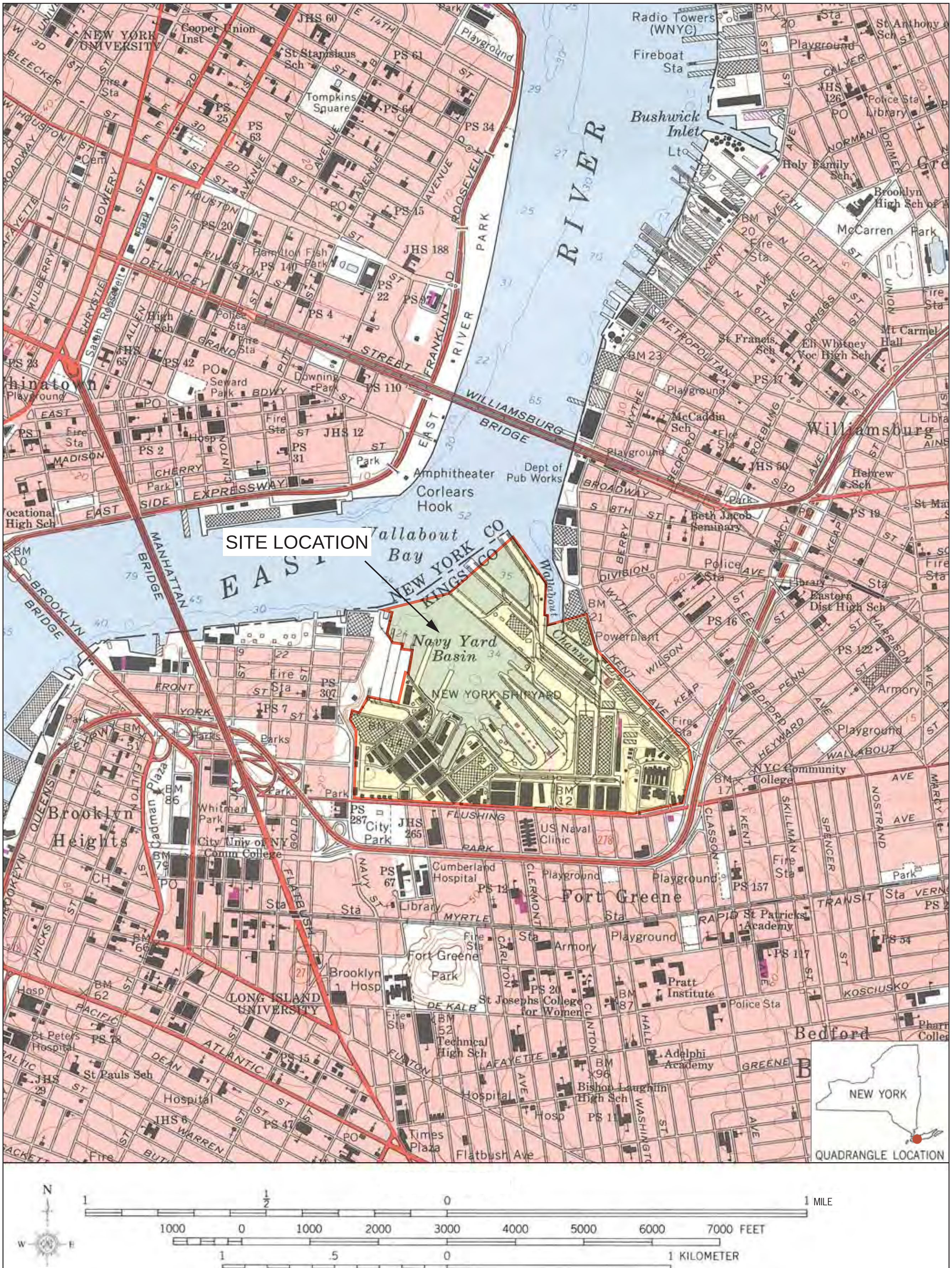
Date	Time	Field Activity	Organic Vapors (ppm)	Dust - MINIRAM	LEL/0_2
10/27/99	20:30	Substation H Test Pitting	0.0	0.000	13/20.8
10/27/99	21:00	"	0.0	0.000	13/20.8
10/27/99	21:53	"	0.0	0.005	13/20.4
10/27/99	22:42	"	0.0	0.032	13/20.5
10/27/99	23:34	"	0.0	0.058	13/20.7
11/7/99	8:40	Substation K Test Pitting	0.0	0.027	13/20.8
11/7/99	9:10	"	0.0	0.031	13/20.8
11/7/99	9:40	"	0.0	0.000	13/20.8
11/7/99	10:10	"	0.0	0.015	13/20.8
11/7/99	10:40	"	0.0	0.000	13/20.8
11/7/99	11:10	"	0.0	0.040	13/20.7
11/7/99	11:40	"	0.0	0.030	13/20.8
11/7/99	12:10	"	0.0	0.012	13/20.8
11/7/99	12:40	"	0.0	0.034	13/20.8
11/7/99	13:10	"	0.0	0.001	13/20.8
11/7/99	13:40	"	0.0	0.005	13/20.7
11/7/99	14:10	"	0.0	0.053	13/20.6
11/7/99	14:40	"	0.0	0.030	13/20.7
11/7/99	15:10	"	0.0	0.080	13/20.6
11/7/99	15:40	"	0.0	0.060	13/20.7
11/10/99	18:39	Substation G Test Pitting	0.0	0.001	13/20.8
11/10/99	18:50	"	0.0	0.197	13/20.8
11/10/99	19:15	"	0.0	0.020	13/20.8
11/10/99	20:55	"	0.0	0.023	13/20.8
11/10/99	21:35	"	0.0	0.001	13/20.8
1/17/00	8:00	Substation C Soil Sampling	0.0	0.153	N/A
1/17/00	9:15	"	0.0	0.095	N/A
1/17/00	9:55	"	0.0	0.088	N/A
1/17/00	10:26	"	0.0	0.178	N/A
1/17/00	10:55	"	0.0	0.065	N/A
1/17/00	11:38	"	0.0	0.123	N/A
1/17/00	12:18	"	0.0	0.096	N/A
1/17/00	13:25	"	0.0	0.077	N/A
1/17/00	14:05	"	0.0	0.111	N/A
1/17/00	14:30	"	0.0	0.083	N/A
1/27/00	10:35	"	0.0	0.056	N/A
1/27/00	10:55	"	0.0	0.088	N/A
1/27/00	11:20	"	0.0	0.114	N/A
1/27/00	12:55	"	0.0	0.097	N/A
1/27/00	13:20	"	0.0	0.018	N/A
1/27/00	13:55	"	0.0	0.043	N/A
1/27/00	14:30	"	0.0	0.211	N/A
1/27/00	15:10	"	0.0	0.091	N/A
1/27/00	15:35	"	0.0	0.005	N/A
2/1/00	9:00	Substation C Soil Borings/Sampling	0.0	N/A	13/20.8
2/1/00	10:00	"	0.0	N/A	13/20.8
2/1/00	11:00	"	0.0	N/A	13/20.8
2/1/00	12:00	"	0.0	N/A	13/20.8
2/1/00	13:00	"	0.0	N/A	13/20.8
2/1/00	14:00	"	0.0	N/A	13/20.8
2/1/00	15:00	"	0.0	N/A	13/20.8
2/1/00	16:00	"	0.0	N/A	13/20.8

ppm = parts per million
N/A = Not available or equipment malfunction
PID = Photoionization detector
LEL/O2 = Lower explosive limit/oxygen

Quay, 2007
Site-Wide Investigation Report

CORE
ENVIRONMENTAL
CONSULTANTS

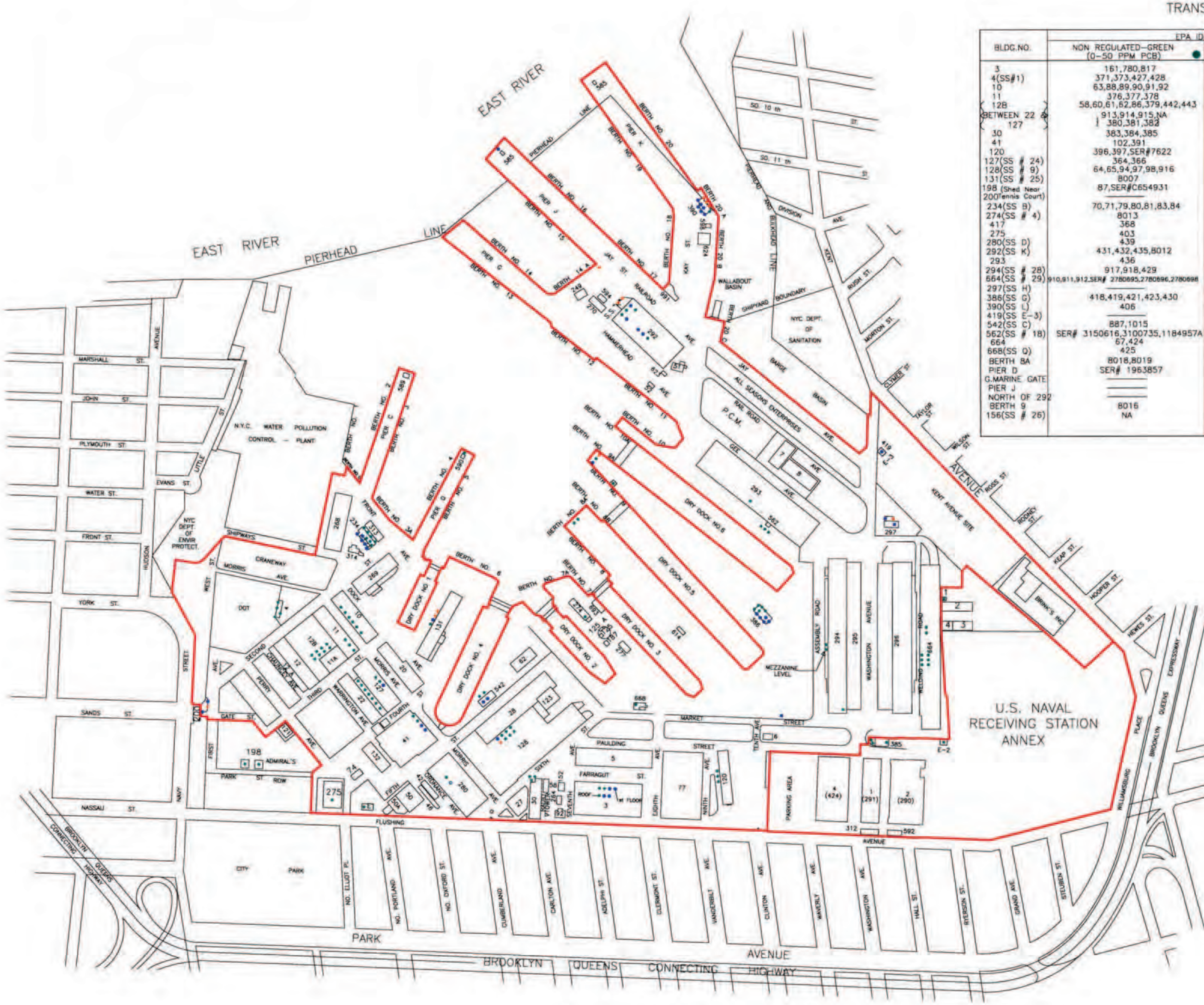
FIGURES



PROJECT: GROUND WATER PLAN REMEDIAL ACTION REPORT	SCALE 1:24 000	Site Location BROOKLYN NAVY DEVELOPMENT CORP. Brooklyn Navy Yard, Brooklyn, NY 11205	Quay Consulting LLC	DEC. 05, 2005 FIGURE NO. 1 BROOKLYN NAVY YARD

PROJECT: Brooklyn Navy Yard Facility Plan & Overall Previous Sampling Locations	DWN. BY RDW CHK. BY NM SCALE: N/A	FACILITY PLAN & OVERALL PREVIOUS SOIL SAMPLING LOCATIONS BROOKLYN NAVY YARD DEVELOPMENT CORP. Brooklyn Navy Yard Brooklyn, NY 11205	QUAY CONSULTING, LLC

HYPACK TAG:	DATE APR. 15, 2006
ANALOG # 041506	
FIELD BOOK: N/A	LINE FILE: BNY 01
FIGURE NO. 2 BROOKLYN NAVY YARD DEVELOPMENT CORP	



TRANSFORMER LEGEND

SS=SUBSTATION

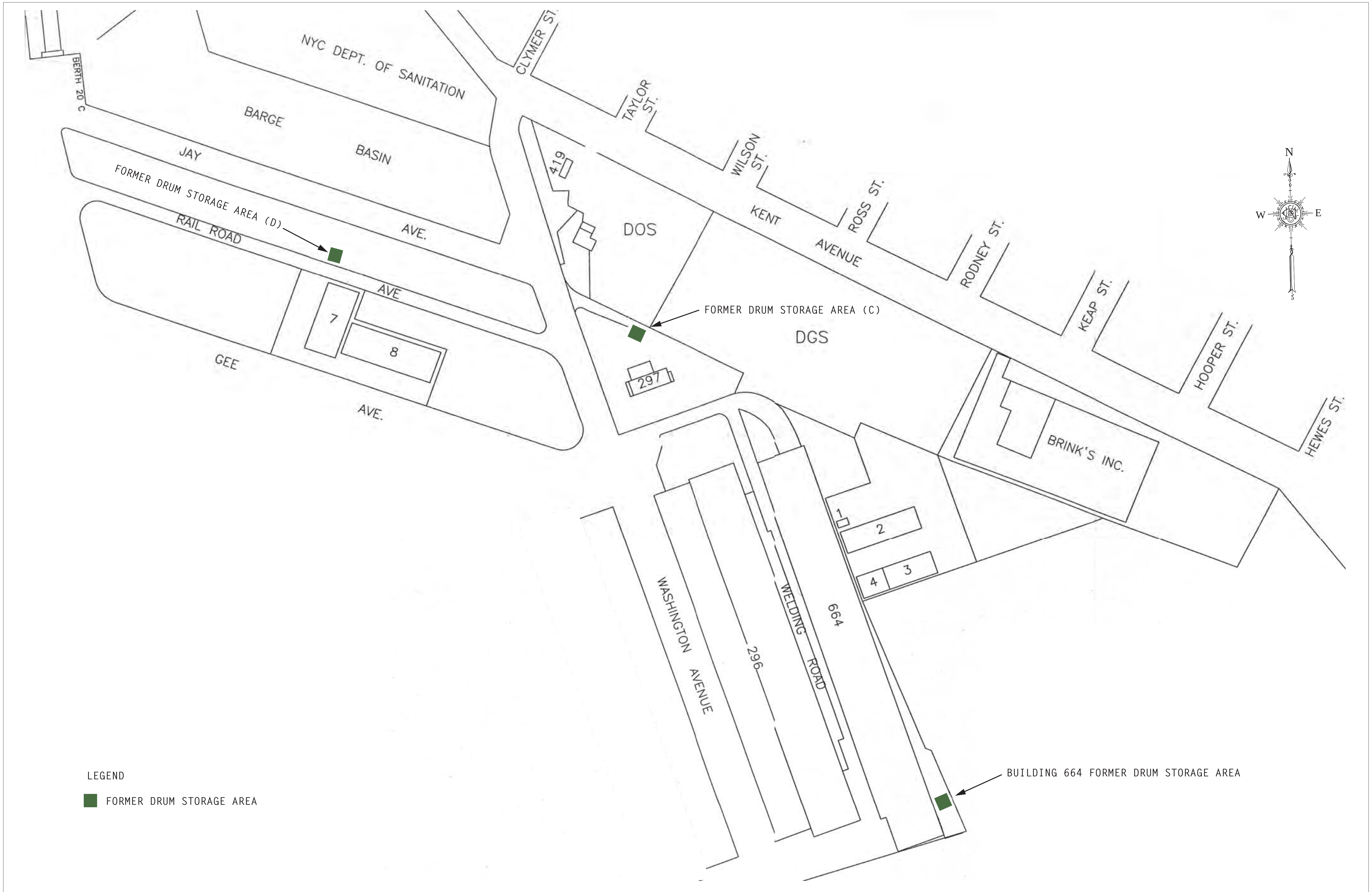
BLDG.NO.	EPA IDENTIFICATION NUMBERS: NON REGULATED–GREEN (0–50 PPM PCB)	PCB CONTAMINATED–BLUE (50–500 PPM PCB)	PCB TRANSFORMER–ORANGE (GREATER 500 PPM)	TOTAL # OF TRANSFORMERS
3	161,780,817	815,816,374,375	—	7
4(SS#1)	371,373,427,428	—	—	4
10	63,88,89,90,91,92	—	—	6
11	376,377,378	—	—	3
128	58,60,61,62,86,379,442,443	—	—	8
BETWEEN 22 & 127	913,914,915,NA 380,381,382	—	—	7
30	383,384,385	—	—	3
41	102,391	101,388	—	4
120	396,397,SER#7622		—	3
127(SS # 24)	364,366	365	—	3
128(SS # 9)	64,65,94,97,98,916	96	95	8
131(SS # 25)	8007	93	8008,8009	4
198 (Shed Near	87,SER#C654931	—	—	2
200Tennis Court)	—	399,919	400	3
234(SS B)	70,71,79,80,81,83,84	69,72,78,82,405	—	12
274(SS # 4)	8013	—	—	1
417	368	—	—	1
275	403	—	—	1
280(SS D)	439	438	—	2
292(SS K)	431,432,435,8012	433,434,8010,8011	59,106	10
293	436	—	—	1
294(SS # 28)	917,918,429	—	—	3
664(SS # 29)	910,911,912,SER# 2780695,2780696,2780698	—	—	6
297(SS H)	—	411,416	85	3
386(SS G)	418,419,421,423,430	73,74,417,420,422	—	10
390(SS L)	406	159,407,408,409,921,8021	68,160,410	10
419(SS E–3)	—	922	—	1
542(SS C)	887,1015	77,104	—	4
562(SS # 18)	SER# 3150616,3100735,1184957A	—		3
664	67,424	—	—	2
668(SS Q)	425	—	—	1
BERTH 8A	8018,8019	—	—	2
PIER D	SER# 1963857	—	—	1
G.MARINE GATE	—	8022		1
PIER J	—	8023	—	1
NORTH OF 292	—		8024	1
BERTH 9	8016	8017	8015	3
156(SS # 26)	NA	—	—	

N

0 600' 1200'

GRAPHIC SCALE

PROJECT: BNYDC Transformer Location Plan	DWN. BY RW CHK. BY NM SCALE: 1'=600'	Transformer Location Plan BROOKLYN NAVY YARD SITE BROOKLYN NAVY YARD BROOKLYN, N.Y. 11205	QUAY CONSULTING, LLC	HYPACK TAG: ANALOG # 042906 FIELD BOOK: N/A FIGURE NO. 3 BNYDC	DATE April. 29, 2006 LINE FILE: BNYDC.IR



LOCATION: FORMER DRUM STORAGE LOCATION AREAS	DWN. BY RDW CHK. BY NM SCALE: 1" = 200'	Former Drum Storage Location Areas BROOKLYN NAVY YARD DEVELOPMENT CORP. Brooklyn Navy Yard Brooklyn, NY 11205	QUAY CONSULTING, LLC	HYPACK TAG: ANALOG # 120505a FIELDBOOK: NA LINE FILE: CDD 01 DATE DEC. 05, 2005 FIGURE NO. 4 BROOKLYN NAVY YARD

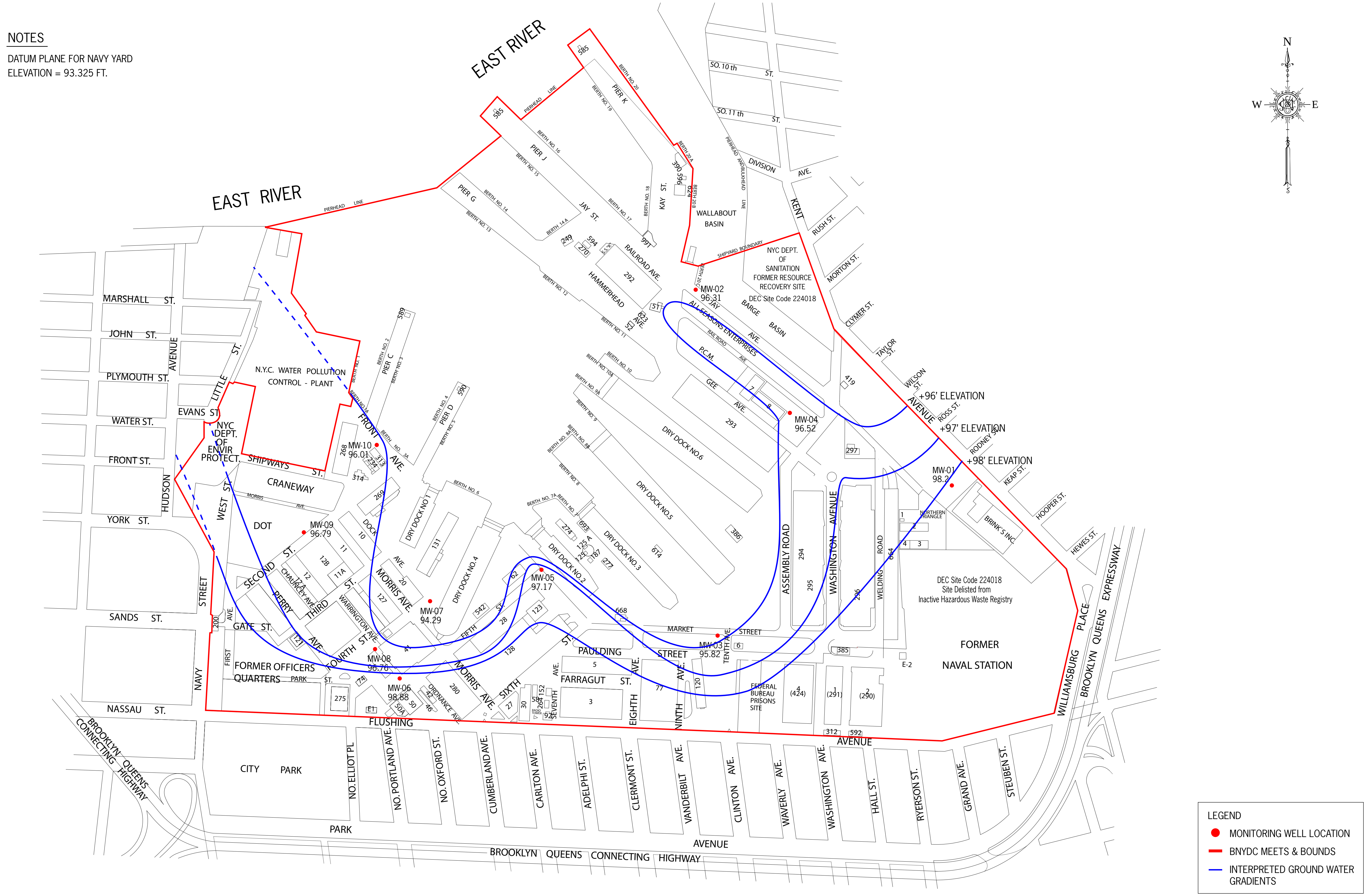
PROJECT:
Brooklyn Navy Yard
SOIL & GROUNDWATER SAMPLING PLAN

DWN. BY RDW
CHK. BY NM
SCALE: 1" = 600'

SOIL BORING & MONITORING WELL LOCATIONS
BROOKLYN NAVY YARD DEVELOPMENT CORP.
Brooklyn Navy Yard
Brooklyn, NY 11205

Quay Consulting
QUAY CONSULTING, LLC

HYPACK TAG:
ANALOG # 050106
FIELD BOOK: N/A
DATE MAY 01, 2006
LINE FILE: BNY 01
FIGURE NO. 5
BROOKLYN NAVY YARD DEVELOPMENT CORP



PROJECT:

GROUNDWATER PLAN

DWN. BY RDW
CHK. BY NM
SCALE: 1" = 600'

GROUND WATER HYDRAULIC REGIME
BROOKLYN NAVY YARD DEVELOPMENT CORP.
Brooklyn Navy Yard
Brooklyn, NY 11205

QUAY CONSULTING, LLC

HYPACK TAG:
ANALOG # 072707
FIELD BOOK: N/A
DATE JUL. 27, 2007
LINE FILE: BNY 06

FIGURE NO. 6
BROOKLYN NAVY YARD DEVELOPMENT CORP

TABLES

Table 1. Summary of Metals, and Cyanide in Soil Samples
Project: Brooklyn Navy Yard-Voluntary Clean-up Agreement

Client Sample ID:		Recommended Soil Cleanup Objectives	Unrestricted Use 375-6,8(a) Soil Cleanup Objectives	Restricted (Commercial) Use 375-6(b) Soil Cleanup Objectives	Eastern US Element Conc. in Soils (Shacklette)	New York State Background Conc. in Soils (McGovern)	SS-01(2-3)	SS-01(4-5)	SS-02(3)	SS-03(0-3)	SS-03(4-5)	SS-04(5-6)	SS-05(0-2)	SS-05(4-5)
Laboratory ID:							X3311-14	X3311-15	X3311-11	X3311-09	X3311-10	X3311-16	X3311-07	X3311-08
Sampling Date:							06/15/06	06/15/06	06/14/06	06/14/06	06/14/06	06/15/06	06/14/06	06/14/06
Analyte:	Units:	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	Q	Q	Q	Q	Q	Q	Q	Q
TAGM METALS (Concentration in mg/kg)														
Aluminum	mg/kg	SB	SB	SB	7,000 -100,000	33,000	5970	8610	5660	4850	5650	6550	9330	6020
Antimony	mg/kg	SB	SB	SB	<1 - 8.8	NA	0.392 U	0.396 U	12.4	0.363 U	45.8	4.700 J	0.363 U	0.386 U
Arsenic	mg/kg	7.5 or SB	13	16	<0.1 - 73	3.0 - 12	8.350	6.630	6.360	3.610	9.310	2.210	3.770	15.6
Barium	mg/kg	300 or SB	350	400	10 - 1,500	15 - 600	135	89.1	116	48.5	93.5	52.2	58.0	118
Beryllium	mg/kg	0.16(HEAST) or SB	7.2	590	<1 - 7	0 - 1.75	0.372 J	0.445 J	0.540 J	0.284 J	0.356 J	0.438 J	0.468 J	0.361 J
Cadmium	mg/kg	1 or SB	2.5	9.3	NA	0.1 - 1	0.297 J	0.219 J	0.712	0.388 J	1.740	0.281 J	0.089 J	0.401 J
Calcium	mg/kg	SB	SB	SB	100 - 280,000	130 - 35,000	6630	14600	5660	19400	9240	1750	1000	26100
Chromium	mg/kg	10 or SB	1 Hexa, 30 tri	400 Hexa, 1,500 Tri	1 - 1,000	1.5 - 40	14.4	22.0	15.6	13.9	18.7	14.0	19.7	15.7
Cobalt	mg/kg	30 or SB	SB	SB	<0.3 - 70	2.5 - 60	6.310	6.380	8.350	4.200 J	10.9	5.990	7.010	6.540
Copper	mg/kg	25 or SB	50	270	<1 - 700	<1 - 50	298	26.6	63.7	25.8	2090	31.3	26.7	114
Iron	mg/kg	2,000 or SB	SB	SB	100 - 100,000	2,000 - 550,000	23900	16700	15900	8530	35800	13000	17600	14600
Lead	mg/kg	SB or *	63	1,000	<10 - 300	200 - 500	1360	85.2	416	71.7	1650	31.2	42.9	296
Magnesium	mg/kg	SB	SB	SB	50 - 50,000	100 - 5,000	2790	2460	2870	2530	3620	2210	3900	3150
Manganese	mg/kg	SB	1,600	10,000	<2 - 7,000	50 - 5,000	235	707	219	258	350	250	559	299
Mercury	mg/kg	0.10	0.80	2.80	0.01 - 3.4	0.001 - 0.2	0.112	0.067	0.717	3.9	2.3	0.420	0.538	17.000
Nickel	mg/kg	13 or SB	30	310	<5 - 700	0.5 - 25	17.5	12.7	18.2	17.1	33.9	11.3	25.6	21.8
Potassium	mg/kg	SB	SB	SB	50 - 37,000	8,500 - 43,000	1130	859	1760	627	1070	856	1150	1290
Selenium	mg/kg	2 or SB	3.9	1,500	<0.1 - 3.9	<0.1 - 3.9	0.676 J	0.411 U	0.626 J	0.378 U	0.401 U	0.371 U	0.378 U	0.401 U
Silver	mg/kg	SB	2	1,500	NA	NA	0.094 U	0.095 U	0.100 U	0.087 U	0.093 U	0.086 U	0.087 U	0.093 U
Sodium	mg/kg	SB	SB	SB	<500 - 50,000	6,000 - 8,000	1080	570 J	868	246 J	707	189 J	28.6 U	427 J
Thallium	mg/kg	SB	SB	SB	2.2 - 23	NA	0.630 U	0.636 U	0.670 U	0.584 U	0.620 U	0.594 J	0.584 U	0.620 U
Vanadium	mg/kg	150-SB	SB	SB	<7 - 300	1 - 300	25.9	22.0	22.2	15.2	27.6	28.0	30.3	21.1
Zinc	mg/kg	20 or SB	109	10,000	<5 - 2,900	9.0 - 50	334	64.0	280	84.3	1090	59.9	55.7	145
Cyanide, Total & Amenable: Auto Colorimetric	mg/kg	**	27	27	NA	NA	0.60 U	0.61 U	0.64 U	0.56 U	0.59 U	0.56 U	0.55 U	0.60 U

Client Sample ID:	SS-06(3-4)	SS-06(5-6)	SS-07(4-5)	SS-08(3-4)	SS-08(3-4)DL	SS-09(0-2)	SS-09(4-5)	SS-10(0-2)	SS-10(8-10)
Laboratory ID:	X3311-12	X3311-13	X3311-06	X3311-05	X3311-05DL	X3421-08	X3311-04	X3311-01	X3311-02
Sampling Date:	06/14/06	06/14/06	06/14/06	06/13/06	06/13/06	06/20/06	06/13/06	06/13/06	06/13/06
Analyte:	Q	Q	Q	Q	Q	Q	Q	Q	Q
TAGM METALS (Concentration in mg/kg)									
Aluminum	4730	6290	5140	5480	5950	5330	4110	4160	5350
Antimony	15.4	1.010 J	9.210	0.403 U	4.030 U	0.362 U	0.387 U	0.342 U	0.386 U
Arsenic	11.9	8.530	6.610	7.300	8.770 J	1.850	1.600	4.040	4.540
Barium	79.7	161	93.3	66.4	85.1 J	46.0	27.9	53.0	33.2
Beryllium	0.324 J	0.379 J	0.365 J	0.351 J	1.120 J	0.316 J	0.299 J	0.279 J	0.340 J
Cadmium	0.188 J	0.039 U	0.490 J	0.378 J	5.290 J	0.036 U	0.433 J	0.429 J	0.310 J
Calcium	5830	6640	3340	3240	3670 J	3300	1290	29500	4520
Chromium	10.4	12.9	10.4	11.2	14.0	13.7	9.150	14.9	12.0
Cobalt	8.550	10.4	6.060 J	8.140	13.4 J	5.700	6.270	5.420	6.130
Copper	1680	349	119	0.080 NR	1540	48.4	15.8	78.3	60.0
Iron	29800	41000	13800	25300	28000	11700	9700	14400	14700
Lead	700	412	322	525	572	296	39.3	688	381
Magnesium	1490	2360	2150	1870	2130 J	2890	2310	9010	4250
Manganese	250	246	381	527	532	291	303	179	260
Mercury	0.326	1.7	0.204	0.507	0.827	0.153	0.169	0.599	0.352
Nickel	17.8	22.4	14.8	18.9	24.8 J	20.5	21.6	33.0	43.1
Potassium	599	844	743	668	457 J	1260	946	935	1180
Selenium	0.395 U	0.940 J	0.437 U	1.420	4.190 U	0.377 U	0.403 U	0.356 U	0.401 U
Silver	0.092 U	0.093 U	0.101 U	0.150 J	0.971 U	0.087 U	0.712 J	0.082 U	0.093 U
Sodium	947	699	687	304 J	317 U	530 J	631	782	1340
Thallium	0.611 U	0.846 J	0.675 U	0.780 J	6.470 U	0.582 U	0.622 U	0.989 J	0.620 U
Vanadium	21.4	24.2	18.9	21.8	28.1 J	19.5	15.2	20.0	17.4
Zinc	401	199	168	411	474	34.4	31.0	161	108
Cyanide, Total & Amenable: Auto Colorimetric	0.58 U	0.59 U	0.64 U	0.61 U		0.558 U	0.60 U	0.52 U	0.59 U

Qualifiers:
mg/kg - Milligram per kilogram
U - Not detected; detection limit shown
B - Analyte Found in associated blank as well as sample
SB - Site Background
*- Background levels of lead vary widely. Average background levels in metropolitan and suburban areas average 200 - 500 ppm
** - Site specific condition should be taken into consideration when establishing clean up levels
Scacklette, HT and JG Boerngen, 1984. *"Element Concentration in Soils and other Surficial Materials of the Conterminus United States, USGS Professional Paper 1270."*
E. Carol McGovern, NYSDEC Wildlife Resource Center. *"Background Concentrations of 20 elements in Soils with Special Regard for New York State."*

Above State RSCO's

Table 2. Summary of Volatile Organic Compounds in Soil Samples
Project: Brooklyn Navy Yard-Voluntary Clean-up Agreement

Client Sample ID:		Recommended	Unrestricted Use	Restricted(Commercial) Use	SS-01(2-3)	SS-01(2-3)RE	SS-01(4-5)	SS-02(3)	SS-02(3)RE	SS-03(0-3)	SS-03(0-3)RE	SS-03(4-5)	SS-03(4-5)RE	SS-04(5-6)
Laboratory ID:		Soil Cleanup	:75-6,8(a) Soil Cleanu	375-6(b) Soil Cleanup	X3311-14	X3311-14RE	X3311-15	X3311-11	X3311-11RE	X3311-09	X3311-09RE	X3311-10	X3311-10RE	X3311-16
Sampling Date:		Objectives	Objectives	Objectives	38883	38883	38883	38882	38882	38882	38882	38882	38882	38883
Analyte:	Units:	(ug/kg)	(ug/kg)	(ug/kg)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Volatile Compounds (Concentration in ug/kg)														
Dichlorodifluoromethane	ug/kg	-	-	-	5.0 U	4.9 U	5.2 U	5.3 U	5.5 U	4.8 U	4.8 U	5.0 U	4.9 U	4.6 U
Chloromethane	ug/kg	-	-	-	5.0 U	4.9 U	5.1 U	5.2 U	5.5 U	4.8 U	4.7 U	5.0 U	4.9 U	4.6 U
Vinyl Chloride	ug/kg	120	20	13,000	4.8 U	4.7 U	5.0 U	5.1 U	5.3 U	4.6 U	4.6 U	4.9 U	4.7 U	4.4 U
Bromomethane	ug/kg	-	-	-	12 U	12 U	12 U	12 U	13 U	11 U	11 U	12 U	12 U	11 U
Chloroethane	ug/kg	1,900	-	-	12 U	12 U	13 U	13 U	14 U	12 U	12 U	13 U	12 U	12 U
Trichlorofluoromethane	ug/kg	-	-	-	7.3 U	7.1 U	7.5 U	7.7 U	8.1 U	7.0 U	6.9 U	7.3 U	7.1 U	6.7 U
1,1,2-Trichlorotrifluoroethane	ug/kg	-	-	-	3.9 U	3.8 U	4.0 U	4.1 U	4.3 U	3.7 U	3.7 U	3.9 U	3.8 U	3.6 U
1,1-Dichloroethene	ug/kg	400	330	500,000	3.3 U	3.3 U	3.5 U	3.5 U	3.7 U	3.2 U	3.2 U	3.4 U	3.3 U	3.1 U
Acetone	ug/kg	110	50	500,000	85 JB	100 JB	130 JB	120 JB	92 JB	180 B	160 B	320 B	240 B	83 JB
Carbon Disulfide	ug/kg	2700	-	-	2.1 U	2.1 U	2.2 U	12 J	8.1 J	2.1 U	2.0 U	81	79	2.0 U
Methyl tert-butyl Ether	ug/kg	-	-	-	2.1 U	2.1 U	2.2 U	2.3 U	2.4 U	2.1 U	2.0 U	2.2 U	2.1 U	2.0 U
Methyl Acetate	ug/kg	-	-	-	5.0 U	5.0 U	5.2 U	5.3 U	5.6 U	4.9 U	4.8 U	5.1 U	5.0 U	4.7 U
Methylene Chloride	ug/kg	100	50	500,00	20 J	19 J	11 U	11 U	12 U	10 U	10 U	60	55	9.8 U
trans-1,2-Dichloroethene	ug/kg	300	190	500,000	3.7 U	3.7 U	3.9 U	3.9 U	4.1 U	3.6 U	3.6 U	3.8 U	3.7 U	3.4 U
1,1-Dichloroethane	ug/kg	200	270	240,000	1.6 U	1.5 U	1.6 U	1.7 U	1.7 U	1.5 U	1.5 U	1.6 U	1.5 U	1.5 U
Cyclohexane	ug/kg	-	-	-	1.9 U	1.9 U	2.0 U	2.0 U	2.1 U	1.8 U	1.8 U	1.9 U	1.9 U	1.7 U
2-Butanone	ug/kg	300	-	-	25 J	27 J	28 J	17 U	18 U	45 J	39 J	63 J	69 J	15 U
Carbon Tetrachloride	ug/kg	600	760	22,000	2.6 U	2.5 U	2.7 U	2.7 U	2.9 U	2.5 U	2.5 U	2.6 U	2.5 U	2.4 U
cis-1,2-Dichloroethene	ug/kg	300	250	500,000	1.9 U	1.9 U	2.0 U	2.0 U	2.1 U	1.8 U	1.8 U	1.9 U	1.9 U	1.8 U
Chloroform	ug/kg	300	370	350,000	2.0 U	2.0 U	2.1 U	2.1 U	2.2 U	2.0 U	1.9 U	2.1 U	2.0 U	1.9 U
1,1,1-Trichloroethane	ug/kg	800	680	500,000	2.4 U	2.4 U	2.5 U	2.6 U	2.7 U	2.3 U	2.3 U	2.5 U	2.4 U	2.3 U
Methylcyclohexane	ug/kg	-	-	-	2.5 U	2.4 U	2.5 U	2.6 U	2.7 U	2.4 U	2.3 U	2.5 U	2.4 U	2.3 U
Benzene	ug/kg	60	60	44,000	2.3 U	2.3 U	2.4 U	2.5 U	2.6 U	2.2 U	2.2 U	6.7 J	6.8 J	2.2 U
1,2-Dichloroethane	ug/kg	100	20	30,000	1.8 U	1.8 U	1.9 U	1.9 U	2.0 U	1.7 U	1.7 U	1.8 U	1.8 U	1.7 U
Trichloroethene	ug/kg	700	470	200,000	1.8 U	1.8 U	1.9 U	1.9 U	2.0 U	1.7 U	1.7 U	1.8 U	1.8 U	1.7 U
1,2-Dichloropropane	ug/kg	-	-	-	2.3 U	2.3 U	2.4 U	2.4 U	2.6 U	2.2 U	2.2 U	2.3 U	2.3 U	2.1 U
Bromodichloromethane	ug/kg	-	-	-	2.0 U	1.9 U	2.0 U	2.1 U	2.2 U	1.9 U	1.9 U	2.0 U	1.9 U	1.8 U
4-Methyl-2-Pentanone	ug/kg	1,000	-	-	12 U	11 U	12 U	12 U	13 U	11 U	11 U	12 U	11 U	11 U
Toluene	ug/kg	1500	700	500,000	2.4 U	2.3 U	2.4 U	2.5 U	2.6 U	2.3 U	2.3 U	7.1 J	11 J	2.2 U
t-1,3-Dichloropropene	ug/kg	600	-	-	2.1 U	2.1 U	2.2 U	2.2 U	2.3 U	2.0 U	2.0 U	2.1 U	2.1 U	2.0 U
cis-1,3-Dichloropropene	ug/kg	600	-	-	1.9 U	1.9 U	2.0 U	2.0 U	2.1 U	1.9 U	1.8 U	2.0 U	1.9 U	1.8 U
1,1,2-Trichloroethane	ug/kg	600	-	-	1.7 U	1.7 U	1.8 U	1.8 U	1.9 U	1.7 U	1.6 U	1.7 U	1.7 U	1.6 U
2-Hexanone	ug/kg	-	-	-	21 U	21 U	22 U	22 U	23 U	20 U	20 U	21 U	21 U	19 U
Dibromochloromethane	ug/kg	100	-	-	1.3 U	1.3 U	1.4 U	1.4 U	1.5 U	1.3 U	1.3 U	1.4 U	1.3 U	1.2 U
1,2-Dibromoethane	ug/kg	-	-	-	2.3 U	2.3 U	2.4 U	2.5 U	2.6 U	2.3 U	2.2 U	2.4 U	2.3 U	2.2 U
Tetrachloroethene	ug/kg	1400	1,300	150,000	4.3 U	4.2 U	4.4 U	4.5 U	4.7 U	4.1 U	4.1 U	4.3 U	4.2 U	3.9 U
Chlorobenzene	ug/kg	1700	1,100	500,000	2.1 U	2.1 U	2.2 U	2.2 U	2.3 U	2.0 U	2.0 U	2.1 U	2.1 U	2.0 U
Ethyl Benzene	ug/kg	5500	1,000	390,000	2.1 U	2.0 U	2.1 U	2.2 U	2.3 U	2.0 U	2.0 U	2.1 U	2.0 U	1.9 U
m/p-Xylenes	ug/kg	1200	260	250,000	5.0 U	5.0 U	5.2 U	5.3 U	5.6 U	4.9 U	4.8 U	5.1 U	5.0 U	4.7 U
o-Xylene	ug/kg	1200	260	250,000	2.2 U	2.2 U	2.3 U	2.4 U	2.5 U	2.2 U	2.1 U	2.3 U	2.2 U	2.1 U
Styrene	ug/kg	-	-	-	2.7 U	2.6 U	2.8 U	2.8 U	3.0 U	2.6 U	2.6 U	2.7 U	2.6 U	2.5 U
Bromoform	ug/kg	-	-	-	1.8 U	1.8 U	1.9 U	1.9 U	2.0 U	1.7 U	1.7 U	1.8 U	1.8 U	1.7 U
Isopropylbenzene	ug/kg	-	3,900	500,000	2.4 U	2.4 U	2.5 U	2.6 U	2.7 U	2.3 U	2.3 U	2.5 U	2.4 U	2.2 U
1,1,2,2-Tetrachloroethane	ug/kg	600	-	-	1.8 U	1.8 U	1.9 U	1.9 U	2.0 U	1.7 U	1.7 U	1.8 U	1.8 U	1.7 U
1,3-Dichlorobenzene	ug/kg	1550	2,400	280,000	3.3 U	3.2 U	3.4 U	3.4 U	3.6 U	3.1 U	3.1 U	3.3 U	3.2 U	3.0 U
1,4-Dichlorobenzene	ug/kg	8500	1,800	130,000	3.2 U	3.1 U	3.3 U	3.3 U	3.5 U	3.1 U	3.0 U	3.2 U	3.1 U	2.9 U
1,2-Dichlorobenzene	ug/kg	500	500	500,000	2.3 U	2.2 U	2.3 U	2.4 U	2.5 U	2.2 U	2.1 U	2.3 U	2.2 U	2.1 U
1,2-Dibromo-3-Chloropropane	ug/kg	-	-	-	5.5 U	5.4 U	5.7 U	5.8 U	6.1 U	5.3 U	5.2 U	5.6 U	5.4 U	5.1 U
1,2,4-Trichlorobenzene	ug/kg	3400	-	-	4.0 U	3.9 U	4.1 U	4.2 U	4.4 U	3.8 U	3.8 U	4.0 U	3.9 U	3.7 U
Total VOCs	ug/kg	10,000			130	146	158	132	100.1	225	199	537.8	460.8	83

Client Sample ID:	SS-05(0-2)	SS-05(4-5)	SS-06(3-4)	SS-06(3-4)RE	SS-06(5-6)	SS-06(5-6)RE	SS-07(4-5)	SS-07(4-5)RE	SS-08(3-4)	SS-09(0-2)	SS-09(4-5)	SS-10(0-2)	SS-10(0-2)RE	SS-10(8-10)
Laboratory ID:	X3311-07	X3311-08	X3311-12	X3311-12RE	X3311-13	X3311-13RE	X3311-06	X3311-06RE	X3311-05	X3421-08	X3311-04	X3311-01	X3311-01RE	X3311-02
Sampling Date:	38882	38882	38882	38882	38882	38882	38882	38882	38881	06/20/06	38881	38881	38881	38881
Analyte:	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Dichlorodifluoromethane	4.8 U	5.2 U	4.9 U	4.9 U	4.8 U	5.0 U	5.4 U	5.5 U	5.3 U	4.7 U	5.3 U	4.4 U	4.4 U	5.1 U
Chloromethane	4.7 U	5.1 U	4.9 U	4.9 U	4.8 U	5.0 U	5.4 U	5.5 U	5.3 U	4.7 U	5.3 U	4.4 U	4.4 U	5.1 U
Vinyl Chloride	4.6 U	5.0 U	4.7 U	4.7 U	4.7 U	4.8 U	5.2 U	5.3 U	5.1 U	4.5 U	5.1 U	4.2 U	4.2 U	4.9 U
Bromomethane	11 U	12 U	12 U	12 U	11 U	12 U	13 U	13 U	13 U	11 U	13 U	10 U	10 U	12 U
Chloroethane	12 U	13 U	12 U	12 U	12 U	12 U	13 U	14 U	13 U	12 U	13 U	11 U	11 U	13 U
Trichlorofluoromethane	6.9 U	7.5 U	7.2 U	7.1 U	7.1 U	7.3 U	7.8 U	8.0 U	7.7 U	6.9 U	7.7 U	6.4 U	6.4 U	7.4 U
1,1,2-Trichlorotrifluoroethane	3.7 U	4.0 U	3.8 U	3.8 U	3.8 U	3.9 U	4.2 U	4.3 U	4.1 U	3.7 U	4.1 U	3.4 U	3.4 U	4.0 U
1,1-Dichloroethene	3.2 U	3.5 U	3.3 U	3.3 U	3.2 U	3.3 U	3.6 U	3.7 U	3.5 U	3.2 U	3.6 U	2.9 U	2.9 U	3.4 U
Acetone	88 JB	65 JB	110 JB	110 JB	95 JB	90 JB	160 B	93 J	110 JB	53 JB	97 JB	89 JB	71 JB	100 JB
Carbon Disulfide	2.0 U	2.2 U	10 J	14 J	2.1 U	2.1 U	2.3 U	2.4 U	2.3 U	8.9 J	2.3 U	1.9 U	1.9 U	7.6 J
Methyl tert-butyl Ether	2.0 U	2.2 U	2.1 U	2.1 U	2.1 U	2.1 U	2.3 U	2.4 U	2.3 U	2.0 U	2.3 U	1.9 U	1.9 U	2.2 U
Methyl Acetate	4.8 U	5.2 U	5.0 U	4.9 U	4.9 U	5.0 U	5.4 U	5.5 U	5.3 U	4.8 U	5.4 U	4.4 U	4.4 U	5.1 U
Methylene Chloride	10 U	11 U	11 U	12 J	15 J	11 U	11 U	110	11 U	61 B	11 U	32	31	15 J
trans-1,2-Dichloroethene	3.6 U	3.8 U	3.7 U	3.6 U	3.6 U	3.7 U	4.0 U	4.1 U	3.9 U	3.5 U	4.0 U	3.3 U	3.3 U	3.8 U
1,1-Dichloroethane	1.5 U	1.6 U	1.5 U	1.5 U	1.5 U	1.6 U	1.7 U	27 J	1.7 U	1.5 U	1.7 U	1.4 U	1.4 U	1.6 U
Cyclohexane	1.8 U	2.0 U	1.9 U	1.8 U	1.8 U	1.9 U	2.0 U	2.1 U	2.0 U	1.8 U	2.0 U	1.7 U	1.7 U	1.9 U
2-Butanone	16 U	17 U	36 J	34 J	16 U	24 J	18 U	18 U	46 J	16 U	18 U	33 J	29 J	17 U
Carbon Tetrachloride	2.5 U	2.7 U	2.6 U	2.5 U	2.5 U	2.6 U	2.8 U	2.8 U	2.7 U	2.4 U	2.8 U	2.3 U	2.3 U	2.6 U
cis-1,2-Dichloroethene	1.8 U	2.0 U	1.9 U	1.9 U	6.2 J	1.9 U	2.0 U	2.1 U	2.0 U	1.8 U	2.0 U	1.7 U	1.7 U	1.9 U
Chloroform	1.9 U	2.1 U	2.0 U	2.0 U	2.0 U	2.0 U	2.2 U	2.2 U	2.1 U	1.9 U	2.2 U	1.8 U	1.8 U	2.1 U
1,1,1-Trichloroethane	2.3 U	2.5 U	2.4 U	2.4 U	2.4 U	2.4 U	2.6 U	76	2.6 U	2.3 U	2.6 U	2.1 U	2.1 U	2.5 U
Methylcyclohexane	2.3 U	2.5 U	2.4 U	2.4 U	2.4 U	2.4 U	2.6 U	2.7 U	2.6 U	2.3 U	2.6 U	2.1 U	2.1 U	2.5 U
Benzene	2.2 U	2.4 U	12 J	12 J	2.3 U	2.3 U	2.5 U	2.6 U	2.5 U	2.2 U	2.5 U	2.0 U	2.0 U	2.4 U
1,2-Dichloroethane	1.7 U	1.8 U	1.8 U	1.7 U	1.7 U	1.8 U	1.9 U	2.0 U	1.9 U	1.7 U	1.9 U	1.6 U	1.6 U	1.8 U
Trichloroethene	1.7 U	1.9 U	1.8 U	1.8 U	1.7 U	1.8 U	1.9 U	2.0 U	1.9 U	1.7 U	1.9 U	1.6 U	1.6 U	1.8 U
1,2-Dichloropropane	2.2 U	2.4 U	2.3 U	2.3 U	2.2 U	2.3 U	2.5 U	2.5 U	2.5 U	2.2 U	2.5 U	2.0 U	2.0 U	2.4 U
Bromodichloromethane	1.9 U	2.0 U	1.9 U	1.9 U	1.9 U	2.0 U	2.1 U	2.1 U	2.1 U	1.8 U	2.1 U	1.7 U	1.7 U	2.0 U
4-Methyl-2-Pentanone	11 U	12 U	11 U	11 U	11 U	11 U	12 U	13 U	12 U	11 U	12 U	10 U	10 U	12 U
Toluene	2.2 U	2.4 U	2.3 U	2.3 U	2.3 U	2.4 U	2.5 U	2.6 U	2.5 U	2.2 U	2.5 U	8.6 J	9.2 J	2.4 U
t-1,3-Dichloropropene	2.0 U	2.2 U	2.1 U	2.1 U	2.1 U	2.1 U	2.3 U	2.3 U	2.2 U	2.0 U	2.3 U	1.9 U	1.9 U	2.2 U
cis-1,3-Dichloropropene	1.8 U	2.0 U	1.9 U	1.9 U	1.9 U	1.9 U	2.1 U	2.1 U	2.0 U	1.8 U	2.1 U	1.7 U	1.7 U	2.0 U
1,1,2-Trichloroethane	1.6 U	1.8 U	1.7 U	1.7 U	1.7 U	1.7 U	1.8 U	1.9 U	1.8 U	1.6 U	1.8 U	1.5 U	1.5 U	1.8 U
2-Hexanone	20 U	22 U	21 U	21 U	20 U	21 U	23 U	23 U	22 U	20 U	22 U	18 U	18 U	21 U
Dibromochloromethane	1.3 U	1.4 U	1.3 U	1.3 U	1.3 U	1.3 U	1.4 U	1.5 U	1.4 U	1.3 U	1.4 U	1.2 U	1.2 U	1.4 U
1,2-Dibromoethane	2.2 U	2.4 U	2.3 U	2.3 U	2.3 U	2.3 U	2.5 U	2.6 U	2.5 U	2.2 U	2.5 U	2.1 U	2.1 U	2.4 U
Tetrachloroethene	4.1 U	6.4 J	23 J	20 J	14 J	15 J	4.6 U	4.7 U	4.5 U	4.0 U	4.5 U	3.7 U	3.7 U	4.3 U
Chlorobenzene	2.0 U	2.2 U	2.1 U	2.1 U	2.0 U	2.1 U	2.3 U	2.3 U	2.2 U	2.0 U	2.2 U	1.8 U	1.8 U	2.2 U
Ethyl Benzene	2.0 U	2.1 U	2.0 U	2.0 U	2.0 U	2.1 U	2.2 U	2.3 U	2.2 U	1.9 U	2.2 U	1.8 U	1.8 U	2.1 U
m/p-Xylenes	4.8 U	5.2 U	5.0 U	4.9 U	4.9 U	5.0 U	5.4 U	5.5 U	5.3 U	4.8 U	5.4 U	4.4 U	4.4 U	5.1 U
o-Xylene	2.1 U	2.3 U	2.2 U	2.2 U	2.2 U	2.2 U	2.4 U	2.5 U	2.4 U	2.1 U	2.4 U	2.0 U	2.0 U	2.3 U
Styrene	2.6 U	2.8 U	2.6 U	2.6 U	2.6 U	2.7 U	2.9 U	2.9 U	2.8 U	2.5 U	2.9 U	2.3 U	2.3 U	2.7 U
Bromoform	1.7 U	1.9 U	1.8 U	1.8 U	1.8 U	1.8 U	1.9 U	2.0 U	1.9 U	1.7 U	1.9 U	1.6 U	1.6 U	1.8 U
Isopropylbenzene	2.3 U	2.5 U	2.4 U	2.4 U	2.4 U	2.4 U	2.6 U	2.7 U	2.6 U	2.3 U	2.6 U	2.1 U	2.1 U	2.5 U
1,1,2,2-Tetrachloroethane	1.7 U	1.9 U	1.8 U	1.8 U	1.8 U	1.8 U	2.0 U	2.0 U	1.9 U	1.7 U	1.9 U	1.6 U	1.6 U	1.9 U
1,3-Dichlorobenzene	3.1 U	3.4 U	3.2 U	3.2 U	3.2 U	3.2 U	3.5 U	3.6 U	3.4 U	3.1 U	3.5 U	2.8 U	2.8 U	3.3 U
1,4-Dichlorobenzene	3.0 U	3.3 U	3.1 U	3.1 U	3.1 U	3.2 U	3.4 U	3.5 U	3.4 U	3.0 U	3.4 U	2.8 U	2.8 U	3.2 U
1,2-Dichlorobenzene	2.1 U	2.3 U	2.2 U	2.2 U	2.2 U	2.2 U	2.4 U	2.5 U	2.4 U	2.1 U	2.4 U	2.0 U	2.0 U	2.3 U
1,2-Dibromo-3-Chloropropane	5.2 U	5.7 U	5.4 U	5.4 U	5.3 U	5.5 U	5.9 U	6.0 U	5.8 U	5.2 U	5.9 U	4.8 U	4.8 U	5.6 U
1,2,4-Trichlorobenzene	3.8 U	4.1 U	3.9 U	3.9 U	3.9 U	4.0 U	4.3 U	4.4 U	4.2 U	3.8 U	4.2 U	3.5 U	3.5 U	4.1 U
Total VOCs	88	71.4	191	202	130.2	129	160	306	156	122.9	97	162.6	140.2	122.6

Qualifiers:
ug/kg - Microgram per kilogram of part per billion (ppb) equivalent
ug/l - Microgram per liter (Aq) of part per billion (ppb) equivalent
U - Not detected; detection limit shown
B - Analyte Found in associated blank as well as sample
U - Not detected; detection limit shown
B - Analyte Found in associated blank as well as sample
NR - Not Reported

Above State RSCO's

Above State Resticted Commercial Use

Table 3. Summary of Semivolatile Organic Compounds in Soil Samples
Project: Brooklyn Navy Yard-Voluntary Clean-up Agreement

Client Sample ID:		NYSDEC Recommended Soil Cleanup Objectives	Unrestricted Use 375-6,8(a) Soil Cleanup Objectives (ug/kg)	Restricted(Commercial) Use 375-6(b) Soil Cleanup Objectives (ug/kg)	ATSDR Background Soil Concentrations PAHs in Urban Soils	SS-01(2-3)	SS-02(3)	SS-02(3)RE	SS-03(0-3)	SS-03(0-3)RE	SS-03(4-5)	SS-03(4-5)RE	SS-05(0-2)	SS-05(4-5)	SS-06(3-4)	SS-06(3-4)RE	SS-06(5-6)	SS-06(5-6)RE	SS-07(4-5)	SS-07(4-5)RE	SS-08(3-4)	SS-09(0-2)	SS-09(4-5)	SS-10(0-2)	SS-10(0-2)RE	SS-10(8-10)
Laboratory ID:						X3311-14	X3311-11	X3311-11RE	X3311-09	X3311-09RE	X3311-10	X3311-10RE	X3311-07	X3311-08	X3311-12	X3311-12RE	X3311-13	X3311-13RE	X3311-06	X3311-06RE	X3311-05	X3421-08	X3311-04	X3311-01	X3311-01RE	X3311-02
Sampling Date:						38883	38882	38882	38882	38882	38882	38882	38882	38882	38882	38882	38882	38882	38882	38882	38881	38888	38881	38881	38881	38881
Analyte:	Units:					Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
SEMIVOLATILE SW-846 8270																										
Benzaldehyde	ug/kg	-	-		-	75 U	79 U	80 U	150 U	81 U	85 U	79 U	81 U	76 U	81 U	400 UD	2000 UD	82 U	87 U	75 U	84 U	380 UD	82 U	690 U	690 U	0 U
Phenol	ug/kg	30 or MDL	330	500,000	-	56 U	58 U	59 U	110 U	63 J	63 U	58 U	60 U	56 U	59 U	300 UD	1500 UD	61 U	64 U	55 U	62 U	280 UD	60 U	510 U	510 U	0.59 U
bis(2-Chloroethyl)ether	ug/kg	-	-		-	58 U	60 U	61 U	120 U	62 U	66 U	60 U	63 U	59 U	62 U	310 UD	1600 UD	63 U	67 U	58 U	64 U	290 UD	63 U	530 U	530 U	0.62 U
2-Chlorophenol	ug/kg	800	-		-	58 U	61 U	62 U	120 U	63 U	66 U	61 U	63 U	59 U	63 U	310 UD	1600 UD	64 U	67 U	58 U	65 U	290 UD	63 U	540 U	540 U	0.63 U
2-Methylphenol	ug/kg	100	-		-	61 U	64 U	64 U	120 U	65 U	69 U	64 U	66 U	62 U	65 U	330 UD	1600 UD	67 U	70 U	61 U	68 U	300 UD	66 U	560 U	560 U	0.65 U
2,2-oxybis(1-Chloropropane)	ug/kg	-	-			59 U	62 U	62 U	120 U	63 U	67 U	62 U	64 U	60 U	63 U	320 UD	1600 UD	65 U	68 U	59 U	66 U	290 UD	64 U	540 U	540 U	0.63 U
Acetophenone	ug/kg	-	-			54 U	56 U	57 U	110 U	57 U	61 U	56 U	58 U	54 U	57 U	290 UD	1400 UD	59 U	62 U	54 U	60 U	270 UD	58 U	490 U	490 U	0 U
3+4-Methylphenols	ug/kg	-	-		-	58 U	60 U	61 U	120 U	62 U	66 U	60 U	63 U	58 U	62 U	310 UD	1500 UD	63 U	67 U	58 U	64 U	290 UD	63 U	530 U	530 U	0.62 U
N-Nitroso-di-n-propylamine	ug/kg	-	-		-	61 U	63 U	64 U	120 U	65 U	69 U	63 U	66 U	61 U	65 U	320 UD	1600 UD	67 U	70 U	61 U	67 U	300 UD	66 U	560 U	560 U	0.65 U
Hexachloroethane	ug/kg	-	-		-	62 U	65 U	66 U	130 U	67 U	71 U	65 U	67 U	63 U	67 U	330 UD	1700 UD	68 U	72 U	62 U	69 U	310 UD	68 U	570 U	570 U	0.67 U
Nitrobenzene	ug/kg	200	-		-	80 U	84 U	85 U	160 U	86 U	91 U	84 U	86 U	81 U	86 U	430 UD	2100 UD	88 U	92 U	80 U	89 U	400 UD	87 U	730 U	730 U	0.86 U
Isophorone	ug/kg	4,400	-		-	55 U	57 U	58 U	110 U	59 U	63 U	57 U	60 U	56 U	59 U	290 UD	1500 UD	60 U	63 U	55 U	61 U	270 UD	60 U	510 U	510 U	0.59 U
2-Nitrophenol	ug/kg	100	-		-	56 U	59 U	60 U	110 U	60 U	64 U	59 U	61 U	57 U	60 U	300 UD	1500 UD	62 U	65 U	56 U	63 U	280 UD	61 U	520 U	520 U	0.60 U
2,4-Dimethylphenol	ug/kg	-	-		-	58 U	61 U	61 U	120 U	62 U	66 U	61 U	63 U	59 U	62 U	310 UD	1600 UD	64 U	67 U	58 U	65 U	290 UD	63 U	530 U	530 U	0.62 U
bis(2-Chloroethoxy)methane	ug/kg	-	-		-	60 U	63 U	64 U	120 U	65 U	68 U	63 U	65 U	61 U	65 U	320 UD	1600 UD	66 U	69 U	60 U	67 U	300 UD	65 U	550 U	550 U	0.64 U
2,4-Dichlorophenol	ug/kg	400	-		-	68 U	71 U	72 U	140 U	73 U	77 U	71 U	73 U	68 U	73 U	360 UD	1800 UD	74 U	78 U	68 U	75 U	340 UD	74 U	620 U	620 U	0.73 U
Naphthalene	ug/kg	13,000	12,000	500,000	-	63 U	65 U	66 U	130 U	120 J	71 U	65 U	68 U	80 J	530	520 JD	1700 UD	200 J	230 J	63 U	220 J	3100 D	75 J	580 U	580 U	0.67 U
4-Chloroaniline	ug/kg	220	-		-	44 U	46 U	46 U	88 U	47 U	50 U	46 U	47 U	44 U	47 U	230 UD	1200 UD	48 U	50 U	44 U	49 U	220 UD	47 U	400 U	400 U	0 U
Hexachlorobutadiene	ug/kg	-	-		-	56 U	59 U	60 U	110 U	60 U	64 U	59 U	61 U	57 U	60 U	300 UD	1500 UD	62 U	65 U	56 U	63 U	280 UD	61 U	520 U	520 U	0 U
Caprolactam	ug/kg	-	-			59 U	62 U	62 U	120 U	63 U	67 U	62 U	64 U	60 U	63 U	320 UD	1600 UD	65 U	68 U	59 U	66 U	290 UD	64 U	540 U	540 U	0 U
4-Chloro-3-methylphenol	ug/kg	240	-		-	51 U	53 U	54 U	100 U	54 U	58 U	53 U	55 U	51 U	54 U	270 UD	1400 UD	55 U	58 U	51 U	56 U	250 UD	55 U	470 U	470 U	0.54 U
2-Methylnaphthalene	ug/kg	36,400	-		-	61 U	64 U	65 U	120 U	66 U	70 U	64 U	66 U	62 U	390 J	370 JD	1600 UD	67 U	82 J	61 U	84 J	2900 D	66 U	560 U	560 U	0.66 U
Hexachlorocyclopentadiene	ug/kg	-	-		-	58 U	61 U	62 U	120 U	63 U	66 U	61 U	63 U	59 U	63 U	1200 JD	1600 UD	64 U	67 U	58 U	65 U	290 UD	63 U	540 U	540 U	0.63 U
2,4,6-Trichlorophenol	ug/kg	-	-		-	54 U	56 U	57 U	110 U	58 U	61 U	56 U	58 U	54 U	58 U	290 UD	1400 UD	59 U	62 U	54 U	60 U	270 UD	58 U	490 U	490 U	0.58 U
2,4,5-Trichlorophenol	ug/kg	100	-		-	56 U	59 U	59 U	110 U	60 U	64 U	59 U	61 U	57 U	60 U	300 UD	1500 UD	61 U	64 U	56 U	62 U	280 UD	61 U	520 U	520 U	0.60 U
1,1-Biphenyl	ug/kg	-	-			60 U	63 U	64 U	120 U	65 U	69 U	63 U	65 U	61 U	150 J	320 UD	1600 UD	66 U	69 U	60 U	67 U	540 JD	66 U	550 U	550 U	0 U
2-Chloronaphthalene	ug/kg	-	-		-	61 U	63 U	64 U	120 U	65 U	69 U	63 U	66 U	61 U	65 U	330 UD	1600 UD	67 U	70 U	61 U	68 U	300 UD	66 U	560 U	560 U	0.65 U
2-Nitroaniline	ug/kg	430	-		-	47 U	49 U	49 U	94 U	50 U	53 U	49 U	50 U	47 U	50 U	250 UD	1200 UD	51 U	54 U	46 U	52 U	230 UD	51 U	430 U	430 U	0.50 U
Dimethylphthalate	ug/kg	-	-		-	59 U	62 U	62 U	120 U	63 U	67 U	62 U	64 U	60 U	63 U	320 UD	1600 UD	65 U	68 U	59 U	66 U	290 UD	64 U	540 U	540 U	0.63 U
Acenaphthylene	ug/kg	41,000	100,000	500,000	-	59 U	62 U	63 U	120 U	64 U	68 U	62 U	64 U	60 U	98 J	320 UD	1600 UD	65 U	68 U	59 U	66 U	460 JD	65 U	550 U	550 U	0.64 U
2,6-Dinitrotoluene	ug/kg	100	-		-	52 U	54 U	55 U	100 U	56 U	59 U	54 U	56 U	52 U	56 U	280 UD	1400 UD	57 U	60 U	52 U	58 U	260 UD	56 U	480 U	480 U	0.55 U
3-Nitroaniline	ug/kg	500	-		-	48 U	50 U	50 U	96 U	51 U	54 U	50 U	52 U	48 U	51 U	260 UD	1300 UD	52 U	55 U	48 U	53 U	240 UD	52 U	440 U	440 U	0.51 U
Acenaphthene	ug/kg	90,000	20,000	500,000	-	65 U	68 U	69 U	190 J	75 J	74 U	68 U	71 U	200 J	1900	2100 D	1900 JD	270 J	180 J	65 U	280 J	3200 D	71 U	600 U	600 U	0.70 U
2,4-Dinitrophenol	ug/kg	200	-		-	310 U	330 U	330 U	630 U	340 U	360 U	330 U	340 U	320 U	340 U	1700 UD	8400 UD	340 U	360 U	310 U	350 U	1600 UD	340 U	2900 U	2900 U	3.4 U
4-Nitrophenol	ug/kg	100	-		-	45 U	47 U	48 U	92 U	49 U	52 U	47 U	49 U	46 U	49 U	240 UD	1200 UD	50 U	52 U	45 U	50 U	230 UD	49 U	420 U	420 U	0.49 U
Dibenzofuran	ug/kg	-	7,000	-	-	61 U	63 U	64 U	130 J	66 J	69 U	63 U	66 U	130 J	1300	1400 JD	1600 UD	190 J	160 J	61 U	210 J	2100 D	66 U	560 U	560 U	0.65 U
2,4-Dinitrotoluene	ug/kg	-	-		-	54 U	56 U	57 U	110 U	58 U	61 U	56 U	58 U	54 U	58 U	290 UD	1400 UD	59 U	62 U	54 U	60 U	270 UD	58 U	490 U	490 U	0.58 U
Diethylphthalate	ug/kg	-	-		-	63 U	66 U	67 U	130 U	68 U	72 U	66 U	68 U	64 U	68 U	340 UD	1700 UD	69 U	73 U	63 U	70 U	320 UD	69 U	580 U	580 U	0.68 U
4-Chlorophenyl-phenylether	ug/kg	-	-		-	58 U	60 U	61 U	120 U	62 U	66 U	60 U	63 U	59 U	62 U	310 UD	1600 UD	63 U	67 U	58 U	64 U	290 UD	63 U	530 U	530 U	0.62 U
Fluorene	ug/kg	50,000	30,000	500,000	-	62 U	65 U	65 U	240 J	73 J	70 U	65 U	67 U	240 J	2300	2600 D	2300 JD	330 J	170 J	62 U	270 J	3300 D	67 U	570 U	570 U	0.66 U
4-Nitroaniline	ug/kg	500	-		-	63 U	65 U	66 U	130 U	67 U	71 U	65 U	68 U	63 U	67 U	340 UD	1700 UD	69 U	72 U	63 U	70 U	310 UD	68 U	580 U	580 U	0.67 U
4,6-Dinitro-2-methylphenol	ug/kg	-	-		-	71 U	74 U	75 U	140 U	76 U	81 U	74 U	77 U	72 U	76 U	380 UD	1900 UD	78 U	82 U	71 U	79 U	360 UD	77 U	650 U	650 U	0.76 U
N-Nitrosodiphenylamine	ug/kg	-	-		-	60 U	63 U	64 U	120 U	65 U	69 U	63 U	65 U	61 U	65 U	320 UD	1600 UD	66 U	69 U	60 U	67 U	300 UD	66 U	550 U	550 U	0.65 U
4-Bromophenyl-phenylether	ug/kg	-	-		-	55 U	57 U	58 U	110 U	59 U	62 U	57 U	59 U	55 U	59 U	290 UD	1500 UD	60 U	63 U	55 U	61 U	270 UD	59 U	500 U	500 U	0.59 U
Hexachlorobenzene	ug/kg	410	-		-	59 U	61 U	62 U	120 U	63 U	67 U	61 U	63 U	59 U	63 U	310 UD	1600 UD	64 U	67 U	59 U	65 U	290 UD	64 U	540 U	540 U	0.63 U
Atrazine	ug/kg	-	-		-	56 U	59 U	59 U	110 U	60 U	64 U	59 U	61 U	57 U	60 U	300 UD	1500 UD	62 U	65 U	56 U	62 U	280 UD	61 U	520 U	520 U	0 U
Pentachlorophenol	ug/kg	1,000	800	6,700	-	85 U	89 U	90 U	170 U	91 U	96 U	89 U	92 U	86 U	91 U	450 UD	2300 UD	93 U	98 U	85 U	94 U	420 UD	92 U	780 U	780 U	0.91 U
Phenanthrene	ug/kg	50,000	100,000	500,000	-	350 J	630	220 J	1800	650	66 U	630	84 J	1600	13000 E	17000 ED	19000 D	1900	1100	190 J	1800	9300 D	72 J	540 U	540 U	0.62 U
Anthracene	ug/kg	50,000	100,000	500,000	-	98 J	160 J	58 U	430 J	180 J	63 U	150 J	60 U	430	4800 E	5700 D	5400 JD	560	320 J	55 U	550	3700 D	60 U	510 U	510 U	0.59 U
Carbazole	ug/kg	-	-		-	67 J	87 J	59 U	230 J	82 J	64 U	85 J	61 U	230 J	1800	1600 JD	1500 UD	250 J	160 J	56 U	330 J	600 JD	61 U	510 U	510 U	0.60 U
Di-n-butylphthalate	ug/kg	-	-		-	56 U	58 U	59 U	110 U	60 U	63 U	58 U	60 U	56 U	60 U	300 UD	1500 UD	61 U	64 U	56 U	62 U	280 UD	61 U	510 U	510 U	0.60 U
Fluoranthene	ug/kg	50,000	100,000	500,000	200 - 166,000	550	600	360 J	1500	680	180 J	670	99 J	1900	11000 E	13000 D	14000 D	2400	970	220 J	1600	3300 D	59 U	500 U	500 U	0.58 U
Pyrene	ug/kg	50,000	100,000	500,000	145 - 147,000	510	1300	350 J	3600	770	170 J	1200	87 J	2200	27000 E	32000 ED	31000 D	2800	970	210 J	1600	3200 D	70 U	600 U	600 U	0.69 U
Butylbenzylphthalate	ug/kg	-	-		-	59 U	62 U	63 U	120 U	64 U	67 U	62 U	64 U	60 U	63 U	320 UD	1600 UD	65 U	68 U	59 U	66 U	300 UD	64 U	540 U	540 U	0.63 U
3,3-Dichlorobenzidine	ug/kg	-	-		-	63 U	65 U	66 U	130 U	67 U	71 U	65 U	68 U	63 U	67 U	340 UD	1700 UD	69 U	72 U	63 U	70 U	310 UD	68 U	580 U	580 U	0.67 U
Benzo(a)anthracene	ug/kg	224	1,000	5,600	169 - 59,000	240 J	380 J	170 J	990	380 J	140 J	370 J	55 U	980	10000 E	10000 D	8600 JD	1200	400 J	90 J	730	1100 JD	56 U	470 U	470 U	0.55 U
Chrysene	ug/kg	400	1,000	56,000	251 - 640	250 J	380 J	200 J	940	390 J	130 J	380 J	71 U	930	8800 E	9500 D	8500 JD	1200	390 J	86 J	720	1100 JD	71 U	600 U	600 U	0.70 U
bis(2-Ethylhexyl)phthalate	ug/kg	-	-		-	70 U	73 U	74 U	140 U	75 U	80 U	73 U	76 U	71 U	75 U	380 UD	1900 UD	77 U	81 U	70 U	78 U	350 UD	76 U	650 U	650 U	0.75 U
Di-n-octyl phthalate	ug/kg	-	-		-	62 U	65 U	66 U	130 U	67 U	71 U	65 U	67 U	63 U	67 U	330 UD	1700 UD	68 U	72 U	62 U	69 U	310 UD	68 U	570 U	570 U	0.67 U
Benzo(b)fluoranthene	ug/kg	1,100	1,000	5,600	15,000 - 62,000	250 J	390	210 J	1000	420	190 J	410	44 U	1100	8400 E	8900 D	8100 JD	1200	430	80 J	670	630 JD	44 U	370 U	370 U	0.43 U
Benzo(k)fluoranthene	ug/kg	1,100	800	56,000	300 - 26,000	170 J	210 J	170 J	440 J	220 J	180 J	220 J	110 J	420	86 U	3600 D	4800 JD	470	240 J	120 J	310 J	400 UD	110 J	740 U	740 U	1.1 J
Benzo(a)pyrene	ug/kg	61	1,000	1,000	165 - 220	180 J	290 J	150 J	760	330 J	160 J	320 J	63 U	780	7300 E	7600 D	6200 JD	990	330 J	59 U	490	640 JD	64 U	540 U	540 U	0.63 U
Indeno(1,2,3-cd)pyrene	ug/kg	50,000	500	5,600	200 - 166,000	76 J	150 J	69 J	460 J	99 J	79 J	110 J	50 U	230 J	5000 E	3900 D	3600 JD	320 J	140 J	46 U	210 J	230 UD	51 U	430 U	430 U	0.50 U
Dibenz(a,h)anthracene	ug/kg	-	330	560	-	46 U	48 U	49 U	93 U	49 U	52 U	48 U	50 U	46 U	290 J	490 JD	1200 UD	50 U	53 U	46 U	51 U	230 UD	50 U	420 U	420 U	0.49 U
Benzo(g,h,i)perylene	ug/kg	50,000	100,000	500,000	900 - 47,000	91 J	220 J	64 U	560 J	150 J	75 J	210 J	66 U	340 J	5800 E	5000 D	4900 JD	380 J	140 J	61 U	160 J	300 UD	66 U	560 U	560 U	0.65 U
Total SVOC's		500,000.00				2,832.00	4,797.00	1,899.00	13,270.00	4,748.00	1,304.00	4,755.00	380.00	11,790.00	109,858.00	126,480.00	118,300.00	14,660.00	6,412.00	996.00	10,234.00	39,170.00	257.00	0.00	0.00	1.10

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
B - Analyte Found in associated blank as well as sample
NR - Not Reported

Above State RSCO's

Above State Resticted Commercial Use

Table 4. Summary of Pesticide & PCB Compounds in Soil Samples
Project: Brooklyn Navy Yard-Voluntary Clean-up Agreement

Client Sample ID:		Recommended	Unrestricted Use	Restricted(Commercial) Use	SS-01(2-3)	SS-01(4-5)	SS-02(3)	SS-03(0-2)	SS-03(4-5)	SS-04(5-6)	SS-05(0-2)	SS-05(4-5)	SS-06(3-4)	SS-06(5-6)	SS-07(4-5)	SS-08(3-4)	SS-09(0-2)	SS-09(4-5)	SS-10(0-2)	SS-10(8-10)
Laboratory ID:		Soil Cleanup	375-6,8(a) Soil Cleanup	375-6(b) Soil Cleanup	X3311-14	X3311-15	X3311-11	X3311-09	X3311-10	X3311-16	X3311-07	X3311-08	X3311-12	X3311-13	X3311-06	X3311-05	X3421-08	X3311-04	X3311-01	X3311-02
Sampling Date:		Objectives	Objectives	Objectives	06/15/06	06/15/06	06/14/06	06/14/06	06/14/06	06/15/06	06/14/06	06/14/06	06/14/06	06/14/06	06/14/06	06/13/06	38888	06/13/06	06/13/06	06/13/06
Analyte:	Units:	(ug/kg)	(ug/kg)	(ug/kg)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
PCB's as AROCLORS SW-846 METHOD 8082																				
Aroclor 1016	ug/kg	10,000	100	1,000	3.0 U	3.1 U	3.2 U	2.8 U	3.0 U	2.8 U	2.8 U	3.0 U	2.9 U	3.0 U	3.2 U	3.1 U	2.8 U	3.0 U	2.6 U	3.0 U
Aroclor 1221	ug/kg	10,000	100	1,000	4.7 U	4.8 U	4.9 U	4.4 U	4.7 U	4.4 U	4.3 U	4.7 U	4.6 U	4.6 U	5.0 U	4.8 U	4.4 U	4.7 U	4.1 U	4.7 U
Aroclor 1232	ug/kg	10,000	100	1,000	7.0 U	7.1 U	7.4 U	6.6 U	7.0 U	6.5 U	6.5 U	7.1 U	6.8 U	6.9 U	7.5 U	7.2 U	6.5 U	7.0 U	6.1 U	7.0 U
Aroclor 1242	ug/kg	10,000	100	1,000	6.2 U	6.3 U	6.6 U	5.8 U	6.2 U	5.8 U	5.8 U	6.3 U	6.1 U	6.1 U	6.6 U	6.4 U	5.8 U	6.2 U	5.4 U	6.2 U
Aroclor 1248	ug/kg	10,000	100	1,000	3.0 U	3.1 U	3.2 U	2.8 U	3.0 U	2.8 U	2.8 U	3.1 U	3.0 U	3.0 U	3.2 U	3.1 U	2.8 U	3.0 U	2.6 U	3.0 U
Aroclor 1254	ug/kg	10,000	100	1,000	2.0 U	2.0 U	2.1 U	1.9 U	2.0 U	1.8 U	1.8 U	2.0 U	1.9 U	1.9 U	2.1 U	2.0 U	1.8 U	2.0 U	1.7 U	2.0 U
Aroclor 1260	ug/kg	10,000	100	1,000	5.0 U	5.1 U	5.3 U	4.7 U	5.0 U	4.7 U	4.6 U	5.1 U	4.9 U	4.9 U	5.3 U	5.2 U	4.7 U	5.0 U	4.3 U	5.0 U
Total PCB	ug/kg	25,000			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Recommended	Unrestricted Use	Restricted(Commercial) Use	SS-01(2-3)	SS-01(4-5)	SS-02(3)	SS-03(0-2)	SS-03(4-5)	SS-04(5-6)	SS-05(0-2)	SS-05(4-5)	SS-06(3-4)	SS-06(5-6)	SS-07(4-5)	SS-08(3-4)	SS-09(0-2)	SS-09(4-5)	SS-10(0-2)	SS-10(8-10)
		Soil Cleanup	375-6,8(a) Soil Cleanup	375-6(b) Soil Cleanup	X3311-14	X3311-15	X3311-11	X3311-09	X3311-10	X3311-16	X3311-07	X3311-08	X3311-12	X3311-13	X3311-06	X3311-05	X3421-08	X3311-04	X3311-01	X3311-02
		Objectives	Objectives	Objectives	06/15/06	06/15/06	06/14/06	06/14/06	06/14/06	06/15/06	06/14/06	06/14/06	06/14/06	06/14/06	06/14/06	06/13/06	38888	06/13/06	06/13/06	06/13/06
		(ug/kg)	(ug/kg)	(ug/kg)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
PESTICIDES SW-846 METHOD 8081																				
alpha-BHC	ug/kg	110	20	3,400	0.75 U	0.77 U	0.81 U	0.71 U	0.76 U	0.71 U	0.7 U	0.76 U	0.74 U	0.74 U	0.81 U	0.78 U	0.70 U	0.77 U	0.66 U	0.76 U
beta-BHC	ug/kg	200	36	3,000	1 U	1.1 U	1.1 U	0.97 U	1 U	0.97 U	0.96 U	1 U	1 U	1 U	1.1 U	1.1 U	0.96 U	1 U	0.91 U	1 U
delta-BHC	ug/kg	300	40	500,000	1.9 U	2 U	2 U	1.8 U	1.9 U	1.8 U	1.8 U	1.9 U	1.9 U	1.9 U	2.1 U	2 U	1.8 U	2 U	1.7 U	1.9 U
gamma-BHC	ug/kg	540	-	-	0.85 U	0.87 U	0.9 U	0.8 U	0.85 U	0.79 U	0.79 U	0.86 U	0.83 U	0.84 U	0.91 U	0.88 U	0.79 U	0.86 U	0.74 U	0.85 U
Heptachlor	ug/kg	100	42	15,000	1.1 U	1.1 U	1.2 U	1 U	1.1 U	1 U	1 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.0 U	1.1 U	0.96 U	1.1 U
Aldrin	ug/kg	41	5	680	1.4 U	1.5 U	1.5 U	1.4 U	1.5 U	1.4 U	1.4 U	1.5 U	1.4 U	1.4 U	1.6 U	1.5 U	1.4 U	1.5 U	1.3 U	1.5 U
Heptachlor epoxide	ug/kg	20	-	-	1.3 U	1.3 U	1.3 U	1.2 U	1.3 U	1.2 U	1.2 U	1.3 U	1.2 U	1.2 U	1.4 U	1.3 U	1.2 U	1.3 U	1.1 U	1.3 U
Endosulfan I	ug/kg	900	2,400	200,000	1 U	1.1 U	1.1 U	0.98 U	1 U	0.97 U	0.97 U	1 U	1 U	1 U	1.1 U	1.1 U	0.97 U	1.1 U	0.91 U	1 U
Dieldrin	ug/kg	44	5	1,400	0.97 U	1 U	1 U	0.92 U	0.98 U	0.91 U	0.91 U	0.98 U	0.96 U	0.96 U	1.1 U	1 U	0.91 U	0.99 U	0.86 U	0.98 U
4,4-DDE	ug/kg	2,100	3.3	62,000	0.93 U	0.95 U	0.99 U	0.87 U	0.93 U	0.87 U	0.87 U	0.94 U	0.91 U	0.92 U	1 U	0.96 U	0.87 U	0.94 U	0.81 U	0.93 U
Endrin	ug/kg	100	14	89,000	1 U	1 U	1.1 U	0.95 U	1 U	0.94 U	0.94 U	1 U	0.99 U	0.99 U	1.1 U	1 U	0.94 U	1 U	0.88 U	1 U
Endosulfan II	ug/kg	900	2,400	200,000	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U	1 U	1 U	1.1 U	1.1 U	1.1 U	1.2 U	1.2 U	1.0 U	1.1 U	0.98 U	1.1 U
4,4-DDD	ug/kg	2,900	3.3	92,000	0.83 U	0.85 U	0.88 U	0.78 U	0.83 U	0.78 U	0.77 U	0.84 U	0.81 U	0.82 U	0.89 U	0.86 U	0.77 U	0.84 U	0.73 U	0.83 U
Endosulfan Sulfate	ug/kg	1,000	2,400	200,000	1.3 U	1.3 U	1.4 U	1.2 U	1.3 U	1.2 U	1.2 U	1.3 U	1.2 U	1.3 U	1.4 U	1.3 U	1.2 U	1.3 U	1.1 U	1.3 U
4,4-DDT	ug/kg	2,100	3.3	47,000	0.85 U	0.87 U	0.91 U	0.8 U	0.85 U	0.8 U	0.79 U	0.86 U	0.83 U	0.84 U	0.92 U	0.88 U	0.79 U	0.86 U	0.75 U	0.85 U
Methoxychlor	ug/kg	-	-	-	39 P	1 U	1.1 U	0.96 U	1 U	0.95 U	0.95 U	1 U	1 U	1 U	1.1 U	1.1 U	30 P	1 U	0.89 U	1 U
Endrin ketone	ug/kg	-	-	-	0.97 U	1 U	1 U	0.92 U	0.97 U	0.91 U	0.91 U	0.98 U	0.95 U	0.96 U	1 U	1 U	0.91 U	0.99 U	0.85 U	0.98 U
Endrin aldehyde	ug/kg	-	-	-	1.2 U	1.2 U	1.3 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U	1.2 U	1.2 U	1.3 U	1.2 U	1.1 U	1.2 U	1 U	1.2 U
alpha-Chlordane	ug/kg	540	94	24,000	0.99 U	1 U	1.1 U	0.93 U	0.99 U	0.93 U	0.92 U	1 U	0.97 U	0.97 U	1.1 U	1 U	0.92 U	1 U	0.87 U	0.99 U
gamma-Chlordane	ug/kg	540	-		1 U	1.1 U	1.1 U	0.97 U	1 U	0.96 U	0.96 U	1 U	1 U	1 U	1.1 U	1.1 U	0.96 U	1 U	0.9 U	1 U
Toxaphene	ug/kg	-	-	-	4.2 U	4.3 U	4.5 U	4 U	4.2 U	4 U	3.9 U	4.3 U	4.1 U	4.2 U	4.6 U	4.4 U	3.9 U	4.3 U	3.7 U	4.2 U
Total Pesticides	ug/kg	10,000			1.78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Recommended	Unrestricted Use	Restricted(Commercial) Use	SS-01(2-3)	SS-01(4-5)	SS-02(3)	SS-03(0-2)	SS-03(4-5)	SS-04(5-6)	SS-05(0-2)	SS-05(4-5)	SS-06(3-4)	SS-06(5-6)	SS-07(4-5)	SS-08(3-4)	SS-09(0-2)	SS-09(4-5)	SS-10(0-2)	SS-10(8-10)
		Soil Cleanup	375-6,8(a) Soil Cleanup	375-6(b) Soil Cleanup	X3311-14	X3311-15	X3311-11	X3311-09	X3311-10	X3311-16	X3311-07	X3311-08	X3311-12	X3311-13	X3311-06	X3311-05	X3421-08	X3311-04	X3311-01	X3311-02
		Objectives	Objectives	Objectives	06/15/06	06/15/06	06/14/06	06/14/06	06/14/06	06/15/06	06/14/06	06/14/06	06/14/06	06/14/06	06/14/06	06/13/06	38888	06/13/06	06/13/06	06/13/06
		(ug/kg)	(ug/kg)	(ug/kg)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
TAGM HERBICIDES SW 846 8151A																				
DICAMBA	mg/kg	-			40.9 U	42.5 U	43.4 U	38.5 U	40.6 U	38.1 U	38.4 U	41.5 U	40.3 U	40.6 U	44.4 U	42.5 U	44.4 U	41.9 U	35.6 U	40.6 U
DICHLORPROP	mg/kg	-			40.9 U	42.5 U	43.4 U	38.5 U	40.6 U	38.1 U	38.4 U	41.5 U	40.3 U	40.6 U	44.4 U	42.5 U	44.4 U	41.9 U	35.6 U	40.6 U
2,4-D	mg/kg	5			40.9 U	42.5 U	43.4 U	38.5 U	40.6 U	38.1 U	38.4 U	41.5 U	40.3 U	40.6 U	44.4 U	42.5 U	44.4 U	41.9 U	35.6 U	40.6 U
Silvex(2,4,5-TP)	mg/kg	700			40.9 U	42.5 U	43.4 U	38.5 U	40.6 U	38.1 U	38.4 U	41.5 U	40.3 U	40.6 U	44.4 U	42.5 U	44.4 U	41.9 U	35.6 U	40.6 U
2,4,5-T	mg/kg	1,900			59 J	42.5 U	43.4 U	38.5 U	40.6 U	38.1 U	38.4 U	41.5 U	40.3 U	40.6 U	44.4 U	42.5 U	44.4 U	41.9 U	35.6 U	40.6 U
2,4-DB	mg/kg	-			40.9 U	42.5 U	43.4 U	38.5 U	40.6 U	38.1 U	38.4 U	41.5 U	40.3 U	40.6 U	44.4 U	42.5 U	44.4 U	41.9 U	35.6 U	40.6 U
DINOSEB	mg/kg	-			40.9 U	42.5 U	43.4 U	38.5 U	40.6 U	38.1 U	38.4 U	41.5 U	40.3 U	40.6 U	44.4 U	42.5 U	44.4 U	41.9 U	35.6 U	40.6 U

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
C - Pesticide Compound where the identification has been successfully confirmed
P - Pesticide/Aroclor target analyte when there is a >25% difference detected Conc. between GC columns

Above State RSCO's

Above State Resticted Commercial Use

Table 5. Summary of Metal Anayses in Groundwater
Project: Brooklyn Navy Yard-Voluntary Clean-up Agreement

Client Sample ID:		Ground Water	MW-01	MW-02	MW-02DL	MW-02	MW-02DL	MW-03	MW-03DL	MW-03	MW-04	MW-05	MW-06	MW-07	MW-08	MW-09	MW-10	MW-10DL	VCAFB
Laboratory ID:		**Class GA Standards**	**X3920-01**	**X3421-06**	**X3421-06DL**	**X3920-03**	**X3920-03**	**X3421-03**	**X3421-03DL**	**X3920-04**	**X3920-02**	**X3920-05**	**X3920-06**	**X3920-08**	**X3920-07**	**X3396-02**	**X3396-03**	**X3396-03DL**	**X3396-05**
Sampling Date:		**6NYCRR Part 703.5**	**07/28/06**	**06/20/06**	**06/20/06**	**07/28/06**	**07/28/06**	**06/20/06**	**06/20/06**	**07/28/06**	**07/28/06**	**07/28/06**	**07/28/06**	**07/28/06**	**07/28/06**	**06/19/06**	**06/19/06**	**06/19/06**	**06/19/06**
Analyte:	**Units:**		**ug/l Q**	**ug/l Q**	**ug/l Q**	**ug/l Q**	**ug/l Q**	**ug/l Q**	**ug/l Q**	**ug/l Q**	**ug/l Q**	**ug/l Q**	**ug/l Q**	**ug/l Q**	**ug/l Q**	**ug/l Q**	**ug/l Q**	**ug/l Q**	**ug/l Q**
TARGET ANALYTE LIST METALS																			
Aluminum	PPM	No Standard	5.310 U	9170	9860	5.310 U	53.1 U	2260	2530	5.310 U	5.310 U	990	920	5.310 U	709	108 J	5920	6060	17.7 J
Antimony	PPM	0.003	3.170 U	3.170 U	31.7 U	3.170 U	31.7 U	3.170 U	31.7 U	58.6 J	18.6 J	3.170 U	3.170 U	3.170 U	3.170 U	3.170 U	3.170 U	31.7 U	3.170 U
Arsenic	PPM	0.025	3.320 U	13.6	33.2 U	3.320 U	33.2 U	3.320 U	33.2 U	9.090 J	3.320 U	20.9	9.950 J	3.320 U	3.320 U	3.720 J	3.320 U	33.2 U	3.320 U
Barium	PPM	1	155 J	869	1010 J	74.2 J	7.230 U	613	718 J	139 J	193 J	22.1 J	114 J	26.5 J	9.890 J	546	116 J	208 J	10.5 J
Beryllium	PPM	0.003	0.090 U	1.210 J	5.400 J	0.720 J	5.400 J	0.550 J	4.800 J	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.420 J	0.680 J	4.800 J	0.440 J
Cadmium	PPM	0.005	0.327 U	0.550 J	3.270 U	2.150 J	3.270 U	0.327 U	5.100 J	0.327 U	0.327 U	0.327 U	0.327 U	0.327 U	0.327 U	0.327 U	0.500 J	6.100 J	0.327 U
Calcium	PPM	No Standard	91200	165000	189000	88900	138000	245000	270000	63700	71100	8510	30500	9270	14100	178000	152000	174000	30.2 J
Chromium	PPM	0.05	0.343 U	17.8	22.4 J	29.6	79.9 J	4.940 J	18.4 J	2.150 J	2.670 J	7.900 J	2.730 J	4.430 J	0.343 U	0.700 J	10.8	22.2 J	0.343 U
Cobalt	PPM	No Standard	0.370 U	10.4 J	18.3 J	27.9 J	59.8 J	4.630 J	23.4 J	0.370 U	0.370 U	2.400 J	0.370 U	1.650 J	0.370 U	1.810 J	10.1 J	27.5 J	1.320 J
Copper	PPM	0.2	3.640 U	88.8	76.1 J	45.7	102 J	14.4 J	36.4 U	6.950 J	3.640 U	642	21.9 J	9.340 J	20.0 J	3.640 U	44.4	36.4 U	3.640 U
Iron	PPM	0.3	369	25100	27700	2600	2730	24300	26000	5590	9570	6420	16200	27.0 U	4560	15300	9570	9200	27.0 U
Lead	PPM	0.025	2.180 U	277	233	2.180 U	21.8 U	21.1	21.8 U	2.180 U	2.180 U	214	76.9	8.280	399	2.180 U	160	100	2.180 U
Magnesium	PPM	35	13600	269000	295000	194000	276000	28900	31900 J	9060	99700	14500	4430 J	12600	2580 J	27800	347000	373000	8.300 U
Manganese	PPM	0.3	3910	632	690	185	227	1310	1340	132	670	174	540	75.8	251	1630	1460	1510	3.190 J
Nickel	PPM	0.1	17.3 J	18.2 J	19.6 J	20.2 J	67.7 J	6.790 J	15.6 U	1.560 U	1.620 J	6.760 J	1.560 U	1.560 U	1.560 U	1.560 U	31.2 J	48.6 J	1.560 U
Potassium	PPM	No Standard	16400	193000	151000	69100	124000	49100	30700 J	15100	48900	18600	13200	13600	6000	102000	273051 OR	243000	61.8 U
Selenium	PPM	0.01	3.040 U	3.040 U	30.4 U	3.040 U	30.4 U	3.040 U	30.4 U	3.040 U	4.120 J	3.040 U	3.040 U	3.040 U	3.040 U	3.040 U	3.040 U	30.4 U	3.040 U
Silver	PPM	0.05	1.640 U	1.640 U	16.4 U	44.3	120	1.640 U	16.4 U	6.460 J	4.090 J	11.6	5.920 J	9.450 J	1.640 U	1.640 U	1.640 U	18.9 J	1.640 U
Sodium	PPM	20	105000	3614650 OR	3050000	1585868 OR	3000000	1595154 OR	1190000	561000	688000	266000	245000	219000	12800	840000	5163010 OR	4830000	332 U
Thallium	PPM	0.0005	3.050 U	3.050 U	30.5 U	3.050 U	30.5 U	3.050 U	30.5 U	3.050 U	3.050 U	21.5	3.050 U	3.050 U	3.050 U	3.050 U	3.050 U	30.5 U	3.050 U
Vanadium	PPM	No Standard	0.701 U	32.8 J	57.7 J	37.9 J	110 J	10.9 J	38.3 J	4.040 J	3.500 J	10.5 J	5.650 J	5.090 J	0.701 U	3.700 J	19.5 J	47.1 J	1.800 J
Zinc	PPM	2	28.1	429	359	33.8	30.3 J	61.4	6.110 U	42.4	27.8	561	100	17.1 J	71.7	9.690 J	81.5	6.110 U	16.5 J
Cyanide, Tota	PPM	0.2	0.032	0.01 U		0.010 U		0.01 U		0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.023	0.01 U	
Mercury	PPM	0.0007	0.0300 U	0.9900		0.0300 U		0.3200		0.0900 J	0.0500 J	0.8400	0.1700 J	0.0400 J	0.0300 U	0.03 U	0.39 U		

Qualifiers:
mg/l - Miligrams per liter
U - Not detected; detection limit shown
B - Analyte Found in associated blank as well as sample
Above 6NYCRR Part 703.5

Table 6. Summary of Volatile Organic Compounds in Ground Water and Sewer Samples
Project: Brooklyn Navy Yard-Voluntary Clean-up Agreement

Client Sample ID:		Ground Water	MW-01	MW-02	MW-02	MW-03RE	MW-03	MW-03	MW-04	MW-05	MW-06	MW-07	MW-08	MW-09	MW-10	VCAFB
Laboratory ID:		Class GA Standards	X3920-01	X3421-06	X3920-03	X3421-03RE	X3421-03	X3920-04	X3920-02	X4242-01	X3920-06	X3920-08	X3920-07	X3396-02	X3396-03	X3396-05
Sampling Date:		6NYCRR Part 703.5	07/28/06	06/20/06	07/28/06	06/20/06	06/20/06	07/28/06	07/28/06	08/21/06	07/28/06	07/28/06	07/28/06	06/19/06	06/19/06	06/19/06
Analyte:	Units:		Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Volatile Compounds (Concentration in ug/kg)																
Dichlorodifluoromethane	PPB	5	0.17 U	0.21 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Chloromethane	PPB	5	0.34 U	0.43 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
Vinyl Chloride	PPB	2	0.33 U	0.41 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Bromomethane	PPB	5	0.41 U	0.52 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
Chloroethane	PPB	50	0.83 U	1.0 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U
Trichlorofluoromethane	PPB	5	0.22 U	0.27 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,1,2-Trichlorotrifluoroethane	PPB	5	1.3 U	1.6 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
1,1-Dichloroethene	PPB	5	0.42 U	0.52 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
Acetone	PPB	50	2.3 U	2.8 U	2.3 U	2.3 U	2.3 U	2.3 U	87	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U
Carbon Disulfide	PPB	50	0.4 U	0.50 U	0.4 U	0.40 U	0.40 U	0.4 U	0.4 U	0.40 U	0.4 U	0.4 U	0.4 U	0.40 U	0.40 U	0.40 U
Methyl tert-butyl Ether	PPB	-	0.28 U	0.35 U	0.28 U	0.28 U	4.3 J	5.8	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
Methyl Acetate	PPB	-	0.2 U	0.25 U	0.2 U	0.20 U	0.20 U	0.2 U	0.2 U	0.20 U	0.2 U	0.2 U	0.2 U	0.20 U	0.20 U	0.20 U
Methylene Chloride	PPB	5	0.43 U	0.53 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
trans-1,2-Dichloroethene	PPB	5	0.4 U	0.50 U	0.4 U	0.40 U	0.40 U	0.4 U	0.4 U	0.40 U	0.4 U	0.4 U	0.4 U	0.40 U	0.40 U	0.40 U
1,1-Dichloroethane	PPB	5	1.2 J	0.48 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
Cyclohexane	PPB	-	0.36 U	0.46 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U
2-Butanone	PPB	50	1.1 U	1.4 U	1.1 U	1.1 U	1.1 U	1.1 U	15 J	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Carbon Tetrachloride	PPB	5	1.1 U	1.4 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
cis-1,2-Dichloroethene	PPB	5	0.29 U	0.36 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
Chloroform	PPB	7	0.33 U	0.42 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
1,1,1-Trichloroethane	PPB	5	0.32 U	0.40 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
Methylcyclohexane	PPB	-	0.34 U	0.42 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
Benzene	PPB	1	0.39 U	0.48 U	0.39 U	0.39 U	0.39 U	0.39 U	4.2 J	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U
1,2-Dichloroethane	PPB	0.6	0.34 U	0.42 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
Trichloroethene	PPB	5	0.46 U	0.58 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U
1,2-Dichloropropane	PPB	1	0.4 U	0.50 U	0.4 U	0.40 U	0.40 U	0.4 U	0.4 U	0.40 U	0.4 U	0.4 U	0.4 U	0.40 U	0.40 U	0.40 U
Bromodichloromethane	PPB	-	0.33 U	0.42 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
4-Methyl-2-Pentanone	PPB	50	1.6 U	2.0 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U
Toluene	PPB	5	0.36 U	0.45 U	0.36 U	0.36 U	0.36 U	0.36 U	6.7	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U
t-1,3-Dichloropropene	PPB	0.4	0.32 U	0.40 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
cis-1,3-Dichloropropene	PPB	0.4	0.36 U	0.45 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U
1,1,2-Trichloroethane	PPB	1	0.41 U	0.51 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
2-Hexanone	PPB	-	1.7 U	2.1 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
Dibromochloromethane	PPB	5	0.26 U	0.33 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
1,2-Dibromoethane	PPB	-	0.32 U	0.40 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
Tetrachloroethene	PPB	5	0.48 U	0.60 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U
Chlorobenzene	PPB	5	0.47 U	0.58 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U
Ethyl Benzene	PPB	5	0.45 U	0.57 U	0.45 U	0.45 U	0.45 U	0.45 U	17	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
m/p-Xylenes	PPB	5	1.2 U	1.5 U	1.2 U	1.2 U	1.2 U	1.2 U	15	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
o-Xylene	PPB	5	0.46 U	0.57 U	0.46 U	0.46 U	0.46 U	0.46 U	15	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U
Styrene	PPB	930	0.41 U	0.51 U	0.41 U	0.41 U	0.41 U	0.41 U	0.54 J	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
Bromoform	PPB	-	0.32 U	0.39 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
Isopropylbenzene	PPB	-	0.44 U	0.55 U	0.44 U	0.44 U	0.44 U	0.44 U	4.6 J	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
1,1,2,2-Tetrachloroethane	PPB	5	0.3 U	0.37 U	0.3 U	0.30 U	0.30 U	0.3 U	0.3 U	0.30 U	0.3 U	0.3 U	0.3 U	0.30 U	0.30 U	0.30 U
1,3-Dichlorobenzene	PPB	3	0.5 U	0.62 U	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U
1,4-Dichlorobenzene	PPB	3	0.54 U	0.67 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U
1,2-Dichlorobenzene	PPB	3	0.44 U	0.55 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
1,2-Dibromo-3-Chloropropane	PPB	0.04	0.38 U	0.47 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
1,2,4-Trichlorobenzene	PPB	5	0.46 U	0.57 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U
Total Confident Conc. VOC			1.2	0	0	0	4.3	5.8	165.04	0	0	0	0	0	0	0
Total TICs			0	0	5.4	0	0	0	949	0	0	0	0	0	0	0

Qualifiers:
ug/l - Microgram per liter (Aq) of part per billion (ppb) equivalent
U - Not detected; detection limit shown
B - Analyte Found in associated blank as well as sample
- Above 6NYCRR Part 703.5

Table 7. Summary of Semivolatile Organic Compounds in Ground Water
Project: Brooklyn Navy Yard-Voluntary Clean-up Agreement

Client Sample ID:		Ground Water	MW-01	MW-02	MW-02	MW-03	MW-03	MW-04	MW-04DL	MW-05	MW-05RE	MW-06	MW-07	MW-08	MW-09	MW-10	VCAFB
Laboratory ID:		Class GA Standards	X3920-01	X3421-06	X3920-03	X3421-03	X3920-04	X3920-02	X3920-02DL	X3920-05	X3920-05RE	X3920-06	X3920-08	X3920-07	X3396-02	X3396-03	X3396-05
Sampling Date:		6NYCRR Part 703.5	07/28/06	06/20/06	07/28/06	06/20/06	07/28/06	07/28/06	07/28/06	07/28/06	07/28/06	07/28/06	07/28/06	07/28/06	06/19/06	06/19/06	06/19/06
Analyte:	Units:		Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
SEMIVOLATILE SW-846 8270																	
Benzaldehyde	ug/l	-	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.6 U	3.3 UD	1.8 U	1.8 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
Phenol	ug/l	1	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	2.9 J	2.8 JD	1.4 U	1.4 U	1.4 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
bis(2-Chloroethyl)ether	ug/l	1	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.4 U	2.9 UD	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
2-Chlorophenol	ug/l	50	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.1 U	2.3 UD	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
2-Methylphenol	ug/l	5	1.6 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	3.0 UD	1.6 U	1.6 U	1.6 U	1.5 U	1.5 U	1.5 U	1.6 U	1.5 U
2,2-oxybis(1-Chloropropane)	ug/l	-	1.3 U	1.3 U	1.3 U	1.2 U	1.2 U	1.2 U	2.4 UD	1.3 U	1.3 U	1.3 U	1.2 U	1.2 U	1.2 U	1.3 U	1.2 U
Acetophenone	ug/l	-	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.6 J	2.5 UD	1.3 U	1.3 U	1.3 U	1.2 U	1.2 U	1.2 U	1.3 U	1.3 U
3+4-Methylphenols	ug/l	-	1.4 U	1.3 U	1.3 U	1.3 U	1.3 U	21	20 D	1.4 U	1.4 U	1.4 U	1.3 U	1.3 U	1.3 U	1.4 U	1.3 U
N-Nitroso-di-n-propylamine	ug/l	-	1.5 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	2.8 UD	1.5 U	1.5 U	1.5 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Hexachloroethane	ug/l	5	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	2.3 UD	1.3 U	1.3 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Nitrobenzene	ug/l	0.4	1.7 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	3.1 UD	1.7 U	1.7 U	1.7 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U
Isophorone	ug/l	50	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	2.5 UD	1.4 U	1.4 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
2-Nitrophenol	ug/l	5	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	2.7 UD	1.5 U	1.5 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
2,4-Dimethylphenol	ug/l	1	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	2.4 UD	1.3 U	1.3 U	1.3 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
bis(2-Chloroethoxy)methane	ug/l	-	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	2.7 UD	1.5 U	1.5 U	1.5 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
2,4-Dichlorophenol	ug/l	1	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.4 U	2.8 UD	1.5 U	1.5 U	1.5 U	1.4 U	1.4 U	1.4 U	1.5 U	1.5 U
Naphthalene	ug/l	10	1.5 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	130 D	1.5 U	1.5 U	1.5 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
4-Chloroaniline	ug/l	5	0.900 U	0.880 U	0.880 U	0.880 U	0.880 U	0.860 U	1.7 UD	0.920 U	0.920 U	0.910 U	0.870 U	0.870 U	0.870 U	0.890 U	0.880 U
Hexachlorobutadiene	ug/l	0.01	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	2.7 UD	1.5 U	1.5 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Caprolactam	ug/l	-	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.2 U	2.5 UD	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
4-Chloro-3-methylphenol	ug/l	5	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	2.7 UD	1.5 U	1.5 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
2-Methylnaphthalene	ug/l	50	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	89 E	87 D	1.2 U	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Hexachlorocyclopentadiene	ug/l	5	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	2.3 UD	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
2,4,6-Trichlorophenol	ug/l	5	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.1 U	2.3 UD	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
2,4,5-Trichlorophenol	ug/l	1	1.3 U	1.3 U	1.3 U	1.2 U	1.2 U	1.2 U	2.4 UD	1.3 U	1.3 U	1.3 U	1.2 U	1.2 U	1.2 U	1.3 U	1.2 U
1,1-Biphenyl	ug/l	5	1.5 U	1.4 U	1.4 U	1.4 U	1.4 U	9.7 J	10 JD	1.5 U	1.5 U	1.5 U	1.4 U	1.4 U	1.4 U	1.5 U	1.4 U
2-Chloronaphthalene	ug/l	5	1.5 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	2.8 UD	1.5 U	1.5 U	1.5 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
2-Nitroaniline	ug/l	5	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	2.1 UD	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Dimethylphthalate	ug/l	50	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	2.5 UD	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
Acenaphthylene	ug/l	20	1.4 U	1.3 U	1.3 U	1.3 U	1.3 U	2.8 J	2.9 JD	1.4 U	1.4 U	1.4 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
2,6-Dinitrotoluene	ug/l	5	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.2 U	2.5 UD	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
3-Nitroaniline	ug/l	5	1.1 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 UD	1.1 U	1.1 U	1.1 U	1.0 U	1.0 U	1.0 U	1.1 U	1.0 U
Acenaphthene	ug/l	20	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	45	49 D	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
2,4-Dinitrophenol	ug/l	5	3.7 U	3.6 U	3.6 U	3.6 U	3.6 U	3.5 U	7.0 UD	3.8 U	3.8 U	3.7 U	3.5 U	3.5 U	3.5 U	3.6 U	3.6 U
4-Nitrophenol	ug/l	5	3.3 U	3.2 U	3.2 U	3.2 U	3.2 U	3.1 U	6.2 UD	3.3 U	3.3 U	3.3 U	3.1 U	3.1 U	3.1 U	3.2 U	3.2 U
Dibenzofuran	ug/l	-	1.4 U	1.3 U	1.3 U	1.3 U	1.3 U	2.9 J	2.9 JD	1.4 U	1.4 U	1.4 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
2,4-Dinitrotoluene	ug/l	5	1.3 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	2.4 UD	1.3 U	1.3 U	1.3 U	1.2 U	1.2 U	1.2 U	1.3 U	1.2 U
Diethylphthalate	ug/l	50	1.4 U	1.4 U	1.4 U	1.4 U	2.0 J	1.3 U	2.7 UD	1.4 U	1.4 U	1.4 U	2.2 J	1.3 U	1.3 U	1.4 U	1.4 U
4-Chlorophenyl-phenylether	ug/l	-	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	2.7 UD	1.5 U	1.5 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Fluorene	ug/l	50	1.5 U	1.4 U	1.4 U	1.4 U	1.4 U	25	27 D	1.5 U	1.5 U	1.5 U	1.4 U	1.4 U	1.4 U	1.5 U	1.4 U
4-Nitroaniline	ug/l	5	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	2.2 UD	1.2 U	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U
4,6-Dinitro-2-methylphenol	ug/l	-	1.7 U	1.7 U	1.7 U	1.6 U	1.6 U	1.6 U	3.2 UD	1.7 U	1.7 U	1.7 U	1.6 U	1.6 U	1.6 U	1.7 U	1.6 U
N-Nitrosodiphenylamine	ug/l	-	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.2 U	2.5 UD	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
4-Bromophenyl-phenylether	ug/l	-	1.6 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	2.9 UD	1.6 U	1.6 U	1.6 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Hexachlorobenzene	ug/l	0.04	1.3 U	1.3 U	1.3 U	1.2 U	1.2 U	1.2 U	2.4 UD	1.3 U	1.3 U	1.3 U	1.2 U	1.2 U	1.2 U	1.3 U	1.2 U
Atrazine	ug/l	7.5	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	2.5 UD	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
Pentachlorophenol	ug/l	1	1.7 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	3.2 UD	1.7 U	1.7 U	1.7 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U
Phenanthrene	ug/l	50	1.5 U	1.5 U	1.5 U	1.4 U	1.4 U	29	30 D	1.5 U	1.5 U	1.5 U	1.4 U	1.4 U	1.4 U	1.5 U	1.4 U
Anthracene	ug/l	50	1.5 U	1.4 U	1.4 U	1.4 U	1.4 U	6.9 J	6.7 JD	1.5 U	1.5 U	1.5 U	1.4 U	1.4 U	1.4 U	1.5 U	1.4 U
Carbazole	ug/l	-	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	2.6 UD	1.4 U	1.4 U	1.4 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
Di-n-butylphthalate	ug/l	50	1.4 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	2.6 UD	1.4 U	1.4 U	1.4 U	1.3 U	1.3 U	1.3 U	1.4 U	1.3 U
Fluoranthene	ug/l	50	1.3 U	1.2 U	1.2 U	1.2 U	1.2 U	1.4 J	2.4 UD	1.3 J	1.3 U	1.3 U	1.2 U	1.2 U	1.2 U	1.3 U	1.2 U
Pyrene	ug/l	50	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.6 J	2.9 UD	1.6 U	1.6 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Butylbenzylphthalate	ug/l	50	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.4 U	2.9 UD	1.5 U	1.5 U	1.5 U	1.4 U	1.4 U	1.4 U	1.5 U	1.5 U
3,3-Dichlorobenzidine	ug/l	5	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.0 U	2.1 UD	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Benzo(a)anthracene	ug/l	0.002	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	2.2 UD	1.2 U	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U
Chrysene	ug/l	0.002	1.8 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	3.3 UD	1.8 U	1.8 U	1.8 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
bis(2-Ethylhexyl)phthalate	ug/l	5	1.7 J	1.6 U	1.6 U	1.6 U	4.4 J	1.8 J	3.0 UD	5.2 J	4.6 J	1.7 J	6.7 J	2.8 J	1.5 U	1.6 U	1.6 U
Di-n-octyl phthalate	ug/l	50	1.4 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	2.6 UD	1.4 U	1.4 U	1.4 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
Benzo(b)fluoranthene	ug/l	0.002	0.790 U	0.770 U	0.770 U	0.760 U	0.760 U	0.750 U	1.5 UD	0.810 U	0.810 U	0.800 U	0.760 U	0.760 U	0.760 U	0.780 U	0.760 U
Benzo(k)fluoranthene	ug/l	0.002	2.0 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	3.8 UD	2.0 U	2.0 U	2.0 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U
Benzo(a)pyrene	ug/l	0.002	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	2.3 UD	1.3 U	1.3 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Indeno(1,2,3-cd)pyrene	ug/l	0.002	0.870 U	0.850 U	0.850 U	0.840 U	0.840 U	0.830 U	1.7 UD	0.890 U	0.890 U	0.880 U	0.840 U	0.840 U	0.840 U	0.860 U	0.840 U
Dibenz(a,h)anthracene	ug/l	50	0.910 U	0.890 U	0.890 U	0.880 U	0.880 U	0.870 U	1.7 UD	0.930 U	0.930 U	0.920 U	0.870 U	0.870 U	0.870 U	0.900 U	0.880 U
Benzo(g,h,i)perylene	ug/l	5	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	2.2 UD	1.2 U	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Total Confident Conc. SVOC			1.7	0	0	0	6.4	240.6	368.3	6.5	4.6	1.7	8.9	2.8	0	0	0
Total TICs			27.5	26.2	53	118.2	22	241.3	0	95.6	0	56.2	26.2	55	82	38.4	20

Qualifiers:
ug/l - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
B - Analyte Found in associated blank as well as sample
- Above 6NYCRR Part 703.5

Table 8. Summary of Pesticide & PCB Compounds in Ground Water Samples
Project: Brooklyn Navy Yard-Voluntary Clean-up Agreement

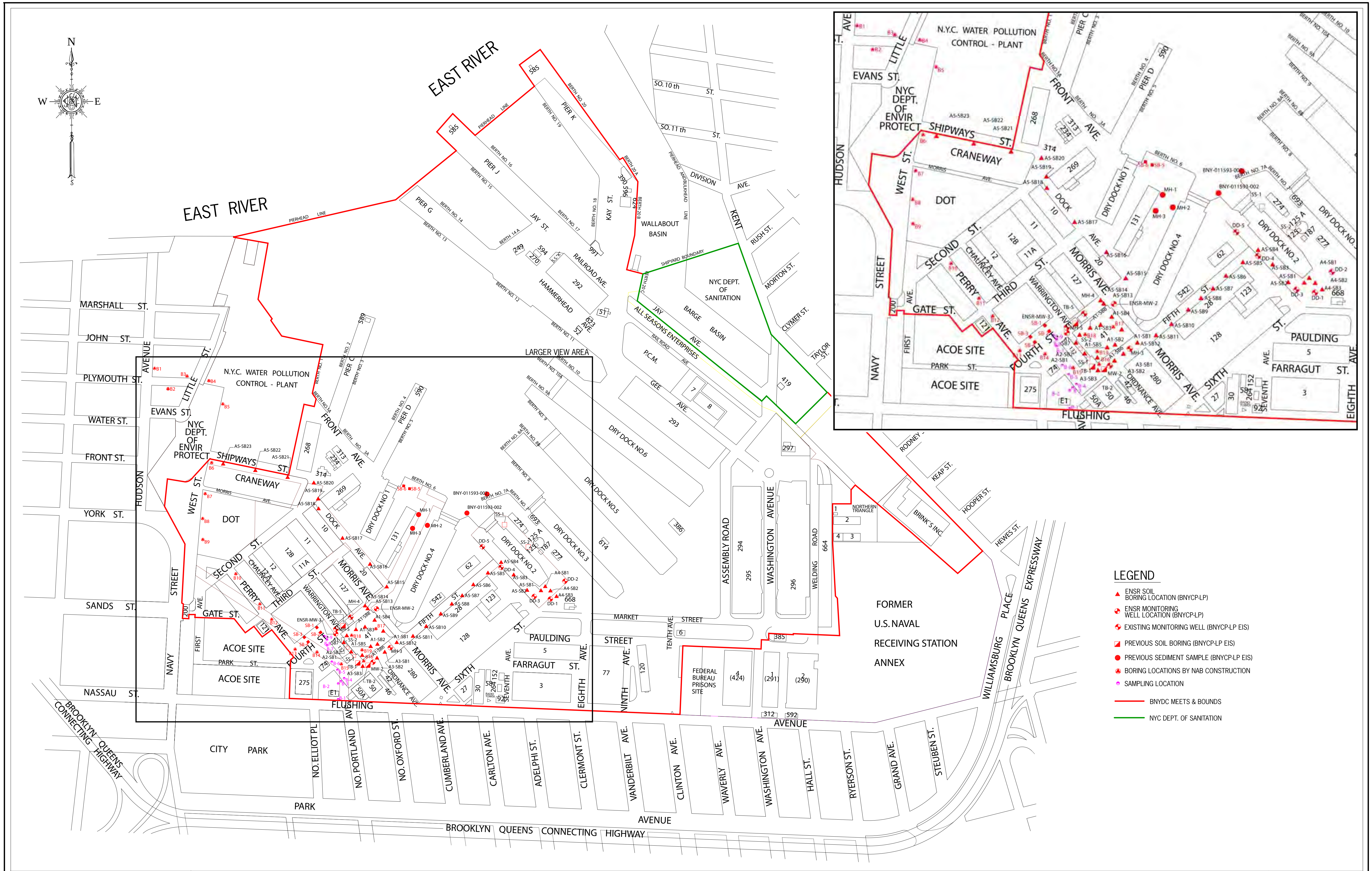
Client Sample ID:		**Ground Water**	**MW-01**	**MW-02**	**MW-02**	**MW-03**	**MW-03**	**MW-04**	**MW-05**	**MW-06**	**MW-07**	**MW-08**	**MW-09**	**MW-10**	**VCAFB**
Laboratory ID:		**Class GA Standards**	**X3920-01**	**X3421-06**	**X3920-03**	**X3421-03**	**X3920-04**	**X3920-02**	**X3920-05**	**X3920-06**	**X3920-08**	**X3920-07**	**X3396-02**	**X3396-03**	**X3396-05**
Sampling Date:		**6NYCRR Part 703.5**	**07/28/06**	**06/20/06**	**07/28/06**	**06/20/06**	**07/28/06**	**07/28/06**	**07/28/06**	**07/28/06**	**07/28/06**	**07/28/06**	**06/19/06**	**06/19/06**	**06/19/06**
Analyte:	**Units:**		**Q**	**Q**	**Q**	**Q**	**Q**	**Q**	**Q**	**Q**	**Q**	**Q**	**Q**	**Q**	**Q**
PCB's as AROCLORS SW-846 METHOD 8082															
Aroclor 1016	ug/l	0.09	0.149 U	0.149 U	0.149 U	0.151 U	0.149 U	0.149 U	0.149 U	0.149 U	0.148 U	0.149 U	1.510 U	0.158 U	0.146 U
Aroclor 1221	ug/l	0.09	0.175 U	0.175 U	0.175 U	0.177 U	0.175 U	0.175 U	0.175 U	0.175 U	0.173 U	0.175 U	1.770 U	0.185 U	0.172 U
Aroclor 1232	ug/l	0.09	0.112 U	0.112 U	0.112 U	0.114 U	0.112 U	0.112 U	0.112 U	0.112 U	0.111 U	0.112 U	1.140 U	0.118 U	0.110 U
Aroclor 1242	ug/l	0.09	0.086 U	0.086 U	0.086 U	0.087 U	0.086 U	0.086 U	0.086 U	0.086 U	0.085 U	0.086 U	0.865 U	0.090 U	0.084 U
Aroclor 1248	ug/l	0.09	0.043 U	0.043 U	0.043 U	0.044 U	0.043 U	0.043 U	0.043 U	0.043 U	0.043 U	0.043 U	0.438 U	0.046 U	0.042 U
Aroclor 1254	ug/l	0.09	0.038 U	0.038 U	0.038 U	0.039 U	0.038 U	0.038 U	0.038 U	0.05 J	0.038 U	0.038 U	0.385 U	0.040 U	0.037 U
Aroclor 1260	ug/l	0.09	0.1600 U	0.1600 U	0.1600 U	0.1600 U	0.1600 U	0.1600 U	0.1600 U	0.1600 U	0.1600 U	0.1600 U	1.6 U	0.1700 U	0.1600 U
PESTICIDES SW-846 METHOD 8081															
alpha-BHC	ug/l	0.01	0.0065 U	0.0065 U	0.0065 U	0.0064 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0064 U	0.0065 U	0.0065 U	0.0068 U	0.0064 U
beta-BHC	ug/l	0.04	0.0072 U	0.0072 U	0.0072 U	0.0072 U	0.0072 U	0.0072 U	0.0072 U	0.0072 U	0.0072 U	0.0072 U	0.0072 U	0.0076 U	0.0071 U
delta-BHC	ug/l	0.04	0.0516 U	0.0516 U	0.0516 U	0.0510 U	0.0516 U	0.0516 U	0.0516 U	0.0516 U	0.0510 U	0.0516 U	0.0516 U	0.0544 U	0.0505 U
gamma-BHC	ug/l	0.05	0.0073 U	0.0073 U	0.0073 U	0.0072 U	0.0073 U	0.0073 U	0.0073 U	0.0073 U	0.0072 U	0.0073 U	0.0073 U	0.0077 U	0.0072 U
Heptachlor	ug/l	0.04	0.0234 U	0.0234 U	0.0234 U	0.0232 U	0.0234 U	0.0234 U	0.0234 U	0.0234 U	0.0232 U	0.0234 U	0.0234 U	0.0247 U	0.0229 U
Aldrin	ug/l	ND	0.0308 U	0.0308 U	0.0308 U	0.0305 U	0.0308 U	0.0308 U	0.0308 U	0.0308 U	0.0305 U	0.0308 U	0.0308 U	0.0325 U	0.0302 U
Heptachlor epoxide	ug/l	0.03	0.0125 U	0.0125 U	0.0125 U	0.0124 U	0.0125 U	0.0125 U	0.0125 U	0.0125 U	0.0124 U	0.0125 U	0.0125 U	0.0132 U	0.0122 U
Endosulfan I	ug/l	0.1	0.0078 U	0.0078 U	0.0078 U	0.0077 U	0.0078 U	0.0078 U	0.0078 U	0.0078 U	0.0077 U	0.0078 U	0.0078 U	0.0082 U	0.0076 U
Dieldrin	ug/l	0.004	0.0076 U	0.0076 U	0.0076 U	0.0075 U	0.0076 U	0.0076 U	0.0076 U	0.0076 U	0.0075 U	0.0076 U	0.0076 U	0.0080 U	0.0074 U
4,4-DDE	ug/l	0.2	0.0074 U	0.0074 U	0.0074 U	0.0073 U	0.0074 U	0.0074 U	0.0074 U	0.0074 U	0.0073 U	0.0074 U	0.0074 U	0.0078 U	0.0072 U
Endrin	ug/l	ND	0.0071 U	0.0071 U	0.0071 U	0.0071 U	0.0071 U	0.0071 U	0.0071 U	0.0071 U	0.0071 U	0.0071 U	0.0071 U	0.0075 U	0.0070 U
Endosulfan II	ug/l	0.1	0.0075 U	0.0075 U	0.0075 U	0.0074 U	0.0075 U	0.0075 U	0.0075 U	0.0075 U	0.0074 U	0.0075 U	0.0075 U	0.0079 U	0.0073 U
4,4-DDD	ug/l	0.3	0.0072 U	0.0072 U	0.0072 U	0.0072 U	0.0072 U	0.0072 U	0.0072 U	0.0072 U	0.0072 U	0.0072 U	0.0072 U	0.0076 U	0.0071 U
Endosulfan Sulfate	ug/l	0.1	0.0089 U	0.0089 U	0.0089 U	0.0088 U	0.0089 U	0.0089 U	0.0089 U	0.0089 U	0.0088 U	0.0089 U	0.0089 U	0.0094 U	0.0087 U
4,4-DDT	ug/l	0.2	0.0066 U	0.0066 U	0.0066 U	0.0065 U	0.0066 U	0.0066 U	0.0066 U	0.0066 U	0.0065 U	0.0066 U	0.0066 U	0.0070 U	0.0065 U
Methoxychlor	ug/l	35	0.0074 U	0.0074 U	0.0074 U	0.0073 U	0.0074 U	0.0074 U	0.0074 U	0.0074 U	0.0073 U	0.0074 U	0.0074 U	0.0078 U	0.0072 U
Endrin ketone	ug/l	5	0.0080 U	0.0080 U	0.0080 U	0.0079 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0079 U	0.0080 U	0.0080 U	0.0084 U	0.0078 U
Endrin aldehyde	ug/l	5	0.0091 U	0.0091 U	0.0091 U	0.0090 U	0.0091 U	0.0091 U	0.0091 U	0.0091 U	0.0090 U	0.0091 U	0.0091 U	0.0096 U	0.0089 U
alpha-Chlordane	ug/l	0.05	0.0078 U	0.0078 U	0.0078 U	0.0078 U	0.0078 U	0.0078 U	0.0078 U	0.0078 U	0.0078 U	0.0078 U	0.0078 U	0.0083 U	0.0077 U
gamma-Chlordane	ug/l	0.05	0.0080 U	0.0080 U	0.0080 U	0.0079 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0079 U	0.0080 U	0.0080 U	0.0085 U	0.0079 U
Toxaphene	ug/l	-	0.0928 U	0.0928 U	0.0928 U	0.0918 U	0.0928 U	0.0928 U	0.0928 U	0.0928 U	0.0918 U	0.0928 U	0.0928 U	0.0978 U	0.0909 U

Qualifiers:
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
C - Pesticide Compound where the identification has been successfully confirmed
- Above 6NYCRR Part 703.5

APPENDICES

APPENDIX A
Previous Site Investigation Figures and Data Sets

PROJECT: Brooklyn Navy Yard Facility Plan & Overall Previous Sampling Locations	DWN. BY RDW CHK. BY NM SCALE: N/A	FACILITY PLAN & OVERALL PREVIOUS SOIL SAMPLING LOCATIONS BROOKLYN NAVY YARD DEVELOPMENT CORP. Brooklyn Navy Yard Brooklyn, NY 11205	Quay Consulting QUAY CONSULTING, LLC	HYPACK TAG: ANALOG # 041506 FIELD BOOK: N/A DATE APR. 15, 2006 LINE FILE: BNY 01 FIGURE NO. 2 BROOKLYN NAVY YARD DEVELOPMENT CORP



PROJECT:
Brooklyn Navy Yard
Sampling Locations

DWN. BY RDW
CHK. BY NM
SCALE: N/A

PREVIOUS SOIL SAMPLING LOCATIONS
BROOKLYN NAVY YARD COGENERATION PROJECT
Brooklyn Navy Yard
Brooklyn, NY 11205

QUAY CONSULTING, LLC

HYPACK TAG:
ANALOG # 041506
FIELD BOOK: N/A
DATE APR. 15, 2006
LINE FILE: BNY 01
FIGURE NO. A
BROOKLYN NAVY YARD DEVELOPMENT CORP

ENSR & ROUX Subsurface Investigation

Cogeneration Partners, Building 41 & Utility Routings, 1994

	Soil Samples			Groundwater Samples	
Description of Location	Sample Designation	No. of Samples Subsurface	Surfical	Sample Designation	No. of Samples
Area 1 - Bldg. 41	A1-SR-WC-01 A1-WC-01	1	1	A1-SB2-GW-01 A1-SB3-GW-02 A1-SB5-GW-04 A1-SB6-GW-03	4
Area 2 - Alleyway between Bldg. Nos. 41 & 132	A2-ENSR-MW3-SS-02 A2-SB1-SS-01 A2-SB2-SS-01	3	0	A2-ENSR-MW3-GW-01	1
Area 3 - Between Bldg. 41 & 5 th Ave.	A3-SB1-SS-01 A3-SB1-SS-02 A3-SB2-SS-01 A3-SB2-SS-02 A3-SB3-SS-01 A3-SB3-SS-02	6	0	-	0
Area 4 - Proposed fule oil facility. Behind Dry Dock 2	A4-SB1-SS-01 A4-SB1-SS-02 A4-SB2-SS-01 A4-SB2-SS-02 A4-SB3-SS-01 A4-SB3-SS-02	6	0	-	0
Area 5 - Proposed utility routes. Shipway St. to Dry Dock Ave. past Dry Dock 4, along 5 th Ave. to Dry Dock 2	A2-ENSR-MW2-SS-01 A2-ENSR-MW2-SS-02 A5-SB1-SS-01 A5-SB2-SS-01 A5-SB3-SS-01 A5-SB4-SS-01 A5-SB5-SS-01 A5-SB6-SS-01 A5-SB7-SS-01 A5-SB9-SS-01 A5-SB10-SS-01 A5-SB13-SS-01 A5-SB15-SS-01 A5-SB16-SS-01 A5-SB17-SS-01 A5-SB18-SS-01 A5-SB20-SS-01 A5-SB21-SS-01 A5-SB22-SS-01 A5-SB23-SS-01	20	0	A2-ENSR-MW2-GW-01	1
Dry Dock No. 2	DD-1 DD-2 DD-3 DD-4 DD-5	10	0	DD-1 DD-2 DD-3 DD-4 DD-5	5
Totals	**-**	**46**	**1**	**-**	**11**

Table 1. Summary of Metals and Cyanide Analytes in Surficial Soil, Brooklyn Navy Yard

Cogeneration Partners, Building 41 & Utility Routings, 1994

Metal Analytes (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP "Action Levels" (mg/kg)	SOIl Concentration Industrial Setting* (mg/kg)	A2-ENSR-MW2-SS-01 4-6 4-94 ENSR (mg/kg)	A2-ENSR-MW2-SS-02 13-15 4-94 ENSR (mg/kg)	A2-ENSR-MW3-SS-02 13-15 4-94 ENSR (mg/kg)	A2-SB1-SS-01 4-6 4-94 ENSR (mg/kg)	A2-SB2-SS-01 4-6 4-94 ENSR (mg/kg)	A3-SB1-SS-01 2-4 4-94 ENSR (mg/kg)	A3-SB1-SS-02 2-4 4-94 ENSR (mg/kg)
								4700	4700	
Aluminum	SB	-	10,000 - 3000,000	5,110	13,600	12,900	5,520	10,400	4,270	2,730
Antinomy	SB	10	0.2 -150	6.7 U	9.9 U	9.5 U	7.1 U	7.1 U	6.8 U	6.5 U
Arsenic	7.5 or SB	9	0.1-194	4.2	13	10.1	4.2	23.7	23.7	8.6
Barium	300 or SB	400	100-3,000	67.1	59.5 B	27.4 B	34.4 B	51.2	179	83.9
Beryllium	0.16(HEAST) or SB	1	0.01-40	0.67 U	0.99 U	0.95 U	0.71 U	0.71 U	0.68 U	0.65 U
Cadmium	1 or SB	37	0.01-7	1.1 U	1.6 U	1.6 U	1.2 U	1.2 U	1.1 U	1.1 U
Calcium	SB	-	<150 - 5000,000	4,470	2,930	4,900	3,430	12,400	12,400	11,700
Chromium	10 or SB	46	5 -3,000	10.9	27.3	24.5	15.7	24.6	10.2	5.6
Cobalt	30 or SB	-	0.05-65	8.2 B	12.8 B	8.8 B	13.1	11.5 B	7.9 B	5.3 B
Copper	25 or SB	170	2-250	93.1	201	3.2 U	65.4	2.4 U	52.7	13.8
Iron	2,000 or SB	-	100 - 550,000	18,200	34,200	37,600	75,700	21,800	8,430	8,350
Lead	SB or **	1,000	1- 800	292	872	84.3	1270	76.4	58	47
Magnesium	SB	-	400 - 9,000	2,110	6,260	6,090	2,590	4340	858 B	704 B
Maganeses	SB	-	20 -18,300	279	354	497	1020	416	60.9	49.6
Mercury	0	1	0.001 - 4.6	0.51	0.61 U	0.14 U	0.38	0.12	0.32	0.29
Nickle	13 or SB	100	0.1 - 1,530	22.4	26	22.7	33.8	41.4	29.4	16.3
Potassium	SB	-	?? - 37,000	1010 B	2780	2470	956 B	1530	1290 B	905 B
Selenium	2 or SB	-	0.1 - 38	0.66 U	1 U	0.96 U	0.7 U	0.69 U	0.65 U	0.65 U
Silver	SB	5	0.01 - 8	2.2 U	3.3 U	3.2 U	2.4 U	2.4 U	0.13 U	0.13 U
Sodium	SB	-	150 - 25,000	1360	3390	1040 B	236 U	408 B	1790	841 B
Thallium	SB	-	0.1 - 0.8	0.66 U	1 U	1.3 U	0.7 U	0.69 U	1.3 U	1.3 U
vanadium	150-SB	-	3 - 500	24.3	35.7	30.7	25.9	33.8	17.4	8.5 B
Zinc	20 or SB	350	1 - 2,000	103	113	212	124	77	81.8	38.5
Cyanide	***	-	-	0.81 U	0.71 U	0.44 U	1 U	1.1 U	1.1 U	1.3

Qualifiers:

mg/kg - Milligram per kilogram

U - Not detected; detection limit shown

B - Analyte Found in associated blank as well as sample

SB - Site Background

* - Soils Concentration found in idustrial settings(McClanahan, 10/3/86)

**- Background levels of lead vary widely. Average background leverls in metropolitan and subban areas average 200 - 500 ppm

*** - Site specific condition should be taken into consideration when establishing clean up levels

Table 1. Summary of Metals and Cyanide Analytes in Surficial Soil, Brooklyn Navy Yard
Cogeneration Partners, Building 41 & Utility Routings, 1994

Metal Analytes (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP "Action Levels" (mg/kg)	SOIl Concentration Industrial Setting* (mg/kg)	A3-SB2-SS-01 4-6 4-94 ENSR (mg/kg)		A3-SB2-SS-02 13-15 4-94 ENSR (mg/kg)		A3-SB3-SS-01 13-15 4-94 ENSR (mg/kg)		A3-SB3-SS-02 4-6 4-94 ENSR (mg/kg)		A4-SB1-SS-01 4-6 4-94 ENSR (mg/kg)		A4-SB1-SS-02 2-4 4-94 ENSR (mg/kg)		A4-SB2-SS-01 2-4 4-94 ENSR (mg/kg)	
Aluminum	SB	-	10,000 - 3000,000	5,100		5,640		5,830		7,240		12,200		8,860		6,090	
Antinomy	SB	10	0.2 -150	6.7	U	6.4	U	6.6	U	6.9	U	8.4	U	7.4	U	7.2	U
Arsenic	7.5 or SB	9	0.1-194	4.3		4.4		3.9		8.2		13.1		9.4		15.2	
Barium	300 or SB	400	100-3,000	129		33.7	B	123		139		84.1		146		398	
Beryllium	0.16(HEAST) or SB	1	0.01-40	0.67	U	0.64	U	0.66	U	0.69	U	0.84	U	0.74	U	0.72	U
Cadmium	1 or SB	37	0.01-7	1.1	U	1.1	U	1.1	U	1.1	U	1.4	U	1.2	U	1.2	U
Calcium	SB	-	<150 - 5000,000	4,830		39,600		2,290		4,530		2,720		2,440		2,130	
Chromium	10 or SB	46	5 -3,000	11		10.4		10.5		25.1		23.4		17.3		12.3	
Cobalt	30 or SB	-	0.05-65	6	B	4.3	B	7.6	B	6.1	B	12.6	B	9.2	B	7.5	B
Copper	25 or SB	170	2-250	53.2		6.2		120		285		108		97.7		274	
Iron	2,000 or SB	-	100 - 550,000	11,800		8,480		19,700		15,200		32,200		23,100		22,900	
Lead	SB or **	1,000	1- 800	336		36.5		415		681		381		647		1330	
Magnesium	SB	-	400 - 9,000	1,300		3,000		2,080		2,000		4660		3,680		1,860	B
Maganeses	SB	-	20 -18,300	215		192		312		243		304		270		89.9	
Mercury	0	1	0.001 - 4.6	0.88		0.11	U	0.31		0.79		1.2	U	2.3		2	
Nickle	13 or SB	100	0.1 - 1,530	11.8		9.2		25.9		13.5		18.3		18.9		18.9	
Potassium	SB	-	?? - 37,000	693	B	729	B	1120		1070	B	2180		1760		1200	
Selenium	2 or SB	-	0.1 - 38	0.67	U	0.66	U	0.68	U	0.7	U	0.86	B	0.74	B	1.7	
Silver	SB	5	0.01 - 8	2.2		2.1	U	2.2	U	2.3	U	2.8	U	2.5	U	2.4	U
Sodium	SB	-	150 - 25,000	1010	B	958	B	1650		938	B	857	B	801	B	880	B
Thallium	SB	-	0.1 - 0.8	0.67	U	0.66	U	0.68	U	0.7	U	0.86	U	0.74	U	0.72	U
vanadium	150-SB	-	3 - 500	15.3		12.8		19.5		17.7		35.5		24.1		21.4	
Zinc	20 or SB	350	1 - 2,000	73.2		31.8		113		66.3		261		209		222	
Cyanide	***	-	-	0.79	U	1.1	U	0.51	U	0.59	U	0.66	U	0.34	U	0.34	U

Qualifiers:
mg/kg - Milligram per kilogram
U - Not detected; detection limit shown
B - Analyte Found in associated blank as well as sample
SB - Site Background
* - Soils Concentration found in idustrial settings(McClanahan, 10/3/86)
**- Background levels of lead vary widely. Average background leverls in metropolitan and subban areas average 200 - 500 ppm
*** - Site specific condition should be taken into consideration when establishing clean up levels

Table 1. Summary of Metals and Cyanide Analytes in Surficial Soil, Brooklyn Navy Yard
Cogeneration Partners, Building 41 & Utility Routings, 1994

Metal Analytes (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP "Action Levels" (mg/kg)	SOIl Concentration Industrial Setting* (mg/kg)	A4-SB2-SS-02 4-6 4/94 ENSR (mg/kg)		A4-SB3-SS-01 2-4 4/94 ENSR (mg/kg)		A4-SB3-SS-02 4-6 4/94 ENSR (mg/kg)		A5-SB1-SS-01 4-6 4/94 ENSR (mg/kg)		A5-SB2-SS-01 4-6 4/94 ENSR (mg/kg)		A5-SB3-SS-01 4-6 4/94 ENSR (mg/kg)		A5-SB4-SS-01 4-6 4/94 ENSR (mg/kg)	
Aluminum	SB	-	10,000 - 3000,000	247	U	9,940		5,800		6,010		6,340		12,800		3,140	
Antinomy	SB	10	0.2 -150	9.9	U	6.8	U	7.5	U	6	U	7.4	U	7.7	U	6.9	U
Arsenic	7.5 or SB	9	0.1-194	44.5		8.5		8.1		4.6		27.7		11.6		8.8	
Barium	300 or SB	400	100-3,000	248		130		199		44.9		128		75		81.9	
Beryllium	0.16(HEAST) or SB	1	0.01-40	0.99	U	0.68	U	0.75	U	0.6	U	0.74	U	0.77	U	0.69	U
Cadmium	1 or SB	37	0.01-7	1.6	U	1.1	U	1.2	U	1	U	1.2	U	1.3	U	1.2	U
Calcium	SB	-	<150 - 5000,000	4,200		6,240		8,630		2,370		13,500		2,080		2,140	
Chromium	10 or SB	46	5 -3,000	15		19.8		9.3		12.7		13.9		24.9		5.5	
Cobalt	30 or SB	-	0.05-65	6	B	7.5	B	5.1	B	7.1	B	7.1	B	6.8	B	6.5	B
Copper	25 or SB	170	2-250	129		124		224		50.9		1130		90.3		79.1	
Iron	2,000 or SB	-	100 - 550,000	19,300		22,300		8,730		17,000		20,900		29,300		9,610	
Lead	SB or **	1,000	1- 800	2640		279		1720		243		801		228		677	
Magnesium	SB	-	400 - 9,000	2,160		3,730		1,120	B	2,330	B	2200		4,940		1,310	
Maganeses	SB	-	20 -18,300	138		250		82.7		115		226		209		118	
Mercury	0	1	0.001 - 4.6	2.7		1.6		0.45		0.76		13		0.37		6	
Nickle	13 or SB	100	0.1 - 1,530	18.3		20.5		10.5		13.4		25.8		13.6		12.3	
Potassium	SB	-	?? - 37,000	997	B	2690		695	B	1340		1030	B	2290		584	B
Selenium	2 or SB	-	0.1 - 38	4.9		0.69	U	0.76	U	0.6	U	2.7		0.77	U	2.1	
Silver	SB	5	0.01 - 8	3.3	U	2.3	U	2.5	U	2	U	2.5	U	2.6	U	2.3	U
Sodium	SB	-	150 - 25,000	1110	B	866	B	1240	B	474	B	534	B	454	B	506	B
Thallium	SB	-	0.1 - 0.8	0.99	U	0.69	U	0.76	U	0.8	U	1	U	1	U	0.92	U
vanadium	150-SB	-	3 - 500	26.1		22.2		16.4		21.6		22.1		32.4		10.1	B
Zinc	20 or SB	350	1 - 2,000	939		331		228		128		699		200		267	
Cyanide	***	-	-	0.88	U	1.1	U	0.73	U	0.53	U	0.73	U	1.8	U	0.76	U

Qualifiers:
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Cogeneration Partners, Building 41 & Utility Routings, 1994

Metal Analytes (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP "Action Levels" (mg/kg)	SOIl Concentration Industrial Setting* (mg/kg)	A5-SB5-SS-01 4-6 4/94 ENSR (mg/kg)		A5-SB6-SS-01 4-6 4/94 ENSR (mg/kg)		A5-SB7-SS-01 4-6 4/94 ENSR (mg/kg)		A5-SB7-SS-01* 4-6 4/94 ENSR (mg/kg)		A5-SB9-SS-01 4-6 4/94 ENSR (mg/kg)		A5-SB10-SS-01 4-6 4/94 ENSR (mg/kg)		A5-SB13-SS-01 2-4 4/94 ENSR (mg/kg)	
Aluminum	SB	-	10,000 - 3000,000	6,910		2,620		6,650		11,300		9,410		9,610		10,200	
Antinomy	SB	10	0.2 -150	6.4	U	6.6	U	6.8	U	7.1	U	6.5	U	7.1	U	7.1	U
Arsenic	7.5 or SB	9	0.1-194	4.6		7.7		3.1		1.7	B	4.5		3.6		5.2	
Barium	300 or SB	400	100-3,000	56.9		93.4		85.5		165		44.9		32.2	B	44.6	B
Beryllium	0.16(HEAST) or SB	1	0.01-40	0.64	U	0.66	U	0.68	U	0.71	U	0.65	U	0.71	U	0.71	U
Cadmium	1 or SB	37	0.01-7	1.1	U	1.1	U	1.1	U	1.2	U	1.1	U	1.2	U	1.2	U
Calcium	SB	-	<150 - 5000,000	1,530		1,340		2,160		2,060		1,200		873	B	4,040	
Chromium	10 or SB	46	5 -3,000	12.4		8.4		10.6		21.4		16.2		16.1		33.5	
Cobalt	30 or SB	-	0.05-65	10.3	B	5.2	B	9.2	B	9.2	B	7.5	B	8.2	B	13.6	B
Copper	25 or SB	170	2-250	10.4		639		72.6		67.1		15.9		2.4	U	55.1	U
Iron	2,000 or SB	-	100 - 550,000	20,600		11,800		12,900		17,900		16,100		16,700		26,900	
Lead	SB or **	1,000	1- 800	271		538		472		769		152		7.4		264	
Magnesium	SB	-	400 - 9,000	2,750		322	B	1,920		3,290		2080		2,910		10,600	
Maganeses	SB	-	20 -18,300	333		27.7		105		132		137		239		202	
Mercury	0	1	0.001 - 4.6	0.44		1.1		0.36		0.4		1.9		0.1	U	0.11	U
Nickle	13 or SB	100	0.1 - 1,530	26.2		9.6		17.9		32.4		22		19.9		73	
Potassium	SB	-	?? - 37,000	959	B	232	B	823	B	1360		764	B	1010	B	1400	
Selenium	2 or SB	-	0.1 - 38	0.66	U	0.68	B	0.72	U	0.72	U	0.68		0.71	U	0.71	U
Silver	SB	5	0.01 - 8	0.15	B	0.14	U	0.14	B	0.14	U	0.14	U	0.14	U	0.14	U
Sodium	SB	-	150 - 25,000	740	B	576	B	695	B	1180	B	648	B	583	B	583	B
Thallium	SB	-	0.1 - 0.8	1.3	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U
vanadium	150-SB	-	3 - 500	19.5		12.3		18.8		39.7		22.8		22.7		22.7	
Zinc	20 or SB	350	1 - 2,000	64.2		139		115		402		126		34.4		34.4	
Cyanide	***	-	-	0.97	U	0.44	U	0.5	U	0.38	U	0.44	U	1.7		1.7	

Qualifiers:
mg/kg - Milligram per kilogram
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Cogeneration Partners, Building 41 & Utility Routings, 1994

Metal Analytes (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP "Action Levels" (mg/kg)	SOIl Concentration Industrial Setting* (mg/kg)	A5-SB15-SS-01 2-4 4/94 ENSR (mg/kg)		A5-SB16-SS-01 2-4 4/94 ENSR (mg/kg)		A5-SB17-SS-01 4-6 4/94 ENSR (mg/kg)		A5-SB17-SS-01* 4-6 4/94 ENSR (mg/kg)		A5-SB18-SS-01 2-4 4/94 ENSR (mg/kg)		A5-SB20-SS-01 4-6 4/94 ENSR (mg/kg)		A5-SB21-SS-01 2-4 4/94 ENSR (mg/kg)	
Aluminum	SB	-	10,000 - 3000,000	5,240		4,750		6,780		6,190		5,540		4,680		6,640	
Antinomy	SB	10	0.2 -150	6.5	U	6.8	U	6.5	U	6.5	U	6.2	U	6.5	U	7	U
Arsenic	7.5 or SB	9	0.1-194	3.9		4.4		2.2		2.7		1.3	B	2.8		11.1	
Barium	300 or SB	400	100-3,000	62.8		104		42.9	B	36.9	B	25	B	15.1	B	38.3	B
Beryllium	0.16(HEAST) or SB	1	0.01-40	0.65	U	0.68	U	0.65	U	0.65	U	0.62	U	0.65	U	0.7	U
Cadmium	1 or SB	37	0.01-7	1.1	U	1.1	U	1.1	U	1.1	U	1	U	1.1	U	1.2	U
Calcium	SB	-	<150 - 5000,000	14,000		5,080		4,440		2,080		955	B	759	B	889	B
Chromium	10 or SB	46	5 -3,000	8.1		9.3		12.9		12.5		8.5		8		10.2	
Cobalt	30 or SB	-	0.05-65	6.3		6.3	B	7.2	B	7.3	B	7	B	4.2	B	8.8	B
Copper	25 or SB	170	2-250	108		86.5		5.3	B	2.2	U	2.1	U	2.2	U	2.3	U
Iron	2,000 or SB	-	100 - 550,000	10,300		15,800		13,300		14,700		13,900		11,200		28,700	
Lead	SB or **	1,000	1- 800	139		444		58.8		49.5		4.6		10.7		7.1	
Magnesium	SB	-	400 - 9,000	2,420		1,940		3,430		4,310		2130		1,370		2,250	
Maganeses	SB	-	20 -18,300	162		211		355		309		130		68.4		935	
Mercury	0	1	0.001 - 4.6	0.32		0.29		0.11	U	0.11	U	0.09	U	0.1	U	0.12	U
Nickle	13 or SB	100	0.1 - 1,530	12.8		16.1		31.2		39.2		12.2		6.6	B	14.5	
Potassium	SB	-	?? - 37,000	748	B	832	B	1370		1110		755	B	522	B	758	B
Selenium	2 or SB	-	0.1 - 38	0.67	U	0.69	U	0.67	U	0.67	U	0.63	U	0.65	U	0.68	U
Silver	SB	5	0.01 - 8	2.2	U	2.3	U	2.2	U	2.2	U	2.1	U	2.2	U	2.3	U
Sodium	SB	-	150 - 25,000	419	B	400	B	611	B	641	B	271	B	292	B	401	B
Thallium	SB	-	0.1 - 0.8	0.9	U	0.92	U	0.89	U	0.89	U	0.83	U	0.86	U	0.91	U
vanadium	150-SB	-	3 - 500	10.4	B	16.4		20.6		21		11.4		14.3		19	
Zinc	20 or SB	350	1 - 2,000	101		143		141		62.6		32.5		64		40.1	
Cyanide	***	-	-	0.37	U	0.2	U	0.31	U	0.28	U	0.44	U	0.31	U	0.36	U

Qualifiers:
mg/kg - Milligram per kilogram
U - Not detected; detection limit shown
B - Analyte Found in associated blank as well as sample
SB - Site Background
* - Soils Concentration found in idustrial settings(McClanahan, 10/3/86)
**- Background levels of lead vary widely. Average background leverls in metropolitan and subban areas average 200 - 500 ppm
*** - Site specific condition should be taken into consideration when establishing clean up levels

Table 1. Summary of Metals and Cyanide Analytes in Surficial Soil, Brooklyn Navy Yard
Cogeneration Partners, Building 41 & Utility Routings, 1994

Metal Analytes (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP "Action Levels" (mg/kg)	SOIl Concentration Industrial Setting* (mg/kg)	A5-SB22-SS-01 2-4 4/94 ENSR (mg/kg)		A5-SB23-SS-01 2-4 4/94 ENSR (mg/kg)		DD-1 0-4 4/94 ENSR (mg/kg)		DD-2 0-4 4/94 ENSR (mg/kg)		DD-3 1-3 4/94 ENSR (mg/kg)	
Aluminum	SB	-	10,000 - 3000,000	7,030		3,550		6,480		3,960		5,940	
Antinomy	SB	10	0.2 -150	7.1	U	6.2	U	5.93	U	7.4	U	5.23	U
Arsenic	7.5 or SB	9	0.1-194	6.8		4.1		14.2		14		9.69	
Barium	300 or SB	400	100-3,000	66.4		16.8	B	180		246		101	
Beryllium	0.16(HEAST) or SB	1	0.01-40	0.71	U	0.62	U	1.12		5.68		0.19	U
Cadmium	1 or SB	37	0.01-7	1.2	U	1	U	2.04		2.2		0.89	
Calcium	SB	-	<150 - 5000,000	3,140		416	B	13,800		21,300		4,420	
Chromium	10 or SB	46	5 -3,000	15.9		9		28.3		50.5		19.2	
Cobalt	30 or SB	-	0.05-65	6	B	5.8	B	7.26		14.1		8.81	
Copper	25 or SB	170	2-250	17.3		2.1		448		507		193	
Iron	2,000 or SB	-	100 - 550,000	19,000		12,800		13,700		25,700		16,400	
Lead	SB or **	1,000	1- 800	791		5.1		1600		1970		388	
Magnesium	SB	-	400 - 9,000	2,540		1,130		2,680		12,000		2390	
Maganeses	SB	-	20 -18,300	290		339		92.7		244		201	
Mercury	0	1	0.001 - 4.6	0.1	U	0.1	U	27.4		3.94		0.93	
Nickle	13 or SB	100	0.1 - 1,530	15.6		10		85		97.9		27.3	
Potassium	SB	-	?? - 37,000	769	B	581	B	712		519		889	
Selenium	2 or SB	-	0.1 - 38	0.7	U	0.62	U	2.76		3.28		1	
Silver	SB	5	0.01 - 8	2.4	U	2.1	U	0.64	U	0.79	U	0.56	U
Sodium	SB	-	150 - 25,000	317	B	8000	B	376		877		6650	
Thallium	SB	-	0.1 - 0.8	0.94	U	0.82	U	0.25		0.31	U	0.18	U
vanadium	150-SB	-	3 - 500	43.2		16.3		17.2		26.5		15.3	
Zinc	20 or SB	350	1 - 2,000	198		28.8		1350		1550		281	
Cyanide	***	-	-	0.39	U	0.65	U	3.4	U	4	U	2.9	U

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SB - Site Background
* - Soils Concentration found in idustrial settings(McClanahan, 10/3/86)
**- Background levels of lead vary widely. Average background leverls in metropolitan and subban areas average 200 - 500 ppm

Table 2. Summary of Volatile Organics in Surficial Soil, Brooklyn Navy Yard
Cogeneration Partners, Building 41 & Utility Routings, 1994

Volatile Organic Compounds (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (ug/kg)	A2-ENSER-MW2-SS-01 4-6 4/94 ENSER (ug/kg)	A2-ENSR-MW2-SS-01-RE 4-6 4/94 ENSER (ug/kg)	A2-ENSR-MW2-SS-02 13-15 4/94 ENSER (ug/kg)	A2-ENSR-MW3-SS-02 13-15 4/94 ENSER (ug/kg)	A2-SB1-SS-01 4-6 4/94 ENSER (ug/kg)	A2-SB2-SS-01 4-6 4/94 ENSER (ug/kg)	A3-SB2-SS-01 2-4 4/94 ENSER (ug/kg)
Chloromethane	-	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
Bromomethane	-	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
Vinyl Chloride	200	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
Chloroethane	1900	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
Methylene Chloride	100	36 JB	59 J	17 JB	22 JB	25 JB	1400 U	18 JB
Acetone	200	76 JB	79 J	65 JB	68 JB	50 JB	4600 JB	28 JB
Carbon Disulfide	200	11 U	11 U	17 U	2 J	12 U	1400 U	11 U
1,1-Dichloroethene	400	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
1,1-Dichloroethane	200	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
1,2-Dichloroethene (total)	300	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
Chloroform	300	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
1,2-Dichloroethane	100	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
2-Butanone	300	11 U	11 U	17 U	3 J	12 U	1400 U	11 U
1,1,1-Trichloroethane	800	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
Carbon Tetrachloride	600	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
Vinyl Acetate	-	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	-	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
1,2-Dichloropropane	-	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
cis-1,3-Dichloropropene	-	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
Trichloroethene	700	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
Dibromochloromethane	-	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
1,1,2-Trichloroethane	-	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
Benzene	60	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
trans-1,3-Dichloropropene	-	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
Bromoform	-	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
4-Methyl-2-pentanone	1000	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
2-Hexanone	-	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
Tetrachloroethene	1400	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
1,1,2,2-Tetrachloroethane	600	11 U3B	11 U	17 U	14 U	12 U	1400 U	11 U
Toluene	1500	2 J	11 U	17 U	14 U	12 U	1400 U	11 U
Chlorobenzene	1700	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
Ethylbenzene	5500	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
Styrene	-	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
Xylene (total)	1200	11 U	11 U	17 U	14 U	12 U	1400 U	11 U

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
B - Analyte found in associated blank as well as sample

Table 2. Summary of Volatile Organics in Surficial Soil, Brooklyn Navy Yard
Cogeneration Partners, Building 41 & Utility Routings, 1994

Volatile Organic Compounds (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (ug/kg)	A3-SB2-SS-02 4-6 4/94 ENSER (ug/kg)	A3-SB2-SS-02-RE 4-6 4/94 ENSER (ug/kg)	A3-SB3-SS-01 2-4 4/94 ENSER (ug/kg)	A3-SB3-SS-02 4-6 4/94 ENSER (ug/kg)	A3-SB3-SS-02-RE 4-6 4/94 ENSER (ug/kg)	A4-SB1-SS-01 2-4 4/94 ENSER (ug/kg)	A4-SB1-SS-02 4-6 4/94 ENSER (ug/kg)
Chloromethane	-	11 U	11 U	57 U	12 U	12 U	13 U	14 U
Bromomethane	-	11 U	11 U	57 U	12 U	12 U	13 U	14 U
Vinyl Chloride	200	11 U	11 U	57 U	12 U	12 U	13 U	14 U
Chloroethane	1900	11 U	11 U	57 U	12 U	12 U	13 U	14 U
Methylene Chloride	100	21 JB	37 J	76 JB	160 JB	130 J	91 JB	100 JB
Acetone	200	34 JB	36 J	570 JB	130 JB	110 J	88 JB	170 JB
Carbon Disulfide	200	11 U	11 U	57 U	12 U	12 U	13 U	2 J
1,1-Dichloroethene	400	11 U	11 U	57 U	12 U	12 U	13 U	14 U
1,1-Dichloroethane	200	11 U	11 U	57 U	12 U	12 U	13 U	14 U
1,2-Dichloroethene (total)	300	11 U	11 U	57 U	12 U	12 U	13 U	14 U
Chloroform	300	11 U	11 U	57 U	12 U	12 U	13 U	14 U
1,2-Dichloroethane	100	11 U	11 U	57 U	12 U	12 U	13 U	14 U
2-Butanone	300	11 U	11 U	57 U	12 U	12 U	13 U	14 U
1,1,1-Trichloroethane	800	11 U	11 U	57 U	12 U	12 U	13 U	14 U
Carbon Tetrachloride	600	11 U	11 U	57 U	12 U	12 U	13 U	14 U
Vinyl Acetate	-	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	-	11 U	11 U	57 U	12 U	12 U	13 U	14 U
1,2-Dichloropropane	-	11 U	11 U	57 U	12 U	12 U	13 U	14 U
cis-1,3-Dichloropropene	-	11 U	11 U	57 U	12 U	12 U	13 U	14 U
Trichloroethene	700	11 U	11 U	57 U	12 U	12 U	13 U	14 U
Dibromochloromethane	-	11 U	11 U	57 U	12 U	12 U	13 U	14 U
1,1,2-Trichloroethane	-	11 U	11 U	57 U	12 U	12 U	13 U	14 U
Benzene	60	11 U	11 U	57 U	4 J	4 J	13 U	14 U
trans-1,3-Dichloropropene	-	11 U	11 U	57 U	12 U	12 U	13 U	14 U
Bromoform	-	11 U	11 U	57 U	12 U	12 U	13 U	14 U
4-Methyl-2-pentanone	1000	11 U	11 U	57 U	12 U	12 U	13 U	14 U
2-Hexanone	-	11 U	11 U	57 U	12 U	12 U	13 U	14 U
Tetrachloroethene	1400	11 U	11 U	57 U	12 U	12 U	13 U	14 U
1,1,2,2-Tetrachloroethane	600	11 U	11 U	57 U	12 U	12 U	13 U	14 U
Toluene	1500	2 J	1 J	57 U	12 U	12 U	13 U	14 U
Chlorobenzene	1700	11 U	11 U	57 U	12 U	12 U	13 U	14 U
Ethylbenzene	5500	11 U	11 U	57 U	12 U	2 J	13 U	14 U
Styrene	-	11 U	11 U	57 U	12 U	12 U	13 U	14 U
Xylene (total)	1200	11 U	11 U	57 U	5 J	6 J	13 U	14 U

Qualifiers:
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U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
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Table 2. Summary of Volatile Organics in Surficial Soil, Brooklyn Navy Yard
Cogeneration Partners, Building 41 & Utility Routings, 1994

Volatile Organic Compounds (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (ug/kg)	A4-SB2-SS-01 2-4 4/94 ENSER (ug/kg)	A4-SB2-SS-01-RE 2-4 4/94 ENSER (ug/kg)	A4-SB2-SS-02 4-6 4/94 ENSER (ug/kg)	A4-SB3-SS-01 2-4 4/94 ENSER (ug/kg)	A4-SB3-SS-01-RE 2-4 4/94 ENSER (ug/kg)	A4-SB3-SS-02 4-6 4/94 ENSER (ug/kg)	A4-SB3-SS-02-RE 4-6 4/94 ENSER (ug/kg)
Chloromethane	-	12 U	12 U	13 U	12 U	12 U	14 U	14 U
Bromomethane	-	12 U	12 U	13 U	12 U	12 U	14 U	14 U
Vinyl Chloride	200	12 U	12 U	13 U	12 U	12 U	14 U	14 U
Chloroethane	1900	12 U	12 U	13 U	12 U	12 U	14 U	14 U
Methylene Chloride	100	62 JB	48 J	80 JB	99 JB	46 J	46 JB	23 J
Acetone	200	1900 JBE	3200 J	45 JB	41 JB	5 J	17 JB	14 U
Carbon Disulfide	200	12 U	12 U	13 U	12 U	12 U	14 U	14 U
1,1-Dichloroethene	400	12 U	12 U	13 U	12 U	12 U	14 U	14 U
1,1-Dichloroethane	200	12 U	12 U	13 U	12 U	12 U	14 U	14 U
1,2-Dichloroethene (total)	300	12 U	12 U	13 U	12 U	12 U	14 U	14 U
Chloroform	300	12 U	12 U	13 U	12 U	12 U	14 U	14 U
1,2-Dichloroethane	100	12 U	12 U	13 U	12 U	12 U	14 U	14 U
2-Butanone	300	12 U	12 U	3 J	12 U	2 J	14 U	14 U
1,1,1-Trichloroethane	800	12 U	12 U	13 U	12 U	12 U	14 U	14 U
Carbon Tetrachloride	600	12 U	12 U	13 U	12 U	12 U	14 U	14 U
Vinyl Acetate	-	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	-	12 U	12 U	13 U	12 U	12 U	14 U	14 U
1,2-Dichloropropane	-	12 U	12 U	13 U	12 U	12 U	14 U	14 U
cis-1,3-Dichloropropene	-	12 U	12 U	13 U	12 U	12 U	14 U	14 U
Trichloroethene	700	12 U	12 U	13 U	12 U	12 U	14 U	14 U
Dibromochloromethane	-	12 U	12 U	13 U	12 U	12 U	14 U	14 U
1,1,2-Trichloroethane	-	12 U	12 U	13 U	12 U	12 U	14 U	14 U
Benzene	60	12 U	12 U	13 U	12 U	12 U	14 U	14 U
trans-1,3-Dichloropropene	-	12 U	12 U	13 U	12 U	12 U	14 U	14 U
Bromoform	-	12 U	12 U	13 U	12 U	12 U	14 U	14 U
4-Methyl-2-pentanone	1000	12 U	12 U	13 U	12 U	12 U	14 U	14 U
2-Hexanone	-	12 U	12 U	13 U	12 U	12 U	14 U	14 U
Tetrachloroethene	1400	12 U	12 U	13 U	12 U	12 U	14 U	14 U
1,1,2,2-Tetrachloroethane	600	12 U	12 U	13 U	12 U	12 U	14 U	14 U
Toluene	1500	12 U	2 J	13 U	12 U	12 U	14 U	14 U
Chlorobenzene	1700	12 U	12 U	13 U	12 U	12 U	14 U	14 U
Ethylbenzene	5500	12 U	12 U	13 U	12 U	12 U	14 U	14 U
Styrene	-	12 U	12 U	13 U	12 U	12 U	14 U	14 U
Xylene (total)	1200	12 U	12 U	2 J	12 U	12 U	14 U	14 U

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D - Compound identified at a secondary dilution
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Table 2. Summary of Volatile Organics in Surficial Soil, Brooklyn Navy Yard
Cogeneration Partners, Building 41 & Utility Routings, 1994

Volatile Organic Compounds (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (ug/kg)	A5-SB1-SS-01 4-6 4/94 ENSER (ug/kg)	A5-SB2-SS-01 4-6 4/94 ENSER (ug/kg)	A5-SB2-SS-01-RE 4-6 4/94 ENSER (ug/kg)	A5-SB3-SS-01 4-6 4/94 ENSER (ug/kg)	A5-SB4-SS-01 4-6 4/94 ENSER (ug/kg)	A5-SB5-SS-01 4-6 4/94 ENSER (ug/kg)	A5-SB6-SS-01 4-6 4/94 ENSER (ug/kg)
Chloromethane	-	13 U	12 U	12 U	12 U	12 U	11 U	12 U
Bromomethane	-	13 U	12 U	12 U	12 U	12 U	11 U	12 U
Vinyl Chloride	200	13 U	12 U	12 U	12 U	12 U	11 U	12 U
Chloroethane	1900	13 U	12 U	12 U	12 U	12 U	11 U	12 U
Methylene Chloride	100	110 JB	34 JB	32 J	44 JB	49 JB	11	16
Acetone	200	120 JB	2000 JBE	1700 J	100 JB	64 JB	11 U	96
Carbon Disulfide	200	13 U	12 U	12 U	12 U	12 U	11 U	12 U
1,1-Dichloroethene	400	13 U	12 U	12 U	12 U	12 U	11 U	12 U
1,1-Dichloroethane	200	13 U	12 U	12 U	12 U	12 U	11 U	12 U
1,2-Dichloroethene (total)	300	13 U	12 U	12 U	12 U	12 U	11 U	12 U
Chloroform	300	13 U	12 U	12 U	12 U	12 U	11 U	12 U
1,2-Dichloroethane	100	13 U	12 U	12 U	12 U	12 U	11 U	12 U
2-Butanone	300	13 U	12 U	12 U	11 J	12 U	11 U	12 U
1,1,1-Trichloroethane	800	13 U	12 U	12 U	12 U	12 U	11 U	12 U
Carbon Tetrachloride	600	13 U	12 U	12 U	12 U	12 U	11 U	12 U
Vinyl Acetate	-	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	-	13 U	12 U	12 U	12 U	12 U	11 U	12 U
1,2-Dichloropropane	-	13 U	12 U	12 U	12 U	12 U	11 U	12 U
cis-1,3-Dichloropropene	-	13 U	12 U	12 U	12 U	12 U	11 U	12 U
Trichloroethene	700	13 U	12 U	12 U	12 U	12 U	11 U	12 U
Dibromochloromethane	-	13 U	12 U	12 U	12 U	12 U	11 U	12 U
1,1,2-Trichloroethane	-	13 U	12 U	12 U	12 U	12 U	11 U	12 U
Benzene	60	13 U	12 U	12 U	12 U	12 U	11 U	12 U
trans-1,3-Dichloropropene	-	13 U	12 U	12 U	12 U	12 U	11 U	12 U
Bromoform	-	13 U	12 U	12 U	12 U	12 U	11 U	12 U
4-Methyl-2-pentanone	1000	13 U	12 U	12 U	12 U	12 U	11 U	12 U
2-Hexanone	-	13 U	12 U	12 U	12 U	12 U	11 U	12 U
Tetrachloroethene	1400	13 U	12 U	12 U	12 U	12 U	11 U	12 U
1,1,2,2-Tetrachloroethane	600	13 U	12 U	12 U	12 U	12 U	11 U	12 U
Toluene	1500	13 U	12 U	12 U	12 U	12 U	2 J	12 U
Chlorobenzene	1700	13 U	12 U	12 U	12 U	12 U	2 JB	12 U
Ethylbenzene	5500	13 U	12 U	12 U	12 U	12 U	11 U	12 U
Styrene	-	13 U	12 U	12 U	12 U	12 U	11 U	12 U
Xylene (total)	1200	13 U	12 U	12 U	12 U	2 J	11 U	12 U

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Table 2. Summary of Volatile Organics in Surficial Soil, Brooklyn Navy Yard
Cogeneration Partners, Building 41 & Utility Routings, 1994

Volatile Organic Compounds (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (ug/kg)	A5-SB7-SS-01 4-6 4/94 ENSER (ug/kg)	A5-SB7-SS-01* 4-6 4/94 ENSER (ug/kg)	A5-SB9-SS-01 4-6 4/94 ENSER (ug/kg)	A5-SB10-SS-01 4-6 4/94 ENSER (ug/kg)	A5-SB13-SS-01 4-6 4/94 ENSER (ug/kg)	A5-SB15-SS-01 4-6 4/94 ENSER (ug/kg)	A5-SB15-SS-01-RE 4-6 4/94 ENSER (ug/kg)
Chloromethane	-	12 U	11 U	11 U	11 U	12 U	11 U	11 U
Bromomethane	-	12 U	11 U	11 U	11 U	12 U	11 U	11 U
Vinyl Chloride	200	12 U	11 U	11 U	11 U	12 U	11 U	11 U
Chloroethane	1900	12 U	11 U	11 U	11 U	12 U	11 U	11 U
Methylene Chloride	100	10 J	6 J	8 J	3 J	15 JB	38 JB	24 J
Acetone	200	120	120	11 U	11 U	35	110	120
Carbon Disulfide	200	12 U	11 U	11 U	11 U	12 U	11 U	11 U
1,1-Dichloroethene	400	12 U	11 U	11 U	11 U	12 U	11 U	11 U
1,1-Dichloroethane	200	12 U	11 U	11 U	11 U	12 U	11 U	11 U
1,2-Dichloroethene (total)	300	12 U	11 U	11 U	11 U	12 U	11 U	11 U
Chloroform	300	12 U	11 U	11 U	11 U	12 U	11 U	11 U
1,2-Dichloroethane	100	12 U	11 U	11 U	11 U	12 U	11 U	11 U
2-Butanone	300	12 U	11 U	11 U	11 U	12 U	11 U	11 U
1,1,1-Trichloroethane	800	12 U	11 U	11 U	11 U	12 U	11 U	11 U
Carbon Tetrachloride	600	12 U	11 U	11 U	11 U	12 U	11 U	11 U
Vinyl Acetate	-	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	-	12 U	11 U	11 U	11 U	12 U	11 U	11 U
1,2-Dichloropropane	-	12 U	11 U	11 U	11 U	12 U	11 U	11 U
cis-1,3-Dichloropropene	-	12 U	11 U	11 U	11 U	12 U	11 U	11 U
Trichloroethene	700	12 U	11 U	11 U	11 U	12 U	11 U	11 U
Dibromochloromethane	-	12 U	11 U	11 U	11 U	12 U	11 U	11 U
1,1,2-Trichloroethane	-	12 U	11 U	11 U	11 U	12 U	11 U	11 U
Benzene	60	12 U	11 U	11 U	11 U	12 U	11 U	11 U
trans-1,3-Dichloropropene	-	12 U	11 U	11 U	11 U	12 U	11 U	11 U
Bromoform	-	12 U	11 U	11 U	11 U	12 U	11 U	11 U
4-Methyl-2-pentanone	1000	12 U	11 U	11 U	11 U	12 U	11 U	11 U
2-Hexanone	-	12 U	11 U	11 U	11 U	12 U	11 U	11 U
Tetrachloroethene	1400	12 U	11 U	11 U	11 U	12 U	11 U	11 U
1,1,2,2-Tetrachloroethane	600	12 U	11 U	11 U	11 U	12 U	11 U	11 U
Toluene	1500	12 U	11 U	11 U	11 U	12 U	1 J	11 U
Chlorobenzene	1700	12 U	11 U	11 U	11 U	12 U	11 U	11 U
Ethylbenzene	5500	12 U	11 U	11 U	11 U	12 U	11 U	11 U
Styrene	-	12 U	11 U	11 U	11 U	12 U	11 U	11 U
Xylene (total)	1200	12 U	11 U	11 U	11 U	12 U	11 U	11 U

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
B - Analyte found in associated blank as well as sample

Table 2. Summary of Volatile Organics in Surficial Soil, Brooklyn Navy Yard
Cogeneration Partners, Building 41 & Utility Routings, 1994

Volatile Organic Compounds (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (ug/kg)	A5-SB17-SS-01 4-6 4/94 ENSER (ug/kg)	A5-SB17-SS-01* 4-6 4/94 ENSER (ug/kg)	A5-SB18-SS-01 4-6 4/94 ENSER (ug/kg)	A5-SB20-SS-01 4-6 4/94 ENSER (ug/kg)	A5-SB21-SS-01 4-6 4/94 ENSER (ug/kg)	A5-SB22-SS-01 4-6 4/94 ENSER (ug/kg)	A5-SB23-SS-01 4-6 4/94 ENSER (ug/kg)
Chloromethane	-	11 U	11 U	21 U	12 U	11 U	13 U	11 U
Bromomethane	-	11 U	11 U	21 U	12 U	11 U	13 U	11 U
Vinyl Chloride	200	11 U	11 U	21 U	12 U	11 U	13 U	11 U
Chloroethane	1900	11 U	11 U	21 U	12 U	11 U	13 U	11 U
Methylene Chloride	100	14 JB	20 J	32 JB	19 JB	18 JB	23 JB	12 JB
Acetone	200	27	26 J	91 JB	28 JB	180 JB	24 JB	69 JB
Carbon Disulfide	200	11 U	11 U	21 U	12 U	11 U	13 U	11 U
1,1-Dichloroethene	400	11 U	11 U	21 U	12 U	11 U	13 U	11 U
1,1-Dichloroethane	200	11 U	11 U	21 U	12 U	11 U	13 U	11 U
1,2-Dichloroethene (total)	300	11 U	11 U	21 U	12 U	11 U	13 U	11 U
Chloroform	300	11 U	11 U	21 U	12 U	11 U	13 U	11 U
1,2-Dichloroethane	100	11 U	11 U	21 U	12 U	11 U	13 U	11 U
2-Butanone	300	11 U	11 U	21 U	12 U	11 U	13 U	11 U
1,1,1-Trichloroethane	800	11 U	11 U	21 U	12 U	11 U	13 U	11 U
Carbon Tetrachloride	600	11 U	11 U	21 U	12 U	11 U	13 U	11 U
Vinyl Acetate	-	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	-	11 U	11 U	21 U	12 U	11 U	13 U	11 U
1,2-Dichloropropane	-	11 U	11 U	21 U	12 U	11 U	13 U	11 U
cis-1,3-Dichloropropene	-	11 U	11 U	21 U	12 U	11 U	13 U	11 U
Trichloroethene	700	2 J	11 U	21 U	12 U	11 U	13 U	11 U
Dibromochloromethane	-	11 U	11 U	21 U	12 U	11 U	13 U	11 U
1,1,2-Trichloroethane	-	11 U	11 U	21 U	12 U	11 U	13 U	11 U
Benzene	60	11 U	11 U	21 U	12 U	11 U	13 U	11 U
trans-1,3-Dichloropropene	-	11 U	11 U	21 U	12 U	11 U	13 U	11 U
Bromoform	-	11 U	11 U	21 U	12 U	11 U	13 U	11 U
4-Methyl-2-pentanone	1000	11 U	11 U	21 U	12 U	11 U	13 U	11 U
2-Hexanone	-	11 U	11 U	21 U	12 U	11 U	13 U	11 U
Tetrachloroethene	1400	11 U	11 U	21 U	12 U	11 U	13 U	11 U
1,1,2,2-Tetrachloroethane	600	11 U	11 U	21 U	12 U	11 U	13 U	11 U
Toluene	1500	11 U	11 U	21 U	12 U	11 U	13 U	11 U
Chlorobenzene	1700	11 U	11 U	21 U	12 U	11 U	13 U	11 U
Ethylbenzene	5500	11 U	11 U	21 U	12 U	11 U	13 U	11 U
Styrene	-	11 U	11 U	21 U	12 U	11 U	13 U	11 U
Xylene (total)	1200	11 U	11 U	21 U	12 U	11 U	13 U	11 U

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
B - Analyte found in associated blank as well as sample

Table 3. Summary of Semivolatile Organic Compounds in Surficial Soil, Brooklyn Navy Yard, New York.
Cogeneration Project, April 1994, Sampleed By ENSR, Present by Roux Associates

Semivolatile Organic Compounds (Concentration in ug/kg)	NYSDEC Recommended Soil Cleanup Objectives (ug/kg)	ATSDR Background Soil Concentrations PAHs in Urban Soils (ug/kg)	A2-ENSR-MW2-SS-01 4-6 4/94 ENSR (ug/kg)	A2-ENSR-MW2-SS-02 13-15 4/94 ENSR (ug/kg)	A2-ENSR-MW3-SS-02 13-15 4/94 ENSR (ug/kg)	A2-ENSR-MW3-SS-02-RE 13-15 4/94 ENSR (ug/kg)	A2-SB1-SS-01 4-6 4/94 ENSR (ug/kg)	A2-SB1-SS-01-RE 4-6 4/94 ENSR (ug/kg)	A2-SB2-SS-01 4-6 4/94 ENSR (ug/kg)	A2-SB2-SS-01-RE 4-6 4/94 ENSR (ug/kg)
Phenol	30 or MDL	-	370 U	570 U	480 U	28 J	400 U	400 U	370 U	370 U
bis (2-chlorethyl) ether	-	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
2-Chlorophenol	800	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
1,3-Dichlorobenzene	-	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
1,4-Dichlorobenzene	-	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
Benzyl alcohol			NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	-	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
2-Mehylphenol	100	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
2,2'-oxybis (1-Chloropropane)	-	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
bis(2-Chloroisopropyl)ether	-	-	NA	NA	NA	NA	NA	NA	NA	NA
4-Mehylphenol	900	-	370 U	180 J	710	690	400 U	400 U	370 U	370 U
N-Nitoso-di-n-propylamine	-	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
Hexachloroethane	-	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
Nitrobenzene	200	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
Isophorone	4,400	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
2-Nitrophenol	330	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
2,4-Dimenthylphnol	-	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
Benzoic Acid	-	-	NA	NA	NA	NA	NA	NA	NA	NA
bis (2-Chloroethoxy) methane	-	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
2,4-Dichlorophenol	400	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
1,2,4-Trichlorobenzene	-	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
Naphthalene	13,000	-	370 U	40 J	49 J	54 J	400 U	400 U	35 J	35 J
4-Chloroaniline	220	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
Hexachlorobutadiene	410	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
4-Chloro-3-Methylphenol	240	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
2-Methylnaphthalene	36,400	-	370 U	570 U	48 J	52 J	400 U	400 U	40 J	40 J
Hexachlorocyclopentadiene	-	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
2,4,6-Trichlorophenol	-	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
2,4,5-Trichlorophenol	100	-	890 U	1400 U	1200 U	1200 U	960 U	960 U	910 U	910 U
2-Chloronaphthalene	-	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
2-Nitroaniline	430	-	890 U	1400 U	1200 U	1200 U	960 U	960 U	910 U	910 U
Dimethyl phthalate	2,000	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
Acenaphthylene	50,000	-	370 U	570 U	26 J	31 J	400 U	400 U	370 U	370 U
2,6-Dinitotoluene	1,000	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
3-Nitroaniline	500	-	890 U	1400 U	1200 U	1200 U	960 U	960 U	910 U	910 U
Acenaphthene	50,000	-	370 U	570 U	86 J	100 J	400 U	400 U	72 J	70 J
2,4-Dinitrophenol	200	-	890 U	1400 U	1200 U	1200 U	960 U	960 U	910 U	910 U
4-Nitrophenol	100	-	890 U	1400 U	1200 U	1200 U	960 U	960 U	910 U	910 U
Dibenzofuran	6,200	-	370 U	29 J	99 J	110 J	400 U	400 U	63 J	61 J
2,4-Dinitrotoluene	-	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
Diethylphthalate	7,100	-	370 U	570 U	49 J	56 J	400 U	400 U	370 U	370 U
4-Chlorophenyl-phenylether	-	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
Flourene	50,000	-	370 U	51 J	240 J	240 J	400 U	400 U	92 J	88 J
4-Nitoaniline	-	-	890 U	1400 U	1200 U	1200 U	960 U	960 U	910 U	910 U
4,6-Dinitro-2-methylphenol	-	-	890 U	1400 U	1200 U	1200 U	960 U	960 U	910 U	910 U
N-Nitrosodiphenylamine	-	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
4-Bromophenyl-phenylether	-	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
Hexachlorobenzene	410	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
Pentachlorophenol	1,000	-	890 U	1400 U	1200 U	1200 U	960 U	960 U	910 U	910 U
Phenanthrene	50,000	-	140 J	220 J	1300	1300	46 J	46 J	150 J	150 J
Anthracene	50,000	-	370 U	61 J	240 J	230 J	400 U	400 U	25 J	22 J
Carbazole	-	-	370 U	570 U	54 J	43 J	400 U	400 U	370 U	370 U
Di-n-butylphthalate	8,100	-	370 U	570 U	120 J	140 J	400 U	400 U	370 U	21 J
Fluoranthene	50,000	200 - 166,000	200 J	260 J	1100	1200	47 J	45 J	160 J	170 J
Pyrene	50,000	145 - 147,000	180 J	280 J	1800	1800	60 J	71 J	220 J	210 J
Butylbenzylphthalate	50,000	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
3,3'-Dichlorobenzidine	-	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
Benzo(a)anthracene	224 or MDL	169 - 59,000	130 J	150 J	690	690	25 J	28 J	110 J	99 J
Chrysene	400	251 - 640	160 J	160 J	760	780	49 J	51 J	140 J	140 J
bis(2-ethylhexyl) phthalate	50,000	-	48 JB	670 JB	110 J	120 J	110 JB	100 J	130 JB	150 J
Di-n-octyl phthalate	50,000	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
Benzo (b) fluoranthene	1,100	15,000 - 62,000	130 J	120 J	600	730	58 J	30 J	120 J	110 J
Benzo (k) fluoranthene	1,100	300 - 26,000	110 J	130 J	460 J	450 J	400 U	40 J	91 J	100 J
Benzo (a) pyrene	61 or MDL	165 - 220	99 J	98 J	570	580	27 J	27 J	84 J	77 J
Indeno (1,2,3-cd) pyrene	3,200	8,000 - 61,000	49 J	43 J	310 J	260 J	400 U	400 U	86 J	85 J
Dibenzo(a,h) anthracene	14 or MDL	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
Benzo (g,h,i) perylene	50,000	900 - 47,000	19 J	570 U	280 J	230 J	400 U	400 U	32 J	38 J

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution

Table 3. Summary of Semivolatile Organic Compounds in Surficial Soil, Brooklyn Navy Yard, New York. Continued
Cogeneration Project, April 1994, Sampleed By ENSR, Present by Roux Associates

Semivolatile Organic Compounds (Concentration in ug/kg)	NYSDEC Recommended Soil Cleanup Objectives (ug/kg)	ATSDR Background Soil Concentrations PAHs in Urban Soils (ug/kg)	A3-SB2-SS-01 2-4 4/94 ENSR (ug/kg)	A3-SB2-SS-02 4-6 4/94 ENSR (ug/kg)	A2-SB3-SS-01 2-4 4/94 ENSR (ug/kg)	A3-SB3-SS-01-RE 2-4 4/94 ENSR (ug/kg)	A3-SB3-SS-02 4-6 4/94 ENSR (ug/kg)	A3-SB3-SS-02-RE 4-6 4/94 ENSR (ug/kg)	A3-SB3-SS-02-DL 4-6 4/94 ENSR (ug/kg)	A4-SB1-SS-02-DLRE 2-4 4/94 ENSR (ug/kg)	A4-SB1-SS-01 2-4 4/94 ENSR (ug/kg)
Phenol	30 or MDL	-	380 U	370 U	370 U	370 U	390 U	390 U	790 U	790 U	440 U
bis (2-chlorethyl) ether	-	-	380 U	370 U	370 U	370 U	390 U	390 U	790 U	790 U	440 U
2-Chlorophenol	800	-	380 U	370 U	370 U	370 U	390 U	390 U	790 U	790 U	440 U
1,3-Dichlorobenzene	-	-	380 U	370 U	370 U	370 U	390 U	390 U	790 U	790 U	440 U
1,4-Dichlorobenzene	-	-	380 U	370 U	370 U	370 U	390 U	390 U	790 U	790 U	440 U
Benzyl alcohol			NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	-	-	380 U	370 U	370 U	370 U	390 U	390 U	790 U	790 U	440 U
2-Mehylphenol	100	-	380 U	370 U	370 U	370 U	390 U	390 U	790 U	790 U	440 U
2,2'-oxybis (1-Chloropropane)	-	-	380 U	370 U	370 U	370 U	390 U	390 U	790 U	790 U	440 U
bis(2-Chloroisopropyl)ether	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Mehylphenol	900	-	380 U	370 U	370 U	370 U	64 J	57 J	59 J	790 U	440 U
N-Nitoso-di-n-propylamine	-	-	380 U	370 U	370 U	370 U	390 U	390 U	790 U	790 U	440 U
Hexachloroethane	-	-	380 U	370 U	370 U	370 U	390 U	390 U	790 U	790 U	440 U
Nitrobenzene	200	-	380 U	370 U	370 U	370 U	390 U	390 U	790 U	790 U	440 U
Isophorone	4,400	-	380 U	370 U	370 U	370 U	390 U	390 U	790 U	790 U	440 U
2-Nitrophenol	330	-	380 U	370 U	370 U	370 U	390 U	390 U	790 U	790 U	440 U
2,4-Dimenthylphnol	-	-	380 U	370 U	370 U	370 U	29 J	390 U	790 U	790 U	440 U
Benzoic Acid	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis (2-Chloroethoxy) methane	-	-	380 U	370 U	370 U	370 U	390 U	390 U	790 U	790 U	440 U
2,4-Dichlorophenol	400	-	380 U	370 U	370 U	370 U	390 U	390 U	790 U	790 U	440 U
1,2,4-Trichlorobenzene	-	-	380 U	370 U	370 U	370 U	390 U	390 U	790 U	790 U	440 U
Naphthalene	13,000	-	380 U	370 U	54 J	60 J	190 J	200 J	210 J	210 J	62 J
4-Chloroaniline	220	-	380 U	370 U	370 U	370 U	390 U	390 U	790 U	790 U	440 U
Hexachlorobutadiene	410	-	380 U	370 U	370 U	370 U	390 U	390 U	790 U	790 U	440 U
4-Chloro-3-Methylphenol	240	-	380 U	370 U	370 U	370 U	390 U	390 U	790 U	790 U	440 U
2-Methylnaphthalene	36,400	-	380 U	370 U	40 J	43 J	100 J	110 J	120 J	110 J	45 J
Hexachlorocyclopentadiene	-	-	380 U	370 U	370 U	370 U	390 U	390 U	790 U	790 U	440 U
2,4,6-Trichlorophenol	-	-	380 U	370 U	370 U	370 U	390 U	390 U	790 U	790 U	440 U
2,4,5-Trichlorophenol	100	-	920 U	890 U	910 U	910 U	950 U	950 U	1900 U	1900 U	1100 U
2-Chloronaphthalene	-	-	380 U	370 U	370 U	370 U	390 U	390 U	790 U	790 U	440 U
2-Nitroaniline	430	-	920 U	890 U	910 U	910 U	950 U	950 U	1900 U	1900 U	1100 U
Dimethyl phthalate	2,000	-	380 U	370 U	370 U	370 U	390 U	390 U	790 U	790 U	440 U
Acenaphthylene	50,000	-	380 U	370 U	370 U	370 U	93 J	100 J	98 J	110 J	440 U
2,6-Dinitotoluene	1,000	-	380 U	370 U	370 U	370 U	390 U	390 U	790 U	790 U	440 U
3-Nitroaniline	500	-	920 U	890 U	910 U	910 U	950 U	950 U	1900 U	1900 U	1100 U
Acenaphthene	50,000	-	380 U	370 U	40 J	46 J	58 J	47 J	57 J	49 J	440 U
2,4-Dinitrophenol	200	-	920 U	890 U	910 U	910 U	950 U	950 U	1900 U	1900 U	1100 U
4-Nitrophenol	100	-	920 U	890 U	910 U	910 U	950 U	950 U	1900 U	1900 U	1100 U
Dibenzofuran	6,200	-	380 U	370 U	40 J	42 J	160 J	170 J	170 J	170 J	35 J
2,4-Dinitrotoluene	-	-	380 U	370 U	370 U	370 U	390 U	390 U	790 U	790 U	440 U
Diethylphthalate	7,100	-	380 U	370 U	52 J	58 J	390 U	390 U	790 U	790 U	34 J
4-Chlorophenyl-phenylether	-	-	380 U	370 U	370 U	370 U	390 U	390 U	790 U	790 U	440 U
Flourene	50,000	-	380 U	370 U	49 J	46 J	160 J	170 J	180 J	180 J	36 J
4-Nitoaniline	-	-	920 U	890 U	910 U	910 U	950 U	950 U	1900 U	1900 U	1100 U
4,6-Dinitro-2-methylphenol	-	-	920 U	890 U	910 U	910 U	950 U	950 U	1900 U	1900 U	1100 U
N-Nitrosodiphenylamine	-	-	380 U	370 U	370 U	370 U	390 U	390 U	790 U	790 U	440 U
4-Bromophenyl-phenylether	-	-	380 U	370 U	370 U	370 U	390 U	390 U	790 U	790 U	440 U
Hexachlorobenzene	410	-	380 U	370 U	370 U	370 U	390 U	390 U	790 U	790 U	440 U
Pentachlorophenol	1,000	-	920 U	890 U	910 U	910 U	950 U	950 U	1900 U	1900 U	1100 U
Phenanthrene	50,000	-	160 J	65 J	580	590	1800	1800	2100 J	2200 J	320 J
Anthracene	50,000	-	22 J	370 U	110 J	110 J	270 J	260 J	280 J	280 J	49 J
Carbazole	-	-	380 U	370 U	82 J	85 J	300 J	300 J	340 J	370 J	24 J
Di-n-butylphthalate	8,100	-	60 J	24 J	17 J	21 J	98 J	95 J	100 J	110 J	410 J
Fluoranthene	50,000	200 - 166,000	190 J	92 J	700	690	1400	1500	1900 J	2100 J	430 J
Pyrene	50,000	145 - 147,000	150 J	85 J	1300	1300	4200 JE	4100 J	3900 J	3400 J	590
Butylbenzylphthalate	50,000	-	380 U	370 U	370 U	370 U	390 U	390 U	790 U	790 U	440 U
3,3'-Dichlorobenzidine	-	-	380 U	370 U	370 U	370 U	390 U	390 U	790 U	790 U	440 U
Benzo(a)anthracene	224 or MDL	169 - 59,000	98 J	44 J	820	820	1500	1400	1600 J	1600 J	290 J
Chrysene	400	251 - 640	110 J	61 J	860	860	1700	1700	1700 J	1900 J	360 J
bis(2-ethylhexyl) phthalate	50,000	-	70 J	230 J	370 U	370 U	390 U	390 U	790 U	790 U	440 U
Di-n-octyl phthalate	50,000	-	380 U	370 U	370 U	370 U	390 U	390 U	790 U	790 U	440 U
Benzo (b) fluoranthene	1,100	15,000 - 62,000	93 J	62 J	910	1100	900	1100	1400 J	1600 J	230 J
Benzo (k) fluoranthene	1,100	300 - 26,000	68 J	29 J	1100	1100	2200	1700	2000 J	1800 J	290 J
Benzo (a) pyrene	61 or MDL	165 - 220	62 J	37 J	1300	1300	1500	1500	1700 J	1700 J	270 J
Indeno (1,2,3-cd) pyrene	3,200	8,000 - 61,000	38 J	22 J	950	840	1300	1500	1500 J	1400 J	180 J
Dibenz (a,h) anthracene	14 or MDL	-	380 U	370 U	370 U	370 U	390 U	390 U	790 U	790 U	440 U
Benzo (g,h,i) perylene	50,000	900 - 47,000	380 U	370 U	1000	940	1700	2000	1900 J	1700 J	180 J

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution

Table 3. Summary of Semivolatile Organic Compounds in Surficial Soil, Brooklyn Navy Yard, New York. Continued
Cogeneration Project, April 1994, Sampleed By ENSR, Present by Roux Associates

Semivolatile Organic Compounds (Concentration in ug/kg)	NYSDEC Recommended Soil Cleanup Objectives (ug/kg)	ATSDR Background Soil Concentrations PAHs in Urban Soils (ug/kg)	A4-SB1-SS-01-RE 2-4 4/94 ENSR (ug/kg)	A4-SB2-SS-02 4-6 4/94 ENSR (ug/kg)	A4-SB1-SS-02-RE 4-6 4/94 ENSR (ug/kg)	A4-SB2-SS-01 2-4 4/94 ENSR (ug/kg)	A4-SB2-SS-01-RE 2-4 4/94 ENSR (ug/kg)	A4-SB2-SS-01-DL 2-4 4/94 ENSR (ug/kg)	A4-SB2-SS-01-DLRE 2-4 4/94 ENSR (ug/kg)	A4-SB2-SS-02 4-6 4/94 ENSR (ug/kg)	A4-SB2-SS-02-RE 4-6 4/94 ENSR (ug/kg)
Phenol	30 or MDL	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
bis (2-chlorethyl) ether	-	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
2-Chlorophenol	800	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
1,3-Dichlorobenzene	-	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
1,4-Dichlorobenzene	-	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
Benzyl alcohol			NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	-	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
2-Mehylphenol	100	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
2,2'-oxybis (1-Chloropropane)	-	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
bis(2-Chloroisopropyl)ether	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Mehylphenol	900	-	440 U	450 U	450 U	400 U	400 J	4000 U	4000 U	350 J	340 J
N-Nitoso-di-n-propylamine	-	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
Hexachloroethane	-	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
Nitrobenzene	200	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
Isophorone	4,400	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
2-Nitrophenol	330	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
2,4-Dimenthylphnol	-	-	440 U	450 U	450 U	400 U	400 J	4000 U	4000 U	440 U	440 U
Benzoic Acid	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis (2-Chloroethoxy) methane	-	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
2,4-Dichlorophenol	400	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
1,2,4-Trichlorobenzene	-	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
Naphthalene	13,000	-	64 J	100 J	110 J	150 J	150 J	4000 U	4000 U	38 J	38 J
4-Chloroaniline	220	-	440 U	450 U	450 U	46 J	400 U	4000 U	4000 U	440 U	440 U
Hexachlorobutadiene	410	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
4-Chloro-3-Methylphenol	240	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
2-Methylnaphthalene	36,400	-	47 J	85 J	88 J	100 J	100 J	4000 JU	4000 U	440 U	440 U
Hexachlorocyclopentadiene	-	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
2,4,6-Trichlorophenol	-	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
2,4,5-Trichlorophenol	100	-	1100 U	1100 U	1100 U	960 U	960 U	9600 U	9600 U	1100 U	1100 U
2-Chloronaphthalene	-	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
2-Nitroaniline	430	-	1100 U	1100 U	1100 U	960 U	960 U	9600 U	9600 U	1100 U	1100 U
Dimethyl phthalate	2,000	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
Acenaphthylene	50,000	-	440 U	25 J	27 J	71 J	77 J	4000 U	4000 U	440 U	440 U
2,6-Dinitotoluene	1,000	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
3-Nitroaniline	500	-	1100 U	1100 U	1100 U	960 U	960 U	9600 U	9600 U	1100 U	1100 U
Acenaphthene	50,000	-	440 U	84 J	84 J	130 J	130 J	4000 U	4000 U	72 J	80 J
2,4-Dinitrophenol	200	-	1100 U	1100 U	1100 U	960 U	960 U	9600 U	9600 U	1100 U	1100 U
4-Nitrophenol	100	-	1100 U	1100 U	1100 U	960 U	960 U	9600 U	9600 U	1100 U	1100 U
Dibenzofuran	6,200	-	39 J	120 J	130 J	230 J	220 J	230 J	260 J	440 U	440 U
2,4-Dinitrotoluene	-	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
Diethylphthalate	7,100	-	38 J	29 J	31 J	400 U	400 U	4000 U	4000 U	44 J	48 J
4-Chlorophenyl-phenylether	-	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
Flourene	50,000	-	40 J	200 J	220 J	360 J	390 J	430 J	490 J	67 J	66 J
4-Nitoaniline	-	-	1100 U	1100 U	1100 U	960 U	960 U	9600 U	9600 U	1100 U	1100 U
4,6-Dinitro-2-methylphenol	-	-	1100 U	1100 U	1100 U	960 U	960 U	9600 U	9600 U	1100 U	1100 U
N-Nitrosodiphenylamine	-	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
4-Bromophenyl-phenylether	-	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
Hexachlorobenzene	410	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
Pentachlorophenol	1,000	-	1100 U	1100 U	1100 U	960 U	960 U	9600 U	9600 U	1100 U	1100 U
Phenanthrene	50,000	-	300 J	650	630	5100 J	5200 J	8000 J	8700 J	260 J	260 J
Anthracene	50,000	-	47 J	110 J	110 J	1100	980	1200 J	1300 J	56 J	54 J
Carbazole	-	-	440 U	450 U	450 U	120 J	110 J	4000 U	4000 U	440 U	440 U
Di-n-butylphthalate	8,100	-	370 J	95 J	82 J	600	560	700 J	800 J	150 J	140 J
Fluoranthene	50,000	200 - 166,000	320 J	390 J	330 J	5600 J	5800 J	12000 J	14000 J	450	370 J
Pyrene	50,000	145 - 147,000	680	670	780	15000 J	11000 J	20000 J	16000 J	1100	1000
Butylbenzylphthalate	50,000	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
3,3'-Dichlorobenzidine	-	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
Benzo(a)anthracene	224 or MDL	169 - 59,000	290 J	320 J	300 J	6000 J	6200 J	7500 J	7800 J	370 J	360 J
Chrysene	400	251 - 640	360 J	370 J	370 J	6700 J	6800 J	8600 J	9500 J	400 J	390 J
bis(2-ethylhexyl) phthalate	50,000	-	440 U	260 J	300 J	400 U	400 U	4000 U	4000 U	440 U	440 U
Di-n-octyl phthalate	50,000	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
Benzo (b) fluoranthene	1,100	15,000 - 62,000	300 J	250 J	370 J	4100 J	6400 J	7200 J	7500 J	500	700
Benzo (k) fluoranthene	1,100	300 - 26,000	340 J	220 J	240 J	7400 J	4900 J	9800 J	7400 J	650	500
Benzo (a) pyrene	61 or MDL	165 - 220	280 J	260 J	280 J	5700 JE	5000 J	7900 J	7800 J	710	700
Indeno (1,2,3-cd) pyrene	3,200	8,000 - 61,000	160 J	220 J	210 J	3600 J	3400 J	3500 J	4400 J	620	640
Dibenz (a,h) anthracene	14 or MDL	-	440 U	450 U	450 U	2000	1700	1900 J	2400 J	440 U	440 U
Benzo (g,h,i) perylene	50,000	900 - 47,000	180 J	250 J	240 J	3500 J	3000	3100 J	3700 J	670	650

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution

Table 3. Summary of Semivolatile Organic Compounds in Surficial Soil, Brooklyn Navy Yard, New York. Continued
Cogeneration Project, April 1994, Sampleed By ENSR, Present by Roux Associates

Semivolatile Organic Compounds (Concentration in ug/kg)	NYSDEC Recommended Soil Cleanup Objectives (ug/kg)	ATSDR Background Soil Concentrations PAHs in Urban Soils (ug/kg)	A4-SB1-SS-01-RE	A4-SB2-SS-02	A4-SB1-SS-02-RE	A4-SB2-SS-01	A4-SB2-SS-01-RE	A4-SB2-SS-01-DL	A4-SB2-SS-01-DLRE	A4-SB2-SS-02	A4-SB2-SS-02-RE
			2-4	4-6	4-6	2-4	2-4	2-4	2-4	4-6	4-6
			4/94	4/94	4/94	4/94	4/94	4/94	4/94	4/94	4/94
			ENSR	ENSR	ENSR	ENSR	ENSR	ENSR	ENSR	ENSR	ENSR
			(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Phenol	30 or MDL	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
bis (2-chlorethyl) ether	-	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
2-Chlorophenol	800	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
1,3-Dichlorobenzene	-	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
1,4-Dichlorobenzene	-	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
Benzyl alcohol			NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	-	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
2-Mehylphenol	100	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
2,2'-oxybis (1-Chloropropane)	-	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
bis(2-Chloroisopropyl)ether	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Mehylphenol	900	-	440 U	450 U	450 U	400 U	400 J	4000 U	4000 U	350 J	340 J
N-Nitoso-di-n-propylamine	-	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
Hexachloroethane	-	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
Nitrobenzene	200	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
Isophorone	4,400	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
2-Nitrophenol	330	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
2,4-Dimenthylphnol	-	-	440 U	450 U	450 U	400 U	400 J	4000 U	4000 U	440 U	440 U
Benzoic Acid	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis (2-Chloroethoxy) methane	-	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
2,4-Dichlorophenol	400	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
1,2,4-Trichlorobenzene	-	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
Naphthalene	13,000	-	64 J	100 J	110 J	150 J	150 J	4000 U	4000 U	38 J	38 J
4-Chloroaniline	220	-	440 U	450 U	450 U	46 J	400 U	4000 U	4000 U	440 U	440 U
Hexachlorobutadiene	410	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
4-Chloro-3-Methylphenol	240	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
2-Methylnaphthalene	36,400	-	47 J	85 J	88 J	100 J	100 J	4000 JU	4000 U	440 U	440 U
Hexachlorocyclopentadiene	-	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
2,4,6-Trichlorophenol	-	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
2,4,5-Trichlorophenol	100	-	1100 U	1100 U	1100 U	960 U	960 U	9600 U	9600 U	1100 U	1100 U
2-Chloronaphthalene	-	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
2-Nitroaniline	430	-	1100 U	1100 U	1100 U	960 U	960 U	9600 U	9600 U	1100 U	1100 U
Dimethyl phthalate	2,000	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
Acenaphthylene	50,000	-	440 U	25 J	27 J	71 J	77 J	4000 U	4000 U	440 U	440 U
2,6-Dinitotoluene	1,000	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
3-Nitroaniline	500	-	1100 U	1100 U	1100 U	960 U	960 U	9600 U	9600 U	1100 U	1100 U
Acenaphthene	50,000	-	440 U	84 J	84 J	130 J	130 J	4000 U	4000 U	72 J	80 J
2,4-Dinitrophenol	200	-	1100 U	1100 U	1100 U	960 U	960 U	9600 U	9600 U	1100 U	1100 U
4-Nitrophenol	100	-	1100 U	1100 U	1100 U	960 U	960 U	9600 U	9600 U	1100 U	1100 U
Dibenzofuran	6,200	-	39 J	120 J	130 J	230 J	220 J	230 J	260 J	440 U	440 U
2,4-Dinitrotoluene	-	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
Diethylphthalate	7,100	-	38 J	29 J	31 J	400 U	400 U	4000 U	4000 U	44 J	48 J
4-Chlorophenyl-phenylether	-	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
Flourene	50,000	-	40 J	200 J	220 J	360 J	390 J	430 J	490 J	67 J	66 J
4-Nitoaniline	-	-	1100 U	1100 U	1100 U	960 U	960 U	9600 U	9600 U	1100 U	1100 U
4,6-Dinitro-2-methylphenol	-	-	1100 U	1100 U	1100 U	960 U	960 U	9600 U	9600 U	1100 U	1100 U
N-Nitrosodiphenylamine	-	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
4-Bromophenyl-phenylether	-	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
Hexachlorobenzene	410	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
Pentachlorophenol	1,000	-	1100 U	1100 U	1100 U	960 U	960 U	9600 U	9600 U	1100 U	1100 U
Phenanthrene	50,000	-	300 J	650	630	5100 J	5200 J	8000 J	8700 J	260 J	260 J
Anthracene	50,000	-	47 J	110 J	110 J	1100	980	1200 J	1300 J	56 J	54 J
Carbazole	-	-	440 U	450 U	450 U	120 J	110 J	4000 U	4000 U	440 U	440 U
Di-n-butylphthalate	8,100	-	370 J	95 J	82 J	600	560	700 J	800 J	150 J	140 J
Fluoranthene	50,000	200 - 166,000	320 J	390 J	330 J	5600 J	5800 J	12000 J	14000 J	450	370 J
Pyrene	50,000	145 - 147,000	680	670	780	15000 J	11000 J	20000 J	16000 J	1100	1000
Butylbenzylphthalate	50,000	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
3,3'-Dichlorobenzidine	-	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
Benzo(a)anthracene	224 or MDL	169 - 59,000	290 J	320 J	300 J	6000 J	6200 J	7500 J	7800 J	370 J	360 J
Chrysene	400	251 - 640	360 J	370 J	370 J	6700 J	6800 J	8600 J	9500 J	400 J	390 J
bis(2-ethylhexyl) phthalate	50,000	-	440 U	260 J	300 J	400 U	400 U	4000 U	4000 U	440 U	440 U
Di-n-octyl phthalate	50,000	-	440 U	450 U	450 U	400 U	400 U	4000 U	4000 U	440 U	440 U
Benzo (b) fluoranthene	1,100	15,000 - 62,000	300 J	250 J	370 J	4100 J	6400 J	7200 J	7500 J	500	700
Benzo (k) fluoranthene	1,100	300 - 26,000	340 J	220 J	240 J	7400 J	4900 J	9800 J	7400 J	650	500
Benzo (a) pyrene	61 or MDL	165 - 220	280 J	260 J	280 J	5700 JE	5000 J	7900 J	7800 J	710	700
Indeno (1,2,3-cd) pyrene	3,200	8,000 - 61,000	160 J	220 J	210 J	3600 J	3400 J	3500 J	4400 J	620	640
Dibenz (a,h) anthracene	14 or MDL	-	440 U	450 U	450 U	2000	1700	1900 J	2400 J	440 U	440 U
Benzo (g,h,i) perylene	50,000	900 - 47,000	180 J	250 J	240 J	3500 J	3000	3100 J	3700 J	670	650

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution

Table 3. Summary of Semivolatile Organic Compounds in Surficial Soil, Brooklyn Navy Yard, New York. Continued
Cogeneration Project, April 1994, Sampleed By ENSR, Present by Roux Associates

Semivolatile Organic Compounds (Concentration in ug/kg)	NYSDEC Recommended Soil Cleanup Objectives (ug/kg)	ATSDR Background Soil Concentrations PAHs in Urban Soils (ug/kg)	A5-SB1-SS-01-DLRE 4-6 4/94 ENSR (ug/kg)		A5-SB2-SS-01 4-6 4/94 ENSR (ug/kg)		A5-SB2-SS-01-RE 4-6 4/94 ENSR (ug/kg)		A5-SB2-SS-01-DL 4-6 4/94 ENSR (ug/kg)		A5-SB3-SS-01 4-6 4/94 ENSR (ug/kg)		A5-SB3-SS-01-RE 4-6 4/94 ENSR (ug/kg)		A5-SB4-SS-01 4-6 4/94 ENSR (ug/kg)		A5-SB4-SS-01-RE 4-6 4/94 ENSR (ug/kg)		A5-SB5-SS-01 4-6 4/94 ENSR (ug/kg)	
Phenol	30 or MDL	-	880	U	410	U	410	U	3700	U	400	U	400	U	390	U	390	U	370	U
bis (2-chlorethyl) ether	-	-	880	U	410	U	410	U	3700	U	400	U	400	U	390	U	390	U	370	U
2-Chlorophenol	800	-	880	U	410	U	410	U	3700	U	400	U	400	U	390	U	390	U	370	U
1,3-Dichlorobenzene	-	-	880	U	410	U	410	U	3700	U	400	U	400	U	390	U	390	U	370	U
1,4-Dichlorobenzene	-	-	880	U	410	U	410	U	3700	U	400	U	400	U	390	U	390	U	370	U
Benzyl alcohol			NA		NA		NA		NA		NA		NA		NA		NA		NA	
1,2-Dichlorobenzene	-	-	880	U	410	U	410	U	3700	U	400	U	400	U	390	U	390	U	370	U
2-Mehylphenol	100	-	880	U	410	U	410	U	3700	U	400	U	400	U	390	U	390	U	370	U
2,2'-oxybis (1-Chloropropane)	-	-	880	U	410	U	410	U	3700	U	400	U	400	U	390	U	390	U	370	U
bis(2-Chloroisopropyl)ether	-	-	NA		NA		NA		NA		NA		NA		NA		NA		NA	
4-Mehylphenol	900	-	880	U	410	U	410	U	3700	U	400	U	400	U	390	U	390	U	370	U
N-Nitoso-di-n-propylamine	-	-	880	U	410	U	410	U	3700	U	400	U	400	U	390	U	390	U	370	U
Hexachloroethane	-	-	880	U	410	U	410	U	3700	U	400	U	400	U	390	U	390	U	370	U
Nitrobenzene	200	-	880	U	410	U	410	U	3700	U	400	U	400	U	390	U	390	U	370	U
Isophorone	4,400	-	880	U	410	U	410	U	3700	U	400	U	400	U	390	U	390	U	370	U
2-Nitrophenol	330	-	880	U	410	U	410	U	3700	U	400	U	400	U	390	U	390	U	370	U
2,4-Dimenthylphnol	-	-	880	U	410	U	410	U	3700	U	400	U	400	U	390	U	390	U	370	U
Benzoic Acid	-	-	NA		NA		NA		NA		NA		NA		NA		NA		NA	
bis (2-Chloroethoxy) methane	-	-	880	U	410	U	410	U	3700	U	400	U	400	U	390	U	390	U	370	U
2,4-Dichlorophenol	400	-	880	U	410	U	410	U	3700	U	400	U	400	U	390	U	390	U	370	U
1,2,4-Trichlorobenzene	-	-	880	U	410	U	410	U	3700	U	400	U	400	U	390	U	390	U	370	U
Naphthalene	13,000	-	110	J	450		450		490	J	400	U	400	U	160	J	150	J	130	J
4-Chloroaniline	220	-	880	U	410	U	410	U	3700	U	400	U	400	U	390	U	390	U	370	U
Hexachlorobutadiene	410	-	880	U	410	U	410	U	3700	U	400	U	400	U	390	U	390	U	370	U
4-Chloro-3-Methylphenol	240	-	880	U	410	U	410	U	3700	U	400	U	400	U	390	U	390	U	370	U
2-Methylnaphthalene	36,400	-	110	J	230	J	230	J	240	J	400	U	400	U	130	J	130	J	49	J
Hexachlorocyclopentadiene	-	-	880	U	410	U	410	U	3700	U	400	U	400	U	390	U	390	U	370	U
2,4,6-Trichlorophenol	-	-	880	U	410	U	410	U	3700	U	400	U	400	U	390	U	390	U	370	U
2,4,5-Trichlorophenol	100	-	2100	U	1000	U	1000	U	9000	U	980	U	980	U	940	U	940	U	910	U
2-Chloronaphthalene	-	-	880	U	410	U	410	U	3700	U	400	U	400	U	390	U	390	U	370	U
2-Nitroaniline	430	-	2100	U	1000	U	1000	U	9000	U	980	U	980	U	940	U	940	U	910	U
Dimethyl phthalate	2,000	-	880	U	410	U	410	U	3700	U	400	U	400	U	390	U	390	U	370	U
Acenaphthylene	50,000	-	880	U	410	U	410	U	3700	U	400	U	400	U	390	U	390	U	24	J
2,6-Dinitotoluene	1,000	-	880	U	410	U	410	U	3700	U	400	U	400	U	390	U	390	U	370	U
3-Nitroaniline	500	-	2100	U	1000	U	1000	U	9000	U	980	U	980	U	940	U	940	U	910	U
Acenaphthene	50,000	-	250	J	880		880		940	J	400	U	400	U	26	J	25	J	110	J
2,4-Dinitrophenol	200	-	2100	U	1000	U	1000	U	9000	U	980	U	980	U	940	U	940	U	910	U
4-Nitrophenol	100	-	2100	U	1000	U	1000	U	9000	U	980	U	980	U	940	U	940	U	910	U
Dibenzofuran	6,200	-	230	J	810		800		960	J	400	U	400	U	95	J	97	J	120	J
2,4-Dinitrotoluene	-	-	880	U	410	U	410	U	3700	U	400	U	400	U	390	U	390	U	370	U
Diethylphthalate	7,100	-	880	U	410	U	410	U	3700	U	400	U	400	U	390	U	390	U	39	J
4-Chlorophenyl-phenylether	-	-	880	U	410	U	410	U	3700	U	400	U	400	U	390	U	390	U	370	U
Flourene	50,000	-	220	J	1100		1100		1400	J	400	U	400	U	390	U	390	U	170	J
4-Nitoaniline	-	-	2100	U	1000	U	1000	U	9000	U	980	U	980	U	940	U	940	U	910	U
4,6-Dinitro-2-methylphenol	-	-	2100	U	1000	U	1000	U	9000	U	980	U	980	U	940	U	940	U	910	U
N-Nitrosodiphenylamine	-	-	880	U	410	U	410	U	3700	U	400	U	400	U	390	U	390	U	370	U
4-Bromophenyl-phenylether	-	-	880	U	410	U	410	U	3700	U	400	U	400	U	390	U	390	U	370	U
Hexachlorobenzene	410	-	880	U	410	U	410	U	3700	U	400	U	400	U	390	U	390	U	370	U
Pentachlorophenol	1,000	-	2100	U	1000	U	1000	U	9000	U	980	U	980	U	940	U	940	U	910	U
Phenanthrene	50,000	-	1400	J	8300	J	8600	J	13000	J	42	J	41	J	560		560		660	
Anthracene	50,000	-	480	J	2400		2500		3100	J	400	U	400	U	66	J	65	J	150	J
Carbazole	-	-	67	J	830		840		1100	J	400	U	400	U	390	U	390	U	49	J
Di-n-butylphthalate	8,100	-	880	U	410		410	U	3700	U	400	U	400	U	390	U	390	U	370	U
Fluoranthene	50,000	200 - 166,000	2100	J	6100	J	6100	J	14000	J	26	J	32	J	360	J	390		580	
Pyrene	50,000	145 - 147,000	2600	J	17000	J	18000	J	16000	J	66	J	63	J	660		690		570	
Butylbenzylphthalate	50,000	-	880	U	410	U	410	U	3700	U	400	U	400	U	390	U	390	U	370	U
3,3'-Dichlorobenzidine	-	-	880	U	410	U	410	U	3700	U	400	U	400	U	390	U	390	U	370	U
Benzo(a)anthracene	224 or MDL	169 - 59,000	1200	J	6800	J	6800	J	6800	J	400	U	400	U	290	J	290	J	470	
Chrysene	400	251 - 640	1200	J	6300	J	6300	J	7200	J	400	U	400	U	470		450		530	
bis(2-ethylhexyl) phthalate	50,000	-	880	U	990		1000		790	J	400	U	400	U	390	U	390	U	370	U
Di-n-octyl phthalate	50,000	-	880	U	410	U	410	U	3700	U	400	U	400	U	390	U	390	U	370	U
Benzo (b) fluoranthene	1,100	15,000 - 62,000	1100	J	6000	J	5700	J	6400	J	57	J	59	J	330	J	340	J	510	
Benzo (k) fluoranthene	1,100	300 - 26,000	990	J	3900	J	3900	J	4300	J	64	J	52	J	240	J	230	J	520	
Benzo (a) pyrene	61 or MDL	165 - 220	1200	J	4900	J	4900	J	5800	J	65	J	64	J	240	J	240	J	480	
Indeno (1,2,3-cd) pyrene	3,200	8,000 - 61,000	740	J	2900		2900		4200	J	40	J	41	J	160	J	180	J	300	J
Dibenz (a,h) anthracene	14 or MDL	-	880	U	710		610		2000	J	400	U	400	U	390	U	390	U	170	J
Benzo (g,h,i) perylene	50,000	900 - 47,000	750	J	3000		3100		4400	J	48	J	47	J	210	J	200	J	190	J

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution

Table 3. Summary of Semivolatile Organic Compounds in Surficial Soil, Brooklyn Navy Yard, New York. Continued
Cogeneration Project, April 1994, Sampleed By ENSR, Present by Roux Associates

Semivolatile Organic Compounds (Concentration in ug/kg)	NYSDEC Recommended Soil Cleanup Objectives (ug/kg)	ATSDR Background Soil Concentrations PAHs in Urban Soils (ug/kg)	A5-SB1-SS-01-DLRE 4-6 4/94 ENSR (ug/kg)	A5-SB2-SS-01 4-6 4/94 ENSR (ug/kg)	A5-SB2-SS-01-RE 4-6 4/94 ENSR (ug/kg)	A5-SB2-SS-01-DL 4-6 4/94 ENSR (ug/kg)	A5-SB3-SS-01 4-6 4/94 ENSR (ug/kg)	A5-SB3-SS-01-RE 4-6 4/94 ENSR (ug/kg)	A5-SB4-SS-01 4-6 4/94 ENSR (ug/kg)	A5-SB4-SS-01-RE 4-6 4/94 ENSR (ug/kg)	A5-SB5-SS-01 4-6 4/94 ENSR (ug/kg)
Phenol	30 or MDL	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
bis (2-chlorethyl) ether	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
2-Chlorophenol	800	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
1,3-Dichlorobenzene	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
1,4-Dichlorobenzene	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Benzyl alcohol			NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
2-Mehylphenol	100	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
2,2'-oxybis (1-Chloropropane)	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
bis(2-Chloroisopropyl)ether	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Mehylphenol	900	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
N-Nitoso-di-n-propylamine	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Hexachloroethane	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Nitrobenzene	200	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Isophorone	4,400	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
2-Nitrophenol	330	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
2,4-Dimenthylphnol	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Benzoic Acid	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis (2-Chloroethoxy) methane	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
2,4-Dichlorophenol	400	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
1,2,4-Trichlorobenzene	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Naphthalene	13,000	-	110 J	450	450	490 J	400 U	400 U	160 J	150 J	130 J
4-Chloroaniline	220	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Hexachlorobutadiene	410	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
4-Chloro-3-Methylphenol	240	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
2-Methylnaphthalene	36,400	-	110 J	230 J	230 J	240 J	400 U	400 U	130 J	130 J	49 J
Hexachlorocyclopentadiene	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
2,4,6-Trichlorophenol	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
2,4,5-Trichlorophenol	100	-	2100 U	1000 U	1000 U	9000 U	980 U	980 U	940 U	940 U	910 U
2-Chloronaphthalene	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
2-Nitroaniline	430	-	2100 U	1000 U	1000 U	9000 U	980 U	980 U	940 U	940 U	910 U
Dimethyl phthalate	2,000	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Acenaphthylene	50,000	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	24 J
2,6-Dinitotoluene	1,000	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
3-Nitroaniline	500	-	2100 U	1000 U	1000 U	9000 U	980 U	980 U	940 U	940 U	910 U
Acenaphthene	50,000	-	250 J	880	880	940 J	400 U	400 U	26 J	25 J	110 J
2,4-Dinitrophenol	200	-	2100 U	1000 U	1000 U	9000 U	980 U	980 U	940 U	940 U	910 U
4-Nitrophenol	100	-	2100 U	1000 U	1000 U	9000 U	980 U	980 U	940 U	940 U	910 U
Dibenzofuran	6,200	-	230 J	810	800	960 J	400 U	400 U	95 J	97 J	120 J
2,4-Dinitrotoluene	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Diethylphthalate	7,100	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	39 J
4-Chlorophenyl-phenylether	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Flourene	50,000	-	220 J	1100	1100	1400 J	400 U	400 U	390 U	390 U	170 J
4-Nitoaniline	-	-	2100 U	1000 U	1000 U	9000 U	980 U	980 U	940 U	940 U	910 U
4,6-Dinitro-2-methylphenol	-	-	2100 U	1000 U	1000 U	9000 U	980 U	980 U	940 U	940 U	910 U
N-Nitrosodiphenylamine	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
4-Bromophenyl-phenylether	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Hexachlorobenzene	410	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Pentachlorophenol	1,000	-	2100 U	1000 U	1000 U	9000 U	980 U	980 U	940 U	940 U	910 U
Phenanthrene	50,000	-	1400 J	8300 J	8600 J	13000 J	42 J	41 J	560	560	660
Anthracene	50,000	-	480 J	2400	2500	3100 J	400 U	400 U	66 J	65 J	150 J
Carbazole	-	-	67 J	830	840	1100 J	400 U	400 U	390 U	390 U	49 J
Di-n-butylphthalate	8,100	-	880 U	410	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Fluoranthene	50,000	200 - 166,000	2100 J	6100 J	6100 J	14000 J	26 J	32 J	360 J	390	580
Pyrene	50,000	145 - 147,000	2600 J	17000 J	18000 J	16000 J	66 J	63 J	660	690	570
Butylbenzylphthalate	50,000	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
3,3'-Dichlorobenzidine	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Benzo(a)anthracene	224 or MDL	169 - 59,000	1200 J	6800 J	6800 J	6800 J	400 U	400 U	290 J	290 J	470
Chrysene	400	251 - 640	1200 J	6300 J	6300 J	7200 J	400 U	400 U	470	450	530
bis(2-ethylhexyl) phthalate	50,000	-	880 U	990	1000	790 J	400 U	400 U	390 U	390 U	370 U
Di-n-octyl phthalate	50,000	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Benzo (b) fluoranthene	1,100	15,000 - 62,000	1100 J	6000 J	5700 J	6400 J	57 J	59 J	330 J	340 J	510
Benzo (k) fluoranthene	1,100	300 - 26,000	990 J	3900 J	3900 J	4300 J	64 J	52 J	240 J	230 J	520
Benzo (a) pyrene	61 or MDL	165 - 220	1200 J	4900 J	4900 J	5800 J	65 J	64 J	240 J	240 J	480
Indeno (1,2,3-cd) pyrene	3,200	8,000 - 61,000	740 J	2900	2900	4200 J	40 J	41 J	160 J	180 J	300 J
Dibenz (a,h) anthracene	14 or MDL	-	880 U	710	610	2000 J	400 U	400 U	390 U	390 U	170 J
Benzo (g,h,i) perylene	50,000	900 - 47,000	750 J	3000	3100	4400 J	48 J	47 J	210 J	200 J	190 J

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution

Table 3. Summary of Semivolatile Organic Compounds in Surficial Soil, Brooklyn Navy Yard, New York. Continued
Cogeneration Project, April 1994, Sampleed By ENSR, Present by Roux Associates

Semivolatile Organic Compounds (Concentration in ug/kg)	NYSDEC Recommended Soil Cleanup Objectives (ug/kg)	ATSDR Background Soil Concentrations PAHs in Urban Soils (ug/kg)	A5-SB16-SS-01 4-6 4/94 ENSR (ug/kg)	A5-SB16-SS-01-RE 4-6 4/94 ENSR (ug/kg)	A5-SB17-SS-01 4-6 4/94 ENSR (ug/kg)	A5-SB17-SS-01* 4-6 4/94 ENSR (ug/kg)	A5-SB17-SS-01-RE 4-6 4/94 ENSR (ug/kg)	A5-SB18-SS-01 4-6 4/94 ENSR (ug/kg)	A5-SB18-SS-01-RE 4-6 4/94 ENSR (ug/kg)	A5-SB20-SS-01 4-6 4/94 ENSR (ug/kg)	A5-SB21-SS-01 4-6 4/94 ENSR (ug/kg)
Phenol	30 or MDL	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
bis (2-chlorethyl) ether	-	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
2-Chlorophenol	800	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
1,3-Dichlorobenzene	-	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
1,4-Dichlorobenzene	-	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
Benzyl alcohol			NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	-	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
2-Mehylphenol	100	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
2,2'-oxybis (1-Chloropropane)	-	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
bis(2-Chloroisopropyl)ether	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Mehylphenol	900	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
N-Nitoso-di-n-propylamine	-	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
Hexachloroethane	-	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
Nitrobenzene	200	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
Isophorone	4,400	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
2-Nitrophenol	330	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
2,4-Dimenthylphnol	-	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
Benzoic Acid	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis (2-Chloroethoxy) methane	-	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
2,4-Dichlorophenol	400	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
1,2,4-Trichlorobenzene	-	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
Naphthalene	13,000	-	58 J	59 J	370 U	370 U	370 U	490 U	490 U	390 U	370 U
4-Chloroaniline	220	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
Hexachlorobutadiene	410	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
4-Chloro-3-Methylphenol	240	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
2-Methylnaphthalene	36,400	-	31 J	31 J	370 U	370 U	370 U	490 U	490 U	390 U	370 U
Hexachlorocyclopentadiene	-	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
2,4,6-Trichlorophenol	-	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
2,4,5-Trichlorophenol	100	-	900 U	900 U	910 U	910 U	910 U	1200 U	1200 U	940 U	910 U
2-Chloronaphthalene	-	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
2-Nitroaniline	430	-	900 U	900 U	910 U	910 U	910 U	1200 U	1200 U	940 U	910 U
Dimethyl phthalate	2,000	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
Acenaphthylene	50,000	-	40 J	39 J	370 U	370 U	370 U	490 U	490 U	390 U	370 U
2,6-Dinitotoluene	1,000	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
3-Nitroaniline	500	-	900 U	900 U	910 U	910 U	910 U	1200 U	1200 U	940 U	910 U
Acenaphthene	50,000	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
2,4-Dinitrophenol	200	-	900 U	900 U	910 U	910 U	910 U	1200 U	1200 U	940 U	910 U
4-Nitrophenol	100	-	900 U	900 U	910 U	910 U	910 U	1200 U	1200 U	940 U	910 U
Dibenzofuran	6,200	-	25 J	25 J	370 U	370 U	370 U	490 U	490 U	390 U	370 U
2,4-Dinitrotoluene	-	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
Diethylphthalate	7,100	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
4-Chlorophenyl-phenylether	-	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
Flourene	50,000	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
4-Nitoaniline	-	-	900 U	900 U	910 U	910 U	910 U	1200 U	1200 U	940 U	910 U
4,6-Dinitro-2-methylphenol	-	-	900 U	900 U	910 U	910 U	910 U	1200 U	1200 U	940 U	910 U
N-Nitrosodiphenylamine	-	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
4-Bromophenyl-phenylether	-	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
Hexachlorobenzene	410	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
Pentachlorophenol	1,000	-	900 U	900 U	910 U	910 U	910 U	1200 U	1200 U	940 U	910 U
Phenanthrene	50,000	-	250 J	250 J	370 U	110 J	110 J	490 U	490 U	390 U	370 U
Anthracene	50,000	-	67 J	65 J	370 U	22 J	20 J	490 U	490 U	390 U	370 U
Carbazole	-	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
Di-n-butylphthalate	8,100	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
Fluoranthene	50,000	200 - 166,000	1000	960	370 U	140 J	140 J	490 U	490 U	390 U	370 U
Pyrene	50,000	145 - 147,000	2200	2300	370 U	260 J	260 J	490 U	490 U	390 U	370 U
Butylbenzylphthalate	50,000	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
3,3'-Dichlorobenzidine	-	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
Benzo(a)anthracene	224 or MDL	169 - 59,000	1600	1600	370 U	81 J	81 J	490 U	490 U	390 U	370 U
Chrysene	400	251 - 640	1500	1500	370 U	93 J	94 J	490 U	490 U	390 U	370 U
bis(2-ethylhexyl) phthalate	50,000	-	610	620	370 U	370 U	370 U	92 J	110 J	390 U	370 U
Di-n-octyl phthalate	50,000	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
Benzo (b) fluoranthene	1,100	15,000 - 62,000	1000	920	370 U	57 J	61 J	490 U	490 U	390 U	370 U
Benzo (k) fluoranthene	1,100	300 - 26,000	1600	1500	370 U	72 J	66 J	490 U	490 U	390 U	370 U
Benzo (a) pyrene	61 or MDL	165 - 220	1400	1300	370 U	79 J	77 J	490 U	490 U	390 U	370 U
Indeno (1,2,3-cd) pyrene	3,200	8,000 - 61,000	640	580	370 U	370 U	370 U	490 U	490 U	390 U	370 U
Dibenz (a,h) anthracene	14 or MDL	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
Benzo (g,h,i) perylene	50,000	900 - 47,000	600	570	370 U	370 U	370 U	490 U	490 U	390 U	370 U

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution

Table 3. Summary of Semivolatile Organic Compounds in Surficial Soil, Brooklyn Navy Yard, New York. Continued
Cogeneration Project, April 1994, Sampleed By ENSR, Present by Roux Associates

Semivolatile Organic Compounds (Concentration in ug/kg)	NYSDEC Recommended Soil Cleanup Objectives (ug/kg)	ATSDR Background Soil Concentrations PAHs in Urban Soils (ug/kg)	A5-SB22-SS-01 4-6 4/94 ENSR (ug/kg)		A5-SB22-SS-01-RE 4-6 4/94 ENSR (ug/kg)		A5-SB23-SS-01 4-6 4/94 ENSR (ug/kg)		DD-1 0-4 7/93 BBEPC (ug/kg)		DD-1-RE 0-4 7/93 BBEPC (ug/kg)		DD-2 0-4 7/93 BBEPC (ug/kg)		DD-2-RE 0-4 7/93 BBEPC (ug/kg)		DD-3 0-4 7/93 BBEPC (ug/kg)		DD-3-RE 0-4 7/93 BBEPC (ug/kg)	
Phenol	30 or MDL	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
bis (2-chlorethyl) ether	-	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
2-Chlorophenol	800	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
1,3-Dichlorobenzene	-	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
1,4-Dichlorobenzene	-	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
Benzyl alcohol			NA		NA		NA		867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
1,2-Dichlorobenzene	-	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
2-Mehylphenol	100	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
2,2'-oxybis (1-Chloropropane)	-	-	420	U	420	U	350	U	NA		NA		NA		NA		NA		NA	
bis(2-Chloroisopropyl)ether	-	-	NA		NA		NA		867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
4-Mehylphenol	900	-	420	U	420	U	350	U	91	J	130	J	498.3	U	498.3	U	392.7	J	392.7	U
N-Nitoso-di-n-propylamine	-	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
Hexachloroethane	-	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
Nitrobenzene	200	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
Isophorone	4,400	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
2-Nitrophenol	330	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
2,4-Dimenthylphnol	-	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
Benzoic Acid	-	-	NA		NA		NA		4208	U	4208	U	2416	U	2416	U	1904	U	1904	U
bis (2-Chloroethoxy) methane	-	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
2,4-Dichlorophenol	400	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
1,2,4-Trichlorobenzene	-	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
Naphthalene	13,000	-	22	J	22	J	350	U	99	J	120	J	82	J	83	J	38	J	40	J
4-Chloroaniline	220	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
Hexachlorobutadiene	410	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
4-Chloro-3-Methylphenol	240	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
2-Methylnaphthalene	36,400	-	420	U	420	U	350	U	100	J	130	J	110	J	110	J	69	J	66	J
Hexachlorocyclopentadiene	-	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
2,4,6-Trichlorophenol	-	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
2,4,5-Trichlorophenol	100	-	1000	U	1000	U	860	U	4208	U	4208	U	2416	U	2416	U	1904	U	1904	U
2-Chloronaphthalene	-	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
2-Nitroaniline	430	-	1000	U	1000	U	860	U	4208	U	4208	U	2416	U	2416	U	1904	U	1904	U
Dimethyl phthalate	2,000	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
Acenaphthylene	50,000	-	420	U	420	U	350	U	867.9	U	86	J	77	J	120	J	31	J	46	J
2,6-Dinitotoluene	1,000	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
3-Nitroaniline	500	-	1000	U	1000	U	860	U	4208	U	4208	U	2416	U	2416	U	1904	U	1904	U
Acenaphthene	50,000	-	420	U	420	U	350	U	360	J	440	J	430	J	440	J	130	J	130	J
2,4-Dinitrophenol	200	-	1000	U	1000	U	860	U	4208	U	4208	U	2416	U	2416	U	1904	U	1904	U
4-Nitrophenol	100	-	1000	U	1000	U	860	U	4208	U	4208	U	2416	U	2416	U	1904	U	1904	U
Dibenzofuran	6,200	-	21	J	22	J	350	U	200	J	260	J	180	J	180	J	85	J	85	J
2,4-Dinitrotoluene	-	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
Diethylphthalate	7,100	-	420	U	420	U	350	U	867.9	U	867.9	U	19	J	19	J	392.7	U	392.7	U
4-Chlorophenyl-phenylether	-	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
Flourene	50,000	-	420	U	420	U	350	U	470	J	620	J	380	J	350	J	220	J	240	J
4-Nitoaniline	-	-	1000	U	1000	U	860	U	4208	U	4208	U	2416	U	2416	U	1904	U	1904	U
4,6-Dinitro-2-methylphenol	-	-	1000	U	1000	U	860	U	4208	U	4208	U	2416	U	2416	U	1904	U	1904	U
N-Nitrosodiphenylamine	-	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
4-Bromophenyl-phenylether	-	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
Hexachlorobenzene	410	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
Pentachlorophenol	1,000	-	1000	U	1000	U	860	U	4208	U	4208	U	2416	U	2416	U	1904	U	1904	U
Phenanthrene	50,000	-	220	J	220	J	350	U	4300		5000		920		840		1300		1400	
Anthracene	50,000	-	420	U	420	U	350	U	1700		1900		460	J	470	J	390	J	450	
Carbazole	-	-	420	U	420	U	350	U	NA		NA		NA		NA		NA		NA	
Di-n-butylphthalate	8,100	-	420	U	420	U	350	U	867.9	U	867.9	U	260	J	260	J	392.7	U	392.7	U
Fluoranthene	50,000	200 - 166,000	170	J	180	J	350	U	6100		7600		1100		1500		1400		1500	
Pyrene	50,000	145 - 147,000	150	J	150	J	350	U	7700		10000		3600		2700		1900		2000	
Butylbenzylphthalate	50,000	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
3,3'-Dichlorobenzidine	-	-	420	U	420	U	350	U	1735.8	U	1735.8	U	996.6	U	996.6	U	785.4	U	785.4	U
Benzo(a)anthracene	224 or MDL	169 - 59,000	89	J	34	J	350	U	4400		6900		760		860		740		940	
Chrysene	400	251 - 640	96	J	100	J	350	U	4300		7200		980		1000		780		990	
bis(2-ethylhexyl) phthalate	50,000	-	420	U	420	U	350	U	867.9	U	867.9	U	1200	J	1200	J	392.7	U	392.7	U
Di-n-octyl phthalate	50,000	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
Benzo (b) fluoranthene	1,100	15,000 - 62,000	84	J	89	J	350	U	4100		5000		1200		1300		470		660	
Benzo (k) fluoranthene	1,100	300 - 26,000	57	J	39	J	350	U	4200		6800		1100		1100		580		800	
Benzo (a) pyrene	61 or MDL	165 - 220	37	J	36	J	350	U	4900		5700		1100		1200		560		690	
Indeno (1,2,3-cd) pyrene	3,200	8,000 - 61,000	43	J	47	J	350	U	3200		2500		1400		1100		380	J	310	J
Dibenz (a,h) anthracene	14 or MDL	-	420	U	420	U	350	U	1000		960		498.3	U	370	J	392.7	U	120	J
Benzo (g,h,i) perylene	50,000	900 - 47,000	51	J	66	J	350	U	3300		3800		1600		1100		340	J	290	J

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution

Table 3. Summary of Semivolatile Organic Compounds in Surficial Soil, Brooklyn Navy Yard, New York. Continued
Cogeneration Project, April 1994, Sampleed By ENSR, Present by Roux Associates

Semivolatile Organic Compounds (Concentration in ug/kg)	NYSDEC Recommended Soil Cleanup Objectives (ug/kg)	ATSDR Background Soil Concentrations PAHs in Urban Soils (ug/kg)	DD-4 2-4 7/93 BBEPC (ug/kg)		DD-4* 2-4 7-93 BBEPC (ug/kg)		DD-5 0-2 7/93 ENSR (ug/kg)		DD-5-RE 0-2 7/93 BBEPC (ug/kg)		DD-5 4-6 7/93 BBEPC (ug/kg)	
Phenol	30 or MDL	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
bis (2-chlorethyl) ether	-	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
2-Chlorophenol	800	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
1,3-Dichlorobenzene	-	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
1,4-Dichlorobenzene	-	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
Benzyl alcohol			389.4	U	392.7	U	382.8	U	382.8	U	363	U
1,2-Dichlorobenzene	-	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
2-Mehylphenol	100	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
2,2'-oxybis (1-Chloropropane)	-	-	NA		NA		NA	U	NA	U	NA	U
bis(2-Chloroisopropyl)ether	-	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
4-Mehylphenol	900	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
N-Nitoso-di-n-propylamine	-	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
Hexachloroethane	-	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
Nitrobenzene	200	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
Isophorone	4,400	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
2-Nitrophenol	330	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
2,4-Dimenthylphnol	-	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
Benzoic Acid	-	-	1888	U	1904	U	1856		1856		1760	U
bis (2-Chloroethoxy) methane	-	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
2,4-Dichlorophenol	400	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
1,2,4-Trichlorobenzene	-	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
Naphthalene	13,000	-	790		880		47	J	56	J	47	J
4-Chloroaniline	220	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
Hexachlorobutadiene	410	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
4-Chloro-3-Methylphenol	240	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
2-Methylnaphthalene	36,400	-	2000		1300		120	J	120	J	63	J
Hexachlorocyclopentadiene	-	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
2,4,6-Trichlorophenol	-	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
2,4,5-Trichlorophenol	100	-	1888	U	1904	U	1856	U	1856	U	1760	U
2-Chloronaphthalene	-	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
2-Nitroaniline	430	-	1888	U	1904	U	1856	U	1856	U	1760	U
Dimethyl phthalate	2,000	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
Acenaphthylene	50,000	-	389.4	U	392.7	U	11	J	14	J	20	J
2,6-Dinitotoluene	1,000	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
3-Nitroaniline	500	-	1888	U	1904	U	1856	U	1856	U	1760	U
Acenaphthene	50,000	-	389.4	U	392.7	U	29	J	31	J	30	J
2,4-Dinitrophenol	200	-	1888	U	1904	U	1856	U	1856	U	1760	U
4-Nitrophenol	100	-	1888	U	1904	U	1856	U	1856	U	1760	U
Dibenzofuran	6,200	-	370	J	540		34	J	35	J	38	J
2,4-Dinitrotoluene	-	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
Diethylphthalate	7,100	-	389.4	U	392.7	U	20	J	14	J	363	U
4-Chlorophenyl-phenylether	-	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
Flourene	50,000	-	1500		1800		45	J	52	J	85	J
4-Nitoaniline	-	-	1888	U	1904	U	1856	U	1856	U	1760	U
4,6-Dinitro-2-methylphenol	-	-	1888	U	1904	U	1856	U	1856	U	1760	U
N-Nitrosodiphenylamine	-	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
4-Bromophenyl-phenylether	-	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
Hexachlorobenzene	410	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
Pentachlorophenol	1,000	-	1888	U	1904	U	1856	U	1856	U	1760	U
Phenanthrene	50,000	-	1600		1800		480		540		400	
Anthracene	50,000	-	380	J	392.7	U	95	J	100	J	92	J
Carbazole	-	-	NA		NA		NA		NA		NA	
Di-n-butylphthalate	8,100	-	389.4	U	392.7	U	72	J	57	J	42	J
Fluoranthene	50,000	200 - 166,000	1000		1900		610		650		440	
Pyrene	50,000	145 - 147,000	1000		1600		810		850		460	
Butylbenzylphthalate	50,000	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
3,3'-Dichlorobenzidine	-	-	778.8	U	785.4	U	765.6	U	765.6	U	726	U
Benzo(a)anthracene	224 or MDL	169 - 59,000	390		510		320	J	400		260	J
Chrysene	400	251 - 640	389.4	U	392.7	U	380	J	470		320	J
bis(2-ethylhexyl) phthalate	50,000	-	1700	J	3800	J	210	J	250	J	130	J
Di-n-octyl phthalate	50,000	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
Benzo (b) fluoranthene	1,100	15,000 - 62,000	290	J	360	J	300	J	420		210	J
Benzo (k) fluoranthene	1,100	300 - 26,000	180	J	270	J	250	J	250	J	180	J
Benzo (a) pyrene	61 or MDL	165 - 220	250	J	320	J	270	J	320	J	230	J
Indeno (1,2,3-cd) pyrene	3,200	8,000 - 61,000	389.4	U	350	J	230	J	170	J	67	J
Dibenz (a,h) anthracene	14 or MDL	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
Benzo (g,h,i) perylene	50,000	900 - 47,000	230	J	392.7	U	230	J	170	J	60	J

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution

Table 4. Summary of Pesticide and Polychlorinated Compounds in Surficial Soil, Brooklyn Navy Yard
Cogeneration Partners, Building 41 & Utility Routings, 1994

Pesticide Compounds (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (ug/kg)	NYCDEP "Action Levels" Guidance Values (ug/kg)	A2-ENSR-MW2-SS-01 4-6 4/94 ENSR (ug/kg)		A2-ENSR-MW2-SS-02 13-15 4/94 ENSR (ug/kg)		A2-ENSR-MW3-SS-02 13-15 4/94 ENSR (ug/kg)		A2-SB1-SS-01 4-6 4/94 ENSR (ug/kg)		A2-SB2-SS-01 4-6 4/94 ENSR (ug/kg)		A3-SB2-SS-01 2-4 4/94 ENSR (ug/kg)		A3-SB2-SS-02 4-6 4/94 ENSR (ug/kg)	
alpha-BHC	110	-	6.5	U	5.5	U	38	U	1,800	U	3.6	U	5.4	U	19	U
beta-BHC	200	-	6.5	U	5.5	U	38	U	1,800	U	3.6	U	5.4	U	19	U
delta-BHC	300	-	6.5	U	5.5	U	38	U	1,800	U	3.6	U	5.4	U	19	U
gamma -BHC(Lindane)	60	-	6.5	U	5.5	U	38	U	1,800	U	3.6	U	5.4	U	19	U
Heptachlor	100	-	6.5		5.5	U	38	U	1,800	U	3.6	U	5.4	U	19	U
Aldrin	41	-	6.5		5.5	U	38	U	1,800	U	3.6	U	5.4	U	19	U
Heptachlor expoxide	20	-	6.5		5.5	U	38	U	1,800	U	3.6	U	5.4	U	19	U
Endosulfan I	900	-	6.5	U	5.5	U	38	U	1,800	U	3.6	U	5.4	U	19	U
Dieldrin	44	-	13	U	11	U	73	U	3,600	U	6.9	U	10	U	37	U
4,4'-DDE	2,100	-	13	U	11	U	73	U	3,600	U	6.9	U	29	P	37	U
Endrin	100	-	37	PY	28	PY	73	U	3,600	U	7.8	PY	28	PY	37	U
Endosulfan II	900	-	20	PY	54	Y	73	U	4,500	U	6.9	U	32	PY	37	U
4-4'-DDD	2,900	-	13	U	11	U	82	D	3,600	U	6.9	U	10	U	81	DP
Endosulfan sulfate	1,000	-	13	U	11	U	73	U	3,600	U	6.9	U	10	U	37	U
4,4'-DDT	2,100	-	65	PY	12	PY	280	D	3,600	U	11	Y	56	PY	190	D
Methoxychlor	<10,000	-	65	U	55	U	380	U	18,000	U	36	U	54	U	190	U
Endrin ketone	-	-	25	PY	21	PY	73	U	3,600	U	6.9	U	17	PY	37	U
Endrin aldehyde	-	-	58	PY	61	PY	73	U	3,600	U	7.5	PY	56	PY	37	U
alpha-Chlordane	-	-	6.5	U	6.3	P	38	U	1,800	U	3.6	U	10	P	62	DP
gamma-Chlordane	540	-	6.5	U	6.9	PY	38	U	1,800	U	3.6	U	5.4	U	60	D
Toxaphene	-	-	650	U	550	U	3,800	U	180,000	U	360	U	540	U	1,900	U
Polychlorinated Biphenyls(PCBs) (Concentration in ug/kg)																
Aroclor-1016	-	-	130	U	110	U	730	U	36,000	U	69	U	100	U	370	U
Aroclor-1221	-	-	250	U	220	U	1,500	U	73,000	U	140	U	210	U	760	U
Aroclor-1232	-	-	130	U	110	U	730	U	36,000	U	69	U	100	U	370	U
Aroclor-1242	-	-	130	U	110	U	730	U	36,000	U	69	U	100	U	370	U
Aroclor-1248	-	-	1,500		110	U	730	U	36,000	U	69	U	100	U	370	U
Aroclor-1254	-	-	130	U	110	U	730	U	36,000	U	69	U	100	U	370	U
Aroclor-1260	-	-	1,200		1,400	U	730	U	130,000	CD	120		1,300		370	U

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Table 4. Summary of Pesticide and Polychlorinated Compounds in Surficial Soil, Brooklyn Navy Yard
Cogeneration Partners, Building 41 & Utility Routings, 1994

Pesticide Compounds (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (ug/kg)	NYCDEP "Action Levels" Guidance Values (ug/kg)	A3-SB3-SS-01 2-4 4/94 ENSR (ug/kg)		A3-SB3-SS-02 4-6 4/94 ENSR (ug/kg)		A4-SB1-SS-01 2-4 4/94 ENSR (ug/kg)		A4-SB2-SS-02 4-6 4/94 ENSR (ug/kg)		A4-SB2-SS-01 2-4 4/94 ENSR (ug/kg)		A4-SB2-SS-02 4-6 4/94 ENSR (ug/kg)		A4-SB3-SS-01 2-4 4/94 ENSR (ug/kg)	
alpha-BHC	110	-	3.9	U	2	U	2.3	U	2.3	U	16	U	2.3	U	4.1	U
beta-BHC	200	-	3.9	U	2	U	2.3	U	2.3	U	16	U	1.7	J	4.1	U
delta-BHC	300	-	3.9	U	2	U	1.5	J	5.3	J	16	U	1.3	J	4.1	U
gamma -BHC(Lindane)	60	-	3.9	U	0.77	J	2.3	U	2.3	U	16	U	2.3	U	4.1	U
Heptachlor	100	-	0.48	J	2	U	0.44	J	0.3	J	2.6	J	2.3	U	1.9	J
Aldrin	41	-	3.9	U	2	U	2.3	U	2.3	U	16	U	2.3	U	4.1	U
Heptachlor expoxide	20	-	1.4	J	0.82	J	1.3	J	0.68	J	16	U	2.3	U	3.4	J
Endosulfan I	900	-	3.9	U	2	U	2.3	U	2.3	U	16	U	2.3	U	4.1	U
Dieldrin	44	-	7.5	U	3.9	U	4.4	U	4.4	U	32	U	4.4	U	8	U
4,4'-DDE	2,100	-	1.9	J	0.45	J	0.82	J	4.4	U	5.2	J	4.4	U	8	U
Endrin	100	-	7.5	U	3.9	U	4.4	U	4.4	U	32	U	4.4	U	8	U
Endosulfan II	900	-	7.5	U	3.9	U	4.4	U	4.4	U	32	U	4.4	U	8	U
4-4'-DDD	2,900	-	7.5	U	3.9	U	4.4	U	4.4	U	32	U	4.4	U	8	U
Endosulfan sulfate	1,000	-	7.5	U	3.9	U	4.4	U	4.4	U	32	U	4.4	U	8	U
4,4'-DDT	2,100	-	7.5	U	3.9	U	0.62	J	4.4	U	32	Y	4.4	U	0.78	J
Methoxychlor	<10,000	-	39	U	20	U	23	U	2.7	J	160	U	23	U	41	U
Endrin ketone	-	-	17	J	3.9	U	1.7	J	4.4	U	32	U	4.4	U	8	U
Endrin aldehyde	-	-	7.5	U	0.76	J	0.92	J	4.4	U	16	PY	4.4	U	1.6	J
alpha-Chlordane	-	-	3.9	U	2	U	2.3	U	2.3	U	16	U	2.3	P	4.1	U
gamma-Chlordane	540	-	3.9	U	2	U	2.3	U	2.3	U	16	U	2.3	U	0.68	J
Toxaphene	-	-	390	U	220	U	230	U	230	U	1600	U	230	U	410	U
Polychlorinated Biphenyls(PCBs) (Concentration in ug/kg)																
Aroclor-1016	-	-	75	U	39	U	44	U	44	U	320	U	44	U	80	U
Aroclor-1221	-	-	150	U	80	U	88	U	90	U	640	U	89	U	160	U
Aroclor-1232	-	-	75	U	39	U	44	U	44	U	320	U	44	U	80	U
Aroclor-1242	-	-	75	U	39	U	44	U	44	U	320	U	44	U	80	U
Aroclor-1248	-	-	75	U	39	U	44	U	44	U	320	U	44	U	80	U
Aroclor-1254	-	-	75	U	39	U	44	U	44	U	320	U	44	U	80	U
Aroclor-1260	-	-	75	U	39	U	44	U	44	U	320		44	U	80	U

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Pesticide Compounds (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (ug/kg)	NYCDEP "Action Levels" Guidance Values (ug/kg)	A4-SB3-SS-02 4-6 4/94 ENSR (ug/kg)		A5-SB1-SS-01 4-6 4/94 ENSR (ug/kg)		A5-SB2-SS-01 4-6 4/94 ENSR (ug/kg)		A5-SB3-SS-01 4-6 4/94 ENSR (ug/kg)		A5-SB4-SS-01 4-6 4/94 ENSR (ug/kg)		A5-SB5-SS-01 4-6 4/94 ENSR (ug/kg)		A5-SB6-SS-01 4-6 4/94 ENSR (ug/kg)	
alpha-BHC	110	-	2.5	U	2.3	U	11	U	2.1	U	4	U	1.9	U	2	U
beta-BHC	200	-	0.86	J	2.3	U	11	U	2.1	U	4	U	1.9	U	2	U
delta-BHC	300	-	2.5	U	2.3	U	11	U	0.31	J	4	U	1.9	U	2	U
gamma -BHC(Lindane)	60	-	0.26	J	2.3	U	11	U	2.1	U	4	U	1.9	U	2	U
Heptachlor	100	-	2.5	U	2.3	U	11	U	2.1	U	4	U	1.9	U	0.88	J
Aldrin	41	-	2.5	U	1.2	J	2.6	J	2.1	U	2.9	J	1.9	U	1.4	J
Heptachlor expoxide	20	-	2.5	U	1	J	2	J	2.1	U	1.5	J	0.34	J	0.86	J
Endosulfan I	900	-	2.5	U	2.3	U	11	U	2.1	U	4	U	1.9	U	2	U
Dieldrin	44	-	4.8	U	4.4	U	21	U	4	U	7.8	U	3.7	U	3.8	U
4,4'-DDE	2,100	-	4.8	U	0.46	J	21	U	4	U	7.8	U	3.7	U	3.8	U
Endrin	100	-	4.8	U	4.4	U	21	U	4	U	7.8	U	3.7	U	3.8	U
Endosulfan II	900	-	4.8	U	4.4	U	21	U	4	U	7.8	U	3.7	U	3.8	U
4-4'-DDD	2,900	-	4.8	U	4.4	U	21	D	4	U	7.8	U	3.7	U	3.8	U
Endosulfan sulfate	1,000	-	4.8	U	4.4	U	21	U	4	U	7.8	U	3.7	U	3.8	U
4,4'-DDT	2,100	-	4.8	U	4.4	U	21	D	4	U	7.8	U	3.7	U	3.8	U
Methoxychlor	<10,000	-	25	U	23	U	110	U	21	U	40	U	19	U	20	U
Endrin ketone	-	-	4.8	U	4.4	U	21	U	4	U	7.8	U	0.98	J	1.9	J
Endrin aldehyde	-	-	4.8	U	1.4	J	21	U	4	U	7.8	U	3.7	U	3.8	U
alpha-Chlordane	-	-	2.5	U	2.3	U	11	U	2.1	U	4	U	1.9	U	2	U
gamma-Chlordane	540	-	2.5	U	2.3	U	11	U	2.1	U	4	U	1.9	U	2	U
Toxaphene	-	-	250	U	230	U	1,100	U	210	U	400	U	190	U	200	U
Polychlorinated Biphenyls(PCBs) (Concentration in ug/kg)																
Aroclor-1016	-	-	48	U	44	U	210	U	40	U	78	U	37	U	38	U
Aroclor-1221	-	-	97	U	89	U	420	U	82	U	160	U	76	U	78	U
Aroclor-1232	-	-	48	U	44	U	210	U	40	U	78	U	37	U	38	U
Aroclor-1242	-	-	48	U	44	U	210	U	40	U	78	U	37	U	38	U
Aroclor-1248	-	-	48	U	44	U	210	U	40	U	78	U	37	U	38	U
Aroclor-1254	-	-	48	U	44	U	210	U	40	U	78	U	37	U	38	U
Aroclor-1260	-	-	48	U	44	U	210	U	40	CD	78		37	U	38	U

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Pesticide Compounds (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (ug/kg)	NYCDEP "Action Levels" Guidance Values (ug/kg)	A5-SB7-SS-01 4-6 4/94 ENSR (ug/kg)		A5-SB7-SS-01* 4-6 4/94 ENSR (ug/kg)		A5-SB9-SS-01 4-6 4/94 ENSR (ug/kg)		A5-SB10-SS-01 4-6 4/94 ENSR (ug/kg)		A5-SB13-SS-01 4-6 4/94 ENSR (ug/kg)		A5-SB15-SS-01 4-6 4/94 ENSR (ug/kg)		A5-SB16-SS-01 4-6 4/94 ENSR (ug/kg)	
alpha-BHC	110	-	0.63	J	17	U	2	U	2	U	2	U	1.9	U	3.8	U
beta-BHC	200	-	4	U	17	U	2	U	2	U	2	U	1.9	U	3.8	U
delta-BHC	300	-	4.4	U	17	U	2	U	2	J	2	U	1.9	U	3.8	U
gamma -BHC(Lindane)	60	-	4	U	17	U	2	U	2	U	2	U	1.9	U	3.8	U
Heptachlor	100	-	4	U	9.8	J	2	U	2	U	2	U	1.9	U	3.8	U
Aldrin	41	-	0.63	J	5.1	J	2	U	2	U	2	J	1.2	J	3.8	U
Heptachlor expoxide	20	-	4	U	17	U	0.32	J	2	U	2	J	0.55	J	1.1	J
Endosulfan I	900	-	4	U	17	U	2	U	2	U	2	U	1.9	U	3.8	U
Dieldrin	44	-	7.9	U	34	U	3.8	U	4	U	3.9	U	3.7	U	7.4	U
4,4'-DDE	2,100	-	7.9	U	34	U	0.42	J	4	U	3.9	U	3.7	U	7.4	U
Endrin	100	-	7.9	U	34	U	3.8	U	4	U	3.9	U	3.7	U	7.4	U
Endosulfan II	900	-	7.9	U	34	U	3.8	U	4	U	3.9	U	3.7	J	2.1	J
4-4'-DDD	2,900	-	7.9	U	4.1	J	3.8	U	4	U	3.9	U	3.7	U	7.4	U
Endosulfan sulfate	1,000	-	7.9	U	34	U	3.8	U	4	U	3.9	U	3.7	U	7.4	U
4,4'-DDT	2,100	-	7.9	U	34	U	3.8	U	4	U	3.9	U	3.7	U	7.4	U
Methoxychlor	<10,000	-	40	U	170	U	20	U	20	U	20	U	19	U	38	U
Endrin ketone	-	-	7.9	U	34	U	3.8	U	4	U	3.9	U	3.7	U	7.4	U
Endrin aldehyde	-	-	5.8	J	9	J	3.8	U	4	U	3.9	U	3.7	U	7.4	U
alpha-Chlordane	-	-	4	U	1.5	J	2	U	2	U	2	U	1.9	U	3.8	U
gamma-Chlordane	540	-	4	U	17	U	2	U	2	U	2	U	1.9	U	3.8	U
Toxaphene	-	-	400	U	1700	U	200	U	200	U	200	U	190	U	380	U
Polychlorinated Biphenyls(PCBs) (Concentration in ug/kg)																
Aroclor-1016	-	-	79	U	340	U	38	U	40	U	39	U	74	U	37	U
Aroclor-1221	-	-	160	U	690	U	78	U	81	U	80	U	150	U	76	U
Aroclor-1232	-	-	79	U	340	U	38	U	40	U	39	U	74	U	37	U
Aroclor-1242	-	-	79	U	340	U	38	U	40	U	39	U	74	U	37	U
Aroclor-1248	-	-	79	U	340	U	38	U	40	U	39	U	74	U	37	U
Aroclor-1254	-	-	79	U	340	U	38	U	40	U	39	U	74	U	37	U
Aroclor-1260	-	-	79	U	340	U	38	U	40	CD	19	J	74	U	37	U

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alpha-BHC	110	-	1.9	U	1.9	U	2.5	U	2	U	1.9	U	2.2	U	1.8	U
beta-BHC	200	-	1.9	U	1.9	U	2.5	U	2	U	1.9	U	2.2	U	1.8	U
delta-BHC	300	-	1.9	U	1.9	U	2.5	U	2	J	1.9	U	2.2	U	1.8	U
gamma -BHC(Lindane)	60	-	1.9	U	1.9	U	2.5	U	2	U	1.9	U	2.2	U	1.8	U
Heptachlor	100	-	1.9	U	1.9	U	2.5	U	2	U	1.9	U	2.2	U	1.8	U
Aldrin	41	-	1.9	J	1.9	U	2.5	U	2	U	1.9	J	0.83	J	1.8	U
Heptachlor expoxide	20	-	1.9	U	1.9	U	2.5	J	2	U	1.9	J	2.2	J	1.8	J
Endosulfan I	900	-	1.9	U	1.9	U	2.5	U	2	U	1.9	U	2.2	U	1.8	U
Dieldrin	44	-	3.7	U	3.7	U	4.9	U	3.9	U	3.7	U	4.2	U	3.5	U
4,4'-DDE	2,100	-	3.7	U	3.7	U	4.9	J	3.9	U	3.7	U	4.2	U	3.5	U
Endrin	100	-	3.7	U	3.7	U	4.9	U	3.9	U	3.7	U	4.2	U	3.5	U
Endosulfan II	900	-	3.7	U	3.7	U	4.9	U	3.9	U	3.7	U	4.2	J	3.5	J
4-4'-DDD	2,900	-	3.7	U	3.7	J	4.9	U	3.9	U	3.7	U	4.2	U	3.5	U
Endosulfan sulfate	1,000	-	3.7	U	3.7	U	4.9	U	3.9	U	3.7	U	4.2	U	3.5	U
4,4'-DDT	2,100	-	3.7	U	3.7	U	4.9	U	3.9	U	3.7	U	4.2	U	3.5	U
Methoxychlor	<10,000	-	19	U	19	U	25	U	20	U	19	U	22	U	18	U
Endrin ketone	-	-	3.7	U	3.7	U	4.9	U	3.9	U	3.7	U	4.2	U	3.5	U
Endrin aldehyde	-	-	3.7	J	3.7	U	4.9	U	3.9	U	3.7	U	4.2	U	3.5	U
alpha-Chlordane	-	-	1.9	U	1.9	U	2.5	U	2	U	1.9	U	2.2	U	1.8	U
gamma-Chlordane	540	-	1.9	U	1.9	U	2.5	U	2	U	1.9	U	2.2	U	1.8	U
Toxaphene	-	-	190	U	190	U	250	U	200	U	190	U	220	U	180	U
Polychlorinated Biphenyls(PCBs) (Concentration in ug/kg)																
Aroclor-1016	-	-	37	U	37	U	49	U	39	U	37	U	42	U	35	U
Aroclor-1221	-	-	76	U	76	U	100	U	79		76	U	85	U	72	U
Aroclor-1232	-	-	37	U	37	U	49	U	39	U	37	U	42	U	35	U
Aroclor-1242	-	-	37	U	37	U	49	U	39	U	37	U	42	U	35	U
Aroclor-1248	-	-	37	U	37	U	49	U	39	U	37	U	42	U	35	U
Aroclor-1254	-	-	37	U	37	U	49	U	39	U	37	U	42	U	35	U
Aroclor-1260	-	-	37	U	37	U	49	U	39	U	37	U	42	U	35	U

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Table 4. Summary of Pesticide and Polychlorinated Compounds in Surficial Soil, Brooklyn Navy Yard
Cogeneration Partners, Building 41 & Utility Routings, 1994

Pesticide Compounds (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (ug/kg)	NYCDEP "Action Levels" Guidance Values (ug/kg)	DD-1 0-4 7/93 ENSR (ug/kg)		DD-2 0-4 7/93 ENSR (ug/kg)		DD-3 1-3 7/93 ENSR (ug/kg)		DD-4 2-4 7/93 ENSR (ug/kg)		DD-4* 2-4 7/93 ENSR (ug/kg)		DD5 0-2 7/93 ENSR (ug/kg)		DD5 4-6 7/93 ENSR (ug/kg)	
alpha-BHC	110	-	NA		NA		NA		NA		NA		NA		NA	
beta-BHC	200	-	NA		NA		NA		NA		NA		NA		NA	
delta-BHC	300	-	NA		NA		NA		NA		NA		NA		NA	
gamma -BHC(Lindane)	60	-	NA		NA		NA		NA		NA		NA		NA	
Heptachlor	100	-	NA		NA		NA		NA		NA		NA		NA	
Aldrin	41	-	NA		NA		NA		NA		NA		NA		NA	
Heptachlor expoxide	20	-	NA		NA		NA		NA		NA		NA		NA	
Endosulfan I	900	-	NA		NA		NA		NA		NA		NA		NA	
Dieldrin	44	-	NA		NA		NA		NA		NA		NA		NA	
4,4'-DDE	2,100	-	NA		NA		NA		NA		NA		NA		NA	
Endrin	100	-	NA		NA		NA		NA		NA		NA		NA	
Endosulfan II	900	-	NA		NA		NA		NA		NA		NA		NA	
4-4'-DDD	2,900	-	NA		NA		NA		NA		NA		NA		NA	
Endosulfan sulfate	1,000	-	NA		NA		NA		NA		NA		NA		NA	
4,4'-DDT	2,100	-	NA		NA		NA		NA		NA		NA		NA	
Methoxychlor	<10,000	-	NA		NA		NA		NA		NA		NA		NA	
Endrin ketone	-	-	NA		NA		NA		NA		NA		NA		NA	
Endrin aldehyde	-	-	NA		NA		NA		NA		NA		NA		NA	
alpha-Chlordane	-	-	NA		NA		NA		NA		NA		NA		NA	
gamma-Chlordane	540	-	NA		NA		NA		NA		NA		NA		NA	
Toxaphene	-	-	NA		NA		NA		NA		NA		NA		NA	
Polychlorinated Biphenyls(PCBs) (Concentration in ug/kg)																
Aroclor-1016	-	-	104	U	120	U	96	U	96	U	96	U	96	U	88	U
Aroclor-1221	-	-	104	U	120	U	96	U	96	U	96	U	96	U	88	U
Aroclor-1232	-	-	104	U	120	U	96	U	96	U	96	U	96	U	88	U
Aroclor-1242	-	-	104	U	120	U	96	U	96	U	96	U	96	U	88	U
Aroclor-1248	-	-	104	U	120	U	96	U	96	U	96	U	96	U	88	U
Aroclor-1254	-	-	208	U	240	U	192	U	192	U	192	U	192	U	176	U
Aroclor-1260	-	-	380		970	U	192	U	192	U	192	U	192	U	176	U

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
C - Pesticide Compound where the identification has been successfully confirmed
P - Pesticide/Aroclor target analyte when there is a >25% difference detected Conc. between GC columns
Y - Several pesticide peaks "detected" in samples SS-1, 2, 4, 5, 6, 8, and 9 are most likely due to Arochlor conditions

Tabel 5. Summary of Toxicity Characteristic Metals in Soil, Brooklyn Navy Yard, New York.
Cogeneration Partners, Building 41 & Utility Routings, 1994

Analytes	Regulatory Level* (ug/kg)	A1-WC-01 4/94 ENSER (ug/kg)		A1-SR-WC-01 4/94 ENSER (ug/kg)		A2-ENSR-MW3-WC-01 4/94 ENSER (ug/kg)		A2-SB1-WC-01 4/94 ENSER (ug/kg)		A2-SB2-WC-01 4/94 ENSER (ug/kg)		A3-WC-01 4/94 ENSER (ug/kg)		A4-WC-01 4/94 ENSER (ug/kg)	
Arsenic	5000	4	B	3	B	3	B	22		4	B	5	B	9	B
Barium	100000	656		512		1010		719		537		1140		723	
Cadmium	1000	5	U	5	U	6.3		7		5	U	5	U	6.5	
Chromium	5000	10	U	10	U	28.8		10	U	10	U	10	U	10	U
Lead	5000	180		371		219		187		47.5		232		979	
Mercury	200	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Selenium	1000	3	U	3	U	3	U	3	U	3	U	3	U	3	U
Silver	5000	10	U	10	U	10	U	10	U	10	U	10	U	10	U

Analytes	Regulatory Level* (ug/kg)	A5-WC-01 4/94 ENSER (ug/kg)		A5-WC-02 4/94 ENSER (ug/kg)		A5-WC-03 4/94 ENSER (ug/kg)		A5-WC-03A 4/94 ENSER (ug/kg)		A5-WC-04 4/94 ENSER (ug/kg)		A5-WC-05 4/94 ENSER (ug/kg)		A5-WC-06 4/94 ENSER (ug/kg)	
Arsenic	5000	8	B	3	U	3	U	3	U	3	U	5	B	3	U
Barium	100000	723		875		796		570		672		660		389	
Cadmium	1000	11		49		197		6		5	U	5.5		5	U
Chromium	5000	10	U	10		10	U	10		10	U	10	U	10	U
Lead	5000	1650		1470		348		251		135		120		30	U
Mercury	200	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Selenium	1000	3	U	3	U	3	U	3	U	3	U	3	U	3	U
Silver	5000	0.6	U	0.6	U	0.6	U	0.6	U	10	U	10	U	10	U

Analytes	Regulatory Level* (ug/kg)	A5-WC-07 4/94 ENSER (ug/kg)		A5-GP-WC-01 4/94 ENSER (ug/kg)	
Arsenic	5000	9	B	3	U
Barium	100000	671		696	
Cadmium	1000	5	U	46	
Chromium	5000	10	U	10	U
Lead	5000	84.9		4140	
Mercury	200	0.2	U	0.2	U
Selenium	1000	3	U	3	U
Silver	5000	10	U	0.6	U

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
B - Analyte found in associated blank as well as sample
* - 40 CFR 261.21 through 261.24

Table 6. Summary of Toxicity Characteristic Volatile Organic Compounds in Soil, Brooklyn Navy Yard, New York.
Cogeneration Partners, Building 41 & Utility Routings, 1994

Volatile Organic Compounds	Regulatory Level* (ug/kg)	A1-WC-01 4/94 ENSER (ug/kg)		A1-WC-01-RE 4/94 ENSER (ug/kg)		A1-SR-WC-01 4/94 ENSER (ug/kg)		A1-SR-WC-01-RE 4/94 ENSER (ug/kg)		A2-ENSR-MW3-WC-01 4/94 ENSER (ug/kg)		A2-SB1-WC-01 4/94 ENSER (ug/kg)		A2-SB2-WC-01 4/94 ENSER (ug/kg)	
Vinyl Chloride	200	100	U	100	U	100	U	100	U	100	U	12	J	100	U
1,1-Dichloroethene	700	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Chloroform	6000	50	U	50	U	50	U	50	U	50	U	50	U	50	U
1,2-Dichloroethane	500	50	U	50	U	50	U	50	U	50	U	50	U	50	U
2-Butanone	200000	100	U	100	U	100	U	100	U	100	U	100	U	100	U
Carbon Tetrachloride	500	50	U	50	U	50	U	50	U	50	U	16	J	50	U
Trichloroethene	500	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Benzene	500	50	U	50	U	50	U	50	U	50	U	15	J	50	U
Tetrachloroethene	700	50	U	50	U	50	U	50	U	50	U	16	J	50	U
Chlorobenzene	100000	50	U	50	U	50	U	50	U	50	U	50	U	50	U

Volatile Organic Compounds	Regulatory Level* (ug/kg)	A3-SB1-SS-01 4/94 ENSER (ug/kg)		A3-SB1-SS-02 4/94 ENSER (ug/kg)		A3-WC-01 4/94 ENSER (ug/kg)		A4-WC-01 4/94 ENSER (ug/kg)		A5-WC-01 4/94 ENSER (ug/kg)		A5-WC-01-RE 4/94 ENSER (ug/kg)		A5-WC-04 4/94 ENSER (ug/kg)	
Vinyl Chloride	200	100	U	100	U	100	U	100	U	100	U	100	U	100	U
1,1-Dichloroethene	700	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Chloroform	6000	50	U	50	U	50	U	50	U	50	U	50	U	50	U
1,2-Dichloroethane	500	50	U	50	U	50	U	50	U	50	U	50	U	50	U
2-Butanone	200000	100	U	100	U	100	U	100	U	100	U	100	U	100	U
Carbon Tetrachloride	500	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Trichloroethene	500	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Benzene	500	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Tetrachloroethene	700	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Chlorobenzene	100000	50	U	50	U	50	U	50	U	50	U	50	U	50	U

Volatile Organic Compounds	Regulatory Level* (ug/kg)	A5-WC-05 4/94 ENSER (ug/kg)		A5-WC-05-RE 4/94 ENSER (ug/kg)		A5-WC-06 4/94 ENSER (ug/kg)		A5-WC-06-RE 4/94 ENSER (ug/kg)		A5-WC-07 4/94 ENSER (ug/kg)		A5-WC-07-RE 4/94 ENSER (ug/kg)		GP-WC-01 4/94 ENSER (ug/kg)	
Vinyl Chloride	200	100	U	100	U	100	U	100	U	100	U	100	U	100	U
1,1-Dichloroethene	700	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Chloroform	6000	50	U	50	U	50	U	50	U	50	U	50	U	50	U
1,2-Dichloroethane	500	50	U	50	U	50	U	50	U	50	U	50	U	50	U
2-Butanone	200000	100	U	100	U	100	U	100	U	100	U	100	U	100	U
Carbon Tetrachloride	500	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Trichloroethene	500	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Benzene	500	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Tetrachloroethene	700	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Chlorobenzene	100000	50	U	50	U	50	U	50	U	50	U	50	U	50	U

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
B - Analyte found in associated blank as well as sample
* - 40 CFR 261.21 through 261.24

Table 7. Summary of Toxicity Characteristic Semivolatile Organic Compounds in Soil, Brooklyn Navy Yard, New York.
Cogeneration Partners, Building 41 & Utility Routings, 1994

Semivolatile Organic Compounds	Regulatory Level* (ug/kg)	A1-WC-01 4/94 ENSER (ug/kg)	A1-SR-WC-01 4/94 ENSER (ug/kg)	A2-ENSR-MW3-WC-01 4/94 ENSER (ug/kg)	A2-SB1-WC-01 4/94 ENSER (ug/kg)	A2-SB2-WC-01 4/94 ENSER (ug/kg)	A3-SB1-SS-01 4/94 ENSER (ug/kg)	A3-SB1-SS-02 4/94 ENSER (ug/kg)
Pyridine	5000	50 U	50 U	50 U	50 U	50 U	50 U	50 U
1,4-Dichlorobenzene	7500	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2-Mehylphenol	200000	50 U	50 U	50 U	50 U	50 U	50 U	50 U
3 & 4-Methylphenol	200000	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Hexachloroethane	3000	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Nitrobenzene	2000	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Hexachlorobutadiene	500	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2,4,6-Trichlorophenol	2000	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2,4,5-Trichlorophenol	1000	250 U	250 U	250 U	250 U	250 U	250 U	250 U
2,4-Dinitrotoluene	100	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Hexachlorobenzene	100	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Pentachlorophenol	100000	250 U	250 U	250 U	250 U	250 U	250 U	250 U

Semivolatile Organic Compounds	Regulatory Level* (ug/kg)	A3-WC-01 4/94 ENSER (ug/kg)	A4-WC-01 4/94 ENSER (ug/kg)	A5-WC-01 4/94 ENSER (ug/kg)	A5-WC-04 4/94 ENSER (ug/kg)	A5-WC-05 4/94 ENSER (ug/kg)	A5-WC-06 4/94 ENSER (ug/kg)	A5-WC-07 4/94 ENSER (ug/kg)
Pyridine	5000	50 U	50 U	50 U	50 U	50 U	50 U	50 U
1,4-Dichlorobenzene	7500	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2-Mehylphenol	200000	50 U	50 U	50 U	50 U	50 U	50 U	50 U
3 4-Methylphenol	200000	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Hexachloroethane	3000	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Nitrobenzene	2000	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Hexachlorobutadiene	500	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2,4,6-Trichlorophenol	2000	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2,4,5-Trichlorophenol	1000	250 U	250 U	250 U	250 U	250 U	250 U	250 U
2,4-Dinitrotoluene	100	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Hexachlorobenzene	100	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Pentachlorophenol	100000	250 U	250 U	250 U	250 U	250 U	250 U	250 U

Semivolatile Organic Compounds	Regulatory Level* (ug/kg)	A5-GP-WC-01 4/94 ENSER (ug/kg)
Pyridine	5000	50 U
1,4-Dichlorobenzene	7500	50 U
2-Mehylphenol	200000	50 U
3 4-Methylphenol	200000	50 U
Hexachloroethane	3000	50 U
Nitrobenzene	2000	50 U
Hexachlorobutadiene	500	50 U
2,4,6-Trichlorophenol	2000	50 U
2,4,5-Trichlorophenol	1000	250 U
2,4-Dinitrotoluene	100	50 U
Hexachlorobenzene	100	50 U
Pentachlorophenol	100000	250 U

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
B - Analyte found in associated blank as well as sample
* - 40 CFR 261.21 through 261.24

Table 8. Summary of Toxicity Characteristic Pesticides in Soil, Brooklyn Navy Yard, New York.
Cogeneration Partners, Building 41 & Utility Routings, 1994

Pesticides	Regulatory Level* (ug/kg)	A1-WC-01 4/94 ENSER (ug/kg)		A1-SR-WC-01 4/94 ENSER (ug/kg)		A2-ENSR-MW3-WC-01 4/94 ENSER (ug/kg)		A2-SB1-WC-01 4/94 ENSER (ug/kg)		A2-SB2-WC-01 4/94 ENSER (ug/kg)		A3-SB1-SS-01 4/94 ENSER (ug/kg)		A3-SB1-SS-02 4/94 ENSER (ug/kg)	
gamma-BHC (Lindane)	0.4	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Chlordane	0.03	0.013	U	0.013	U	0.013	U	0.013	U	0.013	U	0.013	U	0.013	U
Endrin	--	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Heptachlor	0.008	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Heptachlor epoxide	0.008	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Methoxychlor	10	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Toxaphene	0.5	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U

Pesticides	Regulatory Level* (ug/kg)	A3-WC-01 4/94 ENSER (ug/kg)		A4-WC-01 4/94 ENSER (ug/kg)		A5-WC-01 4/94 ENSER (ug/kg)		A5-WC-04 4/94 ENSER (ug/kg)		A5-WC-05 4/94 ENSER (ug/kg)		A5-WC-06 4/94 ENSER (ug/kg)		A5-WC-07 4/94 ENSER (ug/kg)	
gamma-BHC (Lindane)	0.4	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Chlordane	0.03	0.013	U	0.013	U	0.013	U	0.013	U	0.013	U	0.013	U	0.013	U
Endrin	--	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Heptachlor	0.008	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Heptachlor epoxide	0.008	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Methoxychlor	10	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Toxaphene	0.5	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U

Pesticides	Regulatory Level* (ug/kg)	A5-GP-WC-01 4/94 ENSER (ug/kg)	
gamma-BHC (Lindane)	0.4	0.001	U
Chlordane	0.03	0.013	U
Endrin	--	0.001	U
Heptachlor	0.008	0.001	U
Heptachlor epoxide	0.008	0.001	U
Methoxychlor	10	0.001	U
Toxaphene	0.5	0.01	U

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
B - Analyte found in associated blank as well as sample
* - 40 CFR 261.21 through 261.24

Table 9. Summary of Ignitability, Corrosivity, and Reactivity in Soil, Brooklyn Navy Yard, New York.
Cogeneration Partners, Building 41 & Utility Routings, 1994

Analytes	Regulatory Level* (ug/kg)	A1-WC-01 4/94 ENSER (ug/kg)		A1-SR-WC-01 4/94 ENSER (ug/kg)		A2-ENSR-MW3-WC-01 4/94 ENSER (ug/kg)		A2-SB1-WC-01 4/94 ENSER (ug/kg)		A2-SB2-WC-01 4/94 ENSER (ug/kg)		A3-WC-01 4/94 ENSER (ug/kg)		A4-WC-01 4/94 ENSER (ug/kg)	
Reactivity-Sulfide (mg/kg)	500	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Reactivity-Cyanide (mg/kg)	250	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Leachable pH (standard units)	<2 or >12.5	11.62		9.35		10.53		8.14		9.12		10.48		7.4	
Flashpoint (F)	<140	>200		>200		>200		>200		>200		>200		>200	

Analytes	Regulatory Level* (ug/kg)	A5-WC-01 4/94 ENSER (ug/kg)		A5-WC-02 4/94 ENSER (ug/kg)		A5-WC-03 4/94 ENSER (ug/kg)		A5-WC-03A 4/94 ENSER (ug/kg)		A5-WC-04 4/94 ENSER (ug/kg)		A5-WC-05 4/94 ENSER (ug/kg)		A5-WC-06 4/94 ENSER (ug/kg)	
Reactivity-Sulfide (mg/kg)	500	10	U	10	U	10	U	10	U	10	U	10	U	18.4	U
Reactivity-Cyanide (mg/kg)	250	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Leachable pH (standard units)	<2 or >12.5	6.51		10.09		9.54		9.87		10.74		9.52		8.43	
Flashpoint (F)	<140	>200		>200		>200		>200		>200		>200		>200	

Analytes	Regulatory Level* (ug/kg)	A5-WC-07 4/94 ENSER (ug/kg)		A5-GP-WC-01 4/94 ENSER (ug/kg)	
Reactivity-Sulfide (mg/kg)	500	10	U	10	U
Reactivity-Cyanide (mg/kg)	250	10	U	10	U
Leachable pH (standard units)	<2 or >12.5	8.49		9.2	
Flashpoint (F)	<140	>200		>200	

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
B - Analyte found in associated blank as well as sample
* - 40 CFR 261.21 through 261.24

138 KV Underground Transmisssion Line
Cogeneration Project 2/1/1996

Description of Location	Soil Samples			Groundwater Samples	
	Sample Designation	No. of Samples Subsurface	Surfical	Sample Designation	No. of Samples
Plymouth St. Between Con-Edison and Red Hook Station	SB01-01 SB01-02 SB02-01 SB02-02 SB03-01 SB03-02	6	0	-	0
Red Hook Station	SB04-01 SB05-01 SB05-02	3	0	-	0
NW Corner of Craneways	SB06-01 SB06-02	2	0	-	0
Western Side of DOT Tow Pound (Along access road to western gate of BNY)	SB07-01 SB07-02 SB08-01 SB08-02 SB09-01 SB09-02	6	0	-	0
Along Perry Ave.	SB10-01 SB10-02 SB11-01	3	0	-	0
Perry Ave. (continued)	SB11-02 SB-11-03 SB12-01 SB12-02 SB13-01 SB13-02	6	0	-	0
Fourth St. East side of Bldg.63	SB14-01 SB14-02 SB14-03	3	0	-	0
New Bldg.132 east side	SB15-01 SB15-02 SB16-01 SB16-02	4	0	-	0
TOTALS	**-**	**33**	**0**	**-**	**0**

Table 1. Soil Analytical Results for 138 KV Transmission Line

Metal Analytes	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP Action Levels (mg/kg)	BNY-SB01-01 (mg/kg)	BNY-SB01-02 (mg/kg)	BNY-SB02-01 (mg/kg)	BNY-SB02-02 (mg/kg)	BNY-SB02-03 (mg/kg)	BNY-SB03-01 (mg/kg)	BNY-SB03-02 (mg/kg)
Aluminum	SB	-	3600	2550	4670	4330	5200	3510	4570
Antinomy	SB	10	2.3 U	1.9 U	2.2 U	1.9 U	2.9 B	1.5 U	2 U
Arsenic	7.5 or SB	9	5.6	1.1 B	1.7 B	2	1.8	2	1.1 B
Barium	300 or SB	400	72.5	41.7	32.9 B	28.7 B	33.6 B	30.1	33.3 B
Beryllium	0.16(HEAST) or SE	1	0.24 B	0.2 B	0.15 B	0.27 B	0.36 B	0.22 B	0.25 B
Cadmium	1 or SB	37	0.37 U	0.3 U	0.35 U	0.31 U	0.4 B	0.16 U	0.32 U
Calcium	SB	-	4660	4150	1050	905	1280	2330	1600
Chromium	10 or SB	46	9.9	5.6	9.9	10.7	10.5	9.3	7.1
Cobalt	30 or SB	-	3.7 B	3.3 B	4.4 B	7.4 B	8.5 B	4.2 B	5.4 B
Copper	25 or SB	170	29.3	8.6	18.7	19.2	26.3	14.9	16.3
Iron	2,000 or SB	-	8610	5440	9150	8540	10400	7720	9070
Lead	SB or **	1000	1540	36.7	23.8	9.9	22.5	50.5	21.9
Magnesium	SB	-	2810	2320	2800	2330	2610	2230	3180
Maganese	SB	-	173	279	111	411	453	158	177
Mercury	0.1	1	9.9	0.05	0.14	0.06	0.05	0.14	0.04
Nickel	13 or SB	100	20.9	10.2	11.6	19.7	23	13.3	15.1
Potassium	SB	-	775 B	666 B	1350	997	1080	986	1680
Selenium	2 or SB	-	0.76 U	0.61 U	0.72 U	0.63 U	0.72 U	0.36 U	0.66 U
Silver	SB	5	0.7 U	0.56 U	0.66 U	0.58 U	0.66 U	0.27 U	0.61 U
Sodium	SB	-	85.8 B	81 B	119 B	182 B	99.9 B	141 B	247 B
Thallium	SB	-	0.52 U	0.42 U	1.1 B	1.3 B	0.5 U	0.44 U	0.46 U
Vanadium	150-SB	-	19.1	7.5 B	16	10.9	14.3	13.9	13.7
Zinc	20 or SB	350	98.6	22.6	27.4	29.4	36.9	51.6	32.3
Cyanide	***	-	0.18 U	0.19 U	0.56	0.19 U	0.18 U	0.12 U	0.21 U

Qualifiers:
mg/kg - Milligram per kilogram
U - Not detected; detection limit shown
B - Analyte Found in associated blank as well as sample
SB - Site Background
* - Soils Concentration found in idustrial settings(McClanahan, 10/3/86)
**- Background levels of lead vary widely. Average background leverls in metropolitan and subban areas average 200 - 500 ppm
*** - Site specific condition should be taken into consideration when establishing clean up levels

Table 1. Soil Analytical Results for 138 KV Transmission Line

Metal Analytes	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP Action Levels (mg/kg)	BNY-SB04-01 (mg/kg)	BNY-SB05-01 (mg/kg)	BNY-SB05-02 (mg/kg)	BNY-SB06-01 (mg/kg)	BNY-SB06-02 (mg/kg)	BNY-SB07-01 (mg/kg)	BNY-SB07-02 (mg/kg)
Aluminum	SB	-	3580	2530	2270	6200	4480	3480	7810
Antinomy	SB	10	1.8 U	1.8 U	2 U	1.9 U	1.9 U	1.9 U	2.1 U
Arsenic	7.5 or SB	9	2.7	1.3 B	0.45 B	5.8	3.6	4	3.4
Barium	300 or SB	400	26.7 B	16.8 B	15.9 B	159	41.9	36	70.8
Beryllium	0.16(HEAST) or SB	1	0.25 B	0.18 B	0.16 B	0.37 B	0.62 B	3.1	0.74 B
Cadmium	1 or SB	37	0.19 U	0.28 U	0.32 U	1.2	0.2 U	0.41 B	0.28 B
Calcium	SB	-	1640	1740	784 B	32500	1880	57200	5850
Chromium	10 or SB	46	11.5	7.2	6.1	14	14.3	38.5	22.4
Cobalt	30 or SB	-	3.8 B	2.6 B	2.7 B	5.1 B	9.4	6.5 B	8.4 B
Copper	25 or SB	170	11.1	11.1	6.5	49.2	38	78.1	23.2
Iron	2,000 or SB	-	7680	6400	5120	12200	17200	12400	18000
Lead	SB or **	1000	25.5	13.6	3.1	543	52	106	9.5
Magnesium	SB	-	1540	1050	1070	4270	2420	30000	5460
Maganese	SB	-	163	104	120	226	380	192	474
Mercury	0.1	1	0.1	0.12	0.05	0.38	0.03 U	0.05	0.03 U
Nickel	13 or SB	100	11.4	7.3	7	18.5	28.4	39.3	31
Potassium	SB	-	610 B	487 B	318 B	1100	771 B	758 B	1960
Selenium	2 or SB	-	0.46 B	0.58 U	0.65 U	0.44 U	0.67 B	0.44 U	0.48 U
Silver	SB	5	0.34 B	0.54 U	0.6 U	0.33 U	0.34 U	0.33 U	0.36 U
Sodium	SB	-	56 B	105 B	55.9 B	234 B	112 B	148 B	199 B
Thallium	SB	-	0.53 U	0.4 U	0.45 U	0.54 U	0.55 U	0.54 U	0.59 U
Vanadium	150-SB	-	10.9	8.7	6.6 B	21	51.8	14	27.6
Zinc	20 or SB	350	38.1	20.3	11.4	420	53.8	321	69.9
Cyanide	***	-	0.13 U	0.2 U	0.17 U	0.12 U	0.14 U	0.13 U	0.14 U

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SB - Site Background
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**- Background levels of lead vary widely. Average background leverls in metropolitan and subban areas average 200 - 500 ppm
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Table 1. Soil Analytical Results for 138 KV Transmission Line

Metal Analytes	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP Action Levels (mg/kg)	BNY-SB11-02 (mg/kg)	BNY-SB011-03 (mg/kg)	BNY-SB12-01 (mg/kg)	BNY-SB12-02 (mg/kg)	BNY-SB13-01 (mg/kg)	BNY-SB13-02 (mg/kg)	BNY-SB14-01 (mg/kg)
Aluminum	SB	-	5230	3800	4850	3950	5380	3540	8310
Antinomy	SB	10	2.6 U	2.7 U	2.6 U	2.4 U	1.9 U	2.6 B	2.1 U
Arsenic	7.5 or SB	9	3.9	5.3	7.9	4	2.4	3.4	8.2
Barium	300 or SB	400	55.1	48.7	1340	52.9	37.5	30.4 B	66.5
Beryllium	0.16(HEAST) or SE	1	0.68 B	0.36 B	0.28 B	0.33 B	0.29 B	0.2 B	0.51 B
Cadmium	1 or SB	37	0.32 B	0.28 U	0.44 B	0.36 B	0.23 B	0.27 U	0.24 B
Calcium	SB	-	16600	12000	4690	2190	6030	8850	3060
Chromium	10 or SB	46	14.3	11.4	11.7	7.5	13.5	8.6	14.5
Cobalt	30 or SB	-	6.1 B	5.9 B	8.2 B	5.6 B	5.7 B	5.3 B	7.9 B
Copper	25 or SB	170	136	186	159	25.5	21.2	151	53.4
Iron	2,000 or SB	-	11400	12500	18200	12100	9840	21300	17800
Lead	SB or **	1000	99.9	98.5	199	53.9	62.7	149	248
Magnesium	SB	-	9170	6200	1470	1220	2670	2460	2930
Maganese	SB	-	378	256	192	175	224	373	297
Mercury	0.1	1	0.19	0.18	0.42	0.17	0.21	0.13	2
Nickel	13 or SB	100	30.1	25.7	22.7	9.7	25.3	14.6	26.9
Potassium	SB	-	812 B	637 B	586 B	378 B	878	404 B	1050
Selenium	2 or SB	-	0.7 B	1.1 B	1.8	1.4	0.53 B	1.3	1.3
Silver	SB	5	0.45 U	0.46 U	0.45 U	0.41 U	0.34 U	0.44 U	0.52 B
Sodium	SB	-	131 B	129 B	659 B	162 B	137 B	107 B	626 B
Thallium	SB	-	0.75 U	0.76 U	0.83 B	0.68 U	0.56 U	0.73 U	0.59 U
Vanadium	150-SB	-	22.9	22.9	18.2	13.4	14.2	13.6	23.3
Zinc	20 or SB	350	91.2	70.7	129	51.5	44.1	64	131
Cyanide	***	-	0.11 U	0.15	0.19 B	0.15 U	0.13 U	0.13 U	0.15 B

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Table 1. Soil Analytical Results for 138 KV Transmission Line

Metal Analytes	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP Action Levels (mg/kg)	BNY-SB11-02 (mg/kg)	BNY-SB011-03 (mg/kg)	BNY-SB12-01 (mg/kg)	BNY-SB12-02 (mg/kg)	BNY-SB13-01 (mg/kg)	BNY-SB13-02 (mg/kg)	BNY-SB14-01 (mg/kg)
Aluminum	SB	-	5230	3800	4850	3950	5380	3540	8310
Antimony	SB	10	2.6 U	2.7 U	2.6 U	2.4 U	1.9 U	2.6 B	2.1 U
Arsenic	7.5 or SB	9	3.9	5.3	7.9	4	2.4	3.4	8.2
Barium	300 or SB	400	55.1	48.7	1340	52.9	37.5	30.4 B	66.5
Beryllium	0.16(HEAST) or SE	1	0.68 B	0.36 B	0.28 B	0.33 B	0.29 B	0.2 B	0.51 B
Cadmium	1 or SB	37	0.32 B	0.28 U	0.44 B	0.36 B	0.23 B	0.27 U	0.24 B
Calcium	SB	-	16600	12000	4690	2190	6030	8850	3060
Chromium	10 or SB	46	14.3	11.4	11.7	7.5	13.5	8.6	14.5
Cobalt	30 or SB	-	6.1 B	5.9 B	8.2 B	5.6 B	5.7 B	5.3 B	7.9 B
Copper	25 or SB	170	136	186	159	25.5	21.2	151	53.4
Iron	2,000 or SB	-	11400	12500	18200	12100	9840	21300	17800
Lead	SB or **	1000	99.9	98.5	199	53.9	62.7	149	248
Magnesium	SB	-	9170	6200	1470	1220	2670	2460	2930
Maganese	SB	-	378	256	192	175	224	373	297
Mercury	0.1	1	0.19	0.18	0.42	0.17	0.21	0.13	2
Nickel	13 or SB	100	30.1	25.7	22.7	9.7	25.3	14.6	26.9
Potassium	SB	-	812 B	637 B	586 B	378 B	878	404 B	1050
Selenium	2 or SB	-	0.7 B	1.1 B	1.8	1.4	0.53 B	1.3	1.3
Silver	SB	5	0.45 U	0.46 U	0.45 U	0.41 U	0.34 U	0.44 U	0.52 B
Sodium	SB	-	131 B	129 B	659 B	162 B	137 B	107 B	626 B
Thallium	SB	-	0.75 U	0.76 U	0.83 B	0.68 U	0.56 U	0.73 U	0.59 U
Vanadium	150-SB	-	22.9	22.9	18.2	13.4	14.2	13.6	23.3
Zinc	20 or SB	350	91.2	70.7	129	51.5	44.1	64	131
Cyanide	***	-	0.11 U	0.15	0.19 B	0.15 U	0.13 U	0.13 U	0.15 B

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Table 1. Soil Analytical Results for 138 KV Transmission Line

Metal Analytes	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP Action Levels (mg/kg)	BNY-SB14-02 (mg/kg)	BNY-SB014-03 (mg/kg)	BNY-SB15-01 (mg/kg)	BNY-SB15-02 (mg/kg)	BNY-SB16-01 (mg/kg)	BNY-SB16-02 (mg/kg)	(mg/kg)
Aluminum	SB	-	12100	9280	4730	6920	6570	5580	
Antinomy	SB	10	2.8 U	2.8 B	2.3 U	1.9 U	2 U	3 B	
Arsenic	7.5 or SB	9	6.5	9.7	5.6	4	10.8	8.4	
Barium	300 or SB	400	72.5	73.4	165	57.1	103	315	
Beryllium	0.16(HEAST) or SB	1	0.64 B	0.52 B	0.33 B	0.39 B	0.47 B	0.61 B	
Cadmium	1 or SB	37	0.64 B	0.44 B	0.24 U	0.31 B	0.31 B	0.5 B	
Calcium	SB	-	3380	3000	11900	2440	1950	2820	
Chromium	10 or SB	46	25.4	20.5	12.3	15.1	14.3	8.1	
Cobalt	30 or SB	-	9.8 B	7.9 B	7.4 B	7 B	7.9 B	5.5 B	
Copper	25 or SB	170	129	51.3	63.1	172	599	176	
Iron	2,000 or SB	-	27600	21000	11200	14600	20200	7320	
Lead	SB or **	1000	112	197	482	150	1000	1480	
Magnesium	SB	-	5480	3480	2230	2560	1700	546 B	
Maganese	SB	-	343	324	203	255	226	51.8	
Mercury	0.1	1	0.52	1.7	0.36	0.22	1.3	3.5	
Nickel	13 or SB	100	26.8	27.4	18.3	27.5	23.8	11.8	
Potassium	SB	-	2420	1310	682 B	827	1150	631 B	
Selenium	2 or SB	-	2.2	1.3	1.1	1.1	1.7	1.2	
Silver	SB	5	0.49 U	0.4 B	0.39 U	0.33 U	0.52 B	0.45 U	
Sodium	SB	-	760 B	818 B	537 B	246 B	524 B	560 B	
Thallium	SB	-	0.8 U	0.64 U	0.65 U	0.55 U	0.58 U	0.74 U	
Vanadium	150-SB	-	30.3	25.4	15.5	22.7	21.5	27.9	
Zinc	20 or SB	350	355	129	123	160	257	95.6	
Cyanide	***	-	0.2 U	0.13 U	0.13 U	0.15 U	0.14 U	0.17 U	

Qualifiers:
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**- Background levels of lead vary widely. Average background leverls in metropolitan and subban areas average 200 - 500 ppm
*** - Site specific condition should be taken into consideration when establishing clean up levels

Table 2. Soil Analytical Results for 138 KV Transmission Line

CPL Volatiles	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP Action Levels (mg/kg)	BNY-SB01-01 (ug/Kg)	BNY-SB01-02 (ug/Kg)	BNY-SB02-01 (ug/Kg)	BNY-SB02-02 (ug/Kg)	BNY-SB02-03 (ug/Kg)	BNY-SB03-01 (ug/Kg)	BNY-SB03-02 (ug/Kg)
Chloromethane	-	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
Bromomethane	-	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
Vinyl Chloride	200	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
Chloroethane	1900	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
Methylene Chloride	100	40	11 U	11 U	7 JB	8 JB	7 JB	2 JB	11 U
Acetone	200	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
Carbon Disulfide	200	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
1,1 Dichloroethene	400	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
1,1 Dichloroethane	200	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
1,2 (Total) Dichloroethene	300	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
Chloroform	300	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
1,2 Dichloroethane	100	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
2-Butanone	300	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
1,1,1 Trichloroethane	800	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
Carbon Tetrachloride	600	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
Bromodichloromethane	-	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
1,2 Dichloropropane	-	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
Cis-1,3 Dichloropropene	-	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
Trichloroethene	700	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
Dibromochloromethane	-	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
1,1,2-Trichloroethane	-	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
Benzene	60	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
Trans-1,3-Dichloropropene	-	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
Bromoform	-	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
4-Methyl-2-Pentanone	1000	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
2 Hexanone	-	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
Tetrachloroethene	1400	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
1,1,2,2,-Tetrachloroethane	600	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
Toluene	1500	13	11 U	11 U	10 U	11 U	11 U	6 J	11 U
Chlorobenzene	1700	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
Ethylbenzene	5500	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
Styrene	-	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
Total Xylene	1200	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U

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*** - Site specific condition should be taken into consideration when establishing clean up levels

Table 2. Soil Analytical Results for 138 KV Transmission Line

CPL Volatiles	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP Action Levels (mg/kg)	BNY-SB04-01 (ug/Kg)	BNY-SB05-01 (ug/Kg)	BNY-SB05-02 (ug/Kg)	BNY-SB06-01 (ug/Kg)	BNY-SB06-02 (ug/Kg)	BNY-SB07-01 (ug/Kg)	BNY-SB07-02 (ug/Kg)
Chloromethane	-	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
Bromomethane	-	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
Vinyl Chloride	200	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
Chloroethane	1900	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
Methylene Chloride	100	40	11 U	10 U	11 U	2 JB	3 JB	3 JB	3 JB
Acetone	200	13	11 U	10 U	11 U	23	11 U	3 J	4 JB
Carbon Disulfide	200	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
1,1 Dichloroethene	400	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
1,1 Dichloroethane	200	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
1,2 (Total) Dichloroethene	300	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
Chloroform	300	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
1,2 Dichloroethane	100	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
2-Butanone	300	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
1,1,1 Trichloroethane	800	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
Carbon Tetrachloride	600	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
Bromodichloromethane	-	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
1,2 Dichloropropane	-	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
Cis-1,3 Dichloropropene	-	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
Trichloroethene	700	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
Dibromochloromethane	-	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
1,1,2-Trichloroethane	-	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
Benzene	60	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
Trans-1,3-Dichloropropene	-	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
Bromoform	-	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
4-Methyl-2-Pentanone	1000	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
2 Hexanone	-	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
Tetrachloroethene	1400	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
1,1,2,2,-Tetrachloroethane	600	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
Toluene	1500	13	4 J	10 U	11 U	1 J	11 U	1 J	1 J
Chlorobenzene	1700	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
Ethylbenzene	5500	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
Styrene	-	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
Total Xylene	1200	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U

Qualifiers:
mg/kg - Milligram per kilogram
U - Not detected; detection limit shown
B - Analyte Found in associated blank as well as sample
SB - Site Background
* - Soils Concentration found in idustrial settings(McClanahan, 10/3/86)
**- Background levels of lead vary widely. Average background leverls in metropolitan and subban areas average 200 - 500 ppm
*** - Site specific condition should be taken into consideration when establishing clean up levels

Table 2. Soil Analytical Results for 138 KV Transmission Line

CPL Volatiles	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP Action Levels (mg/kg)	BNY-SB08-01 (ug/Kg)	BNY-SB08-02 (ug/Kg)	BNY-SB09-01 (ug/Kg)	BNY-SB09-02 (ug/Kg)	BNY-SB10-01 (ug/Kg)	BNY-SB10-02 (ug/Kg)	BNY-SB11-01 (ug/Kg)
Chloromethane	-	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
Bromomethane	-	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
Vinyl Chloride	200	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
Chloroethane	1900	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
Methylene Chloride	100	40	12 B	3 JB	7 JB	4 JB	4 JB	15 B	2 JB
Acetone	200	13	57	2 J	14 B	10 JB	3 JB	4 JB	29
Carbon Disulfide	200	13	12 U	12 U	12 U	11 U	12 U	12 U	1 J
1,1 Dichloroethene	400	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
1,1 Dichloroethane	200	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
1,2 (Total) Dichloroethene	300	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
Chloroform	300	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
1,2 Dichloroethane	100	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
2-Butanone	300	13	12 U	12 U	12 U	11 U	12 U	12 U	8 J
1,1,1 Trichloroethane	800	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
Carbon Tetrachloride	600	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
Bromodichloromethane	-	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
1,2 Dichloropropane	-	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
Cis-1,3 Dichloropropene	-	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
Trichloroethene	700	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
Dibromochloromethane	-	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
1,1,2-Trichloroethane	-	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
Benzene	60	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
Trans-1,3-Dichloropropene	-	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
Bromoform	-	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
4-Methyl-2-Pentanone	1000	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
2 Hexanone	-	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
Tetrachloroethene	1400	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
1,1,2,2,-Tetrachloroethane	600	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
Toluene	1500	13	4 J	12 U	2 J	11 U	1 J	12 U	1 J
Chlorobenzene	1700	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
Ethylbenzene	5500	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
Styrene	-	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
Total Xylene	1200	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U

Qualifiers:
mg/kg - Milligram per kilogram
U - Not detected; detection limit shown
B - Analyte Found in associated blank as well as sample
SB - Site Background
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Table 2. Soil Analytical Results for 138 KV Transmission Line

CPL Volatiles	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP Action Levels (mg/kg)	BNY-SB11-02 (ug/Kg)	BNY-SB11-03 (ug/Kg)	BNY-SB12-01 (ug/Kg)	BNY-SB12-02 (ug/Kg)	BNY-SB13-01 (ug/Kg)	BNY-SB13-02 (ug/Kg)	BNY-SB14-01 (ug/Kg)
Chloromethane	-	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
Bromomethane	-	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
Vinyl Chloride	200	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
Chloroethane	1900	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
Methylene Chloride	100	40	1 JB	3 JB	3 JB	6 JB	2 JB	5 JB	3 JB
Acetone	200	13	20	2 J	12 U	35 B	26	14	12 U
Carbon Disulfide	200	13	11 U	11 U	12 U	1 J	11 U	13 U	12 U
1,1 Dichloroethene	400	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
1,1 Dichloroethane	200	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
1,2 (Total) Dichloroethene	300	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
Chloroform	300	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
1,2 Dichloroethane	100	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
2-Butanone	300	13	11 U	11 U	12 U	2 J	11 U	13 U	12 U
1,1,1 Trichloroethane	800	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
Carbon Tetrachloride	600	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
Bromodichloromethane	-	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
1,2 Dichloropropane	-	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
Cis-1,3 Dichloropropene	-	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
Trichloroethene	700	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
Dibromochloromethane	-	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
1,1,2-Trichloroethane	-	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
Benzene	60	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
Trans-1,3-Dichloropropene	-	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
Bromoform	-	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
4-Methyl-2-Pentanone	1000	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
2 Hexanone	-	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
Tetrachloroethene	1400	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
1,1,2,2,-Tetrachloroethane	600	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
Toluene	1500	13	11 U	11 U	1 J	2 J	0.9 J	2 J	0.9 J
Chlorobenzene	1700	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
Ethylbenzene	5500	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
Styrene	-	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
Total Xylene	1200	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U

Qualifiers:
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*** - Site specific condition should be taken into consideration when establishing clean up levels

Table 2. Soil Analytical Results for 138 KV Transmission Line

CPL Volatiles	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP Action Levels (mg/kg)	BNY-SB14-02 (ug/Kg)	BNY-SB14-03 (ug/Kg)	BNY-SB15-01 (ug/Kg)	BNY-SB15-02 (ug/Kg)	BNY-SB16-01 (ug/Kg)	BNY-SB16-02 (ug/Kg)
Chloromethane	-	13	15 U	11 U	11 U	12 U	11 U	14 U
Bromomethane	-	13	15 U	11 U	11 U	12 U	11 U	14 U
Vinyl Chloride	200	13	15 U	11 U	11 U	12 U	11 U	14 U
Chloroethane	1900	13	15 U	11 U	11 U	12 U	11 U	14 U
Methylene Chloride	100	40	5 JB	6 JB	4 JB	4 JB	2 JB	5 JB
Acetone	200	13	73	11 U	2 J	36	11 U	66 B
Carbon Disulfide	200	13	15 U	11 U	11 U	12 U	11 U	14 U
1,1 Dichloroethene	400	13	15 U	11 U	11 U	12 U	11 U	14 U
1,1 Dichloroethane	200	13	15 U	11 U	11 U	12 U	11 U	14 U
1,2 (Total) Dichloroethene	300	13	15 U	11 U	11 U	12 U	11 U	14 U
Chloroform	300	13	15 U	11 U	11 U	12 U	11 U	14 U
1,2 Dichloroethane	100	13	15 U	11 U	11 U	12 U	11 U	14 U
2-Butanone	300	13	20	11 U	11 U	12 U	11 U	14 U
1,1,1 Trichloroethane	800	13	15 U	11 U	11 U	12 U	11 U	14 U
Carbon Tetrachloride	600	13	15 U	11 U	11 U	12 U	11 U	14 U
Bromodichloromethane	-	13	15 U	11 U	11 U	12 U	11 U	14 U
1,2 Dichloropropane	-	13	15 U	11 U	11 U	12 U	11 U	14 U
Cis-1,3 Dichloropropene	-	13	15 U	11 U	11 U	12 U	11 U	14 U
Trichloroethene	700	13	15 U	11 U	11 U	12 U	11 U	14 U
Dibromochloromethane	-	13	15 U	11 U	11 U	12 U	11 U	14 U
1,1,2-Trichloroethane	-	13	15 U	11 U	11 U	12 U	11 U	14 U
Benzene	60	13	15 U	11 U	11 U	12 U	5 J	11 J
Trans-1,3-Dichloropropene	-	13	15 U	11 U	11 U	12 U	11 U	14 U
Bromoform	-	13	15 U	11 U	11 U	12 U	11 U	14 U
4-Methyl-2-Pentanone	1000	13	15 U	11 U	11 U	12 U	11 U	14 U
2 Hexanone	-	13	15 U	11 U	11 U	12 U	11 U	14 U
Tetrachloroethene	1400	13	15 U	11 U	11 U	12 U	11 U	14 U
1,1,2,2,-Tetrachloroethane	600	13	15 U	11 U	11 U	12 U	11 U	14 U
Toluene	1500	13	2 J	1 J	2 J	12 U	4 U	3 J
Chlorobenzene	1700	13	15 U	11 U	11 U	12 U	11 U	14 U
Ethylbenzene	5500	13	15 U	11 U	11 U	12 U	11 U	14 U
Styrene	-	13	15 U	11 U	11 U	12 U	11 U	14 U
Total Xylene	1200	13	15 U	11 U	11 U	12 U	11 U	14 U

Qualifiers:
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Table 3. Soil Analytical Results for 138 KV Transmission Line

Semi Volatiles	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP Action Levels (mg/kg)	BNY-SB01-01 (ug/Kg)	BNY-SB01-02 (ug/Kg)	BNY-SB02-01 (ug/Kg)	BNY-SB02-02 (ug/Kg)	BNY-SB02-03 (ug/Kg)	BNY-SB03-01 (ug/Kg)	BNY-SB03-02 (ug/Kg)
Phenol	30 or MDL	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
bis(2-Chloroethyl)Ether	-	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
2-Chlorophenol	800	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
1,3-Dichlorobenzene	-	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
1,4-Dichlorobenzene	-	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
1,2-Dichlorobenzene	-	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
2-Methylphenol	100	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
2,2'-Oxybis (1-Chloropropane)	-	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
4-Mehylphenol	900	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
N-Nitroso-Di-N-Propylamine	-	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
Hexachloroethane	-	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
Nitrobenzene	200	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
Isophorone	4400	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
2-Nitrophenol	330	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
2,4-Dimethlphenol	-	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
bis(2-Chloroethoxy) Methane	400	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
2,4-Dichlorophenol	-	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
1,2,4-Trichlorobenzene	13000	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
Naphthalene	220	-	19 J	360 U	350 U	380 U	350 U	350 U	350 U
4-Chloroaniline	410	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
Hexachlorobutadiene	-	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
4-Chloro-3-Methylphenol	240	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
2-Methylnapthalene	36400	-	23 J	360 U	350 U	380 U	350 U	350 U	350 U
Hexachlorocyclopentadiene	-	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
2,4,6-Trichlorophenol	-	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
2,4,5-Trichlorophenol	100	-	840 U	870 U	850 U	910 U	850 U	850 U	850 U
2-Chloronaphthalene	-	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
2-Nitroaniline	430	-	840 U	870 U	850 U	910 U	850 U	850 U	850 U
Dimethylphthalate	2000	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
Acenaphthylene	50000	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
2,6-Dinitrotoluene	1000	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
3-Nitroaniline	500	-	840 U	870 U	850 U	910 U	850 U	850 U	850 U
Acenaphthene	50000	-	22 J	360 U	350 U	380 U	350 U	350 U	350 U
2,4-Dinitrophenol	200	-	840 U	870 U	850 U	910 U	850 U	850 U	850 U
4-Nitrophenol	100	-	840 U	870 U	850 U	910 U	850 U	850 U	850 U
Dibenzofuran	6200	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
2,4-Dinitrotoluene	-	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
Diethylphthalate	7100	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
4-Chlorophenyl-Phenylether	-	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
Fluorene	50000	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
4-Nitroaniline	-	-	840 U	870 U	850 U	910 U	850 U	850 U	850 U
4,6-Dinitro-2-Methylphenol	-	-	840 U	870 U	850 U	910 U	850 U	850 U	850 U
N-Nitrosodiphenylamine1	-	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
4-Bromophyl-Phenylether	-	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
Hexachlorobenzene	410	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
Pentachlorophenol	1000	-	840 U	870 U	850 U	910 U	850 U	850 U	850 U
Phenathrene	50000	-	380	110 J	350 U	380 U	350 U	130 J	16 J
Anthracene	50000	-	73 J	20 J	350 U	380 U	350 U	35 J	350 U
Carbazole	-	-	38 J	360 U	350 U	380 U	350 U	350 U	350 U
Di-N-Buthylphthalate	8100	-	54 J	120 J	350 U	380 U	350 U	110 JB	15 J
Fluoranthene	50000	200 - 166,000	990	350 J	350 U	380 U	350 U	380	50 J
Pyrene	50000	145 - 147,000	670	350 J	350 U	380 U	350 U	260 J	98 J
Butylbenzylphthalate	50000	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
3,3-Dichlorobenzidine	-	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
Benzo (a) Anthracene	224 or MDL	169 - 59,000	480 U	230 J	350 U	380 U	350 U	210 J	60 J
Chrysene	400	251 - 640	470 U	220 J	350 U	380 U	350 U	180 J	65 J
bis(2-Ethylhexyl) Phthalate	50000	-	350 U	360 U	120 J	210 J	350 U	120 JB	350 U
Di-N-Octyphthalate	50000	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
Benzo (b) Fluoranthene	1100	15,000 - 62,000	700	340 J	350 U	380 U	350 U	360	82 J
Benzo (k) Fluoranthene	1100	300 - 26,000	350 U	360 U	350 U	380 U	350 U	350 U	350 U
Benzo (a) Pyrene	61 or MDL	165 - 220	390	180 J	350 U	380 U	350 U	200 J	49 J
Indeno(1,2,3-cd)Pyrene	3200	8,000 - 61,000	250 J	110 J	350 U	380 U	350 U	120 J	350 U
Dibenz(a,h)Anthracene	14 or MDL	-	81 J	360 U	350 U	380 U	350 U	350 U	350 U
Benzp(g,h,i)Perylene	50000	900 - 47,000	69 J	71 J	350 U	380 U	350 U	130 J	350 U

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Table 3. Soil Analytical Results for 138 KV Transmission Line

Semi Volatiles	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP Action Levels (mg/kg)	BNY-SB04-01 (ug/Kg)	BNY-SB05-01 (ug/Kg)	BNY-SB05-02 (ug/Kg)	BNY-SB06-01 (ug/Kg)	BNY-SB06-02 (ug/Kg)	BNY-SB07-01 (ug/Kg)	BNY-SB07-02 (ug/Kg)
Phenol	30 or MDL	-	350 U	350 U	60 J	390 U	370 U	350 U	360 U
bis(2-Chloroethyl)Ether	-	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
2-Chlorophenol	800	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
1,3-Dichlorobenzene	-	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
1,4-Dichlorobenzene	-	-	350 U	350 U	15 J	390 U	370 U	350 U	360 U
1,2-Dichlorobenzene	-	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
2-Methylphenol	100	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
2,2'-Oxybis (1-Chloropropane)	-	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
4-Mehylphenol	900	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
N-Nitroso-Di-N-Propylamine	-	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
Hexachloroethane	-	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
Nitrobenzene	200	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
Isophorone	4400	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
2-Nitrophenol	330	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
2,4-Dimethlphenol	-	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
bis(2-Chloroethoxy) Methane	400	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
2,4-Dichlorophenol	-	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
1,2,4-Trichlorobenzene	13000	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
Naphthalene	220	-	350 U	350 U	340 U	100 J	370 U	700	360 U
4-Chloroaniline	410	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
Hexachlorobutadiene	-	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
4-Chloro-3-Methylphenol	240	-	350 U	350 U	27 J	390 U	370 U	350 U	360 U
2-Methylnapthalene	36400	-	350 U	350 U	340 U	27 J	370 U	200 J	360 U
Hexachlorocyclopentadiene	-	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
2,4,6-Trichlorophenol	-	-	350 U	360 U	340 U	390 U	370 U	350 U	360 U
2,4,5-Trichlorophenol	100	-	860 U	840 U	830 U	950 U	900 U	860 U	880 U
2-Chloronaphthalene	-	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
2-Nitroaniline	430	-	860 U	840 U	830 U	950 U	900 U	860 U	880 U
Dimethylphthalate	2000	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
Acenaphthylene	50000	-	350 U	350 U	340 U	42 J	370 U	350 U	360 U
2,6-Dinitrotoluene	1000	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
3-Nitroaniline	500	-	860 U	840 U	830 U	950 U	900 U	860 U	880 U
Acenaphthene	50000	-	350 U	350 U	340 U	72 J	370 U	210 J	360 U
2,4-Dinitrophenol	200	-	860 U	840 U	830 U	950 U	900 U	860 U	880 U
4-Nitrophenol	100	-	860 U	840 U	830 U	950 U	900 U	860 U	880 U
Dibenzofuran	6200	-	350 U	350 U	340 U	42 U	370 U	300 J	360 U
2,4-Dinitrotoluene	-	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
Diethylphthalate	7100	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
4-Chlorophenyl-Phenylether	-	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
Fluorene	50000	-	350 U	350 U	340 U	72 U	370 U	240 J	360 U
4-Nitroaniline	-	-	860 U	840 U	830 U	950 U	900 U	860 U	880 U
4,6-Dinitro-2-Methylphenol	-	-	860 U	840 U	830 U	950 U	900 U	860 U	880 U
N-Nitrosodiphenylamine1	-	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
4-Bromophyl-Phenylether	-	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
Hexachlorobenzene	410	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
Pentachlorophenol	1000	-	860 U	840 U	830 U	950 U	900 U	860 U	880 U
Phenathrene	50000	-	120 J	25 J	12 J	1100	370 U	2100	360 U
Anthracene	50000	-	44 J	350 U	340 U	180 J	370 U	660	360 U
Carbazole	-	-	14 J	350 U	340 U	95 J	370 U	240 J	360 U
Di-N-Buthylphthalate	8100	-	240 JB	91 J	88 J	43 JB	110 JB	170 JB	30 JB
Fluoranthene	50000	200 - 166,000	210 J	63 J	19 J	1700	370 U	1500	360 U
Pyrene	50000	145 - 147,000	140 J	49 J	67 J	1600	370 U	1100	360 U
Butylbenzylphthalate	50000	-	350 U	350 U	340 U	390 U	370 U	350 U	22 J
3,3-Dichlorobenzidine	-	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
Benzo (a) Anthracene	224 or MDL	169 - 59,000	85 J	33 J	340 U	640	370 U	730	360 U
Chrysene	400	251 - 640	97 J	36 J	340 U	1400	24 J	600	360 U
bis(2-Ethylhexyl) Phthalate	50000	-	62 JB	28 J	340 U	190 JB	70 J	110 J	56 JB
Di-N-Octyphthalate	50000	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
Benzo (b) Fluoranthene	1100	15,000 - 62,000	190 J	61 J	15 J	1600	370 U	1400	360 U
Benzo (k) Fluoranthene	1100	300 - 26,000	350 U	350 U	340 U	390 U	370 U	350 U	360 U
Benzo (a) Pyrene	61 or MDL	165 - 220	100 J	31 J	340 U	890	370 U	570	360 U
Indeno(1,2,3-cd)Pyrene	3200	8,000 - 61,000	67 J	24 J	340 U	530	370 U	420	360 U
Dibenz(a,h)Anthracene	14 or MDL	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
Benzp(g,h,i)Perylene	50000	900 - 47,000	79 J	350 U	340 U	610	370 U	590	360 U

Qualifiers:
mg/kg - Milligram per kilogram
U - Not detected; detection limit shown
B - Analyte Found in associated blank as well as sample
SB - Site Background
* - Soils Concentration found in idustrial settings(McClanahan, 10/3/86)
**- Background levels of lead vary widely. Average background leverls in metropolitan and subban areas average 200 - 500 ppm
*** - Site specific condition should be taken into consideration when establishing clean up levels

Table 3. Soil Analytical Results for 138 KV Transmission Line

Semi Volatiles	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP Action Levels (mg/kg)	BNY-SB08-01 (ug/Kg)	BNY-SB08-02 (ug/Kg)	BNY-SB09-01 (ug/Kg)	BNY-SB09-02 (ug/Kg)	BNY-SB10-01 (ug/Kg)	BNY-SB10-02 (ug/Kg)	BNY-SB11-01 (ug/Kg)
Phenol	30 or MDL	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
bis(2-Chloroethyl)Ether	-	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
2-Chlorophenol	800	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
1,3-Dichlorobenzene	-	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
1,4-Dichlorobenzene	-	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
1,2-Dichlorobenzene	-	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
2-Methylphenol	100	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
2,2'-Oxybis (1-Chloropropane)	-	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
4-Mehylphenol	900	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
N-Nitroso-Di-N-Propylamine	-	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
Hexachloroethane	-	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
Nitrobenzene	200	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
Isophorone	4400	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
2-Nitrophenol	330	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
2,4-Dimethlphenol	-	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
bis(2-Chloroethoxy) Methane	400	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
2,4-Dichlorophenol	-	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
1,2,4-Trichlorobenzene	13000	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
Naphthalene	220	-	130000 D	2700	69 J	380 U	13 J	410 U	400 U
4-Chloroaniline	410	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
Hexachlorobutadiene	-	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
4-Chloro-3-Methylphenol	240	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
2-Methylnapthalene	36400	-	42000	640	31 J	380 U	380 U	410 U	16 J
Hexachlorocyclopentadiene	-	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
2,4,6-Trichlorophenol	-	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
2,4,5-Trichlorophenol	100	-	29000 U	980 U	910 U	910 U	930 U	990 U	960 U
2-Chloronaphthalene	-	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
2-Nitroaniline	430	-	29000 U	980 U	910 U	910 U	930 U	990 U	960 U
Dimethylphthalate	2000	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
Acenaphthylene	50000	-	12000 U	400 U	10 J	380 U	380 U	410 U	400 U
2,6-Dinitrotoluene	1000	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
3-Nitroaniline	500	-	29000 U	980 U	910 U	910 U	930 U	990 U	960 U
Acenaphthene	50000	-	48000	580	24 J	380 U	380 U	410 U	400 U
2,4-Dinitrophenol	200	-	29000 U	980 U	910 U	910 U	930 U	990 U	960 U
4-Nitrophenol	100	-	29000 U	980 U	910 U	910 U	930 U	990 U	960 U
Dibenzofuran	6200	-	65000	890	45 J	380 U	380 U	410 U	400 U
2,4-Dinitrotoluene	-	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
Diethylphthalate	7100	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
4-Chlorophenyl-Phenylether	-	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
Fluorene	50000	-	62000	780	37 J	380 U	380 U	410 U	400 U
4-Nitroaniline	-	-	29000 U	980 U	910 U	910 U	930 U	990 U	960 U
4,6-Dinitro-2-Methylphenol	-	-	29000 U	980 U	910 U	910 U	930 U	990 U	960 U
N-Nitrosodiphenylamine1	-	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
4-Bromophyl-Phenylether	-	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
Hexachlorobenzene	410	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
Pentachlorophenol	1000	-	29000 U	980 U	910 U	910 U	930 U	990 U	960 U
Phenathrene	50000	-	390000 D	4600 D	460	69 J	30 J	410 U	87 J
Anthracene	50000	-	130000 D	1700	160 J	29 J	380 U	410 U	14 J
Carbazole	-	-	80000	720	44 J	380 U	380 U	410 U	400 U
Di-N-Buthylphthalate	8100	-	3600 JB	110 JB	56 JB	98 JB	72 JB	38 JB	110 JB
Fluoranthene	50000	200 - 166,000	320000 D	3200	700	93 J	35 JB	410 U	57 J
Pyrene	50000	145 - 147,000	260000 D	2300	520	62 J	28 J	410 U	52 J
Butylbenzylphthalate	50000	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
3,3-Dichlorobenzidine	-	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
Benzo (a) Anthracene	224 or MDL	169 - 59,000	120000 D	1300	320 J	28 J	16 J	410 U	24 J
Chrysene	400	251 - 640	110000 D	1100	340 J	28 J	25 J	410 U	34 J
bis(2-Ethylhexyl) Phthalate	50000	-	12000 U	83 J	140 J	230 J	210 J	33 J	87 J
Di-N-Octyphthalate	50000	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
Benzo (b) Fluoranthene	1100	15,000 - 62,000	150000 D	2400	490	47 J	42 J	410 U	70 J
Benzo (k) Fluoranthene	1100	300 - 26,000	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
Benzo (a) Pyrene	61 or MDL	165 - 220	100000 D	1000	280 J	60 J	21 J	14 J	38 J
Indeno(1,2,3-cd)Pyrene	3200	8,000 - 61,000	56000	640	160 J	380 U	21 J	410 U	22 J
Dibenz(a,h)Anthracene	14 or MDL	-	12000 U	400 U	35 J	380 U	380 U	410 U	400 U
Benzp(g,h,i)Perylene	50000	900 - 47,000	65000	800	180 J	17 J	26 J	410 U	23 J

Qualifiers:
mg/kg - Milligram per kilogram
U - Not detected; detection limit shown
B - Analyte Found in associated blank as well as sample
SB - Site Background
* - Soils Concentration found in idustrial settings(McClanahan, 10/3/86)
**- Background levels of lead vary widely. Average background leverls in metropolitan and subban areas average 200 - 500 ppm
*** - Site specific condition should be taken into consideration when establishing clean up levels

Table 3. Soil Analytical Results for 138 KV Transmission Line

Semi Volatiles	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP Action Levels (mg/kg)	BNY-SB11-02 (ug/Kg)	BNY-SB11-03 (ug/Kg)	BNY-SB12-01 (ug/Kg)	BNY-SB12-02 (ug/Kg)	BNY-SB13-01 (ug/Kg)	BNY-SB13-02 (ug/Kg)	BNY-SB14-01 (ug/Kg)
Phenol	30 or MDL	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
bis(2-Chloroethyl)Ether	-	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
2-Chlorophenol	800	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
1,3-Dichlorobenzene	-	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
1,4-Dichlorobenzene	-	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
1,2-Dichlorobenzene	-	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
2-Methylphenol	100	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
2,2'-Oxybis (1-Chloropropane)	-	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
4-Mehylphenol	900	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
N-Nitroso-Di-N-Propylamine	-	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
Hexachloroethane	-	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
Nitrobenzene	200	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
Isophorone	4400	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
2-Nitrophenol	330	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
2,4-Dimethlphenol	-	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
bis(2-Chloroethoxy) Methane	400	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
2,4-Dichlorophenol	-	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
1,2,4-Trichlorobenzene	13000	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
Naphthalene	220	-	15 J	17 J	380 U	400 U	380 U	17 J	420 J
4-Chloroaniline	410	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
Hexachlorobutadiene	-	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
4-Chloro-3-Methylphenol	240	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
2-Methylnapthalene	36400	-	14 J	380 U	380 U	15 J	380 U	430 U	390 J
Hexachlorocyclopentadiene	-	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
2,4,6-Trichlorophenol	-	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
2,4,5-Trichlorophenol	100	-	910 U	910 U	930 U	960 U	910 U	1000 U	9300 U
2-Chloronaphthalene	-	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
2-Nitroaniline	430	-	910 U	910 U	930 U	960 U	910 U	1000 U	9300 U
Dimethylphthalate	2000	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
Acenaphthylene	50000	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
2,6-Dinitrotoluene	1000	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
3-Nitroaniline	500	-	910 U	910 U	930 U	960 U	910 U	1000 U	9300 U
Acenaphthene	50000	-	380 U	14 J	380 U	400 U	30 J	430 U	3000 J
2,4-Dinitrophenol	200	-	910 U	910 U	930 U	960 U	910 U	1000 U	9300 U
4-Nitrophenol	100	-	910 U	910 U	930 U	960 U	910 U	430 U	9300 U
Dibenzofuran	6200	-	380 U	13 J	380 U	400 U	21 J	430 U	1600 J
2,4-Dinitrotoluene	-	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
Diethylphthalate	7100	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
4-Chlorophenyl-Phenylether	-	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
Fluorene	50000	-	380 U	15 J	380 U	400 U	38 J	21 J	2900 J
4-Nitroaniline	-	-	910 U	910 U	930 U	960 U	910 U	1000 U	9300 U
4,6-Dinitro-2-Methylphenol	-	-	910 U	910 U	930 U	960 U	910 U	1000 U	9300 U
N-Nitrosodiphenylamine1	-	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
4-Bromophyl-Phenylether	-	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
Hexachlorobenzene	410	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
Pentachlorophenol	1000	-	910 U	910 U	930 U	960 U	910 U	1000 U	9300 U
Phenathrene	50000	-	77 J	120 J	89 J	25 J	290 J	91 J	28000
Anthracene	50000	-	380 U	17 J	380 U	400 U	71 J	20 J	8600
Carbazole	-	-	380 U	380 U	380 U	400 U	28 J	430 U	1500 J
Di-N-Buthylphthalate	8100	-	97 JB	110 JB	59 JB	50 JB	40 JB	57 JB	3800 U
Fluoranthene	50000	200 - 166,000	69 J	78 J	160 JB	22 JB	430 B	83 JB	25000 DB
Pyrene	50000	145 - 147,000	70 J	66 J	120 J	20 J	320 J	62 J	28000
Butylbenzylphthalate	50000	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
3,3-Dichlorobenzidine	-	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
Benzo (a) Anthracene	224 or MDL	169 - 59,000	45 J	50 J	59 J	400 U	200 J	430 U	17000
Chrysene	400	251 - 640	47 J	49 J	84 J	11 J	210 J	47 J	13000
bis(2-Ethylhexyl) Phthalate	50000	-	71 J	86 J	360 J	64 J	43 J	160 J	340 J
Di-N-Octyphthalate	50000	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
Benzo (b) Fluoranthene	1100	15,000 - 62,000	120 J	130 J	110 J	13 J	280 J	60 J	20000
Benzo (k) Fluoranthene	1100	300 - 26,000	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
Benzo (a) Pyrene	61 or MDL	165 - 220	44 J	53 J	59 J	400 U	180 J	38 J	12000
Indeno(1,2,3-cd)Pyrene	3200	8,000 - 61,000	24 J	26 J	32 J	400 U	110 J	24 J	6400
Dibenz(a,h)Anthracene	14 or MDL	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
Benzp(g,h,i)Perylene	50000	900 - 47,000	41 J	46 J	43 J	400 U	120 J	26 J	8500

Qualifiers:
mg/kg - Milligram per kilogram
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B - Analyte Found in associated blank as well as sample
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**- Background levels of lead vary widely. Average background leverls in metropolitan and subban areas average 200 - 500 ppm
*** - Site specific condition should be taken into consideration when establishing clean up levels

Table 3. Soil Analytical Results for 138 KV Transmission Line

Semi Volatiles	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP Action Levels (mg/kg)	BNY-SB14-02 (ug/Kg)	BNY-SB14-03 (ug/Kg)	BNY-SB15-01 (ug/Kg)	BNY-SB15-02 (ug/Kg)	BNY-SB16-01 (ug/Kg)	BNY-SB16-02 (ug/Kg)
Phenol	30 or MDL	-	490 U	9500 U	380 U	390 U	380 U	450 U
bis(2-Chloroethyl)Ether	-	-	490 U	9500 U	380 U	390 U	380 U	450 U
2-Chlorophenol	800	-	490 U	9500 U	380 U	390 U	380 U	450 U
1,3-Dichlorobenzene	-	-	490 U	9500 U	380 U	390 U	380 U	450 U
1,4-Dichlorobenzene	-	-	490 U	9500 U	380 U	390 U	380 U	450 U
1,2-Dichlorobenzene	-	-	490 U	9500 U	380 U	390 U	380 U	450 U
2-Methylphenol	100	-	490 U	9500 U	380 U	390 U	380 U	450 U
2,2'-Oxybis (1-Chloropropane)	-	-	490 U	9500 U	380 U	390 U	380 U	450 U
4-Mehylphenol	900	-	490 U	9500 U	380 U	390 U	380 U	450 U
N-Nitroso-Di-N-Propylamine	-	-	490 U	9500 U	380 U	390 U	380 U	450 U
Hexachloroethane	-	-	490 U	9500 U	380 U	390 U	380 U	450 U
Nitrobenzene	200	-	490 U	9500 U	380 U	390 U	380 U	450 U
Isophorone	4400	-	490 U	9500 U	380 U	390 U	380 U	450 U
2-Nitrophenol	330	-	490 U	9500 U	380 U	390 U	380 U	450 U
2,4-Dimethlphenol	-	-	490 U	9500 U	380 U	390 U	380 U	450 U
bis(2-Chloroethoxy) Methane	400	-	490 U	9500 U	380 U	390 U	380 U	450 U
2,4-Dichlorophenol	-	-	490 U	9500 U	380 U	390 U	380 U	450 U
1,2,4-Trichlorobenzene	13000	-	490 U	9500 U	380 U	390 U	380 U	450 U
Naphthalene	220	-	17 J	430 J	40 J	18 J	32 J	450 U
4-Chloroaniline	410	-	490 U	9500 U	380 U	390 U	380 U	450 U
Hexachlorobutadiene	-	-	490 U	9500 U	380 U	390 U	380 U	450 U
4-Chloro-3-Methylphenol	240	-	490 U	9500 U	380 U	390 U	380 U	450 U
2-Methylnapthalene	36400	-	22 J	550 J	45 J	24 J	16 J	450 U
Hexachlorocyclopentadiene	-	-	490 U	9500 U	380 U	390 U	380 U	450 U
2,4,6-Trichlorophenol	-	-	490 U	9500 U	380 U	390 U	380 U	450 U
2,4,5-Trichlorophenol	100	-	1200 U	23000 U	910 U	940 U	910 U	1100 U
2-Chloronaphthalene	-	-	490 U	9500 U	380 U	390 U	380 U	450 U
2-Nitroaniline	430	-	1200 U	23000 U	910 U	940 U	910 U	1100 U
Dimethylphthalate	2000	-	490 U	9500 U	380 U	390 U	380 U	450 U
Acenaphthylene	50000	-	490 U	9500 U	380 U	390 U	380 U	450 U
2,6-Dinitrotoluene	1000	-	490 U	9500 U	380 U	390 U	380 U	450 U
3-Nitroaniline	500	-	1200 U	23000 U	910 U	940 U	910 U	1100 U
Acenaphthene	50000	-	50 J	6200 J	22 J	390 U	34 J	450 U
2,4-Dinitrophenol	200	-	1200 U	23000 U	910 U	940 U	910 U	1100 U
4-Nitrophenol	100	-	1200 U	23000 U	910 U	940 U	910 U	1100 U
Dibenzofuran	6200	-	490 U	3000 J	36 J	390 U	22 J	450 U
2,4-Dinitrotoluene	-	-	490 U	9500 U	380 U	390 U	380 U	450 U
Diethylphthalate	7100	-	490 U	9500 U	380 U	390 U	380 U	450 U
4-Chlorophenyl-Phenylether	-	-	490 U	9500 U	380 U	390 U	380 U	450 U
Fluorene	50000	-	32 J	6000 J	22 J	21 J	28 J	450 U
4-Nitroaniline	-	-	1200 U	23000 U	910 U	940 U	910 U	1100 U
4,6-Dinitro-2-Methylphenol	-	-	1200 U	23000 U	910 U	940 U	910 U	1100 U
N-Nitrosodiphenylamine1	-	-	490 U	9500 U	380 U	390 U	380 U	450 U
4-Bromophyl-Phenylether	-	-	490 U	9500 U	380 U	390 U	380 U	450 U
Hexachlorobenzene	410	-	490 U	9500 U	380 U	390 U	380 U	450 U
Pentachlorophenol	1000	-	1200 U	23000 U	910 U	940 U	910 U	1100 U
Phenathrene	50000	-	180 J	51000	480	130 J	360 J	25 J
Anthracene	50000	-	37 J	21000	94 J	26 J	68 J	450 U
Carbazole	-	-	490 U	2200 J	42 J	390 U	53 J	450 U
Di-N-Buthylphthalate	8100	-	110 JB	9500 U	61 JB	48 JB	32 JB	53 J
Fluoranthene	50000	200 - 166,000	160 JB	54000	780 B	130 JB	500	40 J
Pyrene	50000	145 - 147,000	150 J	58000	600	110 J	420	41 J
Butylbenzylphthalate	50000	-	490 U	9500 U	380 U	390 U	380 U	450 U
3,3-Dichlorobenzidine	-	-	490 U	9500 U	380 U	390 U	380 U	450 U
Benzo (a) Anthracene	224 or MDL	169 - 59,000	87 J	28000	460	74 J	290 J	44 J
Chrysene	400	251 - 640	70 J	26000	380	89 J	350 J	54 J
bis(2-Ethylhexyl) Phthalate	50000	-	24 J	9500 U	700	220 J	42 J	53 J
Di-N-Octyphthalate	50000	-	490 U	9500 U	380 U	390 U	380 U	450 U
Benzo (b) Fluoranthene	1100	15,000 - 62,000	130 J	35000	600	97 J	560	120 J
Benzo (k) Fluoranthene	1100	300 - 26,000	490 U	9500 U	380 U	390 U	380 U	450 U
Benzo (a) Pyrene	61 or MDL	165 - 220	140 J	24000	330 J	61 J	350 J	87 J
Indeno(1,2,3-cd)Pyrene	3200	8,000 - 61,000	24 J	14000	270 J	38 J	240 J	72 J
Dibenz(a,h)Anthracene	14 or MDL	-	490 U	9500 U	380 U	390 U	60 J	450 U
Benzp(g,h,i)Perylene	50000	900 - 47,000	43 J	15000	300 J	53 J	280 J	80 J

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**- Background levels of lead vary widely. Average background leverls in metropolitan and subban areas average 200 - 500 ppm
*** - Site specific condition should be taken into consideration when establishing clean up levels

Table 4. Soil Analytical Results for 138 KV Transmission Line

Pesticides & PCBs	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP Action Levels (mg/kg)	BNY-SB01-01 (ug/Kg)	BNY-SB01-02 (ug/Kg)	BNY-SB02-01 (ug/Kg)	BNY-SB02-02 (ug/Kg)	BNY-SB02-03 (ug/Kg)	BNY-SB03-01 (ug/Kg)	BNY-SB03-02 (ug/Kg)
Alpha BHC	110	-	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U
Beta BHC	200	-	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U
Delta BHC	300	-	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U
Gamma BHC (Lindane)	60	-	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U
Heptachlor	100	-	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U
Aldrin	41	-	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U
Heptachlor Epoxide	20	-	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U
Endosulfan I	900	-	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U
Dieldrin	44	-	3.5 U	3.5 U	3.5 U	3.7 U	3.5 U	3.4 U	3.5 U
4,4'-DDE	2100	-	3.5 U	3.5 U	3.5 U	3.7 U	3.5 U	3.4 U	3.5 U
Endrin	100	-	3.5 U	3.5 U	3.5 U	3.7 U	3.5 U	3.4 U	3.5 U
Endosulfan II	900	-	3.5 U	3.5 U	3.5 U	3.7 U	3.5 U	3.4 U	3.5 U
4,4'-DDD	2900	-	3.5 U	3.5 U	3.5 U	3.7 U	3.5 U	3.4 U	3.5 U
Ensosulfan Sulfate	1000	-	3.5 U	3.5 U	3.5 U	3.7 U	3.5 U	3.4 U	3.5 U
4,4' DDT	2100	-	3.5 U	3.5 U	3.5 U	3.7 U	3.5 U	3.4 U	3.5 U
Methoxychlor	<10,000	-	18 U	18 U	18 U	19 U	18 U	17 U	18 U
Endrin Keytone	-	-	3.5 U	3.5 U	3.5 U	3.7 U	3.5 U	3.4 U	3.5 U
Endrin Aldehyde	-	-	3.5 U	3.5 U	3.5 U	3.7 U	3.5 U	3.4 U	3.5 U
Alpha-Chlordane	-	-	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U
Gamma-Chlordane	540	-	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U
Toxaphene	-	-	180 U	180 U	180 U	190 U	180 U	170 U	180 U
Arochlor 1016	-	-	35 U	35 U	35 U	37 U	35 U	34 U	35 U
Arochlor 1221	-	-	70 U	71 U	70 U	76 U	72 U	69 U	71 U
Arochlor 1232	-	-	35 U	35 U	35 U	37 U	35 U	34 U	35 U
Arochlor 1242	-	-	35 U	35 U	35 U	35 U	35 U	34 U	35 U
Arochlor 1248	-	-	35 U	35 U	35 U	35 U	35 U	34 U	3.5 U
Arochlor 1254	-	-	35 U	35 U	35 U	35 U	35 U	34 U	35 U
Arochlor 1260	-	-	66 P	35 U	35 U	35 U	35 U	34 U	35 U

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**- Background levels of lead vary widely. Average background leverls in metropolitan and subban areas average 200 - 500 ppm
*** - Site specific condition should be taken into consideration when establishing clean up levels

Table 4. Soil Analytical Results for 138 KV Transmission Line

Pesticides & PCBs	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP Action Levels (mg/kg)	BNY-SB04-01 (ug/Kg)	BNY-SB05-01 (ug/Kg)	BNY-SB05-02 (ug/Kg)	BNY-SB06-01 (ug/Kg)	BNY-SB06-02 (ug/Kg)	BNY-SB07-01 (ug/Kg)	BNY-SB07-02 (ug/Kg)
Alpha BHC	110	-	1.8 U	1.8 U	1.8 U	2 U	1.8 U	1.9 U	2 U
Beta BHC	200	-	1.8 U	1.8 U	1.8 U	2 U	1.8 U	1.9 U	2 U
Delta BHC	300	-	1.8 U	1.8 U	1.8 U	2 U	1.8 U	1.9 U	2 U
Gamma BHC (Lindane)	60	-	1.8 U	1.8 U	1.8 U	2 U	1.8 U	1.9 U	2 U
Heptachlor	100	-	1.8 U	1.8 U	1.8 U	2 U	1.8 U	1.9 U	2 U
Aldrin	41	-	1.8 U	1.8 U	1.8 U	2 U	1.8 U	1.9 U	2 U
Heptachlor Epoxide	20	-	1.1 JP	1.8 U	1.8 U	2 U	1.8 U	1.9 U	2 U
Endosulfan I	900	-	1.8 U	1.8 U	1.8 U	2 U	1.8 U	1.9 U	2 U
Dieldrin	44	-	3.8 U	3.4 U	3.4 U	3.9 U	3.5 U	3.7 U	3.8 U
4,4'-DDE	2100	-	15 U	3.4 U	3.4 U	3.9 U	3.5 U	3.7 U	3.8 U
Endrin	100	-	3.5 U	3.4 U	3.4 U	3.9 U	3.5 U	3.7 U	3.8 U
Endosulfan II	900	-	3.5 U	3.4 U	3.4 U	3.9 U	3.5 U	3.7 U	3.8 U
4,4'-DDD	2900	-	3.5 JP	3.4 U	3.4 U	3.9 U	3.5 U	3.7 U	3.8 U
Ensosulfan Sulfate	1000	-	3.5 U	3.4 U	3.4 U	3.9 U	3.5 U	3.7 U	3.8 U
4,4' DDT	2100	-	13	3.4 U	3.4 U	3.9 U	3.5 U	3.7 U	3.8 U
Methoxychlor	<10,000	-	18 U	18 U	18 U	20 U	18 U	19 U	20 U
Endrin Keytone	-	-	3.5 U	3.4 U	3.4 U	3.9 U	3.5 U	3.7 U	3.8 U
Endrin Aldehyde	-	-	3.5 U	3.4 U	3.4 U	3.9 U	3.5 U	3.7 U	3.8 U
Alpha-Chlordane	-	-	2.8	1 J	1.8 U	2 U	1.8 U	1.9 U	2 U
Gamma-Chlordane	540	-	1.3 JP	1.1 J	1.8 U	2 U	1.8 U	1.9 U	2 U
Toxaphene	-	-	180 U	180 U	180 U	200 U	180 U	190 U	200 U
Arochlor 1016	-	-	35 U	3.4 U	34 U	39 U	35 U	37 U	38 U
Arochlor 1221	-	-	71 U	69 U	69 U	79 U	71 U	74 U	77 U
Arochlor 1232	-	-	35 U	34 U	34 U	39 U	35 U	37 U	38 U
Arochlor 1242	-	-	35 U	34 U	34 U	39 U	35 U	37 U	38 U
Arochlor 1248	-	-	35 U	34 U	34 U	39 U	35 U	37 U	38 U
Arochlor 1254	-	-	35 U	34 U	34 U	39 U	35 U	37 U	38 U
Arochlor 1260	-	-	35 U	34 U	34 U	39 U	35 U	74 P	38 U

Qualifiers:
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**- Background levels of lead vary widely. Average background leverls in metropolitan and subban areas average 200 - 500 ppm
*** - Site specific condition should be taken into consideration when establishing clean up levels

Table 4. Soil Analytical Results for 138 KV Transmission Line

Pesticides & PCBs	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP Action Levels (mg/kg)	BNY-SB08-01 (ug/Kg)	BNY-SB08-02 (ug/Kg)	BNY-SB09-01 (ug/Kg)	BNY-SB09-02 (ug/Kg)	BNY-SB10-01 (ug/Kg)	BNY-SB10-02 (ug/Kg)	BNY-SB11-01 (ug/Kg)
Alpha BHC	110	-	1.9 U	2.3 U	1.8 U	1.9 U	2 U	2 U	2.1 U
Beta BHC	200	-	1.9 U	2.3 U	1.8 U	1.9 U	2 U	2 U	2.1 U
Delta BHC	300	-	1.9 U	2.3 U	1.8 U	1.9 U	2 U	2 U	2.1 U
Gamma BHC (Lindane)	60	-	7.2 P	2.3 U	1.8 U	1.9 U	2 U	2 U	2.1 U
Heptachlor	100	-	3.4	2.3 U	1.8 U	1.9 U	2 U	2 U	2.1 U
Aldrin	41	-	1.9 U	2.3 U	1.8 U	1.9 U	2 U	2 U	2.1 U
Heptachlor Epoxide	20	-	1.9 U	2.3 U	1.7 JP	1.9 U	2 U	2 U	1.1 J
Endosulfan I	900	-	1.9 U	2.3 U	1.8 U	1.9 U	2 U	2 U	2.1 U
Dieldrin	44	-	3.7 U	4.5 U	3.6 U	3.6 U	3.8 U	3.9 U	4 U
4,4'-DDE	2100	-	3.7 U	4.5 U	3.6 U	3.6 U	3.8 U	3.9 U	4 U
Endrin	100	-	3.7 U	4.5 U	3.6 U	3.6 U	3.8 U	3.9 U	4 U
Endosulfan II	900	-	3.7 U	4.5 U	3.6 U	3.6 U	3.8 U	3.9 U	4 U
4,4'-DDD	2900	-	3.7 U	4.5 U	3.6 U	3.6 U	3.8 U	3.9 U	4 U
Ensosulfan Sulfate	1000	-	3.7 U	4.5 U	3.6 U	3.6 U	3.8 U	3.9 U	4 U
4,4' DDT	2100	-	3.7 U	4.5 U	3.6 U	3.6 U	3.8 U	3.9 U	4 U
Methoxychlor	<10,000	-	19 U	23 U	18 U	19 U	20 U	20 U	21 U
Endrin Keytone	-	-	3.7 U	4.5 U	3.6 U	3.9 U	3.8 U	3.9 U	4 U
Endrin Aldehyde	-	-	3.7 U	4.5 U	3.6 U	3.6 U	3.8 U	3.9 U	4 U
Alpha-Chlordane	-	-	1.9 U	2.3 U	1.8 U	1.9 U	2 U	2 U	2.1 U
Gamma-Chlordane	540	-	1.9 U	2.3 U	1.8 U	1.9 U	2 U	2 U	2.1 U
Toxaphene	-	-	190 U	230 U	180 U	190 U	200 U	200 U	210 U
Arochlor 1016	-	-	37 U	45 U	36 U	36 U	38 U	39 U	40 U
Arochlor 1221	-	-	75 U	91 U	73 U	73 U	78 U	79 U	82 U
Arochlor 1232	-	-	37 U	45 U	36 U	36 U	38 U	39 U	40 U
Arochlor 1242	-	-	37 U	45 U	36 U	36 U	38 U	39 U	40 U
Arochlor 1248	-	-	37 U	45 U	36 U	36 U	38 U	39 U	40 U
Arochlor 1254	-	-	37 U	45 U	36 U	36 U	38 U	39 U	40 U
Arochlor 1260	-	-	37 U	45 U	36 U	36 U	38 U	39 U	40 U

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**- Background levels of lead vary widely. Average background leverls in metropolitan and subban areas average 200 - 500 ppm
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Table 4. Soil Analytical Results for 138 KV Transmission Line

Pesticides & PCBs	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP Action Levels (mg/kg)	BNY-SB11-02 (ug/Kg)	BNY-SB11-03 (ug/Kg)	BNY-SB12-01 (ug/Kg)	BNY-SB12-02 (ug/Kg)	BNY-SB13-01 (ug/Kg)	BNY-SB13-02 (ug/Kg)	BNY-SB14-01 (ug/Kg)
Alpha BHC	110	-	2.1 U	2.1 U	1.9 U	2.1 U	1.9 U	2.1 U	1.9 U
Beta BHC	200	-	2.1 U	2.1 U	1.9 U	2.1 U	1.9 U	2.1 U	1.9 U
Delta BHC	300	-	2.1 U	2.1 U	1.9 U	2.1 U	1.9 U	2.1 U	1.9 U
Gamma BHC (Lindane)	60	-	2.1 U	2.1 U	1.9 U	2.1 U	1.9 U	2.1 U	1.9 U
Heptachlor	100	-	2.1 U	2.1 U	1.9 U	2.1 U	1.9 U	2.1 U	1.9 U
Aldrin	41	-	2.1 U	2.1 U	1.9 U	2.1 U	1.9 U	2.1 U	1.9 U
Heptachlor Epoxide	20	-	2.1 U	2.1 U	1.5 JP	1.7 JP	1.9 U	2.1 U	1.9 U
Endosulfan I	900	-	2.1 U	2.1 U	1.9 U	2.1 U	1.9 U	2.1 U	1.9 U
Dieldrin	44	-	4 U	4 U	3.7 U	4.1 U	3.8 U	4 U	3.8 U
4,4'-DDE	2100	-	4 U	4 U	3.7 U	4.1 U	3.8 U	4 U	3.8 U
Endrin	100	-	4 U	4 U	3.7 U	4.1 U	3.8 U	4 U	3.8 U
Endosulfan II	900	-	4 U	4 U	3.7 U	4.1 U	3.8 U	4 U	3.8 U
4,4'-DDD	2900	-	4 U	4 U	3.7 U	4.1 U	3.8 U	4 U	3.8 U
Ensosulfan Sulfate	1000	-	4 U	4 U	3.7 U	4.1 U	3.8 U	4 U	3.8 U
4,4' DDT	2100	-	4 U	4 U	3.7 U	4.1 U	3.8 U	4 U	3.8 U
Methoxychlor	<10,000	-	21 U	21 U	19 U	21 U	19 U	21 U	19 U
Endrin Keytone	-	-	4 U	4 U	3.7 U	4.1 U	3.8 U	4 U	3.8 U
Endrin Aldehyde	-	-	4 U	4 U	3.7 U	4.1 U	3.8 U	4 U	3.8 U
Alpha-Chlordane	-	-	2.1 U	2.1 U	1.9 U	2.1 U	1.9 U	2.1 U	1.9 U
Gamma-Chlordane	540	-	2.1 U	2.1 U	1.9 U	2.1 U	1.9 U	2.1 U	1.9 U
Toxaphene	-	-	210 U	210 U	190 U	210 U	190 U	210 U	190 U
Arochlor 1016	-	-	40 U	40 U	37 U	41 U	38 U	40 U	38 U
Arochlor 1221	-	-	81 U	82 U	76 U	84 U	77 U	81 U	76 U
Arochlor 1232	-	-	40 U	40 U	37 U	41 U	38 U	40 U	38 U
Arochlor 1242	-	-	40 U	40 U	37 U	41 U	38 U	40 U	38 U
Arochlor 1248	-	-	40 U	40 U	37 U	41 U	38 U	40 U	38 U
Arochlor 1254	-	-	40 U	40 U	37 U	41 U	38 U	40 U	38 U
Arochlor 1260	-	-	40 U	40 U	37 U	41 U	38 U	40 U	38 U

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Table 4. Soil Analytical Results for 138 KV Transmission Line

Pesticides & PCBs	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP Action Levels (mg/kg)	BNY-SB14-02 (ug/Kg)	BNY-SB14-03 (ug/Kg)	BNY-SB15-01 (ug/Kg)	BNY-SB15-02 (ug/Kg)	BNY-SB16-01 (ug/Kg)	BNY-SB16-02 (ug/Kg)
Alpha BHC	110	-	2.7 U	1.9 U	1.8 U	2 U	1.9 U	2.3 U
Beta BHC	200	-	2.7 U	1.9 U	1.8 U	2 U	1.9 U	2.3 U
Delta BHC	300	-	2.7 U	1.9 U	1.8 U	2 U	1.9 U	2.3 U
Gamma BHC (Lindane)	60	-	2.7 U	1.9 U	1.8 U	2 U	1.9 U	2.3 U
Heptachlor	100	-	2.7 U	1.1 JP	1.8 U	2 U	1.9 U	2.3 U
Aldrin	41	-	2.7 U	1.9 U	1.8 U	2 U	1.9 U	2.3 U
Heptachlor Epoxide	20	-	2.7 U	1.9 U	1.3 JP	2 U	1.5 JP	2.3 U
Endosulfan I	900	-	2.7 U	1.9 U	1.8 U	2 U	1.9 U	2.3 U
Dieldrin	44	-	5.2 U	3.7 U	3.6 U	3.8 U	3.6 U	4.4 U
4,4'-DDE	2100	-	5.2 U	3.7 U	3.6 U	3.8 U	3.6 U	4.4 U
Endrin	100	-	5.2 U	3.7 U	3.6 U	3.8 U	3.6 U	4.4 U
Endosulfan II	900	-	5.2 U	3.7 U	3.6 U	3.8 U	3.6 U	4.4 U
4,4'-DDD	2900	-	5.2 U	3.7 U	3.6 U	3.8 U	3.6 U	4.4 U
Ensosulfan Sulfate	1000	-	5.2 U	3.7 U	3.6 U	3.8 U	3.6 U	4.4 U
4,4' DDT	2100	-	5.2 U	3.7 U	3.6 U	3.8 U	3.6 U	4.4 U
Methoxychlor	<10,000	-	27 U	19 U	18 U	20 U	19 U	23 U
Endrin Keytone	-	-	5.2 U	3.7 U	3.6 U	3.8 U	3.6 U	4.4 U
Endrin Aldehyde	-	-	5.2 U	3.7 U	3.6 U	3.8 U	3.6 U	4.4 U
Alpha-Chlordane	-	-	2.7 U	1.9 U	1.8 U	2 U	1.9 U	2.3 U
Gamma-Chlordane	540	-	2.7 U	1.9 U	1.8 U	2 U	1.9 U	2.3 U
Toxaphene	-	-	270 U	190 U	180 U	200 U	190 U	230 U
Arochlor 1016	-	-	52 U	37 U	36 U	38 U	36 U	44 U
Arochlor 1221	-	-	110 U	76 U	72 U	77 U	74 U	89 U
Arochlor 1232	-	-	52 U	37 U	36 U	38 U	36 U	44 U
Arochlor 1242	-	-	52 U	37 U	36 U	38 U	36 U	44 U
Arochlor 1248	-	-	52 U	37 U	36 U	38 U	36 U	44 U
Arochlor 1254	-	-	52 U	37 U	36 U	38 U	36 U	44 U
Arochlor 1260	-	-	52 U	37 U	36 U	38 U	36 U	44 U

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Pipeline Route - Sampling Results by F. P. & M.
Cogeneration Project 5/1/1995

Description of Location	Soil Samples			Groundwater Samples	
	Sample Designation	No. of Samples Subsurface	Surfical	Sample Designation	No. of Samples
Pipeline Route (See Map)	B-1, B-2 B-3, B-4 B-5, B-6 B-7, B-8	8	0	-	0
Totals	**-**	**8**	**0**	**-**	**0**

Table 1. Total Analyte List Metals Analysis
Fanning, Phillips & Molnar Gas Line

Soil Samples (0-6 feet)

Metal Analytes (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (mg/kg)	Soill Concentration Industrial Setting* (mg/kg)	B-1 (mg/kg)		B-2 (mg/kg)		B-3 (mg/kg)		B-4 (mg/kg)		B-5 (mg/kg)		B-6 (mg/kg)		B-7 (mg/kg)		B-8 (mg/kg)	
Silver	SB	0.01 - 8	1.20	U	1.10	U	1.10		1.10		1.10	U	1.10	U	1.10	U	1.10	
Arsenic	7.5 or SB	0.1-194	10.3		12.2		8.8		3.5		4.5		3.7		5.5		4.5	
Barium	300 or SB	100-3,000	153		129		170		57.8		54.2		84.5		68.2		75.8	
Cadmium	1 or SB	0.01-7	0.82		0.86		1.1		0.56	U	0.57	U	0.57	U	0.57	U	0.67	
Chromium	10 or SB	5 -3,000	16.5		26.9		21.5		12.2		13.6		19.4		12.5		27.9	
Mercury	0.10	0.001 - 4.6	0.62		2.4		4.3		0.41		0.27		0.26		0.31		2.4	
Lead	SB or **	1- 800	306		603		783		70.6		78.9		194		111		212	
Selenium	2 or SB	0.1 - 38	0.59	U	0.54	U	0.57	U	0.56	U	0.57	U	0.57	U	0.57	U	0.58	U
Total Solids (%)	-	-	85.00		92.90		88.20		89.90		88.50		87.60		88.00		89.70	

Qualifiers:
mg/kg - Milligram per kilogram
U - Not detected; detection limit shown
B - Analyte Found in associated blank as well as sample
SB - Site Background
* - Soils Concentration found in idustrial settings(McClanahan, 10/3/86)
**- Background levels of lead vary widely. Average background leverls in metropolitan and suburban areas average 200 - 500 ppm
*** - Site specific condition should be taken into consideration when establishing clean up levels

Table 2. Total Compound List Volatile Analysis
Fanning, Phillips & Molnar Gas Line
Soil Samples (0-6 feet)

Volatile Organic Compounds (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (ug/kg)	B-1 (ug/kg)	B-2 (ug/kg)	B-3 (ug/kg)	B-4 (ug/kg)	B-5 (ug/kg)	B-6 (ug/kg)	B-7 (ug/kg)	B-8 (ug/kg)
Chloromethane	-	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Bromomethane	-	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Vinyl Chloride	200	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Chloroethane	1900	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Methylene Chloride	100	18	34 B	19 U	13 B	29 B	17 B	11 U	13 B
1,1-Dichloroethene	400	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
1,1-Dichloroethane	200	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
1,2-Dichloroethene (total)	300	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Chloroform	300	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
1,2-Dichloroethane	100	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
1,1,1-Trichloroethane	800	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Carbon Tetrachloride	600	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Bromodichloromethane	-	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
1,2-Dichloropropane	-	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
trans-1,3-Dichloropropene	-	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Trichloroethene	700	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Dibromochloromethane	-	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
1,1,2-Trichloroethane	-	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
cis-1,3-Dichloropropene	-	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Benzene	60	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Bromoform	-	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
1,1,2,2-Tetrachloroethane	600	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Tetrachloroethene	1400	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Toluene	1500	14	23	11 U	11 U	11 U	11 U	11 U	11 U
Chlorobenzene	1700	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Ethylbenzene	5500	120	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Xylene (total)	1200	910	21	11 U	11 U	11 U	11 U	11 U	11 U
Acetone	200	190 B	33 B	40 B	19 B	67 B	110 B	28 B	200 B
2-Butanone	300	12 U	11 U	11 U	11 U	11 U	11 U	11 U	42 U
4-Methyl-2-pentanone	1000	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Carbon Disulfide	200	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
2-Hexanone	-	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Styrene	-	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
N-Butylbezene	-	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Sec-Butylbenzene	-	720 E	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Tert-Butylbenzene	-	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Isopropylbenzene	-	400 E	11 U	11 U	11 U	11 U	11 U	11 U	11 U
P-Isopropylbenzene	-	1800 E	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Naphthalene	-	1700 E	11 U	11 U	11 U	11 U	11 U	11 U	21
N-Propylbenzene	-	820 E	11 U	11 U	11 U	11 U	11 U	11 U	11 U
1,2,4-Trimethylbenzene	-	8300 E	11 U	11 U	11 U	11 U	11 U	11 U	26
1,3,5-Trimethylbenzene	-	13000 E	26	11 U	11 U	11 U	11 U	11 U	35
Methyl Tert. Butyl Ether	-	12 U	11	11 U	11 U	11 U	11 U	11 U	11 U
m-Xylene	-	460 E	20	11 U	11 U	11 U	11 U	11 U	11 U
p-Xylene	-	-	-	11 U	11 U	11 U	11 U	11 U	11 U
o-xylene	-	450 E	11 U	11 U	11 U	11 U	11 U	11 U	11 U

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the quantification limit
D - Compound identified at a secondary dilution

Table 3. Total Compound List Semivolatile Analysis
Fanning, Phillips & Molnar Gas Line

Soil Samples (0-6 feet)

Semivolatile Organic Compounds (Concentration in ug/kg)	NYSDEC Recommended Soil Cleanup Objectives (ug/kg)	ATSDR Background Soil Concentrations PAHs in Urban Soils (ug/kg)	F. Blk. (ug/L)	B-1 (ug/kg)		B-2 (ug/kg)	B-3 (ug/kg)	B-4 (ug/kg)	B-5 (ug/kg)	B-6 (ug/kg)	B-7 (ug/kg)	B-8 (ug/kg)
1,3-Dichlorobenzene	-	-	10	19000		360	370	370	370	380	380	370
1,4-Dichlorobenzene	-	-	10	19000		360	370	370	370	380	380	370
Hexachloroethane	-	-	10	19000		360	370	370	370	380	380	370
bis (2-chloroethyl) ether	-	-	10	19000		360	370	370	370	380	380	370
1,2-Dichlorobenzene	-	-	10	19000		360	370	370	370	380	430	370
2,2-Oxybis (1-Chl. Propane)			10	19000		360	370	370	370	380	380	370
N-Nitroso-di-n-propylamine	-	-	10	19000		360	370	370	370	380	380	370
Nitrobenzene	200	-	10	19000		360	370	370	370	380	380	370
Hexachlorobutadiene	410	-	10	19000		360	370	370	370	380	380	370
1,2,4-Trichlorobenzene	-	-	10	19000		360	370	370	370	380	380	620
Isophorone	4,400	-	10	19000		360	370	370	370	380	380	370
Naphthalene	13,000	-	10	4800	JD	360	370	370	370	380	380	370
bis (2-Chloroethoxy) methane	-	-	10	19000		360	370	370	370	380	380	370
Carbazole			10	19000		360	370	370	370	380	380	370
Hexachlorocyclopentadiene	-	-	10	19000		360	370	370	370	380	380	370
2-Chloronaphthalene	-	-	10	19000		360	370	370	370	380	380	370
Acenaphthylene	50,000	-	10	19000		360	370	370	370	380	380	370
Acenaphthene	50,000	-	10	19000		360	370	370	370	380	380	370
Dimethyl phthalate	2,000	-	10	19000		360	370	370	370	380	380	370
2,6-Dinitotoluene	1,000	-	10	19000		360	370	370	370	380	380	370
Flourene	50,000	-	10	19000		360	370	370	370	380	380	370
4-Chlorophenyl-phenylether	-	-	10	19000		360	370	370	370	380	380	370
2,4-Dinitrotoluene	-	-	10	19000		360	370	370	370	380	380	370
Diethylphthalate	7,100	-	10	19000		360	370	370	370	380	380	370
N-Nitrosodiphenylamine	-	-	10	19000		360	370	370	370	380	380	370
Hexachlorobenzene	410	-	10	19000		360	370	370	370	380	380	370
4-Bromophenyl-phenylether	-	-	10	19000		360	370	370	370	380	380	370
Phenanthrene	50,000	-	10	19000		520	370	370	450	900	870	890
Anthracene	50,000	-	10	19000		360	370	370	370	380	380	370
Di-n-butylphthalate	8,100	-	10	19000		360	370	370	370	380	380	370
Fluoranthene	50,000	200 - 166,000	10	19000		590	370	370	590	2000	1100	870
Pyrene	50,000	145 - 147,000	10	19000		610	370	370	490	1900	1100	970
Butylbenzylphthalate	50,000	-	10	19000		360	370	370	370	380	380	370
bis(2-ethylhexyl) phthalate	50,000	-	10	19000		360	370	370	370	380	380	370
Chrysene	400	251 - 640	10	19000		420	370	370	370	1400	680	470
Benzo(a)anthracene	224 or MDL	169 - 59,000	10	19000		360	370	370	370	1400	630	460
3,3'-Dichlorobenzidine	-	-	10	19000		360	370	370	370	380	380	370
Di-n-octyl phthalate	50,000	-	10	19000		360	370	370	370	380	380	370
Benzo (b) fluoranthene	1,100	15,000 - 62,000	10	19000		370	370	370	370	1900	700	520
Benzo (k) fluoranthene	1,100	300 - 26,000	10	19000		360	370	370	370	570	510	370
Benzo (a) pyrene	61 or MDL	165 - 220	10	19000		360	370	370	370	780	600	410
Indeno (1,2,3-cd) pyrene	3,200	8,000 - 61,000	10	19000		360	370	370	370	590	390	370
Dibenzo (a,h) anthracene	14 or MDL	-	10	19000		360	370	370	370	380	380	370
Benzo (g,h,i) perylene	50,000	900 - 47,000	10	19000		360	370	370	370	380	380	370
4-Chloroaniline			10	19000		360	370	370	370	380	380	370
2-Methylnaphthalene			10	16000	J	360	370	370	370	380	380	370
2-Nitroaniline			25	47000		890	940	920	930	940	940	920
3-Nitroaniline			25	47000		890	940	920	930	940	940	920
Dibenzofuran			10	19000		360	370	370	370	380	380	370
4-Nitroaniline			25	47000		890	940	920	930	940	940	920

Qualifiers:

ug/kg - Microgram per kilogram

U - Not detected; detection limit shown

J - Estimated value. The result is less than the qualification limit

D - Compound identified at a secondary dilution

Table 4. Pesticide and Herbicide Analysis

Fanning, Phillips & Molnar Gas Line

Soil Sampling (0-6 feet)

Pesticide Compounds (Concentration in ug/kg)	Regulatory Level (ug/L)	B-1 (ug/L)		B-2 (ug/L)		B-3 (ug/L)		B-4 (ug/L)		B-5 (ug/L)		B-6 (ug/L)		B-7 (ug/L)		B-8 (ug/L)	
2,4,-D	10,000	100	U	100	U	100	U	100	U	100	U	100	U	100	U	100	U
2,4,5-TP (Silvex)	1,000	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
gamma -BHC(Lindane)	400	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Heptachlor	8	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Heptachlor expoxide	8	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Endrin	20	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methoxychlor	10,000	100	U	100	U	100	U	100	U	100	U	100	U	100	U	100	U
Toxaphene	500	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Chlordane	30	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U

Polychlorinated Biphenyl Analysis

Soil Sampling (0-6 feet)

Polychlorinated Biphenyls(PCBs) (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (ug/L)	B-1 (ug/kg)		B-2 (ug/kg)		B-3 (ug/kg)		B-4 (ug/kg)		B-5 (ug/kg)		B-6 (ug/kg)		B-7 (ug/kg)		B-8 (ug/kg)	
Aroclor-1016	50,000	39	U	35	U	38	U	36	U	36	U	36	U	36	U	36	U
Aroclor-1221	50,000	78	U	70	U	75	U	72	U	72	U	72	U	72	U	72	U
Aroclor-1232	50,000	39	U	35	U	38	U	36	U	36	U	36	U	36	U	36	U
Aroclor-1242	50,000	39	U	35	U	38	U	36	U	36	U	36	U	36	U	36	U
Aroclor-1248	50,000	39	U	35	U	38	U	36	U	36	U	36	U	36	U	36	U
Aroclor-1254	50,000	39	U	35	U	38	U	36	U	36	U	36	U	36	U	36	U
Aroclor-1260	50,000	41		52		44		36	U	36	U	36	U	36	U	2300	

Qualifiers:

ug/kg - Microgram per kilogram

U - Not detected; detection limit shown

J - Estimated value. The result is less than the qualification limit

D - Compound identified at a secondary dilution

C - Pesticide Compound where the identification has been successfully confirmed

P - Pesticide/Aroclor target analyte when there is a >25% difference detected Conc. between GC columns

Y - Several pesticide peaks "detected" in samples SS-1, 2, 4, 5, 6, 8, and 9 are most likely due to Arochlor conditions

Table 1. Summary of Analytical Results For Soil Samples Collected From Test Borings/Monitoring Wells
Building #41 Subsurface Assessment Cogeneration Project

Parameters Metal Analytes (mg/kg)	Recommended Soil Cleanup Objectives	NYCDEP Action Levels	TB-1	TB-1	TB-2	TB-2	MW-3	MW-3	MW-4	MW-4	MW-5	MW-5	SS-1
Sample Depth (ft below grade)			1.0-3.0	7.0-9.0	1.0-3.0	7.0-9.0	0.5-2.5	10.5-12.5	0.5-2.5	4.5-6.5	1.0-3.0	5.0-7.0	
Aluminum	SB	-	6740	3320	6830	7120	4740	2870	2140	2020	1400	3430	6800
Antimony	SB	10	13	13.6	12.4	13.4	16.2	13.7	11.8	12.8	11.3	13.3	12.3
Arsenic	7.5 or SB	9	8.42	3.44	10.2	3.67	6.9	4.51	13.3	16.6	2.01	2.07	429
Barium	300 or SB	400	110	45.2	129	66.5	54	344	39.4	42.6	37.6	44.4	351
Beryllium	0.16(HEAST) or SB	1	1.08	1.13	1.04	1.12	1.35	1.14	0.98	1.07	0.94	1.11	2.2
Cadmium	1 or SB	37	2.16	2.26	2.08	2.24	2.7	2.29	1.97	2.13	1.88	2.22	5.38
Calcium	SB	-	11800	6890	2770	4530	19800	7620	15200	9160	408	805	6800
Chromium	10 or SB	46	14.5	20.8	14.7	13.4	8.93	10.8	6.05	5.97	4.4	7.66	141
Cobalt	30 or SB	-	10.8	11.3	10.4	11.2	13.5	11.5	9.85	10.7	9.4	11.1	19.2
Copper	25 or SB	170	117	18.4	1420	41.4	62.7	29.2	8.9	5.33	4.7	51.3	353
Iron	2,000 or SB	-	14900	11500	16900	13000	12000	10400	8760	8520	3370	9610	93400
Lead	SB or **	1000	5460	20.2	915	192	694	100	14	17.1	4.24	95.4	2070
Magnesium	SB	-	2810	1460	2870	2370	1860	1120	1270	1370	488	1650	1740
Maganese	SB	-	240	173	283	249	143	144	222	197	70	116	671
Mercury	0.1	1	1.46	0.09	0.76	0.44	0.47	0.15	0.11	0.11	0.09	0.1	0.69
Nickel	13 or SB	100	22.2	12.8	23.4	17.4	13.4	9.45	7.88	8.53	7.52	11.5	95.4
Potassium	SB	-	1280	509	946	997	800	529	491	213	262	601	894
Selenium	2 or SB	-	1.13	1.16	1.1	1.12	1.31	1.13	0.86	1.05	1	1.03	5.5
Silver	SB	5	2.16	2.26	2.08	2.24	2.7	2.29	1.97	2.13	1.88	2.22	4.55
Sodium	SB	-	222	226	208	224	270	229	197	213	188	222	300
Thallium	SB	-	2.26	2.33	2.2	2.24	2.62	2.27	1.73	2.09	2.01	2.07	2.12
Vanadium	150-SB	-	19.6	11.3	20.6	16.5	13.5	11.5	10.4	10.7	9.4	11.1	73.6
Zinc	20 or SB	350	180	53.7	523	77.2	168	89.3	105	139	8.48	44	1280
Cyanide	***	-	2.91	2.91	2.8	2.98	3.44	2.96	2.51	2.64	2.48	2.78	7.69

Qualifiers:
mg/kg - Milligram per kilogram
U - Not detected; detection limit shown
B - Analyte Found in associated blank as well as sample
SB - Site Background
* - Soils Concentration found in idustrial settings(McClanahan, 10/3/86)
**- Background levels of lead vary widely. Average background leverls in metropolitan and subban areas average 200 - 500 ppm
*** - Site specific condition should be taken into consideration when establishing clean up levels

NOTE: All samples analyzed for Target Compound List (TCL) volatile, semi-volatile, and PCB parameters, and Target Analyte List (TAL) metals and cyanide per EPA ASP 1988 SOW. This Table contains only those parameters detected in at least one sample.
J - Parameter detected below minimum instrument detection limit and should be considered an estimated value.
B - Parameter also detected in method blank
ND - Not detected
NR - Not run

Table 2. Summary of Analytical Results For Soil Samples Collected From Test Borings/Monitoring Wells Volatiles and PCBs
Building #41 Subsurface Assessment

Parameters PCBs (ug/kg)	Recommended Soil Cleanup Objectives	NYCDEP Action Levels	TB-1	TB-1	TB-2	TB-2	MW-3	MW-3	MW-4	MW-4	MW-5	MW-5
Sample Depth (ft below grade)			1.0-3.0	7.0-9.0	1.0-3.0	7.0-9.0	0.5-2.5	10.5-12.5	0.5-2.5	4.5-6.5	1.0-3.0	5.0-7.0
Aroclor - 1254	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor - 1260	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Parameters Volatile Organics (ug/kg)	Recommended Soil Cleanup Objectives	NYCDEP Action Levels	TB-1	TB-1	TB-2	TB-2	MW-3	MW-3	MW-4	MW-4	MW-5	MW-5
Sample Depth (ft below grade)			1.0-3.0	7.0-9.0	1.0-3.0	7.0-9.0	0.5-2.5	10.5-12.5	0.5-2.5	4.5-6.5	1.0-3.0	5.0-7.0
Acetone	200		16 B	ND	15 B	74 B	22 B	6 JB	50	75 B	9 JB	26 B
1,1-Dichloroethane	200		ND	ND	ND	ND	ND	ND	ND	ND	ND	2 J
1,2-Dichloroethene (total)	300		1 J	ND	ND	ND	ND	ND	ND J	ND	ND	ND
Chloroform	300		ND	ND	ND	ND	ND	ND	0.7	ND	ND	ND
2-Butanone	300		ND	ND	ND	11 J	ND	ND	ND J	ND	ND	ND
1,1,1-Trichloroethane	800		2 J	ND	2 J	ND	ND	ND	5	9 J	ND	1 J
Trichloroethene	700		9	ND	ND	ND	2 J	ND	ND	ND	ND	ND
Toluene	1500		1 J	ND	3 J	ND	ND	ND	ND	4 J	ND	1 J
Xylene (total)	1200		0.7 J	ND	ND	ND	ND	ND	ND	ND	ND	ND

Qualifiers:
mg/kg - Milligram per kilogram
U - Not detected; detection limit shown
B - Analyte Found in associated blank as well as sample
SB - Site Background
* - Soils Concentration found in idustrial settings(McClanahan, 10/3/86)
**- Background levels of lead vary widely. Average background leverls in metropolitan and subban areas average 200 - 500 ppm
*** - Site specific condition should be taken into consideration when establishing clean up levels

Table 3. Summary of Analytical Results For Soil Samples Collected From Test Borings/Monitoring Wells Semivolatile Organic Compounds
Building #41 Subsurface Assessment Cogeneration Project

Paramaters Semivolatile Analytes	Recommended Soil Cleanup Objectives	NYCDEP Action Levels	TB-1	TB-1	TB-2	TB-2	MW-3	MW-3	MW-4	MW-4	MW-5	MW-5	SS-1	SS-2
Acenapthene	50000	-	560 J	ND	180 J	43 J	ND	ND	ND	ND	ND	ND	280 J	120
Dibenzofuran	6200	-	370 J	ND	140 J	24 J	ND	ND	ND	ND	ND	ND	160 J	85
Flourene	50000	-	730 J	ND	210 J	36 J	ND	ND	ND	ND	ND	ND	240 J	120
N-Nitrosodiphenylamine (1)	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	86
Phenanthrene	50000	-	7000	50 J	2100	470	280 J	69 J	74	730 J	ND	ND	3400	1500
Anthracene	50000	-	1700	ND	480	110 J	42 J	12 J	ND J	ND	ND	ND	560 J	200
Di-n-butylphthlate	8100	-	ND	16 J	ND	ND	17 J	27 J	ND	ND	ND	ND	290 J	560
Flouranthene	50000	200 - 166000	8700	ND	2700	570	510	130 J	44	ND	ND	ND	5100	2300
Pyrene	50000	145 - 147000	6600	83 J	2100	550	440	130 J	89 J	550 J	ND	ND	7500	2800
Butylbenzylphthalate	50000	-	ND	ND	ND	ND	ND	ND	ND J	ND	ND	ND	850	830
Benzo (a) anthracene	224 or MDL	169 - 59000	4100	49 J	1100	250 J	240 J	77 J	ND	ND	ND	ND	2900	1100
Chrysene	400	251 - 640	4300	ND	1200	260 J	290 J	ND	ND	ND	ND	ND	3700	1500
bis (2-Ethylhexl) phthalate	50000	-	1600 B	670 B	850 B	620 B	1500 B	840 B	310	8300 B	150 J	340 J	9300 B	14000
Di-n-octylphthalate	50000	-	ND	ND	ND	ND	24 J	ND	ND JB	ND	ND	ND	490 J	450
Benzo (b) flouranthene	1100	15000 - 62000	3600	39 J	900	170 J	240 J	72 J	ND	ND	ND	ND	6000	2100
Benzo (k) flouranthene	1100	300 - 26000	2400	ND	840	100 J	200 J	7 J	ND	ND	ND	ND	4800	1600
Benzo (a) pyrene	61 or MDL	165 - 220	3400	40 J	940	210 J	210 J	72 J	ND	ND	ND	ND	2900	1100
Ideno (1,2,3-cd) pyrene	3200	8000 - 61000	2000	ND	580	140 J	180 J	57 J	ND	ND	ND	ND	1000	ND
Benzo (g,h,i) perylene	50000	900 - 47000	1700	ND	540	140 J	200 J	65 J	ND	ND	ND	ND	1200	ND

Qualifiers:
mg/kg - Milligram per kilogram
U - Not detected; detection limit shown
B - Analyte Found in associated blank as well as sample
SB - Site Background
* - Soils Concentration found in idustrial settings(McClanahan, 10/3/86)
**- Background levels of lead vary widely. Average background leverls in metropolitan and subban areas average 200 - 500 ppm
*** - Site specific condition should be taken into consideration when establishing clean up levels

PROJECT:
Brooklyn Navy Yard
Sampling Locations

DWN. BY RDW
CHK. BY NM
SCALE: N/A

PREVIOUS SOIL SAMPLING LOCATIONS
STEINER STUDIOS (OP1 & OP2)
Brooklyn Navy Yard
Brooklyn, NY 11205

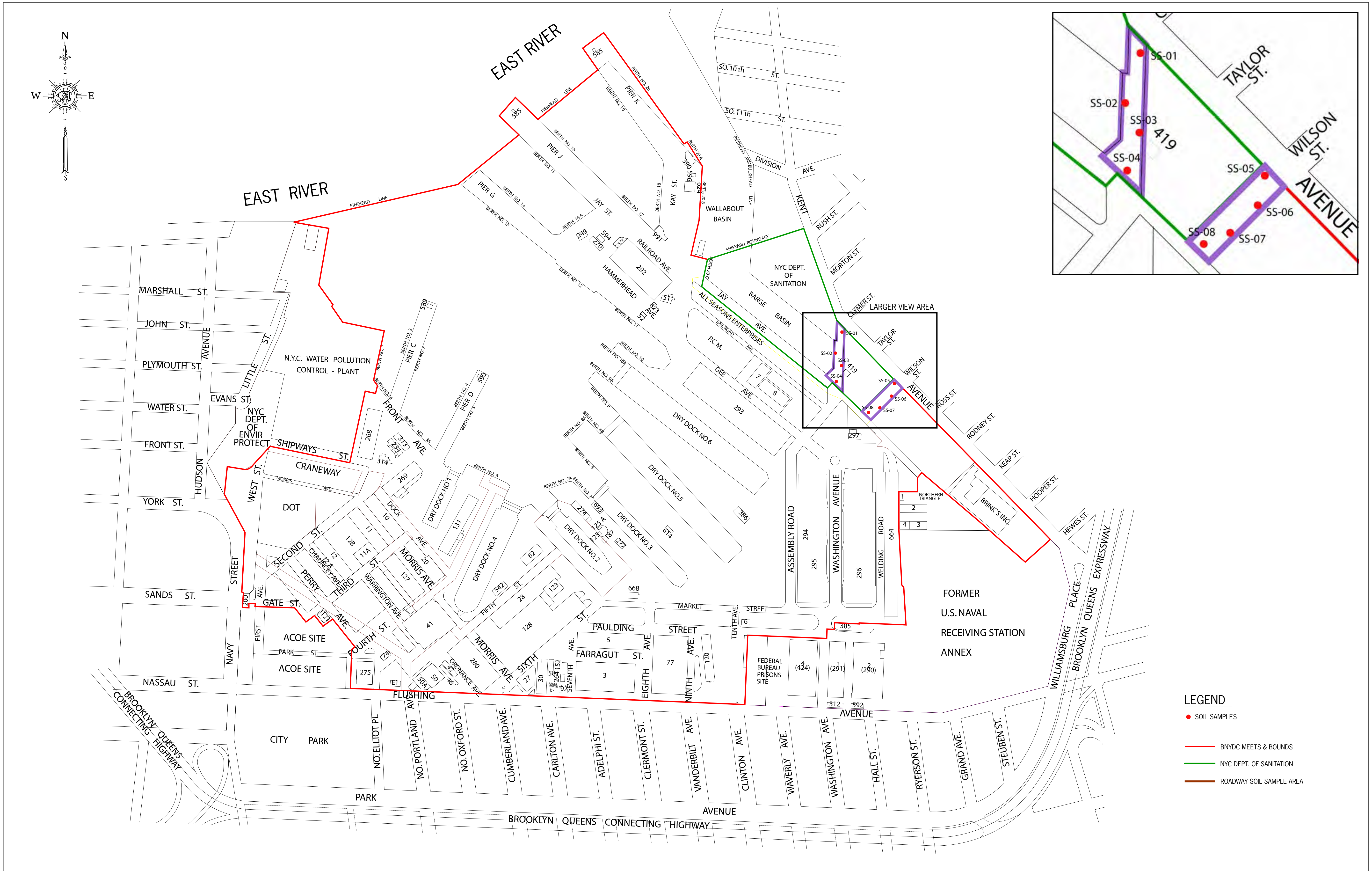
QUAY CONSULTING, LLC

HYPACK TAG:
ANALOG # 041506
FIELD BOOK: N/A
DATE APR. 15, 2006
LINE FILE: BNY 01
FIGURE NO. B
BROOKLYN NAVY YARD
DEVELOPMENT CORP

STEINER STUDIO PROJECT

(Operable Unit 1 & 2)

Analytical data has been submitted to New York State Department of Environmental Conservation (DEC), Division of Environmental Remediation. The data has been accepted for both Operable Units by DEC.



PROJECT:
Brooklyn Navy Yard
Sampling Locations

DWN. BY RDW
CHK. BY NM
SCALE: N/A

PREVIOUS SOIL SAMPLING LOCATIONS
ROADWAY RECONSTRUCTION
Brooklyn Navy Yard
Brooklyn, NY 11205

Quay Consulting

QUAY CONSULTING, LLC

HYPACK TAG:
ANALOG # 041506
FIELD BOOK: N/A
DATE APR. 15, 2006
LINE FILE: BNY 01
FIGURE NO. C
BROOKLYN NAVY YARD DEVELOPMENT CORP

Table 1. Summary of Metals, Cyanide & TOC in Soil Samples
Proposed Wilson Avenue Roadway

Metal Analytes (Concentration in mg/kg)	Recommended Soil Cleanup Objectives (mg/kg)	Eastern US Element Conc. in Soils (Shacklette) (mg/kg)	New York State Background Conc. in Soils (McGovern) (mg/kg)	03/01/04 Split Spoon SS-01 (0'-2') (mg/kg)	03/01/04 Split Spoon SS-01 (4'-6') (mg/kg)	03/01/04 Split Spoon SS-02 (0'-2') (mg/kg)	03/01/04 Split Spoon SS-02 (6'-8') (mg/kg)	03/01/04 Split Spoon SS-03 (0'-2') (mg/kg)	03/01/04 Split Spoon SS-03 (6'-8') (mg/kg)	03/01/04 Split Spoon SS-04 (0'-2') (mg/kg)	03/01/04 Split Spoon SS-04 (6'-8') (mg/kg)
Aluminum	SB	7,000 -100,000	33,000	7360	6240	7780	5280	6110	6850	5540	7110
Antinomy	SB	<1 - 8.8	NA	1.38 B	7.27 B	3.25 B	1.48 B	1.22 B	3.00 B	1.98 B	5.03 B
Arsenic	7.5 or SB	<0.1 - 73	3.0 - 12	0.60 B	2.70	0.75 B	6.77	4.09	64.2	2.93	1.24
Barium	300 or SB	10 - 1,500	15 - 600	42.9	46.1	46.0	38.4	40.5	242	70.4	58.7
Beryllium	0.16(HEAST) or SB	<1 - 7	0 - 1.75	0.091 B	0.18 B	0.054 B	0.20 B	<0.011 U	0.059 B	0.034 B	<0.011 U
Cadmium	1 or SB	NA	0.1 - 1	2.22	1.69	1.31	1.32	1.10	1.72	2.96	1.35
Calcium	SB	100 - 280,000	130 - 35,000	689	4990	970	1630	1050	3320	10100	1460
Chromium	10 or SB	1 - 1,000	1.5 - 40	17.8	14.9	16.2	11.8	14.1	28.2	15.2	15.1
Cobalt	30 or SB	<0.3 - 70	2.5 - 60	6.77	5.19 B	6.53	9.70	5.31 B	5.62 B	8.00	6.59
Copper	25 or SB	<1 - 700	<1 - 50	19.8	39.9	26.4	57.0	30.7	132	92.8	177
Iron	2,000 or SB	100 - 100,000	2,000 - 550,000	21100	14600	14400	12400	12300	15600	26000	14500
Lead	SB or *	<10 - 300	200 - 500	15.6	37.3	27.9	42.1	190	445	159	42.7
Magnesium	SB	50 - 50,000	100 - 5,000	2110	2260	1750	1540	1570	2190	3540	2200
Manganese	SB	<2 - 7,000	50 - 5,000	203	136	149	90.4	184	165	391	247
Mercury	0.10	0.01 - 3.4	0.001 - 0.2	0.028	0.34	0.13	0.083	4.55	<0.18 U	0.81	0.50
Nickel	13 or SB	<5 - 700	0.5 - 25	13.9	12.7	9.86	19.6	10.0	13.3	17.7	10.8
Potassium	SB	50 - 37,000	8,500 - 43,000	977	741	696	623	592	743 U	973	843
Selenium	2 or SB	<0.1 - 3.9	<0.1 - 3.9	<0.62 U	<0.67 U	<0.59 U	<0.62 U	<0.63 U	<0.64 U	<0.62 U	<0.61 U
Silver	SB	NA	NA	<0.12 U	<0.13 U	<0.12 U	<0.12 U	<0.13	<0.13 U	<0.12 U	<0.12 U
Sodium	SB	<500 - 50,000	6,000 - 8,000	173 B	167	500 B	339 B	1060	1000	758	276 B
Thallium	SB	2.2 - 23	NA	<0.20 U	2.51	<0.19 U	<0.20 U	<0.21 U	<0.21 U	0.81 B	<0.22 U
Vanadium	150-SB	<7 - 300	1 - 300	28.7	21.2	28.5	15.3	18.1	21.9	19.8	22.4
Zinc	20 or SB	<5 - 2,900	9.0 - 50	36.5	51.3	38.3	38.9	43.3	340	151	58.6
Cyanide	**	NA	NA	0.028 B	0.88	<0.17 U	<0.18 U	<0.17 U	0.20	<0.17 U	<0.17 U
Total Organic Carbon	TOC Original			<500 U	8620	<500 U	<500 U	<500 U	<500 U	12600	<500 U
% Total Solids	% Solids			84.9	83.9	87.1	84.4	83.9	89.8	87.0	90.8

Qualifiers:
mg/kg - Milligram per kilogram
U - Not detected; instrument detection limit shown
B - Analyte Found in associated blank as well as sample
SB - Site Background
*- Background levels of lead vary widely. Average background levels in metropolitan and suburban areas average 200 - 500 ppm
** - Site specific condition should be taken into consideration when establishing clean up levels
Scacklette, HT and JG Boerngen, 1984. *"Element Concentration in Soils and other Surficial Materials of the Conterminus United States, USGS Professional Paper 1270."*
E. Carol McGovern, NYSDEC Wildlife Resource Center. *"Background Concentrations of 20 elements in Soils with Special Regard for New York State."*

Table 1. Summary of Metals, Cyanide & TOC in Soil Samples. Continued
Washington Avenue Roadway

Metal Analytes (Concentration in mg/kg)	Recommended Soil Cleanup Objectives (mg/kg)	Eastern US Element Conc. in Soils (Shacklette) (mg/kg)	New York State Background Conc. in Soils (McGovern) (mg/kg)	03/01/04 Split Spoon SS-05 (0'-2') (mg/kg)	03/01/04 Split Spoon SS-05 (6'-8') (mg/kg)	03/01/04 Split Spoon SS-06 (0'-2') (mg/kg)	03/01/04 Split Spoon SS-06 (4'-6') (mg/kg)	03/01/04 Split Spoon SS-07 (mg/kg)	03/01/04 Split Spoon SS-08 (4'-6') (mg/kg)
Aluminum	SB	7,000 -100,000	33,000	5170	5200	3400	6770	NR	5310
Antimony	SB	<1 - 8.8	NA	4.79 B	2.40 B	5.99 B	<0.60 U	NR	<0.59 U
Arsenic	7.5 or SB	<0.1 - 73	3.0 - 12	21.6	6.29	7.65	<0.28 U	NR	4.64
Barium	300 or SB	10 - 1,500	15 - 600	188	107	65.8	40.8	NR	35.4
Beryllium	0.16(HEAST) or SB	<1 - 7	0 - 1.75	<0.011 U	<0.011 U	0.24 B	<0.010 U	NR U	<0.010 U
Cadmium	1 or SB	NA	0.1 - 1	1.84	2.02	2.08	1.33	NR	0.94
Calcium	SB	100 - 280,000	130 - 35,000	10100	8050	21600	1160	NR	802
Chromium	10 or SB	1 - 1,000	1.5 - 40	16.8	13.7	29.5	18.4	NR	10.4
Cobalt	30 or SB	<0.3 - 70	2.5 - 60	5.02	5.38 B	6.48	6.06	NR	4.87 B
Copper	25 or SB	<1 - 700	<1 - 50	88.6	81.8	162	30.9	NR	31.6
Iron	2,000 or SB	100 - 100,000	2,000 - 550,000	15700	15100	14500	15300	NR	10800
Lead	SB or *	<10 - 300	200 - 500	324	445	213	12.8	NR	143
Magnesium	SB	50 - 50,000	100 - 5,000	2930	2750	4510	2200	NR	1580
Manganese	SB	<2 - 7,000	50 - 5,000	249	207	158	269	NR	239
Mercury	0.10	0.01 - 3.4	0.001 - 0.2	23.6	34.3	1.30	0.050	NR	3.13
Nickel	13 or SB	<5 - 700	0.5 - 25	12.6	13.1	33.5	11.7	NR	8.91
Potassium	SB	50 - 37,000	8,500 - 43,000	989	991	734	1100	NR	560
Selenium	2 or SB	<0.1 - 3.9	<0.1 - 3.9	<0.60 U	<0.61 U	<0.60 U	<0.57 U	NR U	<0.56 U
Silver	SB	NA	NA	<0.12 U	<0.12 U	<0.12 U	<0.11 U	NR	<0.11 U
Sodium	SB	<500 - 50,000	6,000 - 8,000	203 B	178 B	290 B	112 B	NR	918
Thallium	SB	2.2 - 23	NA	1.37	0.67 B	2.55	<0.19 U	NR	<0.18 U
Vanadium	150-SB	<7 - 300	1 - 300	17.3	18.7	19.7	23.2	NR	15.4
Zinc	20 or SB	<5 - 2,900	9.0 - 50	252	1770	324	33.6	NR	39.3
Cyanide	**	NA	NA	NR	<0.20 U	0.23	<0.17 U	NR	<0.17 U
Total Organic Carbon	TOC Original			NR	5820	29400	2530	NR	857
% Total Solids	% Solids			90.2	87.6	90.0	90.7	NR	90.8

Qualifiers:
mg/kg - Milligram per kilogram
U - Not detected; detection limit shown
B - Analyte Found in associated blank as well as sample
SB - Site Background
*- Background levels of lead vary widely. Average background levels in metropolitan and suburban areas average 200 - 500 ppm
** - Site specific condition should be taken into consideration when establishing clean up levels
Scacklette, HT and JG Boerngen, 1984. *"Element Concentration in Soils and other Surficial Materials of the Conterminus United States, USGS Professional Paper 1270."*
E. Carol McGovern, NYSDEC Wildlife Resource Center. *"Background Concentrations of 20 elements in Soils with Special Regard for New York State."*
NR-Not Reported

Table 2. Summary of Volatile Organic Compounds in Soil Samples
Proposed Wilson Avenue Roadway

Volatile Compounds (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (ug/kg)	03/01/04 Split Spoon SS-01 (0'-2') (ug/kg)	03/01/04 Split Spoon SS-01 (4'-6') (ug/kg)	03/01/04 Split Spoon SS-02 (0'-2') (ug/kg)	03/01/04 Split Spoon SS-02 (6'-8') (ug/kg)	03/01/04 Split Spoon SS-03 (0'-2') (ug/kg)	03/01/04 Split Spoon SS-03 (6'-8') (ug/kg)	03/01/04 Split Spoon SS-04 (0'-2') (ug/kg)	03/01/04 Split Spoon SS-04 (6'-8') (ug/kg)
Chloromethane	-	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
Bromomethane	-	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
Vinyl Chloride	200	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
Chloroethane	1900	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
Methylene Chloride	100	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
Acetone	200	130	39.7	30.1	45.5	70.8	29.4	<22.0 U	41.3
Carbon disulfide	2700	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
1,1-Dichloroethene	400	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
1,1-Dichloroethane	200	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
1,2-Dichloroethene (total)	300	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
Chloroform	300	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
1,2-Dichloroethane	100	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
2-Butanone	300	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
1,1,1-Trichloroethane	800	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
Carbon Tetrachloride	600	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
Bromodichloromethane	-	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
1,2-Dichloropropane	-	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
cis-1,3-Dichloropropene	300	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
Trichloroethene	700	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
Dibromochloromethane	100	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
1,1,2-Trichloroethane	6000	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
Benzene	60	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
trans-1,3-Dichloropropene	300	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
Bromoform	-	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
4-Methyl-2-pentanone	1000	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
2-Hexanone	-	<2.08 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
Tetrachloroethene	1400	2.87 J	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	1.79 J
1,1,2,2-Tetrachloroethane	800	<0.92 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
Toluene	1500	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
Chlorobenzene	1700	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
Ethylbenzene	5500	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
Styrene	-	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
Xylene (Total)	1200	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
TVOC's	10,000	132.87	39.7	30.1	45.5	70.8	29.4	0	43

Qualifiers:
ug/kg - Microgram per kilogram of part per billion (ppb) equivalent
ug/l - Microgram per liter (Aq) of part per billion (ppb) equivalent
U - Not detected; instrument detection limit shown
B - Analyte Found in associated blank as well as sample

Table 2. Summary of Volatile Organic Compounds in Soil Samples
Washington Avenue Roadway

Volatile Compounds (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (ug/kg)	03/01/04 Split Spoon SS-05 (0'-2') (ug/kg)	03/01/04 Split Spoon SS-05 (6'-8') (ug/kg)	03/01/04 Split Spoon SS-06 (0'-2') (ug/kg)	03/01/04 Split Spoon SS-06 (4'-6') (ug/kg)	03/01/04 Split Spoon SS-07 (ug/kg)	03/01/04 Split Spoon SS-08 (4'-6') (ug/kg)
Chloromethane	-	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
Bromomethane	-	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
Vinyl Chloride	200	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
Chloroethane	1900	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
Methylene Chloride	100	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
Acetone	200	NR	68.6	<22.2 U	<22.1 U	NR	67.6
Carbon disulfide	2700	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
1,1-Dichloroethene	400	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
1,1-Dichloroethane	200	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
1,2-Dichloroethene (total)	300	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
Chloroform	300	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
1,2-Dichloroethane	100	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
2-Butanone	300	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
1,1,1-Trichloroethane	800	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
Carbon Tetrachloride	600	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
Bromodichloromethane	-	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
1,2-Dichloropropane	-	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
cis-1,3-Dichloropropene	300	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
Trichloroethene	700	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
Dibromochloromethane	100	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
1,1,2-Trichloroethane	6000	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
Benzene	60	NR	1.42 J	<22.2 U	<22.1 U	NR	<22.0 U
trans-1,3-Dichloropropene	300	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
Bromoform	-	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
4-Methyl-2-pentanone	1000	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
2-Hexanone	-	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
Tetrachloroethene	1400	NR	2.11 J	1.88 J	1.60 J	NR	1.47 J
1,1,2,2-Tetrachloroethane	800	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
Toluene	1500	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
Chlorobenzene	1700	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
Ethylbenzene	5500	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
Styrene	-	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
Xylene (Total)	1200	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
TVOC's	10,000	0.00	72.13	1.88	1.60	NR	1.47

Qualifiers:
ug/kg - Microgram per kilogram of part per billion (ppb) equivalent
ug/l - Microgram per liter (Aq) of part per billion (ppb) equivalent
U - Not detected; instrument detection limit shown
B - Analyte Found in associated blank as well as sample
U - Not detected; detection limit shown
B - Analyte Found in associated blank as well as sample
NR - Not Reported

Table 3. Summary of Semivolatile Organic Compounds in Soil Samples
Proposed Wilson Avenue Roadway

Semivolatile Compounds (Concentration in ug/kg)	NYSDEC Recommended Soil Cleanup Objectives (ug/kg)	ATSDR Background Soil Concentrations PAHs in Urban Soils (ug/kg)	03/01/04 Split Spoon SS-01 (0'-2') (ug/kg)	03/01/04 Split Spoon SS-01 (4'-6') (ug/kg)	03/01/04 Split Spoon SS-02 (0'-2') (ug/kg)	03/01/04 Split Spoon SS-02 (6'-8') (ug/kg)	03/01/04 Split Spoon SS-03 (0'-2') (ug/kg)	03/01/04 Split Spoon SS-03 (6'-8') (ug/kg)	03/01/04 Split Spoon SS-04 (0'-2') (ug/kg)	03/01/04 Split Spoon SS-04 (6'-8') (ug/kg)
Phenol	30 or MDL	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
bis(2-Chloroethyl)ether	-	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
2-Chlorophenol	800	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
1,3-Dichlorobenzene	1,600	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
1,4-Dichlorobenzene	8,500	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
1,2-Dichlorobenzene	7,900	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
2-Methylphenol	100	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
bis(2-Chloroisopropyl)ether	-	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
3,4-Methylphenol	-	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	36.6 J	<5510 U	<1130 U
N-Nitrosodi-n-propylamine	-	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
Hexachloroethane	-	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
Nitrobenzene	200	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
Isophorone	4,400	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
2-Nitrophenol	100	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
2,4-Dimethylphenol	-	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
bis(2-Chloroethoxy)methane	-	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
2,4-Dichlorophenol	400	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
1,2,4-Trichlorobenzene	3,400	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
Naphthalene	13,000	-	44.6 J	49.1 J	<1150 U	26.9 J	<1110 U	528 J	<5510 U	269 J
4-Chloroaniline	220	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
Hexachlorobutadiene	-	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
4-Chloro-3-methylphenol	240	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
2-Methylnaphthalene	36,400	-	27.3 J	<1190 U	<1150 U	<1180 U	<1110 U	346 J	<5510 U	97.3 J
Hexachlorocyclopentadiene	-	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
2,4,6-Trichlorophenol	-	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
2,4,5-Trichlorophenol	100	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
2-Chloronaphthalene	-	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
2-Nitroaniline	430	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
Dimethylphthalate	2,000	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
Acenaphthylene	41,000	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	257 J	<5510 U	71.8 J
2,6-Dinitrotoluene	1,000	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
3-Nitroaniline	500	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
Acenaphthene	50,000	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	1200	<5510 U	273 J
2,4-Dinitrophenol	200	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<13800 U	<1130 U
4-Nitrophenol	100	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<13800 U	<1130 U
Dibenzofuran	6,200	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	872 J	<5510 U	200 J
2,4-Dinitrotoluene	-	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
Diethylphthalate	7,100	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
4-Chlorophenyl phenylether	-	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
Fluorene	50,000	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	1630	<5510 U	382 J
4-Nitroaniline	-	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<13800 U	<1130 U
4,6-Dinitro-2-methylphenol	-	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
N-Nitrosodiphenylamine	-	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
4-Bromophenyl phenyl ether	-	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
Hexachlorobenzene	410	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
Pentachlorophenol	1,000	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<13800 U	<1130 U
Phenanthrene	50,000	-	<1180 U	56.5 J	30.0 J	89.1 J	125 J	10100	736 J	2450
Anthracene	50,000	-	<1180 U	<1190 U	<1150 U	27.0 J	28.5 J	2810	262 J	629 J
Carbazole	-	-	<1180 U	<1190 U	<1150 U	<1180 U	28.5 J	1750	<5510 U	458 J
Di-n-butylphthalate	8,100	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	34.0 J	<5510 U	<1130 U
Fluoranthene	50,000	200 - 166,000	<1180 U	85.9 J	50.8 J	134 J	168 J	9810	995 J	2560
Pyrene	50,000	145 - 147,000	<1180 U	114 J	63.0 J	137 J	163 J	9800	1300 J	2500
Butylbenzylphthalate	50,000	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
3,3'-Dichlorobenzidine	-	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
Benzo(a)anthracene	224	169 - 59,000	<1180 U	77.2 J	40.0 J	77.2 J	104 J	5470	634 J	1410
Chrysene	400	251 - 640	<15.3 U	111 J	42.9 J	72.2 J	106 J	5020	712 J	1330
bis(2-Ethylhexyl)phthalate	50,000	-	35.2 J	<1190 U	35.0 J	44.8 J	59.1 J	<1150 U	151 J	<1130 U
Di-n-octylphthalate	50,000	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
Benzo(b)fluoranthene	1,100	15,000 - 62,000	<1180 U	84.0 J	23.8 J	42.7 J	68.9 J	3600	478 J	998 J
Benzo(k)fluoranthene	1,100	300 - 26,000	<1180 U	61.8 J	24.3 J	47.1 J	76.6 J	3310	442 J	882 J
Benzo(a)pyrene	61	165 - 220	<1180 U	67.0 J	27.7 J	49.9 J	82.1 J	4330	633 J	1130
Indeno(1,2,3-cd)pyrene	3200	8,000 - 61,000	<1180 U	<1190 U	<1150 U	<1180 U	44.5 J	2080	292 J	574 J
Dibenz(a,h)anthracene	14	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	743 J	<5510 U	198 J
Benzo(g,h,i)perylene	50,000	900 - 47,000	<1180 U	40.3 J	<1150 U	28.4 J	49.4 J	2190	314 J	628 J
Total SVOC's	500,000		107	698	338	776.3	979	65,917	6,213	16,143

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; instrument detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
B - Analyte Found in associated blank as well as sample

Table 3. Summary of Semivolatile Organic Compounds in Soil Samples. Continued.
Washington Avenue Roadway

Semivolatile Compounds (Concentration in ug/kg)	NYSDEC Recommended Soil Cleanup Objectives (ug/kg)	ATSDR Background Soil Concentrations PAHs in Urban Soils (ug/kg)	03/01/04 Split Spoon SS-05 (0'-2') (ug/kg)	03/01/04 Split Spoon SS-05 (6'-8') (ug/kg)	03/01/04 Split Spoon SS-06 (0'-2') (ug/kg)	03/01/04 Split Spoon SS-06 (4'-6') (ug/kg)	03/01/04 Split Spoon SS-07 (ug/kg)	03/01/04 Split Spoon SS-08 (4'-6') (ug/kg)
Phenol	30 or MDL	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
bis(2-Chloroethyl)ether	-	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
2-Chlorophenol	800	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
1,3-Dichlorobenzene	1,600	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
1,4-Dichlorobenzene	8,500	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
1,2-Dichlorobenzene	7,900	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
2-Methylphenol	100	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
bis(2-Chloroisopropyl)ether	-	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
3,4-Methylphenol	-	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
N-Nitrosodi-n-propylamine	-	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
Hexachloroethane	-	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
Nitrobenzene	200	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
Isophorone	4,400	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
2-Nitrophenol	100	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
2,4-Dimethylphenol	-	-	<2220 U	37.9 J	<5560 U	<1100 U	NR	<1100 U
bis(2-Chloroethoxy)methane	-	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
2,4-Dichlorophenol	400	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
1,2,4-Trichlorobenzene	3,400	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
Naphthalene	13,000	-	1360 J	1560	153 J	58.8 J	NR	29.1 J
4-Chloroaniline	220	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
Hexachlorobutadiene	-	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
4-Chloro-3-methylphenol	240	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
2-Methylnaphthalene	36,400	-	639 J	640 J	<5560 U	82.7 J	NR	37.7 J
Hexachlorocyclopentadiene	-	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
2,4,6-Trichlorophenol	-	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
2,4,5-Trichlorophenol	100	-	<2220 U	<1140 U	<13900 U	<2750 U	NR	<2750 U
2-Chloronaphthalene	-	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
2-Nitroaniline	430	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
Dimethylphthalate	2,000	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
Acenaphthylene	41,000	-	466 J	448 J	467 J	<1100 U	NR	<1100 U
2,6-Dinitrotoluene	1,000	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
3-Nitroaniline	500	-	<2220 U	<1140 U	<13900 U	<2750 U	NR	<2750 U
Acenaphthene	50,000	-	1420 J	1240	<5560 U	<1100 U	NR	<1100 U
2,4-Dinitrophenol	200	-	<2220 U	<1140 U	<13900 U	<2750 U	NR	<2750 U
4-Nitrophenol	100	-	<2220 U	<1140 U	<13900 U	<2750 U	NR	<2750 U
Dibenzofuran	6,200	-	979 J	867 J	<5560 U	<1100 U	NR	<1100 U
2,4-Dinitrotoluene	-	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
Diethylphthalate	7,100	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
4-Chlorophenyl phenylether	-	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
Fluorene	50,000	-	1630 J	1440	<5560 U	<1100 U	NR	<1100 U
4-Nitroaniline	-	-	<2220 U	<1140 U	<13900 U	<2750 U	NR	<2750 U
4,6-Dinitro-2-methylphenol	-	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
N-Nitrosodiphenylamine	-	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
4-Bromophenyl phenyl ether	-	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
Hexachlorobenzene	410	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
Pentachlorophenol	1,000	-	<2220 U	<1140 U	<13900 U	<1100 U	NR	<1100 U
Phenanthrene	50,000	-	10700	7780	630 J	27.9 J	NR	71.0 J
Anthracene	50,000	-	3090	2320	615 J	<1100 U	NR	<1100 U
Carbazole	-	-	1590 J	1480	<5560 U	<1100 U	NR	<1100 U
Di-n-butylphthalate	8,100	-	<2220 U	26.4 J	<5560 U	<1100 U	NR	<1100 U
Fluoranthene	50,000	200 - 166,000	11700	9180	1270 J	33.6 J	NR	101 J
Pyrene	50,000	145 - 147,000	12700	10400	1640 J	33.5 J	NR	100 J
Butylbenzylphthalate	50,000	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
3,3'-Dichlorobenzidine	-	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
Benzo(a)anthracene	224	169 - 59,000	6390	5790	797 J	<1100 U	NR	67.6 J
Chrysene	400	251 - 640	6330	5340	1560 J	<1100 U	NR	74.8 J
bis(2-Ethylhexyl)phthalate	50,000	-	<2220 U	<1140 U	133 J	34.7 J	NR	50.3 J
Di-n-octylphthalate	50,000	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
Benzo(b)fluoranthene	1,100	15,000 - 62,000	4520	4710	2060 J	<1100 U	NR	44.6 J
Benzo(k)fluoranthene	1,100	300 - 26,000	5460	4530	1660 J	<1100 U	NR	38.9 J
Benzo(a)pyrene	61	165 - 220	6200	5510	1740 J	<1100 U	NR	48.8 J
Indeno(1,2,3-cd)pyrene	3200	8,000 - 61,000	3370	2010	1290 J	<1100 U	NR	24.6 J
Dibenz(a,h)anthracene	14	-	1590 J	595 J	508 J	<1100 U	NR	<1100 U
Benzo(g,h,i)perylene	50,000	900 - 47,000	3540	2000	1650 J	<1100 U	NR	28.1 J
Total SVOC's	500,000		117,920	65,104	15,706	212	NR	687

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; instrument detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
B - Analyte Found in associated blank as well as sample
NR - Not Reported

Table 4. Summary of Pesticide & PCB Compounds in Soil Samples
Proposed Wilson Avenue Roadway

TCL Pesticide and PCB Compounds (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (ug/kg)	03/01/04 Split Spoon SS-01 (0'-2') (ug/kg)	03/01/04 Split Spoon SS-01 (4'-6') (ug/kg)	03/01/04 Split Spoon SS-02 (0'-2') (ug/kg)	03/01/04 Split Spoon SS-02 (6'-8') (ug/kg)	03/01/04 Split Spoon SS-03 (0'-2') (ug/kg)	03/01/04 Split Spoon SS-03 (6'-8') (ug/kg)	03/01/04 Split Spoon SS-04 (0'-2') (ug/kg)	03/01/04 Split Spoon SS-04 (6'-8') (ug/kg)
alpha-BHC	110	<0.059 U	<0.060 U	<0.058 U	<0.059 U	<0.056 U	<0.058 U	<0.055 U	<0.056 U
beta-BHC	200	<0.059 U	<0.060 U	<0.058 U	<0.059 U	<0.056 U	<0.058 U	<0.055 U	<0.056 U
delta-BHC	300	<0.059 U	<0.060 U	<0.058 U	<0.059 U	<0.056 U	<0.058 U	<0.055 U	<0.056 U
gamma -BHC(Lindane)	60	<0.059 U	<0.060 U	<0.058 U	<0.059 U	<0.056 U	<0.058 U	<0.055 U	<0.056 U
Heptachlor	100	<0.059 U	<0.060 U	<0.058 U	<0.059 U	<0.056 U	<0.058 U	<0.055 U	<0.056 U
Aldrin	41	<0.059 U	<0.060 U	<0.058 U	<0.059 U	<0.056 U	<0.058 U	<0.055 U	<0.056 U
Heptachlor epoxide	20	<0.059 U	<0.060 U	<0.058 U	<0.059 U	<0.056 U	<0.058 U	<0.055 U	<0.056 U
Endosulfan I	900	<0.059 U	<0.060 U	<0.058 U	<0.059 U	<0.056 U	<0.058 U	<0.055 U	<0.056 U
Dieldrin	44	<0.12 U	<0.12 U	<0.12 U	<0.12 U	<0.11 U	<0.12 U	<0.11 U	<0.11 U
4,4'-DDE	2,100	<0.12 U	<0.12 U	<0.12 U	<0.12 U	<0.11 U	<0.12 U	<0.11 U	<0.11 U
Endrin	100	<0.12 U	<0.12 U	<0.12 U	<0.12 U	<0.11 U	<0.12 U	<0.11 U	<0.11 U
Endosulfan II	900	<0.12 U	<0.12 U	<0.12 U	<0.12 U	<0.11 U	<0.12 U	<0.11 U	<0.11 U
4-4'-DDD	2,900	<0.12 U	<0.12 U	<0.12 U	<0.12 U	<0.11 U	<0.12 U	<0.11 U	<0.11 U
Endosulfan sulfate	1,000	<0.12 U	<0.12 U	<0.12 U	<0.12 U	<0.11 U	<0.12 U	<0.11 U	<0.11 U
4,4'-DDT	2,100	<0.12 U	<0.12 U	<0.12 U	<0.12 U	<0.11 U	<0.12 U	<0.11 U	<0.11 U
Methoxychlor	-	<0.59 U	<0.60 U	<0.57 U	<0.59 U	<0.56 U	<0.57 U	<0.55 U	<0.56 U
Endrin ketone	-	<0.12 U	<0.12 U	<0.12 U	<0.12 U	<0.11 U	<0.12 U	<0.11 U	<0.11 U
Endrin aldehyde	-	<0.12 U	<0.12 U	<0.12 U	<0.12 U	<0.11 U	<0.12 U	<0.11 U	<0.11 U
alpha-Chlordane	540	<0.059 U	<0.060 U	<0.058 U	<0.059 U	<0.056 U	<0.058 U	<0.055 U	<0.056 U
gamma-Chlordane	540	<0.059 U	<0.060 U	<0.058 U	<0.059 U	<0.056 U	<0.058 U	<0.055 U	<0.056 U
Toxaphene	-	<5.90 U	<5.95 U	<5.75 U	<5.90 U	<5.55 U	<5.75 U	<5.50 U	<5.65 U
Total Pesticides	10,000	0.00	0.00	<0.12	0.00	0.00	0.00	0.00	0.00
Polychlorinated Biphenyls (PCBs) (Concentration in ug/kg)									
Aroclor-1016	10,000	<1.18 U	<1.19	<1.15 U	<1.18 U	<1.11 U	<1.15 U	<1.10 U	<1.13 U
Aroclor-1221	10,000	<1.18 U	<1.19	<1.15 U	<1.18 U	<1.11 U	<1.15 U	<1.10 U	<1.13 U
Aroclor-1232	10,000	<1.18 U	<1.19	<1.15 U	<1.18 U	<1.11 U	<1.15 U	<1.10 U	<1.13 U
Aroclor-1242	10,000	<1.18 U	<1.19	<1.15 U	<1.18 U	<1.11 U	<1.15 U	<1.10 U	<1.13 U
Aroclor-1248	10,000	<1.18 U	<1.19	<1.15 U	<1.18 U	<1.11 U	<1.15 U	<1.10 U	<1.13 U
Aroclor-1254	10,000	<1.18 U	<1.19	<1.15 U	<1.18 U	<1.11 U	<1.15 U	<1.10 U	<1.13 U
Aroclor-1260	10,000	<1.18 U	<1.19	<1.15 U	<1.18 U	<1.11 U	<1.15 U	<1.10 U	<1.13 U
Total PCB	25,000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; instrument detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
C - Pesticide Compound where the identification has been successfully confirmed
P - Pesticide/Aroclor target analyte when there is a >25% difference detected Conc. between GC columns
Y - Several pesticide peaks "detected" in samples SS-1, 2, 4, 5, 6, 8, and 9 are most likely due to Arochlor conditions

Table 4. Summary of Pesticide & PCB Compounds in Soil Samples. Continued.
Washington Avenue Roadway

TCL Pesticide and PCB Compounds (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (ug/kg)	03/01/04 Split Spoon SS-05 (0'-2') (ug/kg)	03/01/04 Split Spoon SS-05 (6'-8') (ug/kg)	03/01/04 Split Spoon SS-06 (0'-2') (ug/kg)	03/01/04 Split Spoon SS-06 (4'-6') (ug/kg)	03/01/04 Split Spoon SS-07 (ug/kg)	03/01/04 Split Spoon SS-08 (4'-6') (ug/kg)
alpha-BHC	110	NR	<0.057 U	<0.056 U	<0.055 U	NR	<0.055 U
beta-BHC	200	NR	<0.057 U	<0.056 U	<0.055 U	NR	<0.055 U
delta-BHC	300	NR	<0.057 U	<0.056 U	<0.055 U	NR	<0.055 U
gamma -BHC(Lindane)	60	NR	<0.057 U	<0.056 U	<0.055 U	NR	<0.055 U
Heptachlor	100	NR	<0.057 U	<0.056 U	<0.055 U	NR	<0.055 U
Aldrin	41	NR	<0.057 U	<0.056 U	<0.055 U	NR	<0.055 U
Heptachlor epoxide	20	NR	<0.057 U	<0.056 U	<0.055 U	NR	<0.055 U
Endosulfan I	900	NR	<0.057 U	<0.056 U	<0.055 U	NR	<0.055 U
Dieldrin	44	NR	<0.11 U	<0.11 U	<0.11 U	NR	<0.11 U
4,4'-DDE	2,100	NR	<0.11 U	<0.11 U	<0.11 U	NR	<0.11 U
Endrin	100	NR	<0.11 U	<0.11 U	<0.11 U	NR	<0.11 U
Endosulfan II	900	NR	<0.11 U	<0.11 U	<0.11 U	NR	<0.11 U
4-4'-DDD	2,900	NR	<0.11 U	<0.11 U	<0.11 U	NR	<0.11 U
Endosulfan sulfate	1,000	NR	<0.11 U	<0.11 U	<0.11 U	NR	<0.11 U
4,4'-DDT	2,100	NR	<0.11 U	<0.11 U	<0.11 U	NR	<0.11 U
Methoxychlor	-	NR	<0.57 U	<0.56 U	<0.55 U	NR	<0.55 U
Endrin ketone	-	NR	<0.11 U	<0.11 U	<0.11 U	NR	<0.11 U
Endrin aldehyde	-	NR	<0.11 U	<0.11 U	<0.11 U	NR	<0.11 U
alpha-Chlordane	540	NR	<0.057 U	<0.056 U	<0.055 U	NR	<0.055 U
gamma-Chlordane	540	NR	<0.057 U	<0.056 U	<0.055 U	NR	<0.055 U
Toxaphene	-	NR	<5.70 U	<5.55 U	<5.50 U	NR	<5.50 U
Total Pesticides	10,000	NR	0.00	0.00	0.00	0.00	0.00
Polychlorinated Biphenyls (PCBs) (Concentration in ug/kg)							
Aroclor-1016	10,000	<1.11 U	<1.14	<1.11 U	<1.10 U	NR	<1.10 U
Aroclor-1221	10,000	<1.11 U	<1.14	<1.11 U	<1.10 U	NR	<1.10 U
Aroclor-1232	10,000	<1.11 U	<1.14	<1.11 U	<1.10 U	NR	<1.10 U
Aroclor-1242	10,000	<1.11 U	<1.14	<1.11 U	<1.10 U	NR	<1.10 U
Aroclor-1248	10,000	<1.11 U	<1.14	<1.11 U	<1.10 U	NR	<1.10 U
Aroclor-1254	10,000	<1.11 U	<1.14	<1.11 U	<1.10 U	NR	<1.10 U
Aroclor-1260	10,000	<1.11 U	<1.14	898	<1.10 U	NR	<1.10 U
Total PCB	25,000	0.00	0.00	898	0.00	NR	0.00

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; instrument detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
C - Pesticide Compound where the identification has been successfully confirmed
P - Pesticide/Aroclor target analyte when there is a >25% difference detected Conc. between GC columns
Y - Several pesticide peaks "detected" in samples SS-1, 2, 4, 5, 6, 8, and 9 are most likely due to Arochlor conditions
NR - Not Reported

Tabel 5. Summary of RCRA & Toxicity Characteristics in Soil.
Proposed Wilson Avenue Roadway

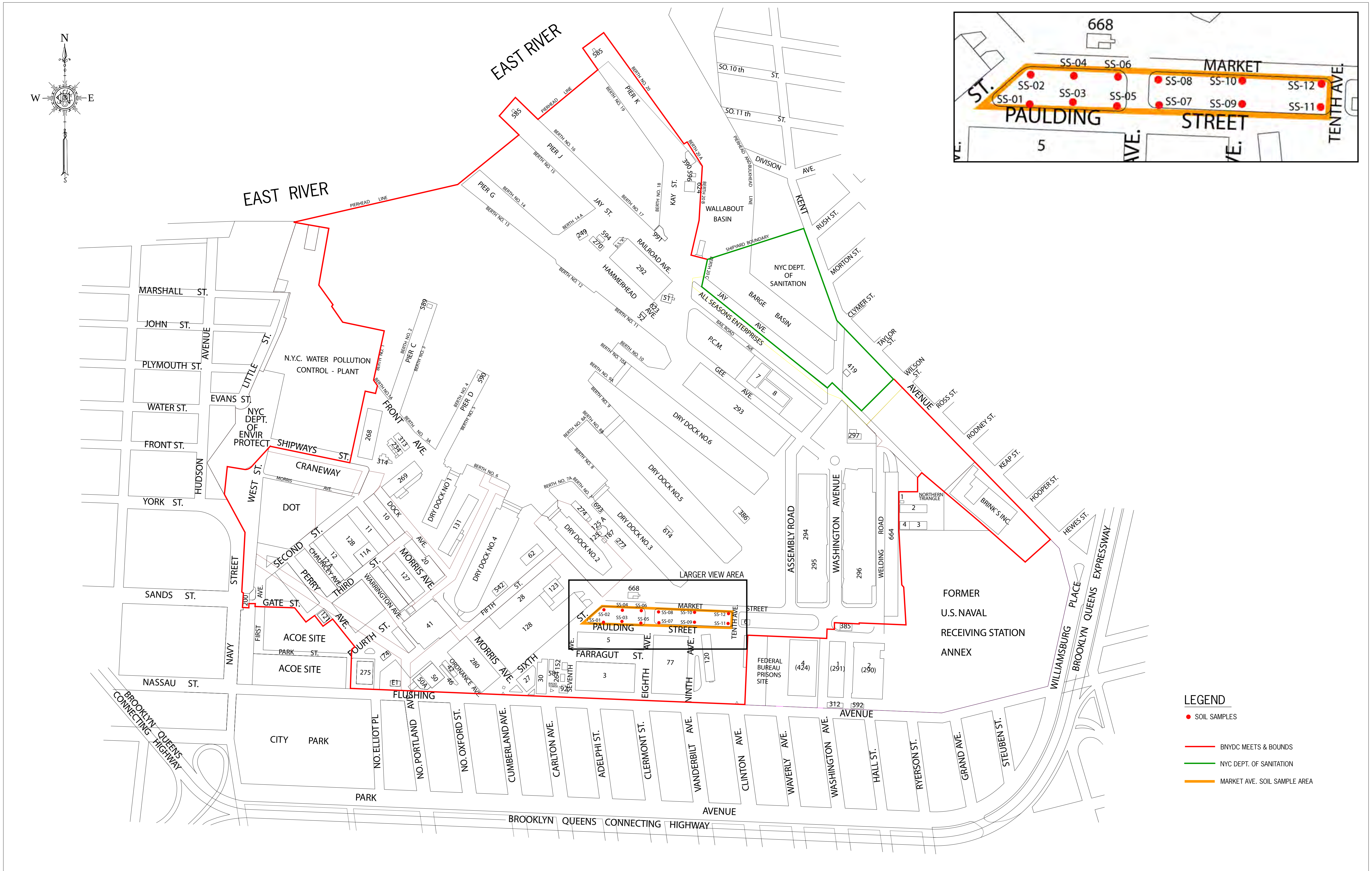
		03/01/04	**03/01/04**	**03/01/04**	**03/01/04**	**03/01/04**	**03/01/04**	**03/01/04**	**03/01/04**
	Regulatory	**Split Spoon**	**Split Spoon**	**Split Spoon**	**Split Spoon**	**Split Spoon**	**Split Spoon**	**Split Spoon**	**Split Spoon**
TCLP Metal	Level*	**SS-01 (0'-2')**	**SS-01 (4'-6')**	**SS-02 (0'-2')**	**SS-02 (6'-8')**	**SS-03 (0'-2')**	**SS-03 (6'-8')**	**SS-04 (0'-2')**	**SS-04 (6'-8')**
Analytes	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)
Arsenic	5	<0.027 U	0.12	<0.027 U	0.037 B	<0.027 U	0.072 B	0.12	<0.027 U
Barium	100	0.71 B	0.58 B	0.64 B	0.58 B	0.81 B	2.04	0.41 B	0.70 B
Cadmium	1	0.012 B	0.012 B	0.0080 B	0.011 B	0.0070 B	0.013 B	0.011 B	0.0070 B
Chromium	5	<0.015 U	<0.015 U	<0.015 U	<0.015 U	<0.015 U	<0.015 U	<0.015 U	<0.015 U
Lead	5	0.11	0.12	0.091	0.13	0.75	4.58	0.16	1.27
Mercury	0.2	<0.000018 U	<0.000018 U	<0.000018 U	<0.000018 U	<0.000018 U	<0.000063	<0.000018 U	<0.000018 U
Selenium	1	<0.055 U	0.13	<0.055 U	<0.055 U	<0.055 U	<0.055 U	<0.055 U	<0.055 U
Silver	5	<0.011 U	<0.011 U	<0.011 U	<0.011 U	<0.011 U	<0.011 U	<0.011 U	<0.011 U
TCLP Volatile Organic Compounds									
Benzene	0.5	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
Carbon Tetrachloride	0.5	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
Chlorobenzene	100	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
Chloroform	6	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
1,2-Dichloroethane	0.5	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
1,1-Dichloroethene	0.7	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
Methyl Ethyl Ketone	200	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
Tetrachloroethene	0.7	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
Trichloroethene	0.5	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
Vinyl Chloride	0.2	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
TCLP Semivolatile Organic Compounds									
o-cresol	200	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
m,p-cresol	200	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
Cresol	200	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
1,4-Dichlorobenzene	7.5	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
2,4-Dinitrotoluene	0.13	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
Hexachlorobenzene	0.13	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
Hexachlorobutadiene	0.5	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
Hexachloroethane	3	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
Nitrobenzene	2	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
Pentachlorophenol	100	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
Pyridine	5	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
2,4,5-Trichlorophenol	400	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
2,4,6-Trichlorophenol	2	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
TCLP Herbicide Compounds									
2,4 - D	10	<0.020 U	<0.020 U	<0.020 U	<0.020 U	<0.020 U	<0.020 U	<0.020 U	<0.020 U
2,4,5-TP (Silvex)	1	<0.020 U	<0.020 U	<0.020 U	<0.020 U	<0.020 U	<0.020 U	<0.020 U	<0.020 U
TCLP Pesticide Compounds									
Chlordane	0.03	<0.00010 U	<0.00010 U	<0.00010 U	<0.00010 U	<0.00010 U	<0.00010 U	<0.00010 U	<0.00010 U
Endrin	0.02	<0.00010 U	<0.00010 U	<0.00010 U	<0.00010 U	<0.00010 U	<0.00010 U	<0.00010 U	<0.00010 U
Heptachlor	0.008	<0.000050 U	<0.000050 U	<0.000050 U	<0.000050 U	<0.000050 U	<0.000050 U	<0.000050 U	<0.000050 U
Heptachlor epoxide	0.008	<0.000050 U	<0.000050 U	<0.000050 U	<0.000050 U	<0.000050 U	<0.000050 U	<0.000050 U	<0.000050 U
Lindane	0.4	<0.000050 U	<0.000050 U	<0.000050 U	<0.000050 U	<0.000050 U	<0.000050 U	<0.000050 U	<0.000050 U
Methoxychlor	10	<0.00050 U	<0.00050 U	<0.00050 U	<0.00050 U	<0.00050 U	<0.00050 U	<0.00050 U	<0.00050 U
Toxaphene	0.5	<0.0050 U	<0.0050 U	<0.0050 U	<0.0050 U	<0.0050 U	<0.0050 U	<0.0050 U	<0.0050 U
RCRA Characteristics Compounds									
Flash Point (Ignitability)	deg C	>100 U	>100 U	>100 U	>100 U	>100 U	>100 U	>100 U	>100 U
pH - Soil in Water		6.00	7.17	6.84	7.12	7.17	7.62	8.27	7.74
Temperature	C	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Releasable Cyanide	ppm	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
Releasable H2 Sulfide	ppm	<0.010 U	<0.010 U	<0.010 U	<0.010 U	<0.010 U	<0.010 U	<0.010 U	<0.010 U
Reactivity	Negative/Positive	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative

Qualifiers:
mg/l - Milligram per liter
U - Not detected; instrument detection limit shown
B - Analyte Found in associated blank as well as sample

Tabel 5. Summary of RCRA & Toxicity Characteristics in Soil. Continued.
Washington Avenue Roadway

TCLP Metal Analytes	Regulatory Level* (mg/l)	03/01/04 Split Spoon SS-05 (0'-2') (mg/l)	03/01/04 Split Spoon SS-05 (6'-8') (mg/l)	03/01/04 Split Spoon SS-06 (0'-2') (mg/l)	03/01/04 Split Spoon SS-06 (4'-6') (mg/l)	03/01/04 Split Spoon SS-07 (mg/l)	03/01/04 Split Spoon SS-08 (4'-6') (mg/l)
Arsenic	5	NR	0.043 B	0.15	<0.027 U	**NR**	<0.027 U
Barium	100	NR	0.78 B	0.48 B	0.36 B	NR	0.50
Cadmium	1	NR	0.0070 B	0.0080 B	0.0040 B	NR	<0.0040 U
Chromium	5	NR	<0.015 U	<0.015 U	<0.015 U	NR	<0.015 U
Lead	5	NR	1.86	0.15	0.062	NR	0.40
Mercury	0.2	NR	0.000026	0.00042	<0.00018 U	NR	<0.000018 U
Selenium	1	NR	0.12	0.087	<0.055 U	NR	<0.055 U
Silver	5	NR	<0.011 U	<0.011 U	<0.011 U	NR	<0.011 U
TCLP Volatile Organic Compounds							
Benzene	0.5	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
Carbon Tetrachloride	0.5	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
Chlorobenzene	100	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
Chloroform	6	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
1,2-Dichloroethane	0.5	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
1,1-Dichloroethene	0.7	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
Methyl Ethyl Ketone	200	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
Tetrachloroethene	0.7	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
Trichloroethene	0.5	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
Vinyl Chloride	0.2	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
TCLP Semivolatile Organic Compounds							
o-cresol	200	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
m,p-cresol	200	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
Cresol	200	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
1,4-Dichlorobenzene	7.5	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
2,4-Dinitrotoluene	0.13	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
Hexachlorobenzene	0.13	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
Hexachlorobutadiene	0.5	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
Hexachloroethane	3	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
Nitrobenzene	2	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
Pentachlorophenol	100	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
Pyridine	5	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
2,4,5-Trichlorophenol	400	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
2,4,6-Trichlorophenol	2	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
TCLP Herbicide Compounds							
2,4 - D	10	NR	<0.020 U	<0.020 U	<0.020 U	NR	<0.020 U
2,4,5-TP (Silvex)	1	NR	<0.020 U	<0.020 U	<0.020 U	NR	<0.020 U
TCLP Pesticide Compounds							
Chlordane	0.03	NR	<0.00010 U	<0.00010 U	<0.00010 U	NR	<0.00010 U
Endrin	0.02	NR	<0.00010 U	<0.00010 U	<0.00010 U	NR	<0.00010 U
Heptachlor	0.008	NR	<0.000050 U	<0.000050 U	<0.000050 U	NR	<0.000050 U
Heptachlor epoxide	0.008	NR	<0.000050 U	<0.000050 U	<0.000050 U	NR	<0.000050 U
Lindane	0.4	NR	<0.000050 U	<0.000050 U	<0.000050 U	NR	<0.000050 U
Methoxychlor	10	NR	<0.00050 U	<0.00050 U	<0.00050 U	NR	<0.00050 U
Toxaphene	0.5	NR	<0.0050 U	<0.0050 U	<0.0050 U	NR	<0.0050 U
RCRA Characteristics Compounds							
Flash Point (Ignitability)	deg C	NR	>100 U	>100 U	>100 U	NR	>100 U
pH - Soil in Water		NR	7.33	8.33	6.86	NR	7.46
Temperature	C	NR	18	20.0	20.0	NR	20.0
Releasable Cyanide	ppm	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
Releasable H2 Sulfide	ppm	NR	<0.010 U	<0.010 U	<0.010 U	NR	<0.010 U
Reactivity	Negative/Positive	NR	Negative	Negative	Negative	NR	Negative

Qualifiers:
mg/l - Milligram per liter
U - Not detected; instrument detection limit shown
B - Analyte Found in associated blank as well as sample
NR- Not Reported



PROJECT:
Brooklyn Navy Yard
Sampling Locations

DWN. BY RDW
CHK. BY NM
SCALE: N/A

PREVIOUS SOIL SAMPLING LOCATIONS
MARKET AVE. DEVELOPMENT
Brooklyn Navy Yard
Brooklyn, NY 11205

QUAY CONSULTING, LLC

HYPACK TAG:
ANALOG # 041506
FIELD BOOK: N/A
DATE APR. 15, 2006
LINE FILE: BNY 01
FIGURE NO. D
BROOKLYN NAVY YARD
DEVELOPMENT CORP

Table 1. Summary of Metals, Cyanide & TOC in Soil Samples
Project: Market St. Dev., Brooklyn Navy Yard

Client Sample ID:		**Recommended**	**Eastern US**	**New York State**	**B2 [8'-12']**		**B1 [8'-12']**		**B4 [10'-12']**		**B11 [2'-4']**		**B11 [8'-10']**		**B7 [2'-4']**		**B7 [10'-12']**		**B8 [2'-4']**		**B8 [4'-6']**		**B6 [4'-6']**		**B6 [6'-8']**		**B12 [4'-6']**		**B12 [8'-10']**	
Laboratory ID:		**Soil Cleanup**	**Element Conc.**	**Background Conc.**	**0508111-01**		**0508111-02**		**0508111-03**		**0508111-04**		**0508111-05**		**0508111-06**		**0508111-07**		**0508111-08**		**0508111-09**		**0508111-10**		**0508111-11**		**0508111-12**		**0508111-13**	
Sampling Date:		**Objectives**	**in Soils (Shacklette)**	**in Soils (McGovern)**	**07/29/2005**		**07/29/2005**		**08/01/2005**		**08/02/2005**		**08/02/2005**		**08/03/2005**		**08/03/2005**		**08/04/2005**		**08/04/2005**		**08/08/2005**		**08/08/2005**		**08/09/2005**		**08/09/2005**	
Analytes		**(mg/kg)**	**(mg/kg)**	**(mg/kg)**		**Q**		**Q**		**Q**		**Q**		**Q**		**Q**		**Q**		**Q**		**Q**		**Q**		**Q**		**Q**		**Q**
TAGM METALS (Concentration in mg/kg)	**Units:**																													
Aluminum	mg/kg	SB	7,000 -100,000	33,000	3170		3790		7420		4490		4100		8480		7660		2340		4820		4940		5810		4940		4810	
Antimony	mg/kg	SB	<1 - 8.8	NA	0.935	U	0.594	U	0.709	U	0.522	U	0.613	U	0.748	U	0.758	U	4.70		0.602	U	0.569	U	0.634	U	0.828		0.562	U
Arsenic	mg/kg	7.5 or SB	<0.1 - 73	3.0 - 12	15.3		6.12		6.03		18.6		18.2		7.19		8.95		17.1		4.05		9.05		5.77		5.53		5.15	
Barium	mg/kg	300 or SB	10 - 1,500	15 - 600	172		59.6		20.9		36.1		91.2		47.6		38.3		76.1		56.1		47.4		34.3		60.4		79.5	
Beryllium	mg/kg	0.16(HEAST) or SB	<1 - 7	0 - 1.75	0.748	U	0.475	U	0.567	U	0.418	U	0.490	U	0.599	U	0.606	U	0.403	U	0.481	U	0.456	U	0.507	U	0.419	U	0.449	U
Cadmium	mg/kg	1 or SB	NA	0.1 - 1	0.374	U	0.238	U	0.284	U	0.209	U	0.245	U	0.299	U	0.303	U	0.289		0.436		0.214	J	0.254	U	0.153	J	0.173	J
Calcium	mg/kg	SB	100 - 280,000	130 - 35,000	3680		1150		4990		1630		3910		5250		2100		399		5220		2050		1960		1140		2200	
Chromium	mg/kg	10 or SB	1 - 1,000	1.5 - 40	9.27		9.12		18.6		12.3		11.0		23.1		21.5		45.6		11.1		18.2		16.0		14.3		18.4	
Cobalt	mg/kg	30 or SB	<0.3 - 70	2.5 - 60	29.4		8.24		13.6		9.47		8.71		16.9		16.8		22.5		11.3		17.3		12.6		12.2		9.63	
Copper	mg/kg	25 or SB	<1 - 700	<1 - 50	173		21.7		8.67		20.6		35.3		36.9		26.4		277		121		63.8		24.7		35.0		79.9	
Iron	mg/kg	2,000 or SB	100 - 100,000	2,000 - 550,000	12700		5630		9200		6290		6870		10000		10000		7170		7110		7640		8180		7690		6760	
Lead	mg/kg	SB or *	<10 - 300	200 - 500	3030		413		8.17		27.3		829		79.1		53.2		626		181		95.3		35.8		150		130	
Magnesium	mg/kg	SB	50 - 50,000	100 - 5,000	1720		1420		4190		2120		1320		4900		4560		762		4510		2220		2790		1540		1450	
Manganese	mg/kg	SB	<2 - 7,000	50 - 5,000	483		57.8		305		264		328		680		534		202		395		206		239		217		179	
Mercury	mg/kg	0.10	0.01 - 3.4	0.001 - 0.2	0.884		0.508		0.183		0.169		0.946		0.621		0.272		0.807		0.780		14.3		12.8		1.14		0.913	
Nickel	mg/kg	13 or SB	<5 - 700	0.5 - 25	23.7		19.4		16.6		12.0		12.8		21.0		19.8		40.8		26.2		17.1		15.1		11.8		20.0	
Potassium	mg/kg	SB	50 - 37,000	8,500 - 43,000	1080		686		2150		859		773		2490		2410		535		1140		1290		1650		747		817	
Selenium	mg/kg	2 or SB	<0.1 - 3.9	<0.1 - 3.9	0.935	U	0.594	U	0.709	U	0.522	U	0.613	U	0.748	U	0.758	U	0.504	U	0.602	U	0.569	U	0.634	U	0.523	U	0.562	U
Silver	mg/kg	SB	NA	NA	0.458	J	0.475	U	0.567	U	0.418	U	0.490	U	0.599	U	0.606	U	0.240	J	0.481	U	0.456	U	0.507	U	0.419	U	0.449	U
Sodium	mg/kg	SB	<500 - 50,000	6,000 - 8,000	1430		208		1080		166		172		769		1170		219		520		1250		1480		383		396	
Thallium	mg/kg	SB	2.2 - 23	NA	0.561	U	0.357	U	0.426	U	0.313	U	0.368	U	0.449	U	0.455	U	0.302	U	0.361	U	0.342	U	0.381	U	0.314	U	0.337	U
Vanadium	mg/kg	150-SB	<7 - 300	1 - 300	14.0		16.7		23.4		19.6		17.6		30.9		29.5		29.0		18.6		22.6		20.9		18.0		20.2	
Zinc	mg/kg	20 or SB	<5 - 2,900	9.0 - 50	557		37.8		49.3		62.3		88.8		80.9		64.0		400		277		254		95.6		198		104	
Cyanide, Total & Amenable: Auto Colorimetric	mg/kg	**	NA	NA	1.98	U	1.28	U	1.54	U	1.11	U	1.23	U	1.62	U	1.52	U	1.13	U	1.23	U	1.25	U	1.38	U	1.16	U	1.19	U
Percent Moisture	wt%				49.5		22.1		35.0		9.72		18.7		38.4		34.3		11.1		18.9		20.2		27.5		13.8		15.7	

Qualifiers:
mg/kg - Milligram per kilogram
U - Not detected; detection limit shown
B - Analyte Found in associated blank as well as sample
SB - Site Background
*- Background levels of lead vary widely. Average background levels in metropolitan and suburban areas average 200 - 500 ppm
** - Site specific condition should be taken into consideration when establishing clean up levels
Scacklette, HT and JG Boerngen, 1984. *"Element Concentration in Soils and other Surficial Materials of the Conterminus United States, USGS Professional Paper 1270."*
E. Carol McGovern, NYSDEC Wildlife Resource Center. *"Background Concentrations of 20 elements in Soils with Special Regard for New York State."*
Above State RSCO's

Table 2. Summary of Volatile Organic Compounds in Soil Samples
Project: Market St. Dev., Brooklyn Navy Yard

Client Sample ID:		Recommended	B2 [8'-12']	B1 [8'-12']	B4 [10'-12']	B11 [2'-4']	B11 [8'-10']	B7 [2'-4']	B7 [10'-12']	B8 [2'-4']	B8 [4'-6']	B6 [4'-6']	B6 [6'-8']	B12 [4'-6']	B12 [8'-10']
Laboratory ID:		Soil Cleanup	0508111-01	0508111-02	0508111-03	0508111-04	0508111-05	0508111-06	0508111-07	0508111-08	0508111-09	0508111-10	0508111-11	0508111-12	0508111-13
Sampling Date:		Objectives	07/29/2005	07/29/2005	08/01/2005	08/02/2005	08/02/2005	08/03/2005	08/03/2005	08/04/2005	08/04/2005	08/08/2005	08/08/2005	08/09/2005	08/09/2005
Analyte:	Units:		Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Volatile Compounds (Concentration in ug/kg)															
1,1,1-Trichloroethane	ug/kg	800	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
1,1,2,2-Tetrachloroethane	ug/kg	600	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
1,1,2-Trichloroethane	ug/kg	600	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
1,1-Dichloroethane	ug/kg	200	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
1,1-Dichloroethene	ug/kg	400	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
1,2-Dichloroethane	ug/kg	100	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
1,2-Dichloropropane	ug/kg	-	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
2-Butanone	ug/kg	300	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
2-Chloroethyl vinyl ether	ug/kg	-	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
2-Hexanone	ug/kg	-	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
4-Methyl-2-pentanone	ug/kg	1,000	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
Acetone	ug/kg	200	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
Benzene	ug/kg	60	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
Bromodichloromethane	ug/kg	-	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
Bromoform	ug/kg	-	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
Bromomethane	ug/kg	-	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
Carbon disulfide	ug/kg	2700	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
Carbon tetrachloride	ug/kg	600	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
Chlorobenzene	ug/kg	1700	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
Chloroethane	ug/kg	1,900	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
Chloroform	ug/kg	300	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
Chloromethane	ug/kg	-	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
cis-1,3-Dichloropropene	ug/kg	600	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
Dibromochloromethane	ug/kg	100	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
Ethylbenzene	ug/kg	5500	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
Methylene chloride	ug/kg	100	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	42	12	5.9 U
Styrene	ug/kg	-	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
Tetrachloroethene	ug/kg	1400	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
Toluene	ug/kg	1500	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
trans-1,2-Dichloroethene	ug/kg	300	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
trans-1,3-Dichloropropene	ug/kg	600	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
Trichloroethene	ug/kg	700	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
Vinyl chloride	ug/kg	120	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
Xylenes, Total	ug/kg	1200	30 U	19 U	23 U	17 U	18 U	24 U	23 U	17 U	18 U	19 U	21 U	17 U	18 U
Total VOCs	ug/kg	10,000	0	0	0	0	0	0	0	0	0	0	0	0	0

Qualifiers:
ug/kg - Microgram per kilogram of part per billion (ppb) equivalent
ug/l - Microgram per liter (Aq) of part per billion (ppb) equivalent
U - Not detected; detection limit shown
B - Analyte Found in associated blank as well as sample
U - Not detected; detection limit shown
B - Analyte Found in associated blank as well as sample
NR - Not Reported
Above State RSCO's

Table 3. Summary of Semivolatile Organic Compounds in Soil Samples
Project: Market St. Dev., Brooklyn Navy Yard

Client Sample ID:		NYSDEC	ATSDR	B2 [8'-12']	B1 [8'-12']	B4 [10'-12']	B11 [2'-4']	B11 [8'-10']	B7 [2'-4']	B7 [10'-12']	B8 [2'-4']	B8 [4'-6']	B6 [4'-6']	B6 [6'-8']	B12 [4'-6']	B12 [8'-10']
Laboratory ID:		Recommended	Background Soil	0508111-01	0508111-02	0508111-03	0508111-04	0508111-05	0508111-06	0508111-07	0508111-08	0508111-09	0508111-10	0508111-11	0508111-12	0508111-13
Sampling Date:		Soil Cleanup	Concentrations PAHs	07/29/2005	07/29/2005	08/01/2005	08/02/2005	08/02/2005	08/03/2005	08/03/2005	08/04/2005	08/04/2005	08/08/2005	08/08/2005	08/09/2005	08/09/2005
Analyte:	Units:	Objectives	in Urban Soils	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
SEMIVOLATILE SW-846 8270																
1,2,4-Trichlorobenzene	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
1,2-Dichlorobenzene	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
1,3-Dichlorobenzene	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
1,4-Dichlorobenzene	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
2,4,5-Trichlorophenol	ug/kg	100	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
2,4,6-Trichlorophenol	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
2,4-Dichlorophenol	ug/kg	400	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
2,4-Dimethylphenol	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
2,4-Dinitrophenol	ug/kg	200	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
2,4-Dinitrotoluene	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
2,6-Dinitrotoluene	ug/kg	100	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
2-Chloronaphthalene	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
2-Chlorophenol	ug/kg	800	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
2-Methylnaphthalene	ug/kg	36,400	-	240 U	150 U	180 U	130 U	150 U	190 U	110 J	140 U	150 U	91 J	170 U	800	140 U
2-Methylphenol	ug/kg	100	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
2-Nitroaniline	ug/kg	430	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
2-Nitrophenol	ug/kg	100	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
3,3´-Dichlorobenzidine	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
3+4-Methylphenol	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
3-Nitroaniline	ug/kg	500	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
4,6-Dinitro-2-methylphenol	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
4-Bromophenyl phenyl ether	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
4-Chloro-3-methylphenol	ug/kg	240	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
4-Chloroaniline	ug/kg	220	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
4-Chlorophenyl phenyl ether	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
4-Nitroaniline	ug/kg	500	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
4-Nitrophenol	ug/kg	100	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Acenaphthene	ug/kg	90,000	-	240 U	150 U	180 U	130 U	210	190 U	270	140 U	150 U	150 U	170 U	4300	180
Acenaphthylene	ug/kg	41,000	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Aniline	ug/kg	100	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Anthracene	ug/kg	50,000	-	240 U	150 U	180 U	130 U	430	220	330	140 U	150 U	140 J	120 J	11000	410
Azobenzene	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Benzidine	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Benzo(a)anthracene	ug/kg	224	169 - 59,000	240 U	150 U	180 U	130 U	1500	410	320	140 U	150 U	380	380	19000	1000
Benzo(a)pyrene	ug/kg	61	165 - 220	240 U	150 U	180 U	130 U	2200	340	230	140 U	150 U	320	260	13000	820
Benzo(b)fluoranthene	ug/kg	1,100	15,000 - 62,000	240 U	150 U	180 U	450	2500	190 U	280	140 U	95 J	580	410	17000	1100
Benzo(g,h,i)perylene	ug/kg	50,000	900 - 47,000	240 U	150 U	180 U	130 U	1200	190 J	130 J	140 U	150 U	280	170	6800	570
Benzo(k)fluoranthene	ug/kg	1,100	300 - 26,000	240 U	150 U	180 U	120 J	680	190 U	180 U	140 U	150 U	200	180	6200	350
Benzoic acid	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Benzyl alcohol	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Bis(2-chloroethoxy)methane	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Bis(2-chloroethyl)ether	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Bis(2-chloroisopropyl)ether	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Bis(2-ethylhexyl)phthalate	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	1900 B	5600 B	140 U	730 B	390 B	1700 B	1700 B	380 B
Butyl benzyl phthalate	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	440 B	390 B	140 U	260 B	300 B	370 B	230 B	250 B
Carbazole	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	2200	110 J
Chrysene	ug/kg	400	251 - 640	240 U	150 U	180 U	130 U	1500	420	310	140 U	150 U	490	490	17000	1000
Dibenzo(a,h)anthracene	ug/kg	-	-	240 U	150 U	180 U	130 U	260	190 U	180 U	140 U	150 U	150 U	170 U	1900	150
Dibenzofuran	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	3400	110 J
Diethyl phthalate	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Dimethyl phthalate	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Di-n-butyl phthalate	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	170 J	120 J	140 U	150 U	100 J	120 J	140 U	140 U
Di-n-octyl phthalate	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Fluoranthene	ug/kg	50,000	200 - 166,000	240 U	150 U	180 U	580	2400	870	1000	140 U	150 U	690	610	47000	1900
Fluorene	ug/kg	50,000	-	240 U	150 U	180 U	130 U	150 U	190 U	220	140 U	150 U	150 U	170 U	5200	140 J
Hexachlorobenzene	ug/kg	410	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Hexachlorobutadiene	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Hexachlorocyclopentadiene	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Hexachloroethane	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Indeno(1,2,3-c,d)pyrene	ug/kg	50,000	200 - 166,000	240 U	150 U	180 U	130 U	1300	150 J	95 J	140 U	150 U	240	140 J	6300	460
Isophorone	ug/kg	4,400	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Naphthalene	ug/kg	13,000	-	240 U	150 U	180 U	130 U	150 U	190 U	220	140 U	150 U	140 J	170 U	1200	140 U
Nitrobenzene	ug/kg	200	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
N-Nitrosodimethylamine	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
N-Nitrosodi-n-propylamine	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
N-Nitrosodiphenylamine	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Pentachlorophenol	ug/kg	1,000	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Phenanthrene	ug/kg	50,000	-	240 U	150 U	180 U	130 U	1300	260	1100	4600	99 J	420	280	49000	1600
Phenol	ug/kg	30 or MDL	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Pyrene	ug/kg	50,000	145 - 147,000	240 U	150 U	180 U	560	2300	880	1000	140 U	110 J	710	620	36000	2200
Pyridine	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Total SVOC's	ug/kg	500,000		0	0	0	1590	17520	6250	11725	4600	1294	5471	5850	249230	12730

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
B - Analyte Found in associated blank as well as sample
NR - Not Reported
Above State RSCO's

Table 4. Summary of Pesticide & PCB Compounds in Soil Samples
Project: Market St. Dev., Brooklyn Navy Yard

Client Sample ID:		Recommended	B2 [8'-12']	B1 [8'-12']	B4 [10'-12']	B11 [2'-4']	B11 [8'-10']	B7 [2'-4']	B7 [10'-12']	B8 [2'-4']	B8 [4'-6']	B6 [4'-6']	B6 [6'-8']	B12 [4'-6']	B12 [8'-10']
Laboratory ID:		Soil Cleanup	0508111-01	0508111-02	0508111-03	0508111-04	0508111-05	0508111-06	0508111-07	0508111-08	0508111-09	0508111-10	0508111-11	0508111-12	0508111-13
Sampling Date:		Objectives	07/29/2005	07/29/2005	08/01/2005	08/02/2005	08/02/2005	08/03/2005	08/03/2005	08/04/2005	08/04/2005	08/08/2005	08/08/2005	08/09/2005	08/09/2005
Analyte:	Units:	(ug/kg)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
PCB's as AROCLORS SW-846 METHOD 8082															
Aroclor 1016	ug/kg	10,000	160 U	100 U	120 U	89 U	98 U	130 U	120 U	90 U	99 U	100 U	110 U	93 U	95 U
Aroclor 1221	ug/kg	10,000	160 U	100 U	120 U	89 U	98 U	130 U	120 U	90 U	99 U	100 U	110 U	93 U	95 U
Aroclor 1232	ug/kg	10,000	160 U	100 U	120 U	89 U	98 U	130 U	120 U	90 U	99 U	100 U	110 U	93 U	95 U
Aroclor 1242	ug/kg	10,000	160 U	100 U	120 U	89 U	98 U	130 U	120 U	90 U	99 U	100 U	110 U	93 U	95 U
Aroclor 1248	ug/kg	10,000	160 U	100 U	120 U	89 U	98 U	130 U	120 U	90 U	99 U	100 U	110 U	93 U	95 U
Aroclor 1254	ug/kg	10,000	160 U	100 U	120 U	89 U	98 U	130 U	120 U	90 U	99 U	100 U	110 U	93 U	95 U
Aroclor 1260	ug/kg	10,000	160 U	100 U	120 U	89 U	98 U	130 U	120 U	90 U	99 U	100 U	110 U	93 U	95 U
Total PCB	ug/kg	25,000	0	0	0	0	0	0	0	0	0	0	0	0	0
PESTICIDES SW-846 METHOD 8081															
4,4´-DDD	ug/kg	2,900	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	9.3	5.8 J	5.8 U	5.9 U
4,4´-DDE	ug/kg	2,100	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	6.2 U	6.9 U	5.8 U	5.9 U
4,4´-DDT	ug/kg	2,100	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	8.4	6.9 U	5.8 U	5.9 U
Aldrin	ug/kg	41	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	6.2 U	6.9 U	5.8 U	5.9 U
alpha-BHC	ug/kg	110	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	6.2 U	6.9 U	5.8 U	5.9 U
beta-BHC	ug/kg	200	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	6.2 U	6.9 U	5.8 U	5.9 U
Chlordane	ug/kg	540	30 U	19 U	23 U	17 U	18 U	24 U	23 U	17 U	18 U	19 U	21 U	17 U	18 U
Chlorobenzilate	ug/kg	-	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	6.2 U	6.9 U	5.8 U	5.9 U
DBCP	ug/kg	-	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	6.2 U	6.9 U	5.8 U	5.9 U
delta-BHC	ug/kg	300	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	6.2 U	6.9 U	5.8 U	5.9 U
Dieldrin	ug/kg	44	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	6.2 U	6.9 U	5.8 U	5.9 U
Endosulfan I	ug/kg	900	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	6.2 U	6.9 U	5.8 U	5.9 U
Endosulfan II	ug/kg	900	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	6.2 U	6.9 U	5.8 U	5.9 U
Endosulfan sulfate	ug/kg	1,000	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	6.2 U	6.9 U	5.8 U	5.9 U
Endrin	ug/kg	100	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	6.2 U	6.9 U	5.8 U	5.9 U
Endrin aldehyde	ug/kg	-	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	6.2 U	6.9 U	5.8 U	5.9 U
Endrin ketone	ug/kg	-	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	6.2 U	6.9 U	5.8 U	5.9 U
gamma-BHC	ug/kg	540	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	6.2 U	6.9 U	5.8 U	5.9 U
Heptachlor	ug/kg	100	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	6.2 U	6.9 U	5.8 U	5.9 U
Heptachlor epoxide	ug/kg	20	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	6.2 U	6.9 U	5.8 U	5.9 U
Hexachlorobenzene	ug/kg	-	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	6.2 U	6.9 U	5.8 U	5.9 U
Hexachlorocyclopentadiene	ug/kg	-	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	6.2 U	6.9 U	5.8 U	5.9 U
Methoxychlor	ug/kg	-	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	6.2 U	6.9 U	5.8 U	5.9 U
Toxaphene	ug/kg	-	95 U	62 U	74 U	53 U	59 U	78 U	73 U	54 U	59 U	60 U	66 U	56 U	57 U
Total Pesticides	ug/kg	10,000	0	0	0	0	0	0	0	0	0	0	0	0	0
TAGM HERBICIDES SW 846 8151A															
2,4,5-T		1,900	99 U	64 U	77 U	55 U	62 U	81 U	76 U	56 U	62 U	63 U	69 U	58 U	59 U
2,4,5-TP (Silvex)		700	99 U	64 U	77 U	55 U	62 U	81 U	76 U	56 U	62 U	63 U	69 U	58 U	59 U
2,4-D		5	99 U	64 U	77 U	55 U	62 U	81 U	76 U	56 U	62 U	63 U	69 U	58 U	59 U

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
C - Pesticide Compound where the identification has been successfully confirmed
P - Pesticide/Aroclor target analyte when there is a >25% difference detected Conc. between GC columns

PROJECT:
Brooklyn Navy Yard
Sampling Locations

DWN. BY	RDW
CHK. BY	NM
SCALE:	N/A

PREVIOUS SOIL SAMPLING LOCATIONS
WATERFRONT REHABILITATION
Brooklyn Navy Yard
Brooklyn, NY 11205

QUAY CONSULTING, LLC

HYPACK TAG:		DATE	
ANALOG #	041506	APR. 15, 2006	
FIELD BOOK:	N/A	LINE FILE:	BNY 01

FIGURE NO. E
BROOKLYN NAVY YARD
DEVELOPMENT CORP

Table 1. Summary of Volatile Organic Compounds Detected in Soil, Berth 17, Brooklyn Navy Yard, Brooklyn, New York.

Analyte (Concentrations in mg/kg)	NYSDEC RSCOs	Sample Name / Sample Depth (ft bls): / Sample Date:	B17-1-2 0-2 09/17/01	B17-1-4 2-4 09/17/01	B17-2-2 0-2 09/17/01	B17-2-4 2-4 09/17/01
1,1,1-Trichloroethane	0.8		0.0056 U	0.0058 U	0.0039 J	0.0056 U
1,1,2,2-Tetrachloroethane	0.6		0.0056 U	0.0058 U	0.0052 U	0.0056 U
1,1,2-Trichloroethane	6		0.0056 U	0.0058 U	0.0052 U	0.0056 U
1,1-Dichloroethane	0.2		0.0056 U	0.0058 U	0.0052 U	0.0056 U
1,1-Dichloroethene	0.4		0.0056 U	0.0058 U	0.0052 U	0.0056 U
1,2-Dichloroethane	0.1		0.0056 U	0.0058 U	0.0052 U	0.0056 U
1,2-Dichloropropane	--		0.0056 U	0.0058 U	0.0052 U	0.0056 U
2-Butanone	0.3		0.028 U	0.029 U	0.026 U	0.028 U
2-Hexanone	--		0.022 U	0.023 U	0.021 U	0.022 U
4-Methyl-2-Pentanone	1		0.022 U	0.023 U	0.021 U	0.022 U
Acetone	0.2		0.022 U	0.023 U	0.021 U	0.022 U
Benzene	0.06		0.0011 U	0.0012 U	0.001 U	0.0011 U
Bromodichloromethane	--		0.0056 U	0.0058 U	0.0052 U	0.0056 U
Bromoform	--		0.0056 U	0.0058 U	0.0052 U	0.0056 U
Bromomethane	--		0.0056 U	0.0058 U	0.0052 U	0.0056 U
Carbon disulfide	2.7		0.0056 U	0.0026 J	0.0052 U	0.0056 U
Carbon tetrachloride	0.6		0.0056 U	0.0058 U	0.0052 U	0.0056 U
Chlorobenzene	1.7		0.0056 U	0.0058 U	0.0052 U	0.0056 U
Chloroethane	1.9		0.0056 U	0.0058 U	0.0052 U	0.0056 U
Chloroform	0.3		0.0056 U	0.0058 U	0.0052 U	0.0056 U
Chloromethane	--		0.0056 U	0.0058 U	0.0052 U	0.0056 U
Cis-1,2-Dichloroethene	0.3		0.0056 U	0.0058 U	0.0052 U	0.0056 U
Cis-1,3-Dichloropropene	0.3		0.0056 U	0.0058 U	0.0052 U	0.0056 U
Dibromochloromethane	0.1		0.0056 U	0.0058 U	0.0052 U	0.0056 U
Ethylbenzene	5.5		0.0011 U	0.0012 U	0.001 U	0.0011 U
M&p-Xylenes	1.2*		0.0022 U	0.0023 U	0.0021 U	0.0022 U
Methylene chloride	0.1		0.0026 JB	0.0033 JB	0.003 JB	0.0033 JB
O-Xylene	1.2*		0.0011 U	0.0012 U	0.001 U	0.0011 U
Styrene	--		0.0011 U	0.0012 U	0.001 U	0.0011 U
Tetrachloroethene	1.4		0.0056 U	0.0058 U	0.0052 U	0.0056 U
Toluene	1.5		0.0011 U	0.0012 U	0.001 U	0.0011 U
Trans-1,2-Dichloroethene	0.3		0.0056 U	0.0058 U	0.0052 U	0.0056 U
Trans-1,3-Dichloropropene	0.3		0.0056 U	0.0058 U	0.0052 U	0.0056 U
Trichloroethene	0.7		0.0056 U	0.0058 U	0.0052 U	0.0056 U
Vinyl chloride	0.2		0.0056 U	0.0058 U	0.0052 U	0.0056 U

Notes:

mg/kg - Milligrams per kilogram
NYSDEC - New York State Department of Environmental Conservation
U - Not detected, detection limit is shown
RSCOs - Recommened Soil Cleanup Objectives
ft bls - Feet below land surface
-- - No NYSDEC RSCO available
* - Standard is for mixed xylenes
J - Estimated concentration
B - Detected in Laboratory Blank

Table 2. Summary of Semivolatile Organic Compounds Detected in Soil, Berth 17, Brooklyn Navy Yard, Brooklyn, New York.

Analyte (Concentrations in mg/kg)	NYSDEC RSCOs	Sample Name / Sample Depth (ft bls): / Sample Date:	B17-1-2 0-2 09/17/01	B17-1-4 2-4 09/17/01	B17-2-2 0-2 09/17/01	B17-2-4 2-4 09/17/01
1,2,4-Trichlorobenzene	3.4		0.37 U	0.39 U	0.34 U	0.37 U
1,2-Dichlorobenzene	7.9		0.37 U	0.39 U	0.34 U	0.37 U
1,3-Dichlorobenzene	1.6		0.37 U	0.39 U	0.34 U	0.37 U
1,4-Dichlorobenzene	8.5		0.37 U	0.39 U	0.34 U	0.37 U
2,4,5-Trichlorophenol	0.1		0.37 U	0.39 U	0.34 U	0.37 U
2,4,6-Trichlorophenol	--		0.37 U	0.39 U	0.34 U	0.37 U
2,4-Dichlorophenol	0.4		0.37 U	0.39 U	0.34 U	0.37 U
2,4-Dimethylphenol	--		0.37 U	0.39 U	0.34 U	0.37 U
2,4-Dinitrophenol	0.2		0.37 U	0.39 U	0.34 U	0.37 U
2,4-Dinitrotoluene	--		0.37 U	0.39 U	0.34 U	0.37 U
2,6-Dinitrotoluene	1		0.37 U	0.39 U	0.34 U	0.37 U
2-Chloronaphthalene	--		0.37 U	0.39 U	0.34 U	0.37 U
2-Chlorophenol	0.8		0.37 U	0.39 U	0.34 U	0.37 U
2-Methylnaphthalene	36.4		0.12 J	0.39 U	0.34 U	0.37 U
2-Methylphenol	0.1		0.37 U	0.39 U	0.34 U	0.37 U
2-Nitroaniline	0.43		0.37 U	0.39 U	0.34 U	0.37 U
2-Nitrophenol	0.33		0.37 U	0.39 U	0.34 U	0.37 U
3&4-Methylphenol	--		0.37 U	0.39 U	0.34 U	0.37 U
3,3'-Dichlorobenzidine	--		0.37 U	0.39 U	0.34 U	0.37 U
3-Nitroaniline	0.5		0.37 U	0.39 U	0.34 U	0.37 U
4,6-Dinitro-2-methylphenol	--		0.37 U	0.39 U	0.34 U	0.37 U
4-Bromophenyl-phenylether	--		0.37 U	0.39 U	0.34 U	0.37 U
4-Chloro-3-methylphenol	0.24		0.37 U	0.39 U	0.34 U	0.37 U
4-Chloroaniline	0.22		0.37 U	0.39 U	0.34 U	0.37 U
4-Chlorophenyl-phenylether	--		0.37 U	0.39 U	0.34 U	0.37 U
4-Nitroaniline	--		0.37 U	0.39 U	0.34 U	0.37 U
4-Nitrophenol	0.1		0.37 U	0.39 U	0.34 U	0.37 U
Acenaphthene	50		0.13 J	0.11 J	0.34 U	0.37 U
Acenaphthylene	41		0.37 U	0.046 J	0.34 U	0.37 U
Anthracene	50		0.33 J	0.3 J	0.056 J	0.37 U
Benzo[a]anthracene	0.224		**0.78**	**0.76**	0.14 J	0.11 J
Benzo[a]pyrene	0.061		**0.81**	**0.64**	**0.12 J**	**0.089 J**
Benzo[b]fluoranthene	1.1		0.98	0.89	0.2 J	0.12 J
Benzo[g,h,i]perylene	50		0.47	0.51	0.079 J	0.37 U
Benzo[k]fluoranthene	1.1		0.4	0.23 J	0.079 J	0.048 J
Bis(2-Chloroethoxy)methane	--		0.37 U	0.39 U	0.34 U	0.37 U
Bis(2-Chloroethyl)Ether	--		0.37 U	0.39 U	0.34 U	0.37 U
Bis(2-Chloroisopropyl)ether	--		0.37 U	0.39 U	0.34 U	0.37 U
Bis(2-Ethylhexyl)phthalate	50		0.046 JB	0.39 U	0.098 JB	0.054 JB
Butylbenzylphthalate	50		0.37 U	0.39 U	0.34 U	0.37 U
Carbazole	--		0.11 J	0.11 J	0.34 U	0.37 U
Chrysene	0.4		0.77	0.72	0.14 J	0.1 J
Di-n-butylphthalate	8.1		0.12 JB	0.054 JB	0.34 U	0.066 JB
DI-n-octylphthalate	50		0.37 U	0.39 U	0.34 U	0.37 U
Dibenzo[a,h]Anthracene	0.014		**0.047 J**	**0.066 J**	0.34 U	0.37 U
Dibenzofuran	6.2		0.17 J	0.077 J	0.34 U	0.37 U
Diethylphthalate	7.1		0.37 U	0.041 J	0.34 U	0.37 U
Dimethylphthalate	2		0.37 U	0.39 U	0.34 U	0.37 U
Fluoranthene	50		1.3	1.4	0.22 J	0.11 J
Fluorene	50		0.14 J	0.11 J	0.34 U	0.37 U
Hexachlorobenzene	0.41		0.37 U	0.39 U	0.34 U	0.37 U
Hexachlorobutadiene	--		0.37 U	0.39 U	0.34 U	0.37 U
Hexachlorocyclopentadiene	--		0.74 U	0.78 U	0.69 U	0.75 U
Hexachloroethane	--		0.37 U	0.39 U	0.34 U	0.37 U
Indeno[1,2,3-cd]pyrene	3.2		0.47	0.49	0.089 J	0.082 J
Isophorone	4.4		0.37 U	0.39 U	0.34 U	0.37 U
N-Nitroso-Di-N-Propylamine	--		0.37 U	0.39 U	0.34 U	0.37 U
N-Nitrosodiphenylamine	--		0.37 U	0.39 U	0.34 U	0.37 U
Naphthalene	13		0.14 J	0.05 J	0.34 U	0.37 U
Nitrobenzene	0.2		0.37 U	0.39 U	0.34 U	0.37 U
Pentachlorophenol	1		0.37 U	0.39 U	0.34 U	0.37 U
Phenanthrene	50		1.2	0.9	0.19 J	0.073 J
Phenol	0.03		0.37 U	0.39 U	0.34 U	0.37 U
Pyrene	50		1.3	1.3	0.26 J	0.15 J

Notes:

mg/kg - Milligrams per kilogram
NYSDEC - New York State Department of Environmental Conservation
U - Not detected, detection limit is shown
RSCOs - Recommened Soil Cleanup Objectives
ft bls - Feet below land surface
-- - No NYSDEC RSCO available
Bold - Concentration exceeds NYSDEC RSCO
J - Estimated concentration
B - Detected in Laboratory Blank

Table 3. Summary of Metal Analytes Detected in Soil, Berth 17, Brooklyn Navy Yard, Brooklyn, New York.

Analyte (Concentrations in mg/kg)	NYSDEC RSCOs	Sample Name / Sample Depth (ft bls): / Sample Date:	B17-1-2 0-2 09/17/01	B17-1-4 2-4 09/17/01	B17-2-2 0-2 09/17/01	B17-2-4 2-4 09/17/01
Aluminum	8250*		5300	7100	4400	7900
Antimony	2.1		2.2 U	2.3 U	2.1 U	2.2 U
Arsenic	7.5		6.6	4.6	6.7	3.1
Barium	300		67	53	**420**	55
Beryllium	0.16		0.67 U	0.7 U	0.62 U	0.67 U
Cadmium	1.0		0.67 U	0.7 U	0.62 U	0.67 U
Calcium	1888*		**5800**	**3000**	**23000**	**24000**
Chromium	10		**13**	**13**	10	**14**
Cobalt	30		6.3	6.1	7	5.9
Copper	25		**38**	**31**	**49**	**45**
Cyanide	0.2*		**0.41**	**0.37**	**0.26 U**	**0.28 U**
Iron	2000		**17000**	**16000**	**14000**	**14000**
Lead	8029*		220	92	50	14
Magnesium	1089*		**3900**	**2100**	**9800**	**6000**
Manganese	2931*		410	280	410	320
Mercury	0.1		**1.8**	**0.35**	0.15 U	0.16 U
Nickel	13		**18**	12	**15**	11
Potassium	347.9*		**1000**	**990**	**660**	**1000**
Selenium	2		2.2 U	2.3 U	2.1 U	2.2 U
Silver	0.5*		2.8 U	2.9 U	2.6 U	2.8 U
Sodium	169.8*		560 U	580 U	520 U	560 U
Thallium	0.8*		1.3 U	1.4 U	1.2 U	1.3 U
Vanadium	150		24	22	21	24
Zinc	20		**160**	**92**	**220**	**55**

Notes:

mg/kg - Milligrams per kilogram
NYSDEC - New York State Department of Environmental Conservation
U - Not detected, detection limit is shown
RSCOs - Recommened Soil Cleanup Objectives
ft bls - Feet below land surface
* - Site Background Concentration
Bold - Concentration exceeds NYSDEC RSCO

Table 4. Summary of Pesticide Compounds Detected in Soil, Berth 17, Brooklyn Navy Yard, Brooklyn, New York.

Analyte (Concentrations in mg/kg)	NYSDEC RSCOs	Sample Name / Sample Depth (ft bls): / Sample Date:	B17-1-2 0-2 09/17/01	B17-1-4 2-4 09/17/01	B17-2-2 0-2 09/17/01	B17-2-4 2-4 09/17/01
Aldrin	0.041		0.0037 U	0.0039 U	0.0034 U	0.0037 U
Alpha-BHC	0.11		0.0037 U	0.0039 U	0.0034 U	0.0037 U
Beta-BHC	0.2		0.0037 U	0.0039 U	0.0034 U	0.0037 U
Chlordane	0.54		0.0074 U	0.0078 U	0.0069 U	0.0075 U
Delta-BHC	0.3		0.0037 U	0.0039 U	0.0034 U	0.0037 U
Dieldrin	0.044		0.0037 U	0.0039 U	0.0034 U	0.0037 U
Endosulfan I	0.9		0.0037 U	0.0039 U	0.0034 U	0.0037 U
Endosulfan II	0.9		0.0037 U	0.0039 U	0.0036	0.0037 U
Endosulfan Sulfate	1		0.0037 U	0.0039 U	0.0034 U	0.0037 U
Endrin	0.1		0.0037 U	0.0039 U	0.0034 U	0.0037 U
Endrin Aldehyde	--		0.0037 U	0.0039 U	0.0037	0.0037 U
Endrin Ketone	0.1		0.0037 U	0.0039 U	0.0034 U	0.0037 U
Gamma-BHC	0.06		0.0037 U	0.0039 U	0.0034 U	0.0037 U
Heptachlor	0.02		0.0037 U	0.0039 U	0.0034 U	0.0037 U
Heptachlor Epoxide	0.02		0.0037 U	0.0039 U	0.0034 U	0.0037 U
Methoxychlor	10*		0.0037 U	0.0039 U	0.0034 U	0.0037 U
P,P'-DDD	2.9		0.0037 U	0.0039 U	0.0034 U	0.0037 U
P,P'-DDE	2.1		0.0037 U	0.0039 U	0.0034 U	0.0037 U
P,P'-DDT	2.1		0.0037 U	0.0039 U	0.019	0.0037 U
Toxaphene	--		0.037 U	0.039 U	0.034 U	0.037 U

Notes:

mg/kg - Milligrams per kilogram
NYSDEC - New York State Department of Environmental Conservation
U - Not detected, detection limit is shown
RSCOs - Recommened Soil Cleanup Ob Jectives
ft bls - Feet below land surface
-- - No NYSDEC RSCO available
* - Total Pesticides less than 10 mg/kg

Table 5. Summary of Polychlorinated Biphenyl Compounds Detected in Soil, Berth 17, Brooklyn Navy Yard, Brooklyn, New York.

Analyte (Concentrations in mg/kg)	NYSDEC RSCOs	**Sample Name**	B17-1-2	B17-1-4	B17-2-2	B17-2-4
		Sample Depth (ft bls):	0-2	2-4	0-2	2-4
		Sample Date:	09/17/01	09/17/01	09/17/01	09/17/01
Aroclor-1016	10*		0.019 U	0.019 U	0.017 U	0.019 U
Aroclor-1221	10*		0.019 U	0.019 U	0.017 U	0.019 U
Aroclor-1232	10*		0.019 U	0.019 U	0.017 U	0.019 U
Aroclor-1242	10*		0.019 U	0.019 U	0.017 U	0.019 U
Aroclor-1248	10*		0.019 U	0.019 U	0.017 U	0.019 U
Aroclor-1254	10*		0.019 U	0.019 U	0.017 U	0.019 U
Aroclor-1260	10*		0.019 U	0.019 U	0.12	0.019 U
Total Aroclors:	10		ND	ND	0.12	ND

Notes:

mg/kg - Milligrams per kilogram
NYSDEC - New York State Department of Environmental Conservation
U - Not detected, detection limit is shown
RSCOs - Recommened Soil Cleanup Objectives
ft bls - Feet below land surface
-- - No NYSDEC RSCO available
* - NYSDEC RSCO is for Total PCBs
ND - Not detected

Table 6. Summary of Hazardous Waste Characteristic Volatile Organic Compounds Detected in Soil, Berth 17, Brooklyn Navy Yard, Brooklyn, New York.

Analyte (Concentrations in µg/L)	Hazardous Waste Regulatory Levels for Toxicity Characteristic	Sample Name / Sample Depth (ft bls): / Sample Date:	B17-1-2 0-2 09/17/01	B17-1-4 2-4 09/17/01	B17-2-2 0-2 09/17/01	B17-2-4 2-4 09/17/01
1,1-Dichloroethene	700		5 U	5 U	5 U	5 U
1,2-Dichloroethane	500		5 U	5 U	5 U	5 U
1,4-Dichlorobenzene	7500		21	5 U	5 U	5 U
2-Butanone	--		25 U	25 U	25 U	25 U
Benzene	500		1 U	1 U	1 U	1 U
Carbon tetrachloride	500		5 U	5 U	5 U	5 U
Chlorobenzene	100000		1.8 J	5 U	5 U	5 U
Chloroform	600		1.7 J	1.7 J	1.7 J	1.7 J
Tetrachloroethene	700		5 U	5 U	5 U	5 U
Trichloroethene	500		5 U	5 U	5 U	5 U
Vinyl chloride	200		5 U	5 U	5 U	5 U

Notes:

µg/L - Micrograms per liter
U - Not detected, detection limit is shown
ft bls - Feet below land surface
-- - No standard available
J - Estimated concentration

Table 7. Summary of Hazardous Waste Characteristic Semivolatile Organic Compounds Detected in Soil, Berth 17, Brooklyn Navy Yard, Brooklyn, New York.

Analyte (Concentrations in µg/L)	Hazardous Waste Regulatory Levels for Toxicity Characteristic	**Sample Name**	B17-1-2	B17-1-4	B17-2-2	B17-2-4
		Sample Depth (ft bls):	0-2	2-4	0-2	2-4
		Sample Date:	09/17/01	09/17/01	09/17/01	09/17/01
2,4,5-Trichlorophenol	400000		40 U	40 U	40 U	40 U
2,4,6-Trichlorophenol	2000		40 U	40 U	40 U	40 U
2,4-Dinitrotoluene	130		40 U	40 U	40 U	40 U
2-Methylphenol	--		40 U	40 U	40 U	40 U
3&4-Methylphenol	--		40 U	40 U	40 U	40 U
Hexachlorobenzene	130		40 U	40 U	40 U	40 U
Hexachlorobutadiene	500		40 U	40 U	40 U	40 U
Hexachloroethane	300		40 U	40 U	40 U	40 U
Nitrobenzene	2000		40 U	40 U	40 U	40 U
Pentachlorophenol	100000		40 U	40 U	40 U	40 U
Pyridine	5000		80 U	80 U	80 U	80 U

Notes:

µg/L - Micrograms per liter
U - Not detected, detection limit is shown
ft bls - Feet below land surface

Table 8. Summary of Hazardous Waste Characteristic metal Analytes Detected in Soil, Berth 17, Brooklyn Navy Yard, Brooklyn, New York.

Analyte (Concentrations in µg/L)	Hazardous Waste Regulatory Levels for Toxicity Characteristic	**Sample Name**	B17-1-2	B17-1-4	B17-2-2	B17-2-4
		Sample Depth (ft bls):	0-2	2-4	0-2	2-4
		Sample Date:	09/17/01	09/17/01	09/17/01	09/17/01
Arsenic	5000		300 U	300 U	300 U	300 U
Barium	100000		600	460	1400	590
Cadmium	1000		100 U	100 U	100 U	100 U
Chromium	5000		200 U	200 U	200 U	200 U
Lead	5000		300 U	300 U	300 U	300 U
Mercury	200		0.75 U	0.75 U	0.75 U	0.75 U
Nickel	--		200 U	200 U	200 U	200 U
Selenium	1000		200 U	200 U	200 U	200 U
Silver	5000		100 U	100 U	100 U	100 U

Notes:

µg/L - Micrograms per liter
U - Not detected, detection limit is shown
ft bls - Feet below land surface

Table 9. Summary of Hazardous Waste Characteristic Pesticide Compounds Detected in Soil, Berth 17, Brooklyn Navy Yard, Brooklyn, New York.

Analyte (Concentrations in µg/L)	Hazardous Waste Regulatory Levels for Toxicity Characteristic	**Sample Name** / **Sample Depth (ft bls):** / **Sample Date:**	B17-1-2 / 0-2 / 09/17/01	B17-1-4 / 2-4 / 09/17/01	B17-2-2 / 0-2 / 09/17/01	B17-2-4 / 2-4 / 09/17/01
Chlordane	30		2 U	2 U	2 U	2 U
Endrin	20		1 U	1 U	1 U	1 U
Gamma-BHC	--		1 U	1 U	1 U	1 U
Heptachlor	8		1 U	1 U	1 U	1 U
Heptachlor Epoxide	8		1 U	1 U	1 U	1 U
Methoxychlor	10000		1 U	1 U	1 U	1 U
Toxaphene	5000		10 U	10 U	10 U	10 U

Notes:

µg/L - Micrograms per liter
U - Not detected, detection limit is shown
ft bls - Feet below land surface

Table 10. Summary of Volatile Organic Compounds Detected in Soil, Berth 18, Brooklyn Navy Yard, Brooklyn, New York.

Analyte (Concentrations in mg/kg)	NYSDEC RSCOs	Sample Name / Sample Depth (ft bls): / Sample Date:	B18-1-2 0-2 09/17/01	B18-1-4 2-4 09/17/01	B18-2-2 0-2 09/17/01	B18-2-4 2-4 09/17/01
1,1,1-Trichloroethane	0.8		0.0061 U	0.0068 U	0.0061 U	0.0058 U
1,1,2,2-Tetrachloroethane	0.6		0.0061 U	0.0068 U	0.0061 U	0.0058 U
1,1,2-Trichloroethane	6		0.0061 U	0.0068 U	0.0061 U	0.0058 U
1,1-Dichloroethane	0.2		0.0061 U	0.0068 U	0.0061 U	0.0058 U
1,1-Dichloroethene	0.4		0.0061 U	0.0068 U	0.0061 U	0.0058 U
1,2-Dichloroethane	0.1		0.0061 U	0.0068 U	0.0061 U	0.0058 U
1,2-Dichloropropane	--		0.0061 U	0.0068 U	0.0061 U	0.0058 U
2-Butanone	0.3		0.03 U	0.034 U	0.03 U	0.029 U
2-Hexanone	--		0.024 U	0.027 U	0.024 U	0.023 U
4-Methyl-2-Pentanone	1		0.024 U	0.027 U	0.024 U	0.023 U
Acetone	0.2		0.024 U	0.027 U	0.024 U	0.023 U
Benzene	0.06		0.0012 U	0.0014 U	0.0012 U	0.0012 U
Bromodichloromethane	--		0.0061 U	0.0068 U	0.0061 U	0.0058 U
Bromoform	--		0.0061 U	0.0068 U	0.0061 U	0.0058 U
Bromomethane	--		0.0061 U	0.0068 U	0.0061 U	0.0058 U
Carbon disulfide	2.7		0.0061 U	0.0068 U	0.0061 U	0.0058 U
Carbon tetrachloride	0.6		0.0061 U	0.0068 U	0.0061 U	0.0058 U
Chlorobenzene	1.7		0.0061 U	0.0068 U	0.0061 U	0.0058 U
Chloroethane	1.9		0.0061 U	0.0068 U	0.0061 U	0.0058 U
Chloroform	0.3		0.0061 U	0.0068 U	0.0061 U	0.0058 U
Chloromethane	--		0.0061 U	0.0068 U	0.0061 U	0.0058 U
Cis-1,2-Dichloroethene	0.3		0.0061 U	0.0068 U	0.0061 U	0.0058 U
Cis-1,3-Dichloropropene	0.3		0.0061 U	0.0068 U	0.0061 U	0.0058 U
Dibromochloromethane	0.1		0.0061 U	0.0068 U	0.0061 U	0.0058 U
Ethylbenzene	5.5		0.0012 U	0.0014 U	0.0012 U	0.0012 U
M&p-Xylenes	1.2*		0.0024 U	0.0027 U	0.0024 U	0.0023 U
Methylene chloride	0.1		0.0021 JB	0.0028 JB	0.0018 JB	0.0033 JB
O-Xylene	1.2*		0.0012 U	0.0014 U	0.0012 U	0.0012 U
Styrene	--		0.0012 U	0.0014 U	0.0012 U	0.0012 U
Tetrachloroethene	1.4		0.0061 U	0.0068 U	0.0061 U	0.0058 U
Toluene	1.5		0.0012 U	0.0014 U	0.0012 U	0.0012 U
Trans-1,2-Dichloroethene	0.3		0.0061 U	0.0068 U	0.0061 U	0.0058 U
Trans-1,3-Dichloropropene	0.3		0.0061 U	0.0068 U	0.0061 U	0.0058 U
Trichloroethene	0.7		0.0061 U	0.0068 U	0.0061 U	0.0058 U
Vinyl chloride	0.2		0.0061 U	0.0068 U	0.0061 U	0.0058 U

Notes:

mg/kg - Milligrams per kilogram
NYSDEC - New York State Department of Environmental Conservation
U - Not detected, detection limit is shown
RSCOs - Recommened Soil Cleanup Objectives
ft bls - Feet below land surface
-- - No NYSDEC RSCO available
* - Standard is for mixed xylenes
J - Estimated Concentration
B - Detected in Laboratory Blank

Table 11. Summary of Semivolatile Organic Compounds Detected in Soil, Berth 18, Brooklyn Navy Yard, Brooklyn, New York.

Analyte (Concentrations in mg/kg)	NYSDEC RSCOs	Sample Name / Sample Depth (ft bls): / Sample Date:	B18-1-2 0-2 09/17/01	B18-1-4 2-4 09/17/01	B18-2-2 0-2 09/17/01	B18-2-4 2-4 09/17/01
1,2,4-Trichlorobenzene	3.4		0.41 U	0.45 U	0.41 U	1.2 U
1,2-Dichlorobenzene	7.9		0.41 U	0.45 U	0.41 U	1.2 U
1,3-Dichlorobenzene	1.6		0.41 U	0.45 U	0.41 U	1.2 U
1,4-Dichlorobenzene	8.5		0.41 U	0.45 U	0.41 U	1.2 U
2,4,5-Trichlorophenol	0.1		0.41 U	0.45 U	0.41 U	1.2 U
2,4,6-Trichlorophenol	--		0.41 U	0.45 U	0.41 U	1.2 U
2,4-Dichlorophenol	0.4		0.41 U	0.45 U	0.41 U	1.2 U
2,4-Dimethylphenol	--		0.41 U	0.45 U	0.41 U	1.2 U
2,4-Dinitrophenol	0.2		0.41 U	0.45 U	0.41 U	1.2 U
2,4-Dinitrotoluene	--		0.41 U	0.45 U	0.41 U	1.2 U
2,6-Dinitrotoluene	1		0.41 U	0.45 U	0.41 U	1.2 U
2-Chloronaphthalene	--		0.41 U	0.45 U	0.41 U	1.2 U
2-Chlorophenol	0.8		0.41 U	0.45 U	0.41 U	1.2 U
2-Methylnaphthalene	36.4		0.25 J	0.12 J	0.068 J	1.2 U
2-Methylphenol	0.1		0.41 U	0.45 U	0.41 U	1.2 U
2-Nitroaniline	0.43		0.41 U	0.45 U	0.41 U	1.2 U
2-Nitrophenol	0.33		0.41 U	0.45 U	0.41 U	1.2 U
3&4-Methylphenol	--		0.41 U	0.45 U	0.41 U	1.2 U
3,3'-Dichlorobenzidine	--		0.41 U	0.45 U	0.41 U	1.2 U
3-Nitroaniline	0.5		0.41 U	0.45 U	0.41 U	1.2 U
4,6-Dinitro-2-methylphenol	--		0.41 U	0.45 U	0.41 U	1.2 U
4-Bromophenyl-phenylether	--		0.41 U	0.45 U	0.41 U	1.2 U
4-Chloro-3-methylphenol	0.24		0.41 U	0.45 U	0.41 U	1.2 U
4-Chloroaniline	0.22		0.41 U	0.45 U	0.41 U	1.2 U
4-Chlorophenyl-phenylether	--		0.41 U	0.45 U	0.41 U	1.2 U
4-Nitroaniline	--		0.41 U	0.45 U	0.41 U	1.2 U
4-Nitrophenol	0.1		0.41 U	0.45 U	0.41 U	1.2 U
Acenaphthene	50		0.059 J	0.45 U	0.051 J	1.2 U
Acenaphthylene	41		0.26 J	0.64	0.41 U	1.2 U
Anthracene	50		0.28 J	0.28 J	0.054 J	1.2 U
Benzo[a]anthracene	0.224		**0.79**	**1.3**	**0.49**	**0.36 J**
Benzo[a]pyrene	0.061		**0.9**	**1.6**	**0.45**	1.2 U
Benzo[b]fluoranthene	1.1		**1.4**	**2.2**	0.62	1.2 U
Benzo[g,h,i]perylene	50		0.75	1.2	0.34 J	1.2 U
Benzo[k]fluoranthene	1.1		0.33 J	0.58	0.26 J	1.2 U
Bis(2-Chloroethoxy)methane	--		0.41 U	0.45 U	0.41 U	1.2 U
Bis(2-Chloroethyl)Ether	--		0.41 U	0.45 U	0.41 U	1.2 U
Bis(2-Chloroisopropyl)ether	--		0.41 U	0.45 U	0.41 U	1.2 U
Bis(2-Ethylhexyl)phthalate	50		0.13 JB	0.17 JB	0.13 JB	1.2 U
Butylbenzylphthalate	50		0.41 U	0.45 U	0.41 U	1.2 U
Carbazole	--		0.089 J	0.086 J	0.064 J	1.2 U
Chrysene	0.4		0.93	1.5	0.54	0.3 J
Di-n-butylphthalate	8.1		0.18 JB	0.13 JB	0.098 JB	1.2 U
DI-n-octylphthalate	50		0.41 U	0.45 U	0.41 U	1.2 U
Dibenzo[a,h]Anthracene	0.014		**0.11 J**	**0.16 J**	0.41 U	1.2 U
Dibenzofuran	6.2		0.096 J	0.45 U	0.41 U	1.2 U
Diethylphthalate	7.1		0.41 U	0.45 U	0.053 J	1.2 U
Dimethylphthalate	2		0.41 U	0.45 U	0.41 U	1.2 U
Fluoranthene	50		0.82	1.3	0.49	0.34 J
Fluorene	50		0.08 J	0.12 J	0.41 U	1.2 U
Hexachlorobenzene	0.41		0.41 U	0.45 U	0.41 U	1.2 U
Hexachlorobutadiene	--		0.41 U	0.45 U	0.41 U	1.2 U
Hexachlorocyclopentadiene	--		0.81 U	0.9 U	0.81 U	2.3 U
Hexachloroethane	--		0.41 U	0.45 U	0.41 U	1.2 U
Indeno[1,2,3-cd]pyrene	3.2		0.57	1.1	0.26 J	1.2 U
Isophorone	4.4		0.41 U	0.45 U	0.41 U	1.2 U
N-Nitroso-Di-N-Propylamine	--		0.41 U	0.45 U	0.41 U	1.2 U
N-Nitrosodiphenylamine	--		0.41 U	0.45 U	0.41 U	1.2 U
Naphthalene	13		0.17 J	0.14 J	0.059 J	1.2 U
Nitrobenzene	0.2		0.41 U	0.45 U	0.41 U	1.2 U
Pentachlorophenol	1		0.41 U	0.45 U	0.41 U	1.2 U
Phenanthrene	50		0.75	0.66	0.32 J	0.22 J
Phenol	0.03		0.41 U	0.45 U	0.41 U	1.2 U
Pyrene	50		1.2	1.9	0.45	0.23 J

Notes:

mg/kg - Milligrams per kilogram
NYSDEC - New York State Department of Environmental Conservation
U - Not detected, detection limit is shown
RSCOs - Recommened Soil Cleanup Objectives
ft bls - Feet below land surface
-- - No NYSDEC RSCO available
Bold - Concentration exceeds NYSDEC RSCO
J - Estimated Concentration

Table 12. Summary of Metal Analytes Detected in Soil, Berth 17, Brooklyn Navy Yard, Brooklyn, New York.

Analyte (Concentrations in mg/kg)	NYSDEC RSCOs	**Sample Name** / **Sample Depth (ft bls):** / **Sample Date:**	B18-1-2 0-2 09/17/01	B18-1-4 2-4 09/17/01	B18-2-2 0-2 09/17/01	B18-2-4 2-4 09/17/01
Aluminum	8250*		5400	4400	6200	2300
Antimony	2.1		**5.4**	2.7 U	**15**	**4.5**
Arsenic	7.5		**8.5**	**8.1**	**12**	4.1
Barium	300		98	56	99	29
Beryllium	0.16		**1.3**	0.81 U	**5.4**	0.7 U
Cadmium	1.0		**1.1**	0.81 U	0.96	0.7 U
Calcium	1888*		**50000**	**3100**	**4600**	**5600**
Chromium	10		**22**	**12**	**33**	**15**
Cobalt	30		13	8.7	22	3
Copper	25		**290**	**87**	**330**	**43**
Cyanide	0.2*		**0.39**	**2.6**	**1.4**	**1.5**
Iron	2000		**23000**	**18000**	**21000**	**6500**
Lead	8029*		280	220	500	99
Magnesium	1089*		**25000**	**3500**	**2000**	900
Manganese	2931*		310	320	250	76
Mercury	0.1		**0.86**	**1.1**	**1.5**	**0.53**
Nickel	13		**52**	**37**	**84**	**14**
Potassium	347.9*		**540**	**980**	**460**	290 U
Selenium	2		2.4 U	2.7 U	2.4 U	2.3 U
Silver	0.5*		3 U	3.4 U	3 U	2.9 U
Sodium	169.8*		610 U	680 U	610 U	580 U
Thallium	0.8*		1.5 U	1.6 U	1.5 U	1.4 U
Vanadium	150		35	25	29	12 U
Zinc	20		**1500**	**760**	**1800**	**220**

Notes:

mg/kg - Milligrams per kilogram
NYSDEC - New York State Department of Environmental Conservation
U - Not detected, detection limit is shown
RSCOs - Recommened Soil Cleanup Objectives
ft bls - Feet below land surface
* - Site Background Concentration
Bold - Concentration exceeds NYSDEC RSCO

Table 13. Summary of Pesticide Compounds Detected in Soil, Berth 18, Brooklyn Navy Yard, Brooklyn, New York.

Analyte (Concentrations in mg/kg)	NYSDEC RSCOs	Sample Name Sample Depth (ft bls): Sample Date:	B18-1-2 0-2 09/17/01	B18-1-4 2-4 09/17/01	B18-2-2 0-2 09/17/01	B18-2-4 2-4 09/17/01
Aldrin	0.041		0.0041 U	0.0045 U	0.0041 U	0.39 U
Alpha-BHC	0.11		0.0041 U	0.0045 U	0.0041 U	0.39 U
Beta-BHC	0.2		0.0041 U	0.0045 U	0.0041 U	0.39 U
Chlordane	0.54		0.0081 U	0.009 U	0.016	0.083
Delta-BHC	0.3		0.0041 U	0.0045 U	0.0041 U	0.39 U
Dieldrin	0.044		0.0041 U	0.0045 U	0.0041 U	0.39 U
Endosulfan I	0.9		0.0041 U	0.0045 U	0.0041 U	0.39 U
Endosulfan II	0.9		0.0041 U	0.0045 U	0.0041 U	0.39 U
Endosulfan Sulfate	1		0.0041 U	0.0045 U	0.0041 U	0.39 U
Endrin	0.1		0.0041 U	0.0045 U	0.0041 U	0.39 U
Endrin Aldehyde	--		0.015	0.0045 U	0.016	0.39 U
Endrin Ketone	0.1		0.0041 U	0.0045 U	0.0041 U	0.39 U
Gamma-BHC	0.06		0.0041 U	0.0045 U	0.0041 U	0.39 U
Heptachlor	0.02		0.0041 U	0.0045 U	0.0041 U	0.39 U
Heptachlor Epoxide	0.02		0.0041 U	0.0045 U	0.0041 U	0.39 U
Methoxychlor	10*		0.0041 U	0.044	0.0041 U	0.39 U
P,P'-DDD	2.9		0.041	0.019	0.0074	0.39 U
P,P'-DDE	2.1		0.0041 U	0.0045 U	0.01	0.39 U
P,P'-DDT	2.1		0.011	0.0045 U	0.0041 U	0.39 U
Toxaphene	--		0.041 U	0.045 U	0.041 U	3.9 U

Notes:

mg/kg - Milligrams per kilogram
NYSDEC - New York State Department of Environmental Conservation
U - Not detected, detection limit is shown
RSCOs - Recommened Soil Cleanup Objectives
ft bls - Feet below land surface
-- - No NYSDEC RSCO available
* - Total Pesticides less and 10 mg/kg

Table 14. Summary of Polychlorinated Biphenyl Compounds Detected in Soil, Berth 18, Brooklyn Navy Yard, Brooklyn, New York.

Analyte (Concentrations in mg/kg)	NYSDEC RSCOs	**Sample Name**	B18-1-2	B18-1-4	B18-2-2	B18-2-4
		Sample Depth (ft bls):	0-2	2-4	0-2	2-4
		Sample Date:	09/17/01	09/17/01	09/17/01	09/17/01
Aroclor-1016	10*		0.02 U	0.023 U	0.02 U	0.019 U
Aroclor-1221	10*		0.02 U	0.023 U	0.02 U	0.019 U
Aroclor-1232	10*		0.02 U	0.023 U	0.02 U	0.019 U
Aroclor-1242	10*		0.02 U	0.023 U	0.02 U	0.019 U
Aroclor-1248	10*		0.02 U	0.023 U	0.02 U	0.019 U
Aroclor-1254	10*		0.02 U	0.023 U	0.02 U	0.019 U
Aroclor-1260	10*		0.25	0.023 U	0.27	0.11
Total Aroclors:	10		0.25	ND	0.27	0.11

Notes:

mg/kg - Milligrams per kilogram
NYSDEC - New York State Department of Environmental Conservation
U - Not detected, detection limit is shown
RSCOs - Recommened Soil Cleanup Objectives
ft bls - Feet below land surface
* - NYSDEC RSCO is for Total PCBs
ND - Not detected

Table 15. Summary of Hazardous Waste CharacteristicVolatile Organic Compounds Detected in Soil, Berth 18, Brooklyn Navy Yard, Brooklyn, New York.

Analyte (Concentrations in µg/L)	Hazardous Waste Regulatory Levels for Toxicity Characteristic	Sample Name / Sample Depth (ft bls): / Sample Date:	B18-1-2 0-2 09/17/01	B18-1-4 2-4 09/17/01	B18-2-2 0-2 09/17/01	B18-2-4 2-4 09/17/01
1,1-Dichloroethene	700		5 U	5 U	5 U	5 U
1,2-Dichloroethane	500		5 U	5 U	5 U	5 U
1,4-Dichlorobenzene	7500		5 U	5 U	5 U	5 U
2-Butanone	--		25 U	25 U	25 U	25 U
Benzene	500		1 U	1 U	1 U	1 U
Carbon tetrachloride	500		5 U	5 U	5 U	5 U
Chlorobenzene	100000		5 U	5 U	5 U	5 U
Chloroform	600		1.3 J	5 U	1.3 J	5 U
Tetrachloroethene	700		5 U	5 U	5 U	5 U
Trichloroethene	500		5 U	5 U	5 U	5 U
Vinyl chloride	200		5 U	5 U	5 U	5 U

Notes:

µg/L - Micrograms per liter
U - Not detected, detection limit is shown
ft bls - Feet below land surface
-- - No standard available
J - Estimated concentration

Table 16. Summary of Hazardous Waste Characteristics Semivolatile Organic Compounds Detected in Soil, Berth 18, Brooklyn Navy Yard, Brooklyn, New York.

Analyte (Concentrations in µg/L)	Hazardous Waste Regulatory Levels for Toxicity Characteristic	**Sample Name**	B18-1-2	B18-1-4	B18-2-2	B18-2-4
		Sample Depth (ft bls):	0-2	2-4	0-2	2-4
		Sample Date:	09/17/01	09/17/01	09/17/01	09/17/01
2,4,5-Trichlorophenol	400000		40 U	40 U	40 U	40 U
2,4,6-Trichlorophenol	2000		40 U	40 U	40 U	40 U
2,4-Dinitrotoluene	130		40 U	40 U	40 U	40 U
2-Methylphenol	--		40 U	40 U	40 U	40 U
3&4-Methylphenol	--		40 U	40 U	40 U	40 U
Hexachlorobenzene	130		40 U	40 U	40 U	40 U
Hexachlorobutadiene	500		40 U	40 U	40 U	40 U
Hexachloroethane	300		40 U	40 U	40 U	40 U
Nitrobenzene	2000		40 U	40 U	40 U	40 U
Pentachlorophenol	100000		40 U	40 U	40 U	40 U
Pyridine	5000		80 U	80 U	80 U	80 U

Notes:

µg/L - Micrograms per liter
U - Not detected, detection limit is shown
ft bls - Feet below land surface

Table 17. Summary of Hazardous Waste Characteristics Metal Analytes Detected in Soil, Berth 18, Brooklyn Navy Yard, Brooklyn, New York.

Analyte (Concentrations in µg/L)	Hazardous Waste Regulatory Levels for Toxicity Characteristic	**Sample Name** / **Sample Depth (ft bls):** / **Sample Date:**	B18-1-2 0-2 09/17/01	B18-1-4 2-4 09/17/01	B18-2-2 0-2 09/17/01	B18-2-4 2-4 09/17/01
Arsenic	5000		300 U	300 U	300 U	300 U
Barium	100000		1000	260	390	300
Cadmium	1000		100 U	100 U	100 U	100 U
Chromium	5000		200 U	200 U	200 U	200 U
Lead	5000		300 U	300 U	300 U	300 U
Mercury	200		0.75 U	0.75 U	0.75 U	0.75 U
Nickel	--		200 U	200 U	200 U	200 U
Selenium	1000		200 U	200 U	200 U	200 U
Silver	5000		100 U	100 U	100 U	100 U

Notes:

µg/L - Micrograms per liter
U - Not detected, detection limit is shown
ft bls - Feet below land surface

Table 18. Summary of Hazardous Waste Characteristic Pesticide Compounds Detected in Soil, Berth 18, Brooklyn Navy Yard, Brooklyn, New York.

Analyte (Concentrations in µg/L)	Hazardous Waste Regulatory Levels for Toxicity Characteristic	**Sample Name** / **Sample Depth (ft bls):** / **Sample Date:**	B18-1-2 0-2 09/17/01	B18-1-4 2-4 09/17/01	B18-2-2 0-2 09/17/01	B18-2-4 2-4 09/17/01
Chlordane	30		2 U	2 U	2 U	2 U
Endrin	20		1 U	1 U	1 U	1 U
Gamma-BHC	--		1 U	1 U	1 U	1 U
Heptachlor	8		1 U	1 U	1 U	1 U
Heptachlor Epoxide	8		1 U	1 U	1 U	1 U
Methoxychlor	10000		1 U	1 U	1 U	1 U
Toxaphene	5000		10 U	10 U	10 U	10 U

Notes:

µg/L - Micrograms per liter
U - Not detected, detection limit is shown
ft bls - Feet below land surface

Table 1. Summary of Volatile Organic Compounds Detected in Soil, Berth 17, Brooklyn Navy Yard, Brooklyn, New York.

Analyte (Concentrations in µg/kg)	Number of Samples	Number of Detections	Mimimum	Maximum	Average
Methylene Chloride	38	31	1.0	15.0	4.4
Acetone	38	22	2.0	73.0	19.0
Carbon Disulfide	38	2	1.0	1.0	1.0
2-Butanone	38	3	2.0	20.0	10.0
Benzene	38	2	5.0	11.0	8.0
Toluene	38	18	0.9	6.0	2.0

Source: PMNC February 1996 "Brooklyn Navy Yard Cogeneration Project 138 kv Underground Transmission Line Summary of Soil Testing Results" Final.

Table 1. Summary of Volatile Organic Compounds Detected in Soil, Berth 17, Brooklyn Navy Yard, Brooklyn, New York.

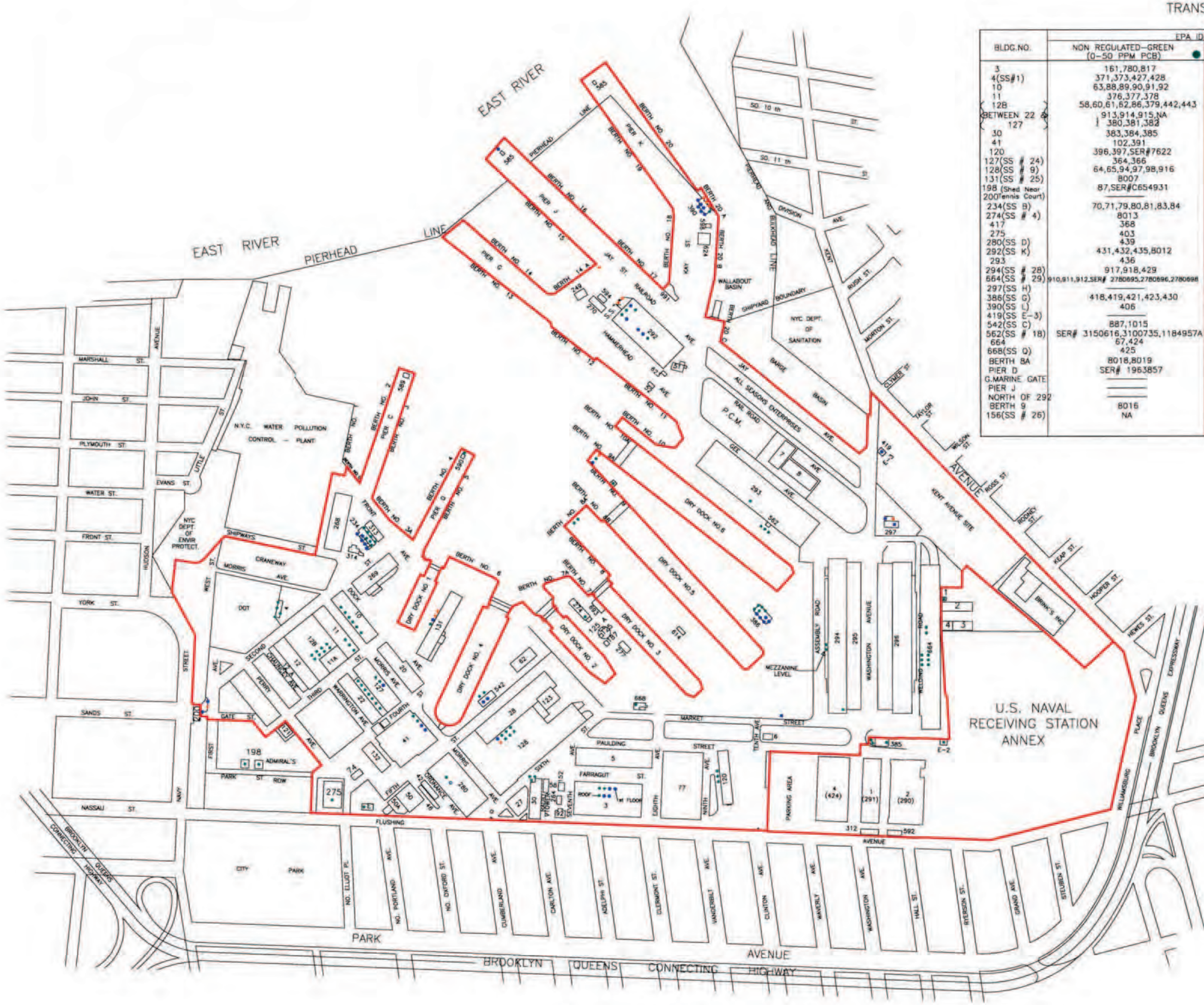
Analyte (Concentrations in µg/kg)	Number of Samples	Number of Detections	Mimimum	Maximum	Average
Naphthalene	34	16	13.0	130,000.0	8,412.9
4-Chloro-3-Methylphenol	34	1	27.0	27.0	27.0
2-Methylnaphthalene	34	15	14.0	42,000.0	2,934.2
Acenaphthylene	34	2	10.0	42.0	26.0
Acenaphthene	34	13	14.0	48,000.0	4,481.4
Dibenzofuran	34	10	13.0	66,000.0	7,092.7
Fluorene	34	13	16.0	62,000.0	8,548.8
Phenathrene	34	28	12.0	390,000.0	17,146.6
Anthracene	34	20	20.0	21,000.0	1,756.2
Carbazole	34	12	14.0	80,000.0	7,081.2
Di-N-Buthylphthalate	34	29	15.0	3,600.0	202.5
Fluoranthene	34	28	19.0	320,000.0	14,671.4
Pyrene	34	28	20.0	260,000.0	12,688.4
Butylbenzyiphthalate	34	1	22.0	22.0	22.0
Benzo(a)Anthracene	34	24	16.0	120,000.0	7,082.7
Chrysene	34	27	11.0	110,000.0	5,723.7
bis(2-Ethylhexyl)Phthalate	34	27	24.0	700.0	144.9
Benzo(b)Fluoranthene	34	28	13.0	150,000.0	7,679.2
Benzo(a)Pyrene	34	27	14.0	100,000.0	5,228.3
Indeno(1,2,3-cd)Pyrene	34	24	21.0	56,000.0	3,317.7
Dibenzo(a,h)Anthracene	34	24	21.0	56,000.0	3,317.7
Benzo(g,h,i)Perylene	34	24	17.0	65,000.0	3,838.6

Source: PMNC February 1996 "Brooklyn Navy Yard Cogeneration Project 138 kv Underground Transmission Line Summary of Soil Testing Results" Final.

Table 1. Summary of Volatile Organic Compounds Detected in Soil, Berth 17, Brooklyn Navy Yard, Brooklyn, New York.

Analyte (Concentrations in mg/kg)	Number of Samples	Number of Detections	Mimimum	Maximum	Average
Aluminum	12	12	3540.0	12,100.0	8,250.8
Antimony	34	8	0.0	2.6	2.1
Arsenic	34	34	1.5	10.8	3.7
Barium	34	34	0.5	1,340.0	73.6
Beryllium	34	34	0.5	308.0	40.4
Cadmium	34	17	0.5	1.0	0.4
Calcium	34	34	0.2	12,000.0	1,888.4
Chromium	34	34	7.5	67,200.0	6,200.4
Cobalt	34	34	5.3	106.0	14.4
Copper	34	34	2.6	599.0	88.3
Iron	34	34	6.6	27,600.0	5,907.2
Lead	34	34	83.9	31,900.0	8,128.9
Magnesium	34	34	3.1	6,200.0	1,088.9
Manganese	34	34	51.8	30,000.0	2,930.6
Mercury	34	31	0.0	378.0	13.0
Nickel	34	34	0.0	27.5	8.0
Potassium	34	34	7.0	2,420.0	347.8
Selenium	34	20	0.5	2.2	1.1
Silver	34	5	0.0	0.5	0.5
Sodium	34	34	0.3	818.0	159.8
Thallium	34	3	1.3	1.3	0.8
Vanadium	34	34	0.4	30.3	7.9
Zinc	34	34	6.6	355	60.1
Cyanide	34	5	0.2	0.2	0.2

Source: PMNC February 1996 "Brooklyn Navy Yard Cogeneration Project 138 kv Underground Transmission Line Summary of Soil Testing Results" Final.



TRANSFORMER LEGEND

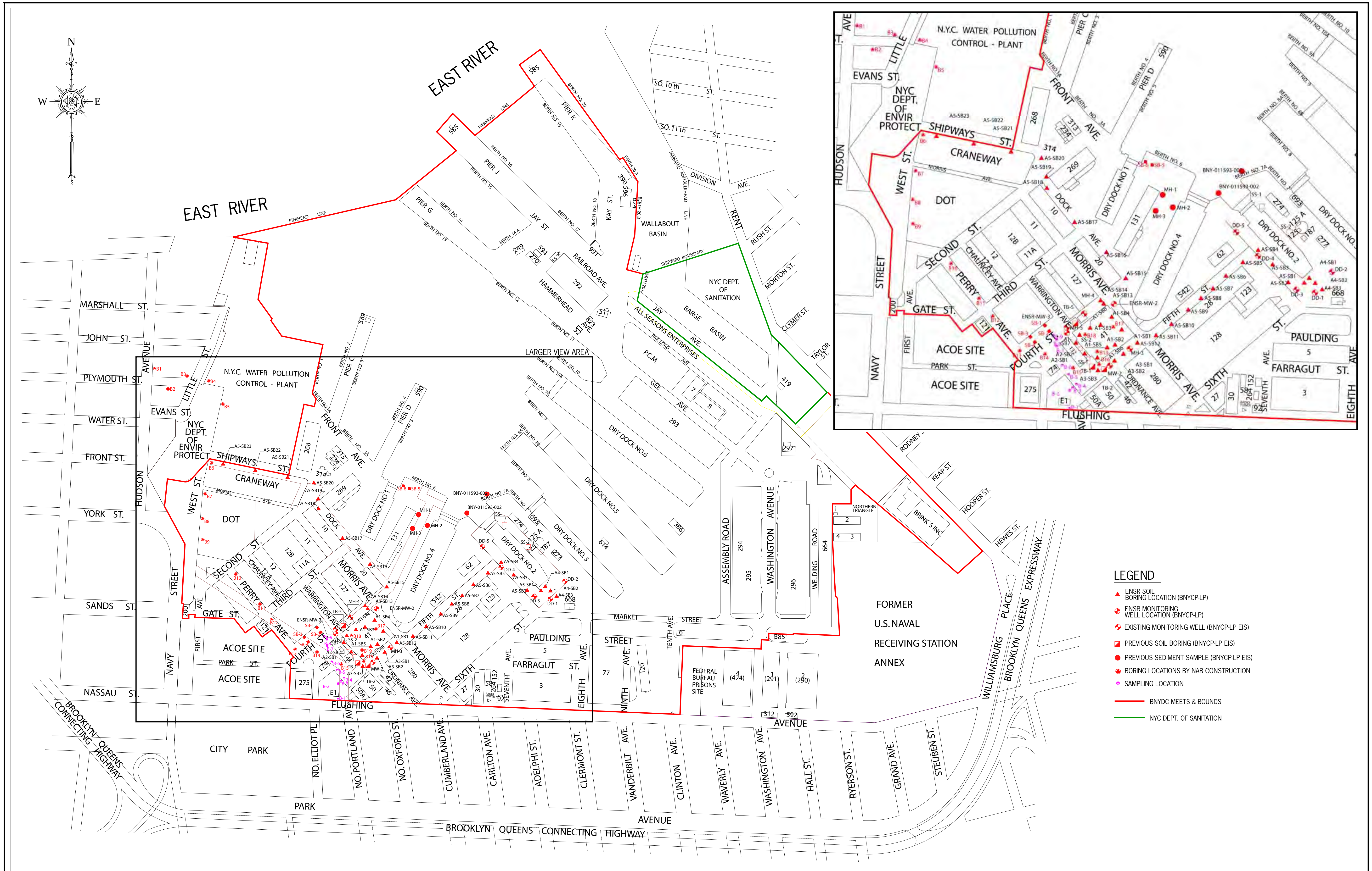
SS=SUBSTATION

BLDG.NO.	EPA IDENTIFICATION NUMBERS: NON REGULATED–GREEN (0–50 PPM PCB)	PCB CONTAMINATED–BLUE (50–500 PPM PCB)	PCB TRANSFORMER–ORANGE (GREATER 500 PPM)	TOTAL # OF TRANSFORMERS
3	161,780,817	815,816,374,375	—	7
4(SS#1)	371,373,427,428	—	—	4
10	63,88,89,90,91,92	—	—	6
11	376,377,378	—	—	3
12B	58,60,61,62,86,379,442,443	—	—	8
BETWEEN 22 &	913,914,915,NA	—	—	
127	380,381,382	—		7
30	383,384,385	—	—	3
41	102,391	101,388	—	4
120	396,397,SER#7622		—	3
127(SS # 24)	364,366	365	—	3
128(SS # 9)	64,65,94,97,98,916	96	95	8
131(SS # 25)	8007	93	8008,8009	4
198 (Shed Near	87,SER#C654931	—	—	2
200 Tennis Court)	—	399,919	400	3
234(SS B)	70,71,79,80,81,83,84	69,72,78,82,405	—	12
274(SS # 4)	8013	—	—	1
417	368	—	—	1
275	403	—	—	1
280(SS D)	439	438	—	2
292(SS K)	431,432,435,8012	433,434,8010,8011	59,106	10
293	436	—	—	1
294(SS # 28)	917,918,429	—	—	3
664(SS # 29)	910,911,912,SER# 2780695,2780696,2780698	—	—	6
297(SS H)	—	411,416	85	3
386(SS G)	418,419,421,423,430	73,74,417,420,422	—	10
390(SS L)	406	159,407,408,409,921,8021	68,160,410	10
419(SS E-3)	—	922	—	1
542(SS C)	887,1015	77,104	—	4
562(SS # 18)	SER# 3150616,3100735,1184957A	—		3
664	67,424	—	—	2
668(SS Q)	425	—	—	1
BERTH 8A	8018,8019	—	—	2
PIER D	SER# 1963857	—	—	1
G.MARINE GATE	—	8022		1
PIER J	—	8023	—	1
NORTH OF 292	—		8024	1
BERTH 9	8016	8017	8015	3
156(SS # 26)	NA	—	—	

0 600' 1200'

GRAPHIC SCALE

PROJECT: BNYDC Transformer Location Plan	DWN. BY RW CHK. BY NM SCALE: 1"=600'	Transformer Location Plan BROOKLYN NAVY YARD SITE BROOKLYN NAVY YARD BROOKLYN, N.Y. 11205	QUAY CONSULTING, LLC	HYPACK TAG: ANALOG # 042906 FIELD BOOK: N/A DATE April. 29, 2006 LINE FILE: BNYDC.IR FIGURE NO. 3 BNYDC



PROJECT:
Brooklyn Navy Yard
Sampling Locations

DWN. BY RDW
CHK. BY NM
SCALE: N/A

PREVIOUS SOIL SAMPLING LOCATIONS
BROOKLYN NAVY YARD COGENERATION PROJECT
Brooklyn Navy Yard
Brooklyn, NY 11205

QUAY CONSULTING, LLC

HYPACK TAG:	DATE APR. 15, 2006
ANALOG # 041506	
FIELD BOOK: N/A	LINE FILE: BNY 01
FIGURE NO. A	
BROOKLYN NAVY YARD DEVELOPMENT CORP	

ENSR & ROUX Subsurface Investigation

Cogeneration Partners, Building 41 & Utility Routings, 1994

	Soil Samples			Groundwater Samples	
Description of Location	Sample Designation	No. of Samples Subsurface	Surfical	Sample Designation	No. of Samples
Area 1 - Bldg. 41	A1-SR-WC-01 A1-WC-01	1	1	A1-SB2-GW-01 A1-SB3-GW-02 A1-SB5-GW-04 A1-SB6-GW-03	4
Area 2 - Alleyway between Bldg. Nos. 41 & 132	A2-ENSR-MW3-SS-02 A2-SB1-SS-01 A2-SB2-SS-01	3	0	A2-ENSR-MW3-GW-01	1
Area 3 - Between Bldg. 41 & 5 th Ave.	A3-SB1-SS-01 A3-SB1-SS-02 A3-SB2-SS-01 A3-SB2-SS-02 A3-SB3-SS-01 A3-SB3-SS-02	6	0	-	0
Area 4 - Proposed fule oil facility. Behind Dry Dock 2	A4-SB1-SS-01 A4-SB1-SS-02 A4-SB2-SS-01 A4-SB2-SS-02 A4-SB3-SS-01 A4-SB3-SS-02	6	0	-	0
Area 5 - Proposed utility routes. Shipway St. to Dry Dock Ave. past Dry Dock 4, along 5 th Ave. to Dry Dock 2	A2-ENSR-MW2-SS-01 A2-ENSR-MW2-SS-02 A5-SB1-SS-01 A5-SB2-SS-01 A5-SB3-SS-01 A5-SB4-SS-01 A5-SB5-SS-01 A5-SB6-SS-01 A5-SB7-SS-01 A5-SB9-SS-01 A5-SB10-SS-01 A5-SB13-SS-01 A5-SB15-SS-01 A5-SB16-SS-01 A5-SB17-SS-01 A5-SB18-SS-01 A5-SB20-SS-01 A5-SB21-SS-01 A5-SB22-SS-01 A5-SB23-SS-01	20	0	A2-ENSR-MW2-GW-01	1
Dry Dock No. 2	DD-1 DD-2 DD-3 DD-4 DD-5	10	0	DD-1 DD-2 DD-3 DD-4 DD-5	5
Totals	**-**	**46**	**1**	**-**	**11**

Table 1. Summary of Metals and Cyanide Analytes in Surficial Soil, Brooklyn Navy Yard

Cogeneration Partners, Building 41 & Utility Routings, 1994

Metal Analytes (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP "Action Levels" (mg/kg)	SOIl Concentration Industrial Setting* (mg/kg)	A2-ENSR-MW2-SS-01 4-6 4-94 ENSR (mg/kg)	A2-ENSR-MW2-SS-02 13-15 4-94 ENSR (mg/kg)	A2-ENSR-MW3-SS-02 13-15 4-94 ENSR (mg/kg)	A2-SB1-SS-01 4-6 4-94 ENSR (mg/kg)	A2-SB2-SS-01 4-6 4-94 ENSR (mg/kg)	A3-SB1-SS-01 2-4 4-94 ENSR (mg/kg)	A3-SB1-SS-02 2-4 4-94 ENSR (mg/kg)
								4700	4700	
Aluminum	SB	-	10,000 - 3000,000	5,110	13,600	12,900	5,520	10,400	4,270	2,730
Antimony	SB	10	0.2 -150	6.7 U	9.9 U	9.5 U	7.1 U	7.1 U	6.8 U	6.5 U
Arsenic	7.5 or SB	9	0.1-194	4.2	13	10.1	4.2	23.7	23.7	8.6
Barium	300 or SB	400	100-3,000	67.1	59.5 B	27.4 B	34.4 B	51.2	179	83.9
Beryllium	0.16(HEAST) or SB	1	0.01-40	0.67 U	0.99 U	0.95 U	0.71 U	0.71 U	0.68 U	0.65 U
Cadmium	1 or SB	37	0.01-7	1.1 U	1.6 U	1.6 U	1.2 U	1.2 U	1.1 U	1.1 U
Calcium	SB	-	<150 - 5000,000	4,470	2,930	4,900	3,430	12,400	12,400	11,700
Chromium	10 or SB	46	5 -3,000	10.9	27.3	24.5	15.7	24.6	10.2	5.6
Cobalt	30 or SB	-	0.05-65	8.2 B	12.8 B	8.8 B	13.1	11.5 B	7.9 B	5.3 B
Copper	25 or SB	170	2-250	93.1	201	3.2 U	65.4	2.4 U	52.7	13.8
Iron	2,000 or SB	-	100 - 550,000	18,200	34,200	37,600	75,700	21,800	8,430	8,350
Lead	SB or **	1,000	1- 800	292	872	84.3	1270	76.4	58	47
Magnesium	SB	-	400 - 9,000	2,110	6,260	6,090	2,590	4340	858 B	704 B
Maganeses	SB	-	20 -18,300	279	354	497	1020	416	60.9	49.6
Mercury	0	1	0.001 - 4.6	0.51	0.61 U	0.14 U	0.38	0.12	0.32	0.29
Nickle	13 or SB	100	0.1 - 1,530	22.4	26	22.7	33.8	41.4	29.4	16.3
Potassium	SB	-	?? - 37,000	1010 B	2780	2470	956 B	1530	1290 B	905 B
Selenium	2 or SB	-	0.1 - 38	0.66 U	1 U	0.96 U	0.7 U	0.69 U	0.65 U	0.65 U
Silver	SB	5	0.01 - 8	2.2 U	3.3 U	3.2 U	2.4 U	2.4 U	0.13 U	0.13 U
Sodium	SB	-	150 - 25,000	1360	3390	1040 B	236 U	408 B	1790	841 B
Thallium	SB	-	0.1 - 0.8	0.66 U	1 U	1.3 U	0.7 U	0.69 U	1.3 U	1.3 U
vanadium	150-SB	-	3 - 500	24.3	35.7	30.7	25.9	33.8	17.4	8.5 B
Zinc	20 or SB	350	1 - 2,000	103	113	212	124	77	81.8	38.5
Cyanide	***	-	-	0.81 U	0.71 U	0.44 U	1 U	1.1 U	1.1 U	1.3

Qualifiers:

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U - Not detected; detection limit shown

B - Analyte Found in associated blank as well as sample

SB - Site Background

* - Soils Concentration found in idustrial settings(McClanahan, 10/3/86)

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Cogeneration Partners, Building 41 & Utility Routings, 1994

Metal Analytes (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP "Action Levels" (mg/kg)	SOIl Concentration Industrial Setting* (mg/kg)	A3-SB2-SS-01 4-6 4-94 ENSR (mg/kg)	A3-SB2-SS-02 13-15 4-94 ENSR (mg/kg)	A3-SB3-SS-01 13-15 4-94 ENSR (mg/kg)	A3-SB3-SS-02 4-6 4-94 ENSR (mg/kg)	A4-SB1-SS-01 4-6 4-94 ENSR (mg/kg)	A4-SB1-SS-02 2-4 4-94 ENSR (mg/kg)	A4-SB2-SS-01 2-4 4-94 ENSR (mg/kg)
Aluminum	SB	-	10,000 - 3000,000	5,100	5,640	5,830	7,240	12,200	8,860	6,090
Antinomy	SB	10	0.2 -150	6.7 U	6.4 U	6.6 U	6.9 U	8.4 U	7.4 U	7.2 U
Arsenic	7.5 or SB	9	0.1-194	4.3	4.4	3.9	8.2	13.1	9.4	15.2
Barium	300 or SB	400	100-3,000	129	33.7 B	123	139	84.1	146	398
Beryllium	0.16(HEAST) or SB	1	0.01-40	0.67 U	0.64 U	0.66 U	0.69 U	0.84 U	0.74 U	0.72 U
Cadmium	1 or SB	37	0.01-7	1.1 U	1.1 U	1.1 U	1.1 U	1.4 U	1.2 U	1.2 U
Calcium	SB	-	<150 - 5000,000	4,830	39,600	2,290	4,530	2,720	2,440	2,130
Chromium	10 or SB	46	5 -3,000	11	10.4	10.5	25.1	23.4	17.3	12.3
Cobalt	30 or SB	-	0.05-65	6 B	4.3 B	7.6 B	6.1 B	12.6 B	9.2 B	7.5 B
Copper	25 or SB	170	2-250	53.2	6.2	120	285	108	97.7	274
Iron	2,000 or SB	-	100 - 550,000	11,800	8,480	19,700	15,200	32,200	23,100	22,900
Lead	SB or **	1,000	1- 800	336	36.5	415	681	381	647	1330
Magnesium	SB	-	400 - 9,000	1,300	3,000	2,080	2,000	4660	3,680	1,860 B
Maganeses	SB	-	20 -18,300	215	192	312	243	304	270	89.9
Mercury	0	1	0.001 - 4.6	0.88	0.11 U	0.31	0.79	1.2 U	2.3	2
Nickle	13 or SB	100	0.1 - 1,530	11.8	9.2	25.9	13.5	18.3	18.9	18.9
Potassium	SB	-	?? - 37,000	693 B	729 B	1120	1070 B	2180	1760	1200
Selenium	2 or SB	-	0.1 - 38	0.67 U	0.66 U	0.68 U	0.7 U	0.86 B	0.74 B	1.7
Silver	SB	5	0.01 - 8	2.2	2.1 U	2.2 U	2.3 U	2.8 U	2.5 U	2.4 U
Sodium	SB	-	150 - 25,000	1010 B	958 B	1650	938 B	857 B	801 B	880 B
Thallium	SB	-	0.1 - 0.8	0.67 U	0.66 U	0.68 U	0.7 U	0.86 U	0.74 U	0.72 U
vanadium	150-SB	-	3 - 500	15.3	12.8	19.5	17.7	35.5	24.1	21.4
Zinc	20 or SB	350	1 - 2,000	73.2	31.8	113	66.3	261	209	222
Cyanide	***	-	-	0.79 U	1.1 U	0.51 U	0.59 U	0.66 U	0.34 U	0.34 U

Qualifiers:
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Metal Analytes (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP "Action Levels" (mg/kg)	SOIl Concentration Industrial Setting* (mg/kg)	A4-SB2-SS-02 4-6 4/94 ENSR (mg/kg)		A4-SB3-SS-01 2-4 4/94 ENSR (mg/kg)		A4-SB3-SS-02 4-6 4/94 ENSR (mg/kg)		A5-SB1-SS-01 4-6 4/94 ENSR (mg/kg)		A5-SB2-SS-01 4-6 4/94 ENSR (mg/kg)		A5-SB3-SS-01 4-6 4/94 ENSR (mg/kg)		A5-SB4-SS-01 4-6 4/94 ENSR (mg/kg)	
Aluminum	SB	-	10,000 - 3000,000	247	U	9,940		5,800		6,010		6,340		12,800		3,140	
Antinomy	SB	10	0.2 -150	9.9	U	6.8	U	7.5	U	6	U	7.4	U	7.7	U	6.9	U
Arsenic	7.5 or SB	9	0.1-194	44.5		8.5		8.1		4.6		27.7		11.6		8.8	
Barium	300 or SB	400	100-3,000	248		130		199		44.9		128		75		81.9	
Beryllium	0.16(HEAST) or SB	1	0.01-40	0.99	U	0.68	U	0.75	U	0.6	U	0.74	U	0.77	U	0.69	U
Cadmium	1 or SB	37	0.01-7	1.6	U	1.1	U	1.2	U	1	U	1.2	U	1.3	U	1.2	U
Calcium	SB	-	<150 - 5000,000	4,200		6,240		8,630		2,370		13,500		2,080		2,140	
Chromium	10 or SB	46	5 -3,000	15		19.8		9.3		12.7		13.9		24.9		5.5	
Cobalt	30 or SB	-	0.05-65	6	B	7.5	B	5.1	B	7.1	B	7.1	B	6.8	B	6.5	B
Copper	25 or SB	170	2-250	129		124		224		50.9		1130		90.3		79.1	
Iron	2,000 or SB	-	100 - 550,000	19,300		22,300		8,730		17,000		20,900		29,300		9,610	
Lead	SB or **	1,000	1- 800	2640		279		1720		243		801		228		677	
Magnesium	SB	-	400 - 9,000	2,160		3,730		1,120	B	2,330	B	2200		4,940		1,310	
Maganeses	SB	-	20 -18,300	138		250		82.7		115		226		209		118	
Mercury	0	1	0.001 - 4.6	2.7		1.6		0.45		0.76		13		0.37		6	
Nickle	13 or SB	100	0.1 - 1,530	18.3		20.5		10.5		13.4		25.8		13.6		12.3	
Potassium	SB	-	?? - 37,000	997	B	2690		695	B	1340		1030	B	2290		584	B
Selenium	2 or SB	-	0.1 - 38	4.9		0.69	U	0.76	U	0.6	U	2.7		0.77	U	2.1	
Silver	SB	5	0.01 - 8	3.3	U	2.3	U	2.5	U	2	U	2.5	U	2.6	U	2.3	U
Sodium	SB	-	150 - 25,000	1110	B	866	B	1240	B	474	B	534	B	454	B	506	B
Thallium	SB	-	0.1 - 0.8	0.99	U	0.69	U	0.76	U	0.8	U	1	U	1	U	0.92	U
vanadium	150-SB	-	3 - 500	26.1		22.2		16.4		21.6		22.1		32.4		10.1	B
Zinc	20 or SB	350	1 - 2,000	939		331		228		128		699		200		267	
Cyanide	***	-	-	0.88	U	1.1	U	0.73	U	0.53	U	0.73	U	1.8	U	0.76	U

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Aluminum	SB	-	10,000 - 3000,000	6,910		2,620		6,650		11,300		9,410		9,610		10,200	
Antinomy	SB	10	0.2 -150	6.4	U	6.6	U	6.8	U	7.1	U	6.5	U	7.1	U	7.1	U
Arsenic	7.5 or SB	9	0.1-194	4.6		7.7		3.1		1.7	B	4.5		3.6		5.2	
Barium	300 or SB	400	100-3,000	56.9		93.4		85.5		165		44.9		32.2	B	44.6	B
Beryllium	0.16(HEAST) or SB	1	0.01-40	0.64	U	0.66	U	0.68	U	0.71	U	0.65	U	0.71	U	0.71	U
Cadmium	1 or SB	37	0.01-7	1.1	U	1.1	U	1.1	U	1.2	U	1.1	U	1.2	U	1.2	U
Calcium	SB	-	<150 - 5000,000	1,530		1,340		2,160		2,060		1,200		873	B	4,040	
Chromium	10 or SB	46	5 -3,000	12.4		8.4		10.6		21.4		16.2		16.1		33.5	
Cobalt	30 or SB	-	0.05-65	10.3	B	5.2	B	9.2	B	9.2	B	7.5	B	8.2	B	13.6	B
Copper	25 or SB	170	2-250	10.4		639		72.6		67.1		15.9		2.4	U	55.1	U
Iron	2,000 or SB	-	100 - 550,000	20,600		11,800		12,900		17,900		16,100		16,700		26,900	
Lead	SB or **	1,000	1- 800	271		538		472		769		152		7.4		264	
Magnesium	SB	-	400 - 9,000	2,750		322	B	1,920		3,290		2080		2,910		10,600	
Maganeses	SB	-	20 -18,300	333		27.7		105		132		137		239		202	
Mercury	0	1	0.001 - 4.6	0.44		1.1		0.36		0.4		1.9		0.1	U	0.11	U
Nickle	13 or SB	100	0.1 - 1,530	26.2		9.6		17.9		32.4		22		19.9		73	
Potassium	SB	-	?? - 37,000	959	B	232	B	823	B	1360		764	B	1010	B	1400	
Selenium	2 or SB	-	0.1 - 38	0.66	U	0.68	B	0.72	U	0.72	U	0.68		0.71	U	0.71	U
Silver	SB	5	0.01 - 8	0.15	B	0.14	U	0.14	B	0.14	U	0.14	U	0.14	U	0.14	U
Sodium	SB	-	150 - 25,000	740	B	576	B	695	B	1180	B	648	B	583	B	583	B
Thallium	SB	-	0.1 - 0.8	1.3	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U
vanadium	150-SB	-	3 - 500	19.5		12.3		18.8		39.7		22.8		22.7		22.7	
Zinc	20 or SB	350	1 - 2,000	64.2		139		115		402		126		34.4		34.4	
Cyanide	***	-	-	0.97	U	0.44	U	0.5	U	0.38	U	0.44	U	1.7		1.7	

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Aluminum	SB	-	10,000 - 3000,000	5,240		4,750		6,780		6,190		5,540		4,680		6,640	
Antinomy	SB	10	0.2 -150	6.5	U	6.8	U	6.5	U	6.5	U	6.2	U	6.5	U	7	U
Arsenic	7.5 or SB	9	0.1-194	3.9		4.4		2.2		2.7		1.3	B	2.8		11.1	
Barium	300 or SB	400	100-3,000	62.8		104		42.9	B	36.9	B	25	B	15.1	B	38.3	B
Beryllium	0.16(HEAST) or SB	1	0.01-40	0.65	U	0.68	U	0.65	U	0.65	U	0.62	U	0.65	U	0.7	U
Cadmium	1 or SB	37	0.01-7	1.1	U	1.1	U	1.1	U	1.1	U	1	U	1.1	U	1.2	U
Calcium	SB	-	<150 - 5000,000	14,000		5,080		4,440		2,080		955	B	759	B	889	B
Chromium	10 or SB	46	5 -3,000	8.1		9.3		12.9		12.5		8.5		8		10.2	
Cobalt	30 or SB	-	0.05-65	6.3		6.3	B	7.2	B	7.3	B	7	B	4.2	B	8.8	B
Copper	25 or SB	170	2-250	108		86.5		5.3	B	2.2	U	2.1	U	2.2	U	2.3	U
Iron	2,000 or SB	-	100 - 550,000	10,300		15,800		13,300		14,700		13,900		11,200		28,700	
Lead	SB or **	1,000	1- 800	139		444		58.8		49.5		4.6		10.7		7.1	
Magnesium	SB	-	400 - 9,000	2,420		1,940		3,430		4,310		2130		1,370		2,250	
Maganeses	SB	-	20 -18,300	162		211		355		309		130		68.4		935	
Mercury	0	1	0.001 - 4.6	0.32		0.29		0.11	U	0.11	U	0.09	U	0.1	U	0.12	U
Nickle	13 or SB	100	0.1 - 1,530	12.8		16.1		31.2		39.2		12.2		6.6	B	14.5	
Potassium	SB	-	?? - 37,000	748	B	832	B	1370		1110		755	B	522	B	758	B
Selenium	2 or SB	-	0.1 - 38	0.67	U	0.69	U	0.67	U	0.67	U	0.63	U	0.65	U	0.68	U
Silver	SB	5	0.01 - 8	2.2	U	2.3	U	2.2	U	2.2	U	2.1	U	2.2	U	2.3	U
Sodium	SB	-	150 - 25,000	419	B	400	B	611	B	641	B	271	B	292	B	401	B
Thallium	SB	-	0.1 - 0.8	0.9	U	0.92	U	0.89	U	0.89	U	0.83	U	0.86	U	0.91	U
vanadium	150-SB	-	3 - 500	10.4	B	16.4		20.6		21		11.4		14.3		19	
Zinc	20 or SB	350	1 - 2,000	101		143		141		62.6		32.5		64		40.1	
Cyanide	***	-	-	0.37	U	0.2	U	0.31	U	0.28	U	0.44	U	0.31	U	0.36	U

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Aluminum	SB	-	10,000 - 3000,000	7,030		3,550		6,480		3,960		5,940	
Antinomy	SB	10	0.2 -150	7.1	U	6.2	U	5.93	U	7.4	U	5.23	U
Arsenic	7.5 or SB	9	0.1-194	6.8		4.1		14.2		14		9.69	
Barium	300 or SB	400	100-3,000	66.4		16.8	B	180		246		101	
Beryllium	0.16(HEAST) or SB	1	0.01-40	0.71	U	0.62	U	1.12		5.68		0.19	U
Cadmium	1 or SB	37	0.01-7	1.2	U	1	U	2.04		2.2		0.89	
Calcium	SB	-	<150 - 5000,000	3,140		416	B	13,800		21,300		4,420	
Chromium	10 or SB	46	5 -3,000	15.9		9		28.3		50.5		19.2	
Cobalt	30 or SB	-	0.05-65	6	B	5.8	B	7.26		14.1		8.81	
Copper	25 or SB	170	2-250	17.3		2.1		448		507		193	
Iron	2,000 or SB	-	100 - 550,000	19,000		12,800		13,700		25,700		16,400	
Lead	SB or **	1,000	1- 800	791		5.1		1600		1970		388	
Magnesium	SB	-	400 - 9,000	2,540		1,130		2,680		12,000		2390	
Maganeses	SB	-	20 -18,300	290		339		92.7		244		201	
Mercury	0	1	0.001 - 4.6	0.1	U	0.1	U	27.4		3.94		0.93	
Nickle	13 or SB	100	0.1 - 1,530	15.6		10		85		97.9		27.3	
Potassium	SB	-	?? - 37,000	769	B	581	B	712		519		889	
Selenium	2 or SB	-	0.1 - 38	0.7	U	0.62	U	2.76		3.28		1	
Silver	SB	5	0.01 - 8	2.4	U	2.1	U	0.64	U	0.79	U	0.56	U
Sodium	SB	-	150 - 25,000	317	B	8000	B	376		877		6650	
Thallium	SB	-	0.1 - 0.8	0.94	U	0.82	U	0.25		0.31	U	0.18	U
vanadium	150-SB	-	3 - 500	43.2		16.3		17.2		26.5		15.3	
Zinc	20 or SB	350	1 - 2,000	198		28.8		1350		1550		281	
Cyanide	***	-	-	0.39	U	0.65	U	3.4	U	4	U	2.9	U

Qualifiers:
mg/kg - Milligram per kilogram
U - Not detected; detection limit shown
B - Analyte Found in associated blank as well as sample
SB - Site Background
* - Soils Concentration found in idustrial settings(McClanahan, 10/3/86)
**- Background levels of lead vary widely. Average background leverls in metropolitan and subban areas average 200 - 500 ppm

Table 2. Summary of Volatile Organics in Surficial Soil, Brooklyn Navy Yard
Cogeneration Partners, Building 41 & Utility Routings, 1994

Volatile Organic Compounds (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (ug/kg)	A2-ENSER-MW2-SS-01 4-6 4/94 ENSER (ug/kg)	A2-ENSR-MW2-SS-01-RE 4-6 4/94 ENSER (ug/kg)	A2-ENSR-MW2-SS-02 13-15 4/94 ENSER (ug/kg)	A2-ENSR-MW3-SS-02 13-15 4/94 ENSER (ug/kg)	A2-SB1-SS-01 4-6 4/94 ENSER (ug/kg)	A2-SB2-SS-01 4-6 4/94 ENSER (ug/kg)	A3-SB2-SS-01 2-4 4/94 ENSER (ug/kg)
Chloromethane	-	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
Bromomethane	-	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
Vinyl Chloride	200	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
Chloroethane	1900	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
Methylene Chloride	100	36 JB	59 J	17 JB	22 JB	25 JB	1400 U	18 JB
Acetone	200	76 JB	79 J	65 JB	68 JB	50 JB	4600 JB	28 JB
Carbon Disulfide	200	11 U	11 U	17 U	2 J	12 U	1400 U	11 U
1,1-Dichloroethene	400	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
1,1-Dichloroethane	200	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
1,2-Dichloroethene (total)	300	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
Chloroform	300	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
1,2-Dichloroethane	100	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
2-Butanone	300	11 U	11 U	17 U	3 J	12 U	1400 U	11 U
1,1,1-Trichloroethane	800	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
Carbon Tetrachloride	600	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
Vinyl Acetate	-	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	-	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
1,2-Dichloropropane	-	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
cis-1,3-Dichloropropene	-	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
Trichloroethene	700	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
Dibromochloromethane	-	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
1,1,2-Trichloroethane	-	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
Benzene	60	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
trans-1,3-Dichloropropene	-	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
Bromoform	-	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
4-Methyl-2-pentanone	1000	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
2-Hexanone	-	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
Tetrachloroethene	1400	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
1,1,2,2-Tetrachloroethane	600	11 U3B	11 U	17 U	14 U	12 U	1400 U	11 U
Toluene	1500	2 J	11 U	17 U	14 U	12 U	1400 U	11 U
Chlorobenzene	1700	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
Ethylbenzene	5500	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
Styrene	-	11 U	11 U	17 U	14 U	12 U	1400 U	11 U
Xylene (total)	1200	11 U	11 U	17 U	14 U	12 U	1400 U	11 U

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
B - Analyte found in associated blank as well as sample

Table 2. Summary of Volatile Organics in Surficial Soil, Brooklyn Navy Yard
Cogeneration Partners, Building 41 & Utility Routings, 1994

Volatile Organic Compounds (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (ug/kg)	A3-SB2-SS-02 4-6 4/94 ENSER (ug/kg)	A3-SB2-SS-02-RE 4-6 4/94 ENSER (ug/kg)	A3-SB3-SS-01 2-4 4/94 ENSER (ug/kg)	A3-SB3-SS-02 4-6 4/94 ENSER (ug/kg)	A3-SB3-SS-02-RE 4-6 4/94 ENSER (ug/kg)	A4-SB1-SS-01 2-4 4/94 ENSER (ug/kg)	A4-SB1-SS-02 4-6 4/94 ENSER (ug/kg)
Chloromethane	-	11 U	11 U	57 U	12 U	12 U	13 U	14 U
Bromomethane	-	11 U	11 U	57 U	12 U	12 U	13 U	14 U
Vinyl Chloride	200	11 U	11 U	57 U	12 U	12 U	13 U	14 U
Chloroethane	1900	11 U	11 U	57 U	12 U	12 U	13 U	14 U
Methylene Chloride	100	21 JB	37 J	76 JB	160 JB	130 J	91 JB	100 JB
Acetone	200	34 JB	36 J	570 JB	130 JB	110 J	88 JB	170 JB
Carbon Disulfide	200	11 U	11 U	57 U	12 U	12 U	13 U	2 J
1,1-Dichloroethene	400	11 U	11 U	57 U	12 U	12 U	13 U	14 U
1,1-Dichloroethane	200	11 U	11 U	57 U	12 U	12 U	13 U	14 U
1,2-Dichloroethene (total)	300	11 U	11 U	57 U	12 U	12 U	13 U	14 U
Chloroform	300	11 U	11 U	57 U	12 U	12 U	13 U	14 U
1,2-Dichloroethane	100	11 U	11 U	57 U	12 U	12 U	13 U	14 U
2-Butanone	300	11 U	11 U	57 U	12 U	12 U	13 U	14 U
1,1,1-Trichloroethane	800	11 U	11 U	57 U	12 U	12 U	13 U	14 U
Carbon Tetrachloride	600	11 U	11 U	57 U	12 U	12 U	13 U	14 U
Vinyl Acetate	-	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	-	11 U	11 U	57 U	12 U	12 U	13 U	14 U
1,2-Dichloropropane	-	11 U	11 U	57 U	12 U	12 U	13 U	14 U
cis-1,3-Dichloropropene	-	11 U	11 U	57 U	12 U	12 U	13 U	14 U
Trichloroethene	700	11 U	11 U	57 U	12 U	12 U	13 U	14 U
Dibromochloromethane	-	11 U	11 U	57 U	12 U	12 U	13 U	14 U
1,1,2-Trichloroethane	-	11 U	11 U	57 U	12 U	12 U	13 U	14 U
Benzene	60	11 U	11 U	57 U	4 J	4 J	13 U	14 U
trans-1,3-Dichloropropene	-	11 U	11 U	57 U	12 U	12 U	13 U	14 U
Bromoform	-	11 U	11 U	57 U	12 U	12 U	13 U	14 U
4-Methyl-2-pentanone	1000	11 U	11 U	57 U	12 U	12 U	13 U	14 U
2-Hexanone	-	11 U	11 U	57 U	12 U	12 U	13 U	14 U
Tetrachloroethene	1400	11 U	11 U	57 U	12 U	12 U	13 U	14 U
1,1,2,2-Tetrachloroethane	600	11 U	11 U	57 U	12 U	12 U	13 U	14 U
Toluene	1500	2 J	1 J	57 U	12 U	12 U	13 U	14 U
Chlorobenzene	1700	11 U	11 U	57 U	12 U	12 U	13 U	14 U
Ethylbenzene	5500	11 U	11 U	57 U	12 U	2 J	13 U	14 U
Styrene	-	11 U	11 U	57 U	12 U	12 U	13 U	14 U
Xylene (total)	1200	11 U	11 U	57 U	5 J	6 J	13 U	14 U

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
B - Analyte found in associated blank as well as sample

Table 2. Summary of Volatile Organics in Surficial Soil, Brooklyn Navy Yard
Cogeneration Partners, Building 41 & Utility Routings, 1994

Volatile Organic Compounds (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (ug/kg)	A4-SB2-SS-01 2-4 4/94 ENSER (ug/kg)	A4-SB2-SS-01-RE 2-4 4/94 ENSER (ug/kg)	A4-SB2-SS-02 4-6 4/94 ENSER (ug/kg)	A4-SB3-SS-01 2-4 4/94 ENSER (ug/kg)	A4-SB3-SS-01-RE 2-4 4/94 ENSER (ug/kg)	A4-SB3-SS-02 4-6 4/94 ENSER (ug/kg)	A4-SB3-SS-02-RE 4-6 4/94 ENSER (ug/kg)
Chloromethane	-	12 U	12 U	13 U	12 U	12 U	14 U	14 U
Bromomethane	-	12 U	12 U	13 U	12 U	12 U	14 U	14 U
Vinyl Chloride	200	12 U	12 U	13 U	12 U	12 U	14 U	14 U
Chloroethane	1900	12 U	12 U	13 U	12 U	12 U	14 U	14 U
Methylene Chloride	100	62 JB	48 J	80 JB	99 JB	46 J	46 JB	23 J
Acetone	200	1900 JBE	3200 J	45 JB	41 JB	5 J	17 JB	14 U
Carbon Disulfide	200	12 U	12 U	13 U	12 U	12 U	14 U	14 U
1,1-Dichloroethene	400	12 U	12 U	13 U	12 U	12 U	14 U	14 U
1,1-Dichloroethane	200	12 U	12 U	13 U	12 U	12 U	14 U	14 U
1,2-Dichloroethene (total)	300	12 U	12 U	13 U	12 U	12 U	14 U	14 U
Chloroform	300	12 U	12 U	13 U	12 U	12 U	14 U	14 U
1,2-Dichloroethane	100	12 U	12 U	13 U	12 U	12 U	14 U	14 U
2-Butanone	300	12 U	12 U	3 J	12 U	2 J	14 U	14 U
1,1,1-Trichloroethane	800	12 U	12 U	13 U	12 U	12 U	14 U	14 U
Carbon Tetrachloride	600	12 U	12 U	13 U	12 U	12 U	14 U	14 U
Vinyl Acetate	-	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	-	12 U	12 U	13 U	12 U	12 U	14 U	14 U
1,2-Dichloropropane	-	12 U	12 U	13 U	12 U	12 U	14 U	14 U
cis-1,3-Dichloropropene	-	12 U	12 U	13 U	12 U	12 U	14 U	14 U
Trichloroethene	700	12 U	12 U	13 U	12 U	12 U	14 U	14 U
Dibromochloromethane	-	12 U	12 U	13 U	12 U	12 U	14 U	14 U
1,1,2-Trichloroethane	-	12 U	12 U	13 U	12 U	12 U	14 U	14 U
Benzene	60	12 U	12 U	13 U	12 U	12 U	14 U	14 U
trans-1,3-Dichloropropene	-	12 U	12 U	13 U	12 U	12 U	14 U	14 U
Bromoform	-	12 U	12 U	13 U	12 U	12 U	14 U	14 U
4-Methyl-2-pentanone	1000	12 U	12 U	13 U	12 U	12 U	14 U	14 U
2-Hexanone	-	12 U	12 U	13 U	12 U	12 U	14 U	14 U
Tetrachloroethene	1400	12 U	12 U	13 U	12 U	12 U	14 U	14 U
1,1,2,2-Tetrachloroethane	600	12 U	12 U	13 U	12 U	12 U	14 U	14 U
Toluene	1500	12 U	2 J	13 U	12 U	12 U	14 U	14 U
Chlorobenzene	1700	12 U	12 U	13 U	12 U	12 U	14 U	14 U
Ethylbenzene	5500	12 U	12 U	13 U	12 U	12 U	14 U	14 U
Styrene	-	12 U	12 U	13 U	12 U	12 U	14 U	14 U
Xylene (total)	1200	12 U	12 U	2 J	12 U	12 U	14 U	14 U

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
B - Analyte found in associated blank as well as sample

Table 2. Summary of Volatile Organics in Surficial Soil, Brooklyn Navy Yard
Cogeneration Partners, Building 41 & Utility Routings, 1994

Volatile Organic Compounds (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (ug/kg)	A5-SB1-SS-01 4-6 4/94 ENSER (ug/kg)	A5-SB2-SS-01 4-6 4/94 ENSER (ug/kg)	A5-SB2-SS-01-RE 4-6 4/94 ENSER (ug/kg)	A5-SB3-SS-01 4-6 4/94 ENSER (ug/kg)	A5-SB4-SS-01 4-6 4/94 ENSER (ug/kg)	A5-SB5-SS-01 4-6 4/94 ENSER (ug/kg)	A5-SB6-SS-01 4-6 4/94 ENSER (ug/kg)
Chloromethane	-	13 U	12 U	12 U	12 U	12 U	11 U	12 U
Bromomethane	-	13 U	12 U	12 U	12 U	12 U	11 U	12 U
Vinyl Chloride	200	13 U	12 U	12 U	12 U	12 U	11 U	12 U
Chloroethane	1900	13 U	12 U	12 U	12 U	12 U	11 U	12 U
Methylene Chloride	100	110 JB	34 JB	32 J	44 JB	49 JB	11	16
Acetone	200	120 JB	2000 JBE	1700 J	100 JB	64 JB	11 U	96
Carbon Disulfide	200	13 U	12 U	12 U	12 U	12 U	11 U	12 U
1,1-Dichloroethene	400	13 U	12 U	12 U	12 U	12 U	11 U	12 U
1,1-Dichloroethane	200	13 U	12 U	12 U	12 U	12 U	11 U	12 U
1,2-Dichloroethene (total)	300	13 U	12 U	12 U	12 U	12 U	11 U	12 U
Chloroform	300	13 U	12 U	12 U	12 U	12 U	11 U	12 U
1,2-Dichloroethane	100	13 U	12 U	12 U	12 U	12 U	11 U	12 U
2-Butanone	300	13 U	12 U	12 U	11 J	12 U	11 U	12 U
1,1,1-Trichloroethane	800	13 U	12 U	12 U	12 U	12 U	11 U	12 U
Carbon Tetrachloride	600	13 U	12 U	12 U	12 U	12 U	11 U	12 U
Vinyl Acetate	-	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	-	13 U	12 U	12 U	12 U	12 U	11 U	12 U
1,2-Dichloropropane	-	13 U	12 U	12 U	12 U	12 U	11 U	12 U
cis-1,3-Dichloropropene	-	13 U	12 U	12 U	12 U	12 U	11 U	12 U
Trichloroethene	700	13 U	12 U	12 U	12 U	12 U	11 U	12 U
Dibromochloromethane	-	13 U	12 U	12 U	12 U	12 U	11 U	12 U
1,1,2-Trichloroethane	-	13 U	12 U	12 U	12 U	12 U	11 U	12 U
Benzene	60	13 U	12 U	12 U	12 U	12 U	11 U	12 U
trans-1,3-Dichloropropene	-	13 U	12 U	12 U	12 U	12 U	11 U	12 U
Bromoform	-	13 U	12 U	12 U	12 U	12 U	11 U	12 U
4-Methyl-2-pentanone	1000	13 U	12 U	12 U	12 U	12 U	11 U	12 U
2-Hexanone	-	13 U	12 U	12 U	12 U	12 U	11 U	12 U
Tetrachloroethene	1400	13 U	12 U	12 U	12 U	12 U	11 U	12 U
1,1,2,2-Tetrachloroethane	600	13 U	12 U	12 U	12 U	12 U	11 U	12 U
Toluene	1500	13 U	12 U	12 U	12 U	12 U	2 J	12 U
Chlorobenzene	1700	13 U	12 U	12 U	12 U	12 U	2 JB	12 U
Ethylbenzene	5500	13 U	12 U	12 U	12 U	12 U	11 U	12 U
Styrene	-	13 U	12 U	12 U	12 U	12 U	11 U	12 U
Xylene (total)	1200	13 U	12 U	12 U	12 U	2 J	11 U	12 U

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
B - Analyte found in associated blank as well as sample

Table 2. Summary of Volatile Organics in Surficial Soil, Brooklyn Navy Yard
Cogeneration Partners, Building 41 & Utility Routings, 1994

Volatile Organic Compounds (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (ug/kg)	A5-SB7-SS-01 4-6 4/94 ENSER (ug/kg)	A5-SB7-SS-01* 4-6 4/94 ENSER (ug/kg)	A5-SB9-SS-01 4-6 4/94 ENSER (ug/kg)	A5-SB10-SS-01 4-6 4/94 ENSER (ug/kg)	A5-SB13-SS-01 4-6 4/94 ENSER (ug/kg)	A5-SB15-SS-01 4-6 4/94 ENSER (ug/kg)	A5-SB15-SS-01-RE 4-6 4/94 ENSER (ug/kg)
Chloromethane	-	12 U	11 U	11 U	11 U	12 U	11 U	11 U
Bromomethane	-	12 U	11 U	11 U	11 U	12 U	11 U	11 U
Vinyl Chloride	200	12 U	11 U	11 U	11 U	12 U	11 U	11 U
Chloroethane	1900	12 U	11 U	11 U	11 U	12 U	11 U	11 U
Methylene Chloride	100	10 J	6 J	8 J	3 J	15 JB	38 JB	24 J
Acetone	200	120	120	11 U	11 U	35	110	120
Carbon Disulfide	200	12 U	11 U	11 U	11 U	12 U	11 U	11 U
1,1-Dichloroethene	400	12 U	11 U	11 U	11 U	12 U	11 U	11 U
1,1-Dichloroethane	200	12 U	11 U	11 U	11 U	12 U	11 U	11 U
1,2-Dichloroethene (total)	300	12 U	11 U	11 U	11 U	12 U	11 U	11 U
Chloroform	300	12 U	11 U	11 U	11 U	12 U	11 U	11 U
1,2-Dichloroethane	100	12 U	11 U	11 U	11 U	12 U	11 U	11 U
2-Butanone	300	12 U	11 U	11 U	11 U	12 U	11 U	11 U
1,1,1-Trichloroethane	800	12 U	11 U	11 U	11 U	12 U	11 U	11 U
Carbon Tetrachloride	600	12 U	11 U	11 U	11 U	12 U	11 U	11 U
Vinyl Acetate	-	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	-	12 U	11 U	11 U	11 U	12 U	11 U	11 U
1,2-Dichloropropane	-	12 U	11 U	11 U	11 U	12 U	11 U	11 U
cis-1,3-Dichloropropene	-	12 U	11 U	11 U	11 U	12 U	11 U	11 U
Trichloroethene	700	12 U	11 U	11 U	11 U	12 U	11 U	11 U
Dibromochloromethane	-	12 U	11 U	11 U	11 U	12 U	11 U	11 U
1,1,2-Trichloroethane	-	12 U	11 U	11 U	11 U	12 U	11 U	11 U
Benzene	60	12 U	11 U	11 U	11 U	12 U	11 U	11 U
trans-1,3-Dichloropropene	-	12 U	11 U	11 U	11 U	12 U	11 U	11 U
Bromoform	-	12 U	11 U	11 U	11 U	12 U	11 U	11 U
4-Methyl-2-pentanone	1000	12 U	11 U	11 U	11 U	12 U	11 U	11 U
2-Hexanone	-	12 U	11 U	11 U	11 U	12 U	11 U	11 U
Tetrachloroethene	1400	12 U	11 U	11 U	11 U	12 U	11 U	11 U
1,1,2,2-Tetrachloroethane	600	12 U	11 U	11 U	11 U	12 U	11 U	11 U
Toluene	1500	12 U	11 U	11 U	11 U	12 U	1 J	11 U
Chlorobenzene	1700	12 U	11 U	11 U	11 U	12 U	11 U	11 U
Ethylbenzene	5500	12 U	11 U	11 U	11 U	12 U	11 U	11 U
Styrene	-	12 U	11 U	11 U	11 U	12 U	11 U	11 U
Xylene (total)	1200	12 U	11 U	11 U	11 U	12 U	11 U	11 U

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
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Table 2. Summary of Volatile Organics in Surficial Soil, Brooklyn Navy Yard
Cogeneration Partners, Building 41 & Utility Routings, 1994

Volatile Organic Compounds (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (ug/kg)	A5-SB17-SS-01 4-6 4/94 ENSER (ug/kg)	A5-SB17-SS-01* 4-6 4/94 ENSER (ug/kg)	A5-SB18-SS-01 4-6 4/94 ENSER (ug/kg)	A5-SB20-SS-01 4-6 4/94 ENSER (ug/kg)	A5-SB21-SS-01 4-6 4/94 ENSER (ug/kg)	A5-SB22-SS-01 4-6 4/94 ENSER (ug/kg)	A5-SB23-SS-01 4-6 4/94 ENSER (ug/kg)
Chloromethane	-	11 U	11 U	21 U	12 U	11 U	13 U	11 U
Bromomethane	-	11 U	11 U	21 U	12 U	11 U	13 U	11 U
Vinyl Chloride	200	11 U	11 U	21 U	12 U	11 U	13 U	11 U
Chloroethane	1900	11 U	11 U	21 U	12 U	11 U	13 U	11 U
Methylene Chloride	100	14 JB	20 J	32 JB	19 JB	18 JB	23 JB	12 JB
Acetone	200	27	26 J	91 JB	28 JB	180 JB	24 JB	69 JB
Carbon Disulfide	200	11 U	11 U	21 U	12 U	11 U	13 U	11 U
1,1-Dichloroethene	400	11 U	11 U	21 U	12 U	11 U	13 U	11 U
1,1-Dichloroethane	200	11 U	11 U	21 U	12 U	11 U	13 U	11 U
1,2-Dichloroethene (total)	300	11 U	11 U	21 U	12 U	11 U	13 U	11 U
Chloroform	300	11 U	11 U	21 U	12 U	11 U	13 U	11 U
1,2-Dichloroethane	100	11 U	11 U	21 U	12 U	11 U	13 U	11 U
2-Butanone	300	11 U	11 U	21 U	12 U	11 U	13 U	11 U
1,1,1-Trichloroethane	800	11 U	11 U	21 U	12 U	11 U	13 U	11 U
Carbon Tetrachloride	600	11 U	11 U	21 U	12 U	11 U	13 U	11 U
Vinyl Acetate	-	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	-	11 U	11 U	21 U	12 U	11 U	13 U	11 U
1,2-Dichloropropane	-	11 U	11 U	21 U	12 U	11 U	13 U	11 U
cis-1,3-Dichloropropene	-	11 U	11 U	21 U	12 U	11 U	13 U	11 U
Trichloroethene	700	2 J	11 U	21 U	12 U	11 U	13 U	11 U
Dibromochloromethane	-	11 U	11 U	21 U	12 U	11 U	13 U	11 U
1,1,2-Trichloroethane	-	11 U	11 U	21 U	12 U	11 U	13 U	11 U
Benzene	60	11 U	11 U	21 U	12 U	11 U	13 U	11 U
trans-1,3-Dichloropropene	-	11 U	11 U	21 U	12 U	11 U	13 U	11 U
Bromoform	-	11 U	11 U	21 U	12 U	11 U	13 U	11 U
4-Methyl-2-pentanone	1000	11 U	11 U	21 U	12 U	11 U	13 U	11 U
2-Hexanone	-	11 U	11 U	21 U	12 U	11 U	13 U	11 U
Tetrachloroethene	1400	11 U	11 U	21 U	12 U	11 U	13 U	11 U
1,1,2,2-Tetrachloroethane	600	11 U	11 U	21 U	12 U	11 U	13 U	11 U
Toluene	1500	11 U	11 U	21 U	12 U	11 U	13 U	11 U
Chlorobenzene	1700	11 U	11 U	21 U	12 U	11 U	13 U	11 U
Ethylbenzene	5500	11 U	11 U	21 U	12 U	11 U	13 U	11 U
Styrene	-	11 U	11 U	21 U	12 U	11 U	13 U	11 U
Xylene (total)	1200	11 U	11 U	21 U	12 U	11 U	13 U	11 U

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
B - Analyte found in associated blank as well as sample

Table 3. Summary of Semivolatile Organic Compounds in Surficial Soil, Brooklyn Navy Yard, New York.
Cogeneration Project, April 1994, Sampleed By ENSR, Present by Roux Associates

Semivolatile Organic Compounds (Concentration in ug/kg)	NYSDEC Recommended Soil Cleanup Objectives (ug/kg)	ATSDR Background Soil Concentrations PAHs in Urban Soils (ug/kg)	A2-ENSR-MW2-SS-01 4-6 4/94 ENSR (ug/kg)	A2-ENSR-MW2-SS-02 13-15 4/94 ENSR (ug/kg)	A2-ENSR-MW3-SS-02 13-15 4/94 ENSR (ug/kg)	A2-ENSR-MW3-SS-02-RE 13-15 4/94 ENSR (ug/kg)	A2-SB1-SS-01 4-6 4/94 ENSR (ug/kg)	A2-SB1-SS-01-RE 4-6 4/94 ENSR (ug/kg)	A2-SB2-SS-01 4-6 4/94 ENSR (ug/kg)	A2-SB2-SS-01-RE 4-6 4/94 ENSR (ug/kg)
Phenol	30 or MDL	-	370 U	570 U	480 U	28 J	400 U	400 U	370 U	370 U
bis (2-chlorethyl) ether	-	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
2-Chlorophenol	800	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
1,3-Dichlorobenzene	-	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
1,4-Dichlorobenzene	-	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
Benzyl alcohol			NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	-	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
2-Mehylphenol	100	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
2,2'-oxybis (1-Chloropropane)	-	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
bis(2-Chloroisopropyl)ether	-	-	NA	NA	NA	NA	NA	NA	NA	NA
4-Mehylphenol	900	-	370 U	180 J	710	690	400 U	400 U	370 U	370 U
N-Nitoso-di-n-propylamine	-	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
Hexachloroethane	-	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
Nitrobenzene	200	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
Isophorone	4,400	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
2-Nitrophenol	330	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
2,4-Dimenthylphnol	-	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
Benzoic Acid	-	-	NA	NA	NA	NA	NA	NA	NA	NA
bis (2-Chloroethoxy) methane	-	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
2,4-Dichlorophenol	400	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
1,2,4-Trichlorobenzene	-	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
Naphthalene	13,000	-	370 U	40 J	49 J	54 J	400 U	400 U	35 J	35 J
4-Chloroaniline	220	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
Hexachlorobutadiene	410	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
4-Chloro-3-Methylphenol	240	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
2-Methylnaphthalene	36,400	-	370 U	570 U	48 J	52 J	400 U	400 U	40 J	40 J
Hexachlorocyclopentadiene	-	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
2,4,6-Trichlorophenol	-	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
2,4,5-Trichlorophenol	100	-	890 U	1400 U	1200 U	1200 U	960 U	960 U	910 U	910 U
2-Chloronaphthalene	-	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
2-Nitroaniline	430	-	890 U	1400 U	1200 U	1200 U	960 U	960 U	910 U	910 U
Dimethyl phthalate	2,000	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
Acenaphthylene	50,000	-	370 U	570 U	26 J	31 J	400 U	400 U	370 U	370 U
2,6-Dinitotoluene	1,000	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
3-Nitroaniline	500	-	890 U	1400 U	1200 U	1200 U	960 U	960 U	910 U	910 U
Acenaphthene	50,000	-	370 U	570 U	86 J	100 J	400 U	400 U	72 J	70 J
2,4-Dinitrophenol	200	-	890 U	1400 U	1200 U	1200 U	960 U	960 U	910 U	910 U
4-Nitrophenol	100	-	890 U	1400 U	1200 U	1200 U	960 U	960 U	910 U	910 U
Dibenzofuran	6,200	-	370 U	29 J	99 J	110 J	400 U	400 U	63 J	61 J
2,4-Dinitrotoluene	-	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
Diethylphthalate	7,100	-	370 U	570 U	49 J	56 J	400 U	400 U	370 U	370 U
4-Chlorophenyl-phenylether	-	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
Flourene	50,000	-	370 U	51 J	240 J	240 J	400 U	400 U	92 J	88 J
4-Nitoaniline	-	-	890 U	1400 U	1200 U	1200 U	960 U	960 U	910 U	910 U
4,6-Dinitro-2-methylphenol	-	-	890 U	1400 U	1200 U	1200 U	960 U	960 U	910 U	910 U
N-Nitrosodiphenylamine	-	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
4-Bromophenyl-phenylether	-	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
Hexachlorobenzene	410	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
Pentachlorophenol	1,000	-	890 U	1400 U	1200 U	1200 U	960 U	960 U	910 U	910 U
Phenanthrene	50,000	-	140 J	220 J	1300	1300	46 J	46 J	150 J	150 J
Anthracene	50,000	-	370 U	61 J	240 J	230 J	400 U	400 U	25 J	22 J
Carbazole	-	-	370 U	570 U	54 J	43 J	400 U	400 U	370 U	370 U
Di-n-butylphthalate	8,100	-	370 U	570 U	120 J	140 J	400 U	400 U	370 U	21 J
Fluoranthene	50,000	200 - 166,000	200 J	260 J	1100	1200	47 J	45 J	160 J	170 J
Pyrene	50,000	145 - 147,000	180 J	280 J	1800	1800	60 J	71 J	220 J	210 J
Butylbenzylphthalate	50,000	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
3,3'-Dichlorobenzidine	-	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
Benzo(a)anthracene	224 or MDL	169 - 59,000	130 J	150 J	690	690	25 J	28 J	110 J	99 J
Chrysene	400	251 - 640	160 J	160 J	760	780	49 J	51 J	140 J	140 J
bis(2-ethylhexyl) phthalate	50,000	-	48 JB	670 JB	110 J	120 J	110 JB	100 J	130 JB	150 J
Di-n-octyl phthalate	50,000	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
Benzo (b) fluoranthene	1,100	15,000 - 62,000	130 J	120 J	600	730	58 J	30 J	120 J	110 J
Benzo (k) fluoranthene	1,100	300 - 26,000	110 J	130 J	460 J	450 J	400 U	40 J	91 J	100 J
Benzo (a) pyrene	61 or MDL	165 - 220	99 J	98 J	570	580	27 J	27 J	84 J	77 J
Indeno (1,2,3-cd) pyrene	3,200	8,000 - 61,000	49 J	43 J	310 J	260 J	400 U	400 U	86 J	85 J
Dibenzo(a,h) anthracene	14 or MDL	-	370 U	570 U	480 U	480 U	400 U	400 U	370 U	370 U
Benzo (g,h,i) perylene	50,000	900 - 47,000	19 J	570 U	280 J	230 J	400 U	400 U	32 J	38 J

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution

Table 3. Summary of Semivolatile Organic Compounds in Surficial Soil, Brooklyn Navy Yard, New York. Continued
Cogeneration Project, April 1994, Sampleed By ENSR, Present by Roux Associates

Semivolatile Organic Compounds (Concentration in ug/kg)	NYSDEC Recommended Soil Cleanup Objectives (ug/kg)	ATSDR Background Soil Concentrations PAHs in Urban Soils (ug/kg)	A3-SB2-SS-01 2-4 4/94 ENSR (ug/kg)		A3-SB2-SS-02 4-6 4/94 ENSR (ug/kg)		A2-SB3-SS-01 2-4 4/94 ENSR (ug/kg)		A3-SB3-SS-01-RE 2-4 4/94 ENSR (ug/kg)		A3-SB3-SS-02 4-6 4/94 ENSR (ug/kg)		A3-SB3-SS-02-RE 4-6 4/94 ENSR (ug/kg)		A3-SB3-SS-02-DL 4-6 4/94 ENSR (ug/kg)		A4-SB1-SS-02-DLRE 2-4 4/94 ENSR (ug/kg)		A4-SB1-SS-01 2-4 4/94 ENSR (ug/kg)	
Phenol	30 or MDL	-	380	U	370	U	370	U	370	U	390	U	390	U	790	U	790	U	440	U
bis (2-chlorethyl) ether	-	-	380	U	370	U	370	U	370	U	390	U	390	U	790	U	790	U	440	U
2-Chlorophenol	800	-	380	U	370	U	370	U	370	U	390	U	390	U	790	U	790	U	440	U
1,3-Dichlorobenzene	-	-	380	U	370	U	370	U	370	U	390	U	390	U	790	U	790	U	440	U
1,4-Dichlorobenzene	-	-	380	U	370	U	370	U	370	U	390	U	390	U	790	U	790	U	440	U
Benzyl alcohol			NA		NA		NA		NA		NA		NA		NA		NA		NA	
1,2-Dichlorobenzene	-	-	380	U	370	U	370	U	370	U	390	U	390	U	790	U	790	U	440	U
2-Mehylphenol	100	-	380	U	370	U	370	U	370	U	390	U	390	U	790	U	790	U	440	U
2,2'-oxybis (1-Chloropropane)	-	-	380	U	370	U	370	U	370	U	390	U	390	U	790	U	790	U	440	U
bis(2-Chloroisopropyl)ether	-	-	NA		NA		NA		NA		NA		NA		NA		NA		NA	
4-Mehylphenol	900	-	380	U	370	U	370	U	370	U	64	J	57	J	59	J	790	U	440	U
N-Nitoso-di-n-propylamine	-	-	380	U	370	U	370	U	370	U	390	U	390	U	790	U	790	U	440	U
Hexachloroethane	-	-	380	U	370	U	370	U	370	U	390	U	390	U	790	U	790	U	440	U
Nitrobenzene	200	-	380	U	370	U	370	U	370	U	390	U	390	U	790	U	790	U	440	U
Isophorone	4,400	-	380	U	370	U	370	U	370	U	390	U	390	U	790	U	790	U	440	U
2-Nitrophenol	330	-	380	U	370	U	370	U	370	U	390	U	390	U	790	U	790	U	440	U
2,4-Dimenthylphnol	-	-	380	U	370	U	370	U	370	U	29	J	390	U	790	U	790	U	440	U
Benzoic Acid	-	-	NA		NA		NA		NA		NA		NA		NA		NA		NA	
bis (2-Chloroethoxy) methane	-	-	380	U	370	U	370	U	370	U	390	U	390	U	790	U	790	U	440	U
2,4-Dichlorophenol	400	-	380	U	370	U	370	U	370	U	390	U	390	U	790	U	790	U	440	U
1,2,4-Trichlorobenzene	-	-	380	U	370	U	370	U	370	U	390	U	390	U	790	U	790	U	440	U
Naphthalene	13,000	-	380	U	370	U	54	J	60	J	190	J	200	J	210	J	210	J	62	J
4-Chloroaniline	220	-	380	U	370	U	370	U	370	U	390	U	390	U	790	U	790	U	440	U
Hexachlorobutadiene	410	-	380	U	370	U	370	U	370	U	390	U	390	U	790	U	790	U	440	U
4-Chloro-3-Methylphenol	240	-	380	U	370	U	370	U	370	U	390	U	390	U	790	U	790	U	440	U
2-Methylnaphthalene	36,400	-	380	U	370	U	40	J	43	J	100	J	110	J	120	J	110	J	45	J
Hexachlorocyclopentadiene	-	-	380	U	370	U	370	U	370	U	390	U	390	U	790	U	790	U	440	U
2,4,6-Trichlorophenol	-	-	380	U	370	U	370	U	370	U	390	U	390	U	790	U	790	U	440	U
2,4,5-Trichlorophenol	100	-	920	U	890	U	910	U	910	U	950	U	950	U	1900	U	1900	U	1100	U
2-Chloronaphthalene	-	-	380	U	370	U	370	U	370	U	390	U	390	U	790	U	790	U	440	U
2-Nitroaniline	430	-	920	U	890	U	910	U	910	U	950	U	950	U	1900	U	1900	U	1100	U
Dimethyl phthalate	2,000	-	380	U	370	U	370	U	370	U	390	U	390	U	790	U	790	U	440	U
Acenaphthylene	50,000	-	380	U	370	U	370	U	370	U	93	J	100	J	98	J	110	J	440	U
2,6-Dinitotoluene	1,000	-	380	U	370	U	370	U	370	U	390	U	390	U	790	U	790	U	440	U
3-Nitroaniline	500	-	920	U	890	U	910	U	910	U	950	U	950	U	1900	U	1900	U	1100	U
Acenaphthene	50,000	-	380	U	370	U	40	J	46	J	58	J	47	J	57	J	49	J	440	U
2,4-Dinitrophenol	200	-	920	U	890	U	910	U	910	U	950	U	950	U	1900	U	1900	U	1100	U
4-Nitrophenol	100	-	920	U	890	U	910	U	910	U	950	U	950	U	1900	U	1900	U	1100	U
Dibenzofuran	6,200	-	380	U	370	U	40	J	42	J	160	J	170	J	170	J	170	J	35	J
2,4-Dinitrotoluene	-	-	380	U	370	U	370	U	370	U	390	U	390	U	790	U	790	U	440	U
Diethylphthalate	7,100	-	380	U	370	U	52	J	58	J	390	U	390	U	790	U	790	U	34	J
4-Chlorophenyl-phenylether	-	-	380	U	370	U	370	U	370	U	390	U	390	U	790	U	790	U	440	U
Flourene	50,000	-	380	U	370	U	49	J	46	J	160	J	170	J	180	J	180	J	36	J
4-Nitoaniline	-	-	920	U	890	U	910	U	910	U	950	U	950	U	1900	U	1900	U	1100	U
4,6-Dinitro-2-methylphenol	-	-	920	U	890	U	910	U	910	U	950	U	950	U	1900	U	1900	U	1100	U
N-Nitrosodiphenylamine	-	-	380	U	370	U	370	U	370	U	390	U	390	U	790	U	790	U	440	U
4-Bromophenyl-phenylether	-	-	380	U	370	U	370	U	370	U	390	U	390	U	790	U	790	U	440	U
Hexachlorobenzene	410	-	380	U	370	U	370	U	370	U	390	U	390	U	790	U	790	U	440	U
Pentachlorophenol	1,000	-	920	U	890	U	910	U	910	U	950	U	950	U	1900	U	1900	U	1100	U
Phenanthrene	50,000	-	160	J	65	J	580		590		1800		1800		2100	J	2200	J	320	J
Anthracene	50,000	-	22	J	370	U	110	J	110	J	270	J	260	J	280	J	280	J	49	J
Carbazole	-	-	380	U	370	U	82	J	85	J	300	J	300	J	340	J	370	J	24	J
Di-n-butylphthalate	8,100	-	60	J	24	J	17	J	21	J	98	J	95	J	100	J	110	J	410	J
Fluoranthene	50,000	200 - 166,000	190	J	92	J	700		690		1400		1500		1900	J	2100	J	430	J
Pyrene	50,000	145 - 147,000	150	J	85	J	1300		1300		4200	JE	4100	J	3900	J	3400	J	590	
Butylbenzylphthalate	50,000	-	380	U	370	U	370	U	370	U	390	U	390	U	790	U	790	U	440	U
3,3'-Dichlorobenzidine	-	-	380	U	370	U	370	U	370	U	390	U	390	U	790	U	790	U	440	U
Benzo(a)anthracene	224 or MDL	169 - 59,000	98	J	44	J	820		820		1500		1400		1600	J	1600	J	290	J
Chrysene	400	251 - 640	110	J	61	J	860		860		1700		1700		1700	J	1900	J	360	J
bis(2-ethylhexyl) phthalate	50,000	-	70	J	230	J	370	U	370	U	390	U	390	U	790	U	790	U	440	U
Di-n-octyl phthalate	50,000	-	380	U	370	U	370	U	370	U	390	U	390	U	790	U	790	U	440	U
Benzo (b) fluoranthene	1,100	15,000 - 62,000	93	J	62	J	910		1100		900		1100		1400	J	1600	J	230	J
Benzo (k) fluoranthene	1,100	300 - 26,000	68	J	29	J	1100		1100		2200		1700		2000	J	1800	J	290	J
Benzo (a) pyrene	61 or MDL	165 - 220	62	J	37	J	1300		1300		1500		1500		1700	J	1700	J	270	J
Indeno (1,2,3-cd) pyrene	3,200	8,000 - 61,000	38	J	22	J	950		840		1300		1500		1500	J	1400	J	180	J
Dibenz (a,h) anthracene	14 or MDL	-	380	U	370	U	370	U	370	U	390	U	390	U	790	U	790	U	440	U
Benzo (g,h,i) perylene	50,000	900 - 47,000	380	U	370	U	1000		940		1700		2000		1900	J	1700	J	180	J

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution

Table 3. Summary of Semivolatile Organic Compounds in Surficial Soil, Brooklyn Navy Yard, New York. Continued
Cogeneration Project, April 1994, Sampleed By ENSR, Present by Roux Associates

Semivolatile Organic Compounds (Concentration in ug/kg)	NYSDEC Recommended Soil Cleanup Objectives (ug/kg)	ATSDR Background Soil Concentrations PAHs in Urban Soils (ug/kg)	A4-SB1-SS-01-RE 2-4 4/94 ENSR (ug/kg)		A4-SB2-SS-02 4-6 4/94 ENSR (ug/kg)		A4-SB1-SS-02-RE 4-6 4/94 ENSR (ug/kg)		A4-SB2-SS-01 2-4 4/94 ENSR (ug/kg)		A4-SB2-SS-01-RE 2-4 4/94 ENSR (ug/kg)		A4-SB2-SS-01-DL 2-4 4/94 ENSR (ug/kg)		A4-SB2-SS-01-DLRE 2-4 4/94 ENSR (ug/kg)		A4-SB2-SS-02 4-6 4/94 ENSR (ug/kg)		A4-SB2-SS-02-RE 4-6 4/94 ENSR (ug/kg)	
Phenol	30 or MDL	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
bis (2-chlorethyl) ether	-	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
2-Chlorophenol	800	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
1,3-Dichlorobenzene	-	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
1,4-Dichlorobenzene	-	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
Benzyl alcohol			NA		NA		NA		NA		NA		NA		NA		NA		NA	
1,2-Dichlorobenzene	-	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
2-Mehylphenol	100	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
2,2'-oxybis (1-Chloropropane)	-	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
bis(2-Chloroisopropyl)ether	-	-	NA		NA		NA		NA		NA		NA		NA		NA		NA	
4-Mehylphenol	900	-	440	U	450	U	450	U	400	U	400	J	4000	U	4000	U	350	J	340	J
N-Nitoso-di-n-propylamine	-	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
Hexachloroethane	-	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
Nitrobenzene	200	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
Isophorone	4,400	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
2-Nitrophenol	330	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
2,4-Dimenthylphnol	-	-	440	U	450	U	450	U	400	U	400	J	4000	U	4000	U	440	U	440	U
Benzoic Acid	-	-	NA		NA		NA		NA		NA		NA		NA		NA		NA	
bis (2-Chloroethoxy) methane	-	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
2,4-Dichlorophenol	400	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
1,2,4-Trichlorobenzene	-	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
Naphthalene	13,000	-	64	J	100	J	110	J	150	J	150	J	4000	U	4000	U	38	J	38	J
4-Chloroaniline	220	-	440	U	450	U	450	U	46	J	400	U	4000	U	4000	U	440	U	440	U
Hexachlorobutadiene	410	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
4-Chloro-3-Methylphenol	240	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
2-Methylnaphthalene	36,400	-	47	J	85	J	88	J	100	J	100	J	4000	JU	4000	U	440	U	440	U
Hexachlorocyclopentadiene	-	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
2,4,6-Trichlorophenol	-	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
2,4,5-Trichlorophenol	100	-	1100	U	1100	U	1100	U	960	U	960	U	9600	U	9600	U	1100	U	1100	U
2-Chloronaphthalene	-	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
2-Nitroaniline	430	-	1100	U	1100	U	1100	U	960	U	960	U	9600	U	9600	U	1100	U	1100	U
Dimethyl phthalate	2,000	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
Acenaphthylene	50,000	-	440	U	25	J	27	J	71	J	77	J	4000	U	4000	U	440	U	440	U
2,6-Dinitotoluene	1,000	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
3-Nitroaniline	500	-	1100	U	1100	U	1100	U	960	U	960	U	9600	U	9600	U	1100	U	1100	U
Acenaphthene	50,000	-	440	U	84	J	84	J	130	J	130	J	4000	U	4000	U	72	J	80	J
2,4-Dinitrophenol	200	-	1100	U	1100	U	1100	U	960	U	960	U	9600	U	9600	U	1100	U	1100	U
4-Nitrophenol	100	-	1100	U	1100	U	1100	U	960	U	960	U	9600	U	9600	U	1100	U	1100	U
Dibenzofuran	6,200	-	39	J	120	J	130	J	230	J	220	J	230	J	260	J	440	U	440	U
2,4-Dinitrotoluene	-	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
Diethylphthalate	7,100	-	38	J	29	J	31	J	400	U	400	U	4000	U	4000	U	44	J	48	J
4-Chlorophenyl-phenylether	-	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
Flourene	50,000	-	40	J	200	J	220	J	360	J	390	J	430	J	490	J	67	J	66	J
4-Nitoaniline	-	-	1100	U	1100	U	1100	U	960	U	960	U	9600	U	9600	U	1100	U	1100	U
4,6-Dinitro-2-methylphenol	-	-	1100	U	1100	U	1100	U	960	U	960	U	9600	U	9600	U	1100	U	1100	U
N-Nitrosodiphenylamine	-	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
4-Bromophenyl-phenylether	-	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
Hexachlorobenzene	410	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
Pentachlorophenol	1,000	-	1100	U	1100	U	1100	U	960	U	960	U	9600	U	9600	U	1100	U	1100	U
Phenanthrene	50,000	-	300	J	650		630		5100	J	5200	J	8000	J	8700	J	260	J	260	J
Anthracene	50,000	-	47	J	110	J	110	J	1100		980		1200	J	1300	J	56	J	54	J
Carbazole	-	-	440	U	450	U	450	U	120	J	110	J	4000	U	4000	U	440	U	440	U
Di-n-butylphthalate	8,100	-	370	J	95	J	82	J	600		560		700	J	800	J	150	J	140	J
Fluoranthene	50,000	200 - 166,000	320	J	390	J	330	J	5600	J	5800	J	12000	J	14000	J	450		370	J
Pyrene	50,000	145 - 147,000	680		670		780		15000	J	11000	J	20000	J	16000	J	1100		1000	
Butylbenzylphthalate	50,000	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
3,3'-Dichlorobenzidine	-	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
Benzo(a)anthracene	224 or MDL	169 - 59,000	290	J	320	J	300	J	6000	J	6200	J	7500	J	7800	J	370	J	360	J
Chrysene	400	251 - 640	360	J	370	J	370	J	6700	J	6800	J	8600	J	9500	J	400	J	390	J
bis(2-ethylhexyl) phthalate	50,000	-	440	U	260	J	300	J	400	U	400	U	4000	U	4000	U	440	U	440	U
Di-n-octyl phthalate	50,000	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
Benzo (b) fluoranthene	1,100	15,000 - 62,000	300	J	250	J	370	J	4100	J	6400	J	7200	J	7500	J	500		700	
Benzo (k) fluoranthene	1,100	300 - 26,000	340	J	220	J	240	J	7400	J	4900	J	9800	J	7400	J	650		500	
Benzo (a) pyrene	61 or MDL	165 - 220	280	J	260	J	280	J	5700	JE	5000	J	7900	J	7800	J	710		700	
Indeno (1,2,3-cd) pyrene	3,200	8,000 - 61,000	160	J	220	J	210	J	3600	J	3400	J	3500	J	4400	J	620		640	
Dibenz (a,h) anthracene	14 or MDL	-	440	U	450	U	450	U	2000		1700		1900	J	2400	J	440	U	440	U
Benzo (g,h,i) perylene	50,000	900 - 47,000	180	J	250	J	240	J	3500	J	3000		3100	J	3700	J	670		650	

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution

Table 3. Summary of Semivolatile Organic Compounds in Surficial Soil, Brooklyn Navy Yard, New York. Continued
Cogeneration Project, April 1994, Sampleed By ENSR, Present by Roux Associates

Semivolatile Organic Compounds (Concentration in ug/kg)	NYSDEC Recommended Soil Cleanup Objectives (ug/kg)	ATSDR Background Soil Concentrations PAHs in Urban Soils (ug/kg)	A4-SB1-SS-01-RE 2-4 4/94 ENSR (ug/kg)		A4-SB2-SS-02 4-6 4/94 ENSR (ug/kg)		A4-SB1-SS-02-RE 4-6 4/94 ENSR (ug/kg)		A4-SB2-SS-01 2-4 4/94 ENSR (ug/kg)		A4-SB2-SS-01-RE 2-4 4/94 ENSR (ug/kg)		A4-SB2-SS-01-DL 2-4 4/94 ENSR (ug/kg)		A4-SB2-SS-01-DLRE 2-4 4/94 ENSR (ug/kg)		A4-SB2-SS-02 4-6 4/94 ENSR (ug/kg)		A4-SB2-SS-02-RE 4-6 4/94 ENSR (ug/kg)	
Phenol	30 or MDL	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
bis (2-chlorethyl) ether	-	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
2-Chlorophenol	800	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
1,3-Dichlorobenzene	-	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
1,4-Dichlorobenzene	-	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
Benzyl alcohol			NA		NA		NA		NA		NA		NA		NA		NA		NA	
1,2-Dichlorobenzene	-	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
2-Mehylphenol	100	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
2,2'-oxybis (1-Chloropropane)	-	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
bis(2-Chloroisopropyl)ether	-	-	NA		NA		NA		NA		NA		NA		NA		NA		NA	
4-Mehylphenol	900	-	440	U	450	U	450	U	400	U	400	J	4000	U	4000	U	350	J	340	J
N-Nitoso-di-n-propylamine	-	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
Hexachloroethane	-	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
Nitrobenzene	200	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
Isophorone	4,400	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
2-Nitrophenol	330	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
2,4-Dimenthylphnol	-	-	440	U	450	U	450	U	400	U	400	J	4000	U	4000	U	440	U	440	U
Benzoic Acid	-	-	NA		NA		NA		NA		NA		NA		NA		NA		NA	
bis (2-Chloroethoxy) methane	-	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
2,4-Dichlorophenol	400	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
1,2,4-Trichlorobenzene	-	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
Naphthalene	13,000	-	64	J	100	J	110	J	150	J	150	J	4000	U	4000	U	38	J	38	J
4-Chloroaniline	220	-	440	U	450	U	450	U	46	J	400	U	4000	U	4000	U	440	U	440	U
Hexachlorobutadiene	410	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
4-Chloro-3-Methylphenol	240	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
2-Methylnaphthalene	36,400	-	47	J	85	J	88	J	100	J	100	J	4000	JU	4000	U	440	U	440	U
Hexachlorocyclopentadiene	-	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
2,4,6-Trichlorophenol	-	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
2,4,5-Trichlorophenol	100	-	1100	U	1100	U	1100	U	960	U	960	U	9600	U	9600	U	1100	U	1100	U
2-Chloronaphthalene	-	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
2-Nitroaniline	430	-	1100	U	1100	U	1100	U	960	U	960	U	9600	U	9600	U	1100	U	1100	U
Dimethyl phthalate	2,000	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
Acenaphthylene	50,000	-	440	U	25	J	27	J	71	J	77	J	4000	U	4000	U	440	U	440	U
2,6-Dinitotoluene	1,000	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
3-Nitroaniline	500	-	1100	U	1100	U	1100	U	960	U	960	U	9600	U	9600	U	1100	U	1100	U
Acenaphthene	50,000	-	440	U	84	J	84	J	130	J	130	J	4000	U	4000	U	72	J	80	J
2,4-Dinitrophenol	200	-	1100	U	1100	U	1100	U	960	U	960	U	9600	U	9600	U	1100	U	1100	U
4-Nitrophenol	100	-	1100	U	1100	U	1100	U	960	U	960	U	9600	U	9600	U	1100	U	1100	U
Dibenzofuran	6,200	-	39	J	120	J	130	J	230	J	220	J	230	J	260	J	440	U	440	U
2,4-Dinitrotoluene	-	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
Diethylphthalate	7,100	-	38	J	29	J	31	J	400	U	400	U	4000	U	4000	U	44	J	48	J
4-Chlorophenyl-phenylether	-	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
Flourene	50,000	-	40	J	200	J	220	J	360	J	390	J	430	J	490	J	67	J	66	J
4-Nitoaniline	-	-	1100	U	1100	U	1100	U	960	U	960	U	9600	U	9600	U	1100	U	1100	U
4,6-Dinitro-2-methylphenol	-	-	1100	U	1100	U	1100	U	960	U	960	U	9600	U	9600	U	1100	U	1100	U
N-Nitrosodiphenylamine	-	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
4-Bromophenyl-phenylether	-	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
Hexachlorobenzene	410	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
Pentachlorophenol	1,000	-	1100	U	1100	U	1100	U	960	U	960	U	9600	U	9600	U	1100	U	1100	U
Phenanthrene	50,000	-	300	J	650		630		5100	J	5200	J	8000	J	8700	J	260	J	260	J
Anthracene	50,000	-	47	J	110	J	110	J	1100		980		1200	J	1300	J	56	J	54	J
Carbazole	-	-	440	U	450	U	450	U	120	J	110	J	4000	U	4000	U	440	U	440	U
Di-n-butylphthalate	8,100	-	370	J	95	J	82	J	600		560		700	J	800	J	150	J	140	J
Fluoranthene	50,000	200 - 166,000	320	J	390	J	330	J	5600	J	5800	J	12000	J	14000	J	450		370	J
Pyrene	50,000	145 - 147,000	680		670		780		15000	J	11000	J	20000	J	16000	J	1100		1000	
Butylbenzylphthalate	50,000	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
3,3'-Dichlorobenzidine	-	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
Benzo(a)anthracene	224 or MDL	169 - 59,000	290	J	320	J	300	J	6000	J	6200	J	7500	J	7800	J	370	J	360	J
Chrysene	400	251 - 640	360	J	370	J	370	J	6700	J	6800	J	8600	J	9500	J	400	J	390	J
bis(2-ethylhexyl) phthalate	50,000	-	440	U	260	J	300	J	400	U	400	U	4000	U	4000	U	440	U	440	U
Di-n-octyl phthalate	50,000	-	440	U	450	U	450	U	400	U	400	U	4000	U	4000	U	440	U	440	U
Benzo (b) fluoranthene	1,100	15,000 - 62,000	300	J	250	J	370	J	4100	J	6400	J	7200	J	7500	J	500		700	
Benzo (k) fluoranthene	1,100	300 - 26,000	340	J	220	J	240	J	7400	J	4900	J	9800	J	7400	J	650		500	
Benzo (a) pyrene	61 or MDL	165 - 220	280	J	260	J	280	J	5700	JE	5000	J	7900	J	7800	J	710		700	
Indeno (1,2,3-cd) pyrene	3,200	8,000 - 61,000	160	J	220	J	210	J	3600	J	3400	J	3500	J	4400	J	620		640	
Dibenz (a,h) anthracene	14 or MDL	-	440	U	450	U	450	U	2000		1700		1900	J	2400	J	440	U	440	U
Benzo (g,h,i) perylene	50,000	900 - 47,000	180	J	250	J	240	J	3500	J	3000		3100	J	3700	J	670		650	

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution

Table 3. Summary of Semivolatile Organic Compounds in Surficial Soil, Brooklyn Navy Yard, New York. Continued
Cogeneration Project, April 1994, Sampleed By ENSR, Present by Roux Associates

Semivolatile Organic Compounds (Concentration in ug/kg)	NYSDEC Recommended Soil Cleanup Objectives (ug/kg)	ATSDR Background Soil Concentrations PAHs in Urban Soils (ug/kg)	A5-SB1-SS-01-DLRE 4-6 4/94 ENSR (ug/kg)	A5-SB2-SS-01 4-6 4/94 ENSR (ug/kg)	A5-SB2-SS-01-RE 4-6 4/94 ENSR (ug/kg)	A5-SB2-SS-01-DL 4-6 4/94 ENSR (ug/kg)	A5-SB3-SS-01 4-6 4/94 ENSR (ug/kg)	A5-SB3-SS-01-RE 4-6 4/94 ENSR (ug/kg)	A5-SB4-SS-01 4-6 4/94 ENSR (ug/kg)	A5-SB4-SS-01-RE 4-6 4/94 ENSR (ug/kg)	A5-SB5-SS-01 4-6 4/94 ENSR (ug/kg)
Phenol	30 or MDL	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
bis (2-chlorethyl) ether	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
2-Chlorophenol	800	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
1,3-Dichlorobenzene	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
1,4-Dichlorobenzene	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Benzyl alcohol			NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
2-Mehylphenol	100	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
2,2'-oxybis (1-Chloropropane)	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
bis(2-Chloroisopropyl)ether	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Mehylphenol	900	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
N-Nitoso-di-n-propylamine	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Hexachloroethane	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Nitrobenzene	200	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Isophorone	4,400	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
2-Nitrophenol	330	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
2,4-Dimenthylphnol	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Benzoic Acid	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis (2-Chloroethoxy) methane	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
2,4-Dichlorophenol	400	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
1,2,4-Trichlorobenzene	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Naphthalene	13,000	-	110 J	450	450	490 J	400 U	400 U	160 J	150 J	130 J
4-Chloroaniline	220	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Hexachlorobutadiene	410	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
4-Chloro-3-Methylphenol	240	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
2-Methylnaphthalene	36,400	-	110 J	230 J	230 J	240 J	400 U	400 U	130 J	130 J	49 J
Hexachlorocyclopentadiene	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
2,4,6-Trichlorophenol	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
2,4,5-Trichlorophenol	100	-	2100 U	1000 U	1000 U	9000 U	980 U	980 U	940 U	940 U	910 U
2-Chloronaphthalene	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
2-Nitroaniline	430	-	2100 U	1000 U	1000 U	9000 U	980 U	980 U	940 U	940 U	910 U
Dimethyl phthalate	2,000	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Acenaphthylene	50,000	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	24 J
2,6-Dinitotoluene	1,000	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
3-Nitroaniline	500	-	2100 U	1000 U	1000 U	9000 U	980 U	980 U	940 U	940 U	910 U
Acenaphthene	50,000	-	250 J	880	880	940 J	400 U	400 U	26 J	25 J	110 J
2,4-Dinitrophenol	200	-	2100 U	1000 U	1000 U	9000 U	980 U	980 U	940 U	940 U	910 U
4-Nitrophenol	100	-	2100 U	1000 U	1000 U	9000 U	980 U	980 U	940 U	940 U	910 U
Dibenzofuran	6,200	-	230 J	810	800	960 J	400 U	400 U	95 J	97 J	120 J
2,4-Dinitrotoluene	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Diethylphthalate	7,100	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	39 J
4-Chlorophenyl-phenylether	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Flourene	50,000	-	220 J	1100	1100	1400 J	400 U	400 U	390 U	390 U	170 J
4-Nitoaniline	-	-	2100 U	1000 U	1000 U	9000 U	980 U	980 U	940 U	940 U	910 U
4,6-Dinitro-2-methylphenol	-	-	2100 U	1000 U	1000 U	9000 U	980 U	980 U	940 U	940 U	910 U
N-Nitrosodiphenylamine	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
4-Bromophenyl-phenylether	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Hexachlorobenzene	410	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Pentachlorophenol	1,000	-	2100 U	1000 U	1000 U	9000 U	980 U	980 U	940 U	940 U	910 U
Phenanthrene	50,000	-	1400 J	8300 J	8600 J	13000 J	42 J	41 J	560	560	660
Anthracene	50,000	-	480 J	2400	2500	3100 J	400 U	400 U	66 J	65 J	150 J
Carbazole	-	-	67 J	830	840	1100 J	400 U	400 U	390 U	390 U	49 J
Di-n-butylphthalate	8,100	-	880 U	410	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Fluoranthene	50,000	200 - 166,000	2100 J	6100 J	6100 J	14000 J	26 J	32 J	360 J	390	580
Pyrene	50,000	145 - 147,000	2600 J	17000 J	18000 J	16000 J	66 J	63 J	660	690	570
Butylbenzylphthalate	50,000	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
3,3'-Dichlorobenzidine	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Benzo(a)anthracene	224 or MDL	169 - 59,000	1200 J	6800 J	6800 J	6800 J	400 U	400 U	290 J	290 J	470
Chrysene	400	251 - 640	1200 J	6300 J	6300 J	7200 J	400 U	400 U	470	450	530
bis(2-ethylhexyl) phthalate	50,000	-	880 U	990	1000	790 J	400 U	400 U	390 U	390 U	370 U
Di-n-octyl phthalate	50,000	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Benzo (b) fluoranthene	1,100	15,000 - 62,000	1100 J	6000 J	5700 J	6400 J	57 J	59 J	330 J	340 J	510
Benzo (k) fluoranthene	1,100	300 - 26,000	990 J	3900 J	3900 J	4300 J	64 J	52 J	240 J	230 J	520
Benzo (a) pyrene	61 or MDL	165 - 220	1200 J	4900 J	4900 J	5800 J	65 J	64 J	240 J	240 J	480
Indeno (1,2,3-cd) pyrene	3,200	8,000 - 61,000	740 J	2900	2900	4200 J	40 J	41 J	160 J	180 J	300 J
Dibenz (a,h) anthracene	14 or MDL	-	880 U	710	610	2000 J	400 U	400 U	390 U	390 U	170 J
Benzo (g,h,i) perylene	50,000	900 - 47,000	750 J	3000	3100	4400 J	48 J	47 J	210 J	200 J	190 J

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution

Table 3. Summary of Semivolatile Organic Compounds in Surficial Soil, Brooklyn Navy Yard, New York. Continued
Cogeneration Project, April 1994, Sampleed By ENSR, Present by Roux Associates

Semivolatile Organic Compounds (Concentration in ug/kg)	NYSDEC Recommended Soil Cleanup Objectives (ug/kg)	ATSDR Background Soil Concentrations PAHs in Urban Soils (ug/kg)	A5-SB1-SS-01-DLRE 4-6 4/94 ENSR (ug/kg)	A5-SB2-SS-01 4-6 4/94 ENSR (ug/kg)	A5-SB2-SS-01-RE 4-6 4/94 ENSR (ug/kg)	A5-SB2-SS-01-DL 4-6 4/94 ENSR (ug/kg)	A5-SB3-SS-01 4-6 4/94 ENSR (ug/kg)	A5-SB3-SS-01-RE 4-6 4/94 ENSR (ug/kg)	A5-SB4-SS-01 4-6 4/94 ENSR (ug/kg)	A5-SB4-SS-01-RE 4-6 4/94 ENSR (ug/kg)	A5-SB5-SS-01 4-6 4/94 ENSR (ug/kg)
Phenol	30 or MDL	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
bis (2-chlorethyl) ether	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
2-Chlorophenol	800	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
1,3-Dichlorobenzene	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
1,4-Dichlorobenzene	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Benzyl alcohol			NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
2-Mehylphenol	100	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
2,2'-oxybis (1-Chloropropane)	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
bis(2-Chloroisopropyl)ether	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Mehylphenol	900	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
N-Nitoso-di-n-propylamine	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Hexachloroethane	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Nitrobenzene	200	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Isophorone	4,400	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
2-Nitrophenol	330	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
2,4-Dimenthylphnol	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Benzoic Acid	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis (2-Chloroethoxy) methane	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
2,4-Dichlorophenol	400	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
1,2,4-Trichlorobenzene	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Naphthalene	13,000	-	110 J	450	450	490 J	400 U	400 U	160 J	150 J	130 J
4-Chloroaniline	220	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Hexachlorobutadiene	410	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
4-Chloro-3-Methylphenol	240	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
2-Methylnaphthalene	36,400	-	110 J	230 J	230 J	240 J	400 U	400 U	130 J	130 J	49 J
Hexachlorocyclopentadiene	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
2,4,6-Trichlorophenol	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
2,4,5-Trichlorophenol	100	-	2100 U	1000 U	1000 U	9000 U	980 U	980 U	940 U	940 U	910 U
2-Chloronaphthalene	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
2-Nitroaniline	430	-	2100 U	1000 U	1000 U	9000 U	980 U	980 U	940 U	940 U	910 U
Dimethyl phthalate	2,000	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Acenaphthylene	50,000	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	24 J
2,6-Dinitotoluene	1,000	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
3-Nitroaniline	500	-	2100 U	1000 U	1000 U	9000 U	980 U	980 U	940 U	940 U	910 U
Acenaphthene	50,000	-	250 J	880	880	940 J	400 U	400 U	26 J	25 J	110 J
2,4-Dinitrophenol	200	-	2100 U	1000 U	1000 U	9000 U	980 U	980 U	940 U	940 U	910 U
4-Nitrophenol	100	-	2100 U	1000 U	1000 U	9000 U	980 U	980 U	940 U	940 U	910 U
Dibenzofuran	6,200	-	230 J	810	800	960 J	400 U	400 U	95 J	97 J	120 J
2,4-Dinitrotoluene	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Diethylphthalate	7,100	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	39 J
4-Chlorophenyl-phenylether	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Flourene	50,000	-	220 J	1100	1100	1400 J	400 U	400 U	390 U	390 U	170 J
4-Nitoaniline	-	-	2100 U	1000 U	1000 U	9000 U	980 U	980 U	940 U	940 U	910 U
4,6-Dinitro-2-methylphenol	-	-	2100 U	1000 U	1000 U	9000 U	980 U	980 U	940 U	940 U	910 U
N-Nitrosodiphenylamine	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
4-Bromophenyl-phenylether	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Hexachlorobenzene	410	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Pentachlorophenol	1,000	-	2100 U	1000 U	1000 U	9000 U	980 U	980 U	940 U	940 U	910 U
Phenanthrene	50,000	-	1400 J	8300 J	8600 J	13000 J	42 J	41 J	560	560	660
Anthracene	50,000	-	480 J	2400	2500	3100 J	400 U	400 U	66 J	65 J	150 J
Carbazole	-	-	67 J	830	840	1100 J	400 U	400 U	390 U	390 U	49 J
Di-n-butylphthalate	8,100	-	880 U	410	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Fluoranthene	50,000	200 - 166,000	2100 J	6100 J	6100 J	14000 J	26 J	32 J	360 J	390	580
Pyrene	50,000	145 - 147,000	2600 J	17000 J	18000 J	16000 J	66 J	63 J	660	690	570
Butylbenzylphthalate	50,000	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
3,3'-Dichlorobenzidine	-	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Benzo(a)anthracene	224 or MDL	169 - 59,000	1200 J	6800 J	6800 J	6800 J	400 U	400 U	290 J	290 J	470
Chrysene	400	251 - 640	1200 J	6300 J	6300 J	7200 J	400 U	400 U	470	450	530
bis(2-ethylhexyl) phthalate	50,000	-	880 U	990	1000	790 J	400 U	400 U	390 U	390 U	370 U
Di-n-octyl phthalate	50,000	-	880 U	410 U	410 U	3700 U	400 U	400 U	390 U	390 U	370 U
Benzo (b) fluoranthene	1,100	15,000 - 62,000	1100 J	6000 J	5700 J	6400 J	57 J	59 J	330 J	340 J	510
Benzo (k) fluoranthene	1,100	300 - 26,000	990 J	3900 J	3900 J	4300 J	64 J	52 J	240 J	230 J	520
Benzo (a) pyrene	61 or MDL	165 - 220	1200 J	4900 J	4900 J	5800 J	65 J	64 J	240 J	240 J	480
Indeno (1,2,3-cd) pyrene	3,200	8,000 - 61,000	740 J	2900	2900	4200 J	40 J	41 J	160 J	180 J	300 J
Dibenz (a,h) anthracene	14 or MDL	-	880 U	710	610	2000 J	400 U	400 U	390 U	390 U	170 J
Benzo (g,h,i) perylene	50,000	900 - 47,000	750 J	3000	3100	4400 J	48 J	47 J	210 J	200 J	190 J

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution

Table 3. Summary of Semivolatile Organic Compounds in Surficial Soil, Brooklyn Navy Yard, New York. Continued
Cogeneration Project, April 1994, Sampleed By ENSR, Present by Roux Associates

Semivolatile Organic Compounds (Concentration in ug/kg)	NYSDEC Recommended Soil Cleanup Objectives (ug/kg)	ATSDR Background Soil Concentrations PAHs in Urban Soils (ug/kg)	A5-SB16-SS-01 4-6 4/94 ENSR (ug/kg)	A5-SB16-SS-01-RE 4-6 4/94 ENSR (ug/kg)	A5-SB17-SS-01 4-6 4/94 ENSR (ug/kg)	A5-SB17-SS-01* 4-6 4/94 ENSR (ug/kg)	A5-SB17-SS-01-RE 4-6 4/94 ENSR (ug/kg)	A5-SB18-SS-01 4-6 4/94 ENSR (ug/kg)	A5-SB18-SS-01-RE 4-6 4/94 ENSR (ug/kg)	A5-SB20-SS-01 4-6 4/94 ENSR (ug/kg)	A5-SB21-SS-01 4-6 4/94 ENSR (ug/kg)
Phenol	30 or MDL	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
bis (2-chlorethyl) ether	-	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
2-Chlorophenol	800	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
1,3-Dichlorobenzene	-	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
1,4-Dichlorobenzene	-	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
Benzyl alcohol			NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	-	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
2-Mehylphenol	100	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
2,2'-oxybis (1-Chloropropane)	-	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
bis(2-Chloroisopropyl)ether	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Mehylphenol	900	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
N-Nitoso-di-n-propylamine	-	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
Hexachloroethane	-	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
Nitrobenzene	200	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
Isophorone	4,400	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
2-Nitrophenol	330	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
2,4-Dimenthylphnol	-	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
Benzoic Acid	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis (2-Chloroethoxy) methane	-	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
2,4-Dichlorophenol	400	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
1,2,4-Trichlorobenzene	-	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
Naphthalene	13,000	-	58 J	59 J	370 U	370 U	370 U	490 U	490 U	390 U	370 U
4-Chloroaniline	220	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
Hexachlorobutadiene	410	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
4-Chloro-3-Methylphenol	240	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
2-Methylnaphthalene	36,400	-	31 J	31 J	370 U	370 U	370 U	490 U	490 U	390 U	370 U
Hexachlorocyclopentadiene	-	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
2,4,6-Trichlorophenol	-	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
2,4,5-Trichlorophenol	100	-	900 U	900 U	910 U	910 U	910 U	1200 U	1200 U	940 U	910 U
2-Chloronaphthalene	-	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
2-Nitroaniline	430	-	900 U	900 U	910 U	910 U	910 U	1200 U	1200 U	940 U	910 U
Dimethyl phthalate	2,000	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
Acenaphthylene	50,000	-	40 J	39 J	370 U	370 U	370 U	490 U	490 U	390 U	370 U
2,6-Dinitotoluene	1,000	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
3-Nitroaniline	500	-	900 U	900 U	910 U	910 U	910 U	1200 U	1200 U	940 U	910 U
Acenaphthene	50,000	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
2,4-Dinitrophenol	200	-	900 U	900 U	910 U	910 U	910 U	1200 U	1200 U	940 U	910 U
4-Nitrophenol	100	-	900 U	900 U	910 U	910 U	910 U	1200 U	1200 U	940 U	910 U
Dibenzofuran	6,200	-	25 J	25 J	370 U	370 U	370 U	490 U	490 U	390 U	370 U
2,4-Dinitrotoluene	-	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
Diethylphthalate	7,100	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
4-Chlorophenyl-phenylether	-	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
Flourene	50,000	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
4-Nitoaniline	-	-	900 U	900 U	910 U	910 U	910 U	1200 U	1200 U	940 U	910 U
4,6-Dinitro-2-methylphenol	-	-	900 U	900 U	910 U	910 U	910 U	1200 U	1200 U	940 U	910 U
N-Nitrosodiphenylamine	-	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
4-Bromophenyl-phenylether	-	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
Hexachlorobenzene	410	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
Pentachlorophenol	1,000	-	900 U	900 U	910 U	910 U	910 U	1200 U	1200 U	940 U	910 U
Phenanthrene	50,000	-	250 J	250 J	370 U	110 J	110 J	490 U	490 U	390 U	370 U
Anthracene	50,000	-	67 J	65 J	370 U	22 J	20 J	490 U	490 U	390 U	370 U
Carbazole	-	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
Di-n-butylphthalate	8,100	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
Fluoranthene	50,000	200 - 166,000	1000	960	370 U	140 J	140 J	490 U	490 U	390 U	370 U
Pyrene	50,000	145 - 147,000	2200	2300	370 U	260 J	260 J	490 U	490 U	390 U	370 U
Butylbenzylphthalate	50,000	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
3,3'-Dichlorobenzidine	-	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
Benzo(a)anthracene	224 or MDL	169 - 59,000	1600	1600	370 U	81 J	81 J	490 U	490 U	390 U	370 U
Chrysene	400	251 - 640	1500	1500	370 U	93 J	94 J	490 U	490 U	390 U	370 U
bis(2-ethylhexyl) phthalate	50,000	-	610	620	370 U	370 U	370 U	92 J	110 J	390 U	370 U
Di-n-octyl phthalate	50,000	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
Benzo (b) fluoranthene	1,100	15,000 - 62,000	1000	920	370 U	57 J	61 J	490 U	490 U	390 U	370 U
Benzo (k) fluoranthene	1,100	300 - 26,000	1600	1500	370 U	72 J	66 J	490 U	490 U	390 U	370 U
Benzo (a) pyrene	61 or MDL	165 - 220	1400	1300	370 U	79 J	77 J	490 U	490 U	390 U	370 U
Indeno (1,2,3-cd) pyrene	3,200	8,000 - 61,000	640	580	370 U	370 U	370 U	490 U	490 U	390 U	370 U
Dibenz (a,h) anthracene	14 or MDL	-	370 U	370 U	370 U	370 U	370 U	490 U	490 U	390 U	370 U
Benzo (g,h,i) perylene	50,000	900 - 47,000	600	570	370 U	370 U	370 U	490 U	490 U	390 U	370 U

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution

Table 3. Summary of Semivolatile Organic Compounds in Surficial Soil, Brooklyn Navy Yard, New York. Continued
Cogeneration Project, April 1994, Sampleed By ENSR, Present by Roux Associates

Semivolatile Organic Compounds (Concentration in ug/kg)	NYSDEC Recommended Soil Cleanup Objectives (ug/kg)	ATSDR Background Soil Concentrations PAHs in Urban Soils (ug/kg)	A5-SB22-SS-01 4-6 4/94 ENSR (ug/kg)		A5-SB22-SS-01-RE 4-6 4/94 ENSR (ug/kg)		A5-SB23-SS-01 4-6 4/94 ENSR (ug/kg)		DD-1 0-4 7/93 BBEPC (ug/kg)		DD-1-RE 0-4 7/93 BBEPC (ug/kg)		DD-2 0-4 7/93 BBEPC (ug/kg)		DD-2-RE 0-4 7/93 BBEPC (ug/kg)		DD-3 0-4 7/93 BBEPC (ug/kg)		DD-3-RE 0-4 7/93 BBEPC (ug/kg)	
Phenol	30 or MDL	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
bis (2-chlorethyl) ether	-	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
2-Chlorophenol	800	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
1,3-Dichlorobenzene	-	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
1,4-Dichlorobenzene	-	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
Benzyl alcohol			NA		NA		NA		867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
1,2-Dichlorobenzene	-	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
2-Mehylphenol	100	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
2,2'-oxybis (1-Chloropropane)	-	-	420	U	420	U	350	U	NA		NA		NA		NA		NA		NA	
bis(2-Chloroisopropyl)ether	-	-	NA		NA		NA		867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
4-Mehylphenol	900	-	420	U	420	U	350	U	91	J	130	J	498.3	U	498.3	U	392.7	J	392.7	U
N-Nitoso-di-n-propylamine	-	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
Hexachloroethane	-	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
Nitrobenzene	200	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
Isophorone	4,400	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
2-Nitrophenol	330	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
2,4-Dimenthylphnol	-	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
Benzoic Acid	-	-	NA		NA		NA		4208	U	4208	U	2416	U	2416	U	1904	U	1904	U
bis (2-Chloroethoxy) methane	-	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
2,4-Dichlorophenol	400	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
1,2,4-Trichlorobenzene	-	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
Naphthalene	13,000	-	22	J	22	J	350	U	99	J	120	J	82	J	83	J	38	J	40	J
4-Chloroaniline	220	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
Hexachlorobutadiene	410	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
4-Chloro-3-Methylphenol	240	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
2-Methylnaphthalene	36,400	-	420	U	420	U	350	U	100	J	130	J	110	J	110	J	69	J	66	J
Hexachlorocyclopentadiene	-	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
2,4,6-Trichlorophenol	-	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
2,4,5-Trichlorophenol	100	-	1000	U	1000	U	860	U	4208	U	4208	U	2416	U	2416	U	1904	U	1904	U
2-Chloronaphthalene	-	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
2-Nitroaniline	430	-	1000	U	1000	U	860	U	4208	U	4208	U	2416	U	2416	U	1904	U	1904	U
Dimethyl phthalate	2,000	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
Acenaphthylene	50,000	-	420	U	420	U	350	U	867.9	U	86	J	77	J	120	J	31	J	46	J
2,6-Dinitotoluene	1,000	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
3-Nitroaniline	500	-	1000	U	1000	U	860	U	4208	U	4208	U	2416	U	2416	U	1904	U	1904	U
Acenaphthene	50,000	-	420	U	420	U	350	U	360	J	440	J	430	J	440	J	130	J	130	J
2,4-Dinitrophenol	200	-	1000	U	1000	U	860	U	4208	U	4208	U	2416	U	2416	U	1904	U	1904	U
4-Nitrophenol	100	-	1000	U	1000	U	860	U	4208	U	4208	U	2416	U	2416	U	1904	U	1904	U
Dibenzofuran	6,200	-	21	J	22	J	350	U	200	J	260	J	180	J	180	J	85	J	85	J
2,4-Dinitrotoluene	-	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
Diethylphthalate	7,100	-	420	U	420	U	350	U	867.9	U	867.9	U	19	J	19	J	392.7	U	392.7	U
4-Chlorophenyl-phenylether	-	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
Flourene	50,000	-	420	U	420	U	350	U	470	J	620	J	380	J	350	J	220	J	240	J
4-Nitoaniline	-	-	1000	U	1000	U	860	U	4208	U	4208	U	2416	U	2416	U	1904	U	1904	U
4,6-Dinitro-2-methylphenol	-	-	1000	U	1000	U	860	U	4208	U	4208	U	2416	U	2416	U	1904	U	1904	U
N-Nitrosodiphenylamine	-	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
4-Bromophenyl-phenylether	-	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
Hexachlorobenzene	410	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
Pentachlorophenol	1,000	-	1000	U	1000	U	860	U	4208	U	4208	U	2416	U	2416	U	1904	U	1904	U
Phenanthrene	50,000	-	220	J	220	J	350	U	4300		5000		920		840		1300		1400	
Anthracene	50,000	-	420	U	420	U	350	U	1700		1900		460	J	470	J	390	J	450	
Carbazole	-	-	420	U	420	U	350	U	NA		NA		NA		NA		NA		NA	
Di-n-butylphthalate	8,100	-	420	U	420	U	350	U	867.9	U	867.9	U	260	J	260	J	392.7	U	392.7	U
Fluoranthene	50,000	200 - 166,000	170	J	180	J	350	U	6100		7600		1100		1500		1400		1500	
Pyrene	50,000	145 - 147,000	150	J	150	J	350	U	7700		10000		3600		2700		1900		2000	
Butylbenzylphthalate	50,000	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
3,3'-Dichlorobenzidine	-	-	420	U	420	U	350	U	1735.8	U	1735.8	U	996.6	U	996.6	U	785.4	U	785.4	U
Benzo(a)anthracene	224 or MDL	169 - 59,000	89	J	34	J	350	U	4400		6900		760		860		740		940	
Chrysene	400	251 - 640	96	J	100	J	350	U	4300		7200		980		1000		780		990	
bis(2-ethylhexyl) phthalate	50,000	-	420	U	420	U	350	U	867.9	U	867.9	U	1200	J	1200	J	392.7	U	392.7	U
Di-n-octyl phthalate	50,000	-	420	U	420	U	350	U	867.9	U	867.9	U	498.3	U	498.3	U	392.7	U	392.7	U
Benzo (b) fluoranthene	1,100	15,000 - 62,000	84	J	89	J	350	U	4100		5000		1200		1300		470		660	
Benzo (k) fluoranthene	1,100	300 - 26,000	57	J	39	J	350	U	4200		6800		1100		1100		580		800	
Benzo (a) pyrene	61 or MDL	165 - 220	37	J	36	J	350	U	4900		5700		1100		1200		560		690	
Indeno (1,2,3-cd) pyrene	3,200	8,000 - 61,000	43	J	47	J	350	U	3200		2500		1400		1100		380	J	310	J
Dibenz (a,h) anthracene	14 or MDL	-	420	U	420	U	350	U	1000		960		498.3	U	370	J	392.7	U	120	J
Benzo (g,h,i) perylene	50,000	900 - 47,000	51	J	66	J	350	U	3300		3800		1600		1100		340	J	290	J

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution

Table 3. Summary of Semivolatile Organic Compounds in Surficial Soil, Brooklyn Navy Yard, New York. Continued
Cogeneration Project, April 1994, Sampleed By ENSR, Present by Roux Associates

Semivolatile Organic Compounds (Concentration in ug/kg)	NYSDEC Recommended Soil Cleanup Objectives (ug/kg)	ATSDR Background Soil Concentrations PAHs in Urban Soils (ug/kg)	DD-4 2-4 7/93 BBEPC (ug/kg)		DD-4* 2-4 7-93 BBEPC (ug/kg)		DD-5 0-2 7/93 ENSR (ug/kg)		DD-5-RE 0-2 7/93 BBEPC (ug/kg)		DD-5 4-6 7/93 BBEPC (ug/kg)	
Phenol	30 or MDL	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
bis (2-chlorethyl) ether	-	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
2-Chlorophenol	800	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
1,3-Dichlorobenzene	-	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
1,4-Dichlorobenzene	-	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
Benzyl alcohol			389.4	U	392.7	U	382.8	U	382.8	U	363	U
1,2-Dichlorobenzene	-	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
2-Mehylphenol	100	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
2,2'-oxybis (1-Chloropropane)	-	-	NA		NA		NA	U	NA	U	NA	U
bis(2-Chloroisopropyl)ether	-	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
4-Mehylphenol	900	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
N-Nitoso-di-n-propylamine	-	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
Hexachloroethane	-	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
Nitrobenzene	200	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
Isophorone	4,400	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
2-Nitrophenol	330	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
2,4-Dimenthylphnol	-	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
Benzoic Acid	-	-	1888	U	1904	U	1856		1856		1760	U
bis (2-Chloroethoxy) methane	-	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
2,4-Dichlorophenol	400	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
1,2,4-Trichlorobenzene	-	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
Naphthalene	13,000	-	790		880		47	J	56	J	47	J
4-Chloroaniline	220	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
Hexachlorobutadiene	410	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
4-Chloro-3-Methylphenol	240	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
2-Methylnaphthalene	36,400	-	2000		1300		120	J	120	J	63	J
Hexachlorocyclopentadiene	-	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
2,4,6-Trichlorophenol	-	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
2,4,5-Trichlorophenol	100	-	1888	U	1904	U	1856	U	1856	U	1760	U
2-Chloronaphthalene	-	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
2-Nitroaniline	430	-	1888	U	1904	U	1856	U	1856	U	1760	U
Dimethyl phthalate	2,000	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
Acenaphthylene	50,000	-	389.4	U	392.7	U	11	J	14	J	20	J
2,6-Dinitotoluene	1,000	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
3-Nitroaniline	500	-	1888	U	1904	U	1856	U	1856	U	1760	U
Acenaphthene	50,000	-	389.4	U	392.7	U	29	J	31	J	30	J
2,4-Dinitrophenol	200	-	1888	U	1904	U	1856	U	1856	U	1760	U
4-Nitrophenol	100	-	1888	U	1904	U	1856	U	1856	U	1760	U
Dibenzofuran	6,200	-	370	J	540		34	J	35	J	38	J
2,4-Dinitrotoluene	-	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
Diethylphthalate	7,100	-	389.4	U	392.7	U	20	J	14	J	363	U
4-Chlorophenyl-phenylether	-	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
Flourene	50,000	-	1500		1800		45	J	52	J	85	J
4-Nitoaniline	-	-	1888	U	1904	U	1856	U	1856	U	1760	U
4,6-Dinitro-2-methylphenol	-	-	1888	U	1904	U	1856	U	1856	U	1760	U
N-Nitrosodiphenylamine	-	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
4-Bromophenyl-phenylether	-	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
Hexachlorobenzene	410	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
Pentachlorophenol	1,000	-	1888	U	1904	U	1856	U	1856	U	1760	U
Phenanthrene	50,000	-	1600		1800		480		540		400	
Anthracene	50,000	-	380	J	392.7	U	95	J	100	J	92	J
Carbazole	-	-	NA		NA		NA		NA		NA	
Di-n-butylphthalate	8,100	-	389.4	U	392.7	U	72	J	57	J	42	J
Fluoranthene	50,000	200 - 166,000	1000		1900		610		650		440	
Pyrene	50,000	145 - 147,000	1000		1600		810		850		460	
Butylbenzylphthalate	50,000	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
3,3'-Dichlorobenzidine	-	-	778.8	U	785.4	U	765.6	U	765.6	U	726	U
Benzo(a)anthracene	224 or MDL	169 - 59,000	390		510		320	J	400		260	J
Chrysene	400	251 - 640	389.4	U	392.7	U	380	J	470		320	J
bis(2-ethylhexyl) phthalate	50,000	-	1700	J	3800	J	210	J	250	J	130	J
Di-n-octyl phthalate	50,000	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
Benzo (b) fluoranthene	1,100	15,000 - 62,000	290	J	360	J	300	J	420		210	J
Benzo (k) fluoranthene	1,100	300 - 26,000	180	J	270	J	250	J	250	J	180	J
Benzo (a) pyrene	61 or MDL	165 - 220	250	J	320	J	270	J	320	J	230	J
Indeno (1,2,3-cd) pyrene	3,200	8,000 - 61,000	389.4	U	350	J	230	J	170	J	67	J
Dibenz (a,h) anthracene	14 or MDL	-	389.4	U	392.7	U	382.8	U	382.8	U	363	U
Benzo (g,h,i) perylene	50,000	900 - 47,000	230	J	392.7	U	230	J	170	J	60	J

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution

Table 4. Summary of Pesticide and Polychlorinated Compounds in Surficial Soil, Brooklyn Navy Yard
Cogeneration Partners, Building 41 & Utility Routings, 1994

Pesticide Compounds (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (ug/kg)	NYCDEP "Action Levels" Guidance Values (ug/kg)	A2-ENSR-MW2-SS-01 4-6 4/94 ENSR (ug/kg)		A2-ENSR-MW2-SS-02 13-15 4/94 ENSR (ug/kg)		A2-ENSR-MW3-SS-02 13-15 4/94 ENSR (ug/kg)		A2-SB1-SS-01 4-6 4/94 ENSR (ug/kg)		A2-SB2-SS-01 4-6 4/94 ENSR (ug/kg)		A3-SB2-SS-01 2-4 4/94 ENSR (ug/kg)		A3-SB2-SS-02 4-6 4/94 ENSR (ug/kg)	
alpha-BHC	110	-	6.5	U	5.5	U	38	U	1,800	U	3.6	U	5.4	U	19	U
beta-BHC	200	-	6.5	U	5.5	U	38	U	1,800	U	3.6	U	5.4	U	19	U
delta-BHC	300	-	6.5	U	5.5	U	38	U	1,800	U	3.6	U	5.4	U	19	U
gamma -BHC(Lindane)	60	-	6.5	U	5.5	U	38	U	1,800	U	3.6	U	5.4	U	19	U
Heptachlor	100	-	6.5		5.5	U	38	U	1,800	U	3.6	U	5.4	U	19	U
Aldrin	41	-	6.5		5.5	U	38	U	1,800	U	3.6	U	5.4	U	19	U
Heptachlor expoxide	20	-	6.5		5.5	U	38	U	1,800	U	3.6	U	5.4	U	19	U
Endosulfan I	900	-	6.5	U	5.5	U	38	U	1,800	U	3.6	U	5.4	U	19	U
Dieldrin	44	-	13	U	11	U	73	U	3,600	U	6.9	U	10	U	37	U
4,4'-DDE	2,100	-	13	U	11	U	73	U	3,600	U	6.9	U	29	P	37	U
Endrin	100	-	37	PY	28	PY	73	U	3,600	U	7.8	PY	28	PY	37	U
Endosulfan II	900	-	20	PY	54	Y	73	U	4,500	U	6.9	U	32	PY	37	U
4-4'-DDD	2,900	-	13	U	11	U	82	D	3,600	U	6.9	U	10	U	81	DP
Endosulfan sulfate	1,000	-	13	U	11	U	73	U	3,600	U	6.9	U	10	U	37	U
4,4'-DDT	2,100	-	65	PY	12	PY	280	D	3,600	U	11	Y	56	PY	190	D
Methoxychlor	<10,000	-	65	U	55	U	380	U	18,000	U	36	U	54	U	190	U
Endrin ketone	-	-	25	PY	21	PY	73	U	3,600	U	6.9	U	17	PY	37	U
Endrin aldehyde	-	-	58	PY	61	PY	73	U	3,600	U	7.5	PY	56	PY	37	U
alpha-Chlordane	-	-	6.5	U	6.3	P	38	U	1,800	U	3.6	U	10	P	62	DP
gamma-Chlordane	540	-	6.5	U	6.9	PY	38	U	1,800	U	3.6	U	5.4	U	60	D
Toxaphene	-	-	650	U	550	U	3,800	U	180,000	U	360	U	540	U	1,900	U
Polychlorinated Biphenyls(PCBs) (Concentration in ug/kg)																
Aroclor-1016	-	-	130	U	110	U	730	U	36,000	U	69	U	100	U	370	U
Aroclor-1221	-	-	250	U	220	U	1,500	U	73,000	U	140	U	210	U	760	U
Aroclor-1232	-	-	130	U	110	U	730	U	36,000	U	69	U	100	U	370	U
Aroclor-1242	-	-	130	U	110	U	730	U	36,000	U	69	U	100	U	370	U
Aroclor-1248	-	-	1,500		110	U	730	U	36,000	U	69	U	100	U	370	U
Aroclor-1254	-	-	130	U	110	U	730	U	36,000	U	69	U	100	U	370	U
Aroclor-1260	-	-	1,200		1,400	U	730	U	130,000	CD	120		1,300		370	U

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P - Pesticide/Aroclor target analyte when there is a >25% difference detected Conc. between GC columns
Y - Several pesticide peaks "detected" in samples SS-1, 2, 4, 5, 6, 8, and 9 are most likely due to Arochlor conditions

Table 4. Summary of Pesticide and Polychlorinated Compounds in Surficial Soil, Brooklyn Navy Yard
Cogeneration Partners, Building 41 & Utility Routings, 1994

			A3-SB3-SS-01		A3-SB3-SS-02		A4-SB1-SS-01		A4-SB2-SS-02		A4-SB2-SS-01		A4-SB2-SS-02		A4-SB3-SS-01	
	Recommended	NYCDEP	2-4		4-6		2-4		4-6		2-4		4-6		2-4	
	Soil Cleanup	"Action Levels"	4/94		4/94		4/94		4/94		4/94		4/94		4/94	
Pesticide Compounds	Objectives	Guidance Values	ENSR		ENSR		ENSR		ENSR		ENSR		ENSR		ENSR	
(Concentration in ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)		(ug/kg)		(ug/kg)		(ug/kg)		(ug/kg)		(ug/kg)		(ug/kg)	
alpha-BHC	110	-	3.9	U	2	U	2.3	U	2.3	U	16	U	2.3	U	4.1	U
beta-BHC	200	-	3.9	U	2	U	2.3	U	2.3	U	16	U	1.7	J	4.1	U
delta-BHC	300	-	3.9	U	2	U	1.5	J	5.3	J	16	U	1.3	J	4.1	U
gamma -BHC(Lindane)	60	-	3.9	U	0.77	J	2.3	U	2.3	U	16	U	2.3	U	4.1	U
Heptachlor	100	-	0.48	J	2	U	0.44	J	0.3	J	2.6	J	2.3	U	1.9	J
Aldrin	41	-	3.9	U	2	U	2.3	U	2.3	U	16	U	2.3	U	4.1	U
Heptachlor expoxide	20	-	1.4	J	0.82	J	1.3	J	0.68	J	16	U	2.3	U	3.4	J
Endosulfan I	900	-	3.9	U	2	U	2.3	U	2.3	U	16	U	2.3	U	4.1	U
Dieldrin	44	-	7.5	U	3.9	U	4.4	U	4.4	U	32	U	4.4	U	8	U
4,4'-DDE	2,100	-	1.9	J	0.45	J	0.82	J	4.4	U	5.2	J	4.4	U	8	U
Endrin	100	-	7.5	U	3.9	U	4.4	U	4.4	U	32	U	4.4	U	8	U
Endosulfan II	900	-	7.5	U	3.9	U	4.4	U	4.4	U	32	U	4.4	U	8	U
4-4'-DDD	2,900	-	7.5	U	3.9	U	4.4	U	4.4	U	32	U	4.4	U	8	U
Endosulfan sulfate	1,000	-	7.5	U	3.9	U	4.4	U	4.4	U	32	U	4.4	U	8	U
4,4'-DDT	2,100	-	7.5	U	3.9	U	0.62	J	4.4	U	32	Y	4.4	U	0.78	J
Methoxychlor	<10,000	-	39	U	20	U	23	U	2.7	J	160	U	23	U	41	U
Endrin ketone	-	-	17	J	3.9	U	1.7	J	4.4	U	32	U	4.4	U	8	U
Endrin aldehyde	-	-	7.5	U	0.76	J	0.92	J	4.4	U	16	PY	4.4	U	1.6	J
alpha-Chlordane	-	-	3.9	U	2	U	2.3	U	2.3	U	16	U	2.3	P	4.1	U
gamma-Chlordane	540	-	3.9	U	2	U	2.3	U	2.3	U	16	U	2.3	U	0.68	J
Toxaphene	-	-	390	U	220	U	230	U	230	U	1600	U	230	U	410	U
Polychlorinated Biphenyls(PCBs) (Concentration in ug/kg)																
Aroclor-1016	-	-	75	U	39	U	44	U	44	U	320	U	44	U	80	U
Aroclor-1221	-	-	150	U	80	U	88	U	90	U	640	U	89	U	160	U
Aroclor-1232	-	-	75	U	39	U	44	U	44	U	320	U	44	U	80	U
Aroclor-1242	-	-	75	U	39	U	44	U	44	U	320	U	44	U	80	U
Aroclor-1248	-	-	75	U	39	U	44	U	44	U	320	U	44	U	80	U
Aroclor-1254	-	-	75	U	39	U	44	U	44	U	320	U	44	U	80	U
Aroclor-1260	-	-	75	U	39	U	44	U	44	U	320		44	U	80	U

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Table 4. Summary of Pesticide and Polychlorinated Compounds in Surficial Soil, Brooklyn Navy Yard

Cogeneration Partners, Building 41 & Utility Routings, 1994

			A4-SB3-SS-02		A5-SB1-SS-01		A5-SB2-SS-01		A5-SB3-SS-01		A5-SB4-SS-01		A5-SB5-SS-01		A5-SB6-SS-01	
	Recommended	NYCDEP	4-6		4-6		4-6		4-6		4-6		4-6		4-6	
	Soil Cleanup	"Action Levels"	4/94		4/94		4/94		4/94		4/94		4/94		4/94	
Pesticide Compounds	Objectives	Guidance Values	ENSR		ENSR		ENSR		ENSR		ENSR		ENSR		ENSR	
(Concentration in ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)		(ug/kg)		(ug/kg)		(ug/kg)		(ug/kg)		(ug/kg)		(ug/kg)	
alpha-BHC	110	-	2.5	U	2.3	U	11	U	2.1	U	4	U	1.9	U	2	U
beta-BHC	200	-	0.86	J	2.3	U	11	U	2.1	U	4	U	1.9	U	2	U
delta-BHC	300	-	2.5	U	2.3	U	11	U	0.31	J	4	U	1.9	U	2	U
gamma -BHC(Lindane)	60	-	0.26	J	2.3	U	11	U	2.1	U	4	U	1.9	U	2	U
Heptachlor	100	-	2.5	U	2.3	U	11	U	2.1	U	4	U	1.9	U	0.88	J
Aldrin	41	-	2.5	U	1.2	J	2.6	J	2.1	U	2.9	J	1.9	U	1.4	J
Heptachlor expoxide	20	-	2.5	U	1	J	2	J	2.1	U	1.5	J	0.34	J	0.86	J
Endosulfan I	900	-	2.5	U	2.3	U	11	U	2.1	U	4	U	1.9	U	2	U
Dieldrin	44	-	4.8	U	4.4	U	21	U	4	U	7.8	U	3.7	U	3.8	U
4,4'-DDE	2,100	-	4.8	U	0.46	J	21	U	4	U	7.8	U	3.7	U	3.8	U
Endrin	100	-	4.8	U	4.4	U	21	U	4	U	7.8	U	3.7	U	3.8	U
Endosulfan II	900	-	4.8	U	4.4	U	21	U	4	U	7.8	U	3.7	U	3.8	U
4-4'-DDD	2,900	-	4.8	U	4.4	U	21	D	4	U	7.8	U	3.7	U	3.8	U
Endosulfan sulfate	1,000	-	4.8	U	4.4	U	21	U	4	U	7.8	U	3.7	U	3.8	U
4,4'-DDT	2,100	-	4.8	U	4.4	U	21	D	4	U	7.8	U	3.7	U	3.8	U
Methoxychlor	<10,000	-	25	U	23	U	110	U	21	U	40	U	19	U	20	U
Endrin ketone	-	-	4.8	U	4.4	U	21	U	4	U	7.8	U	0.98	J	1.9	J
Endrin aldehyde	-	-	4.8	U	1.4	J	21	U	4	U	7.8	U	3.7	U	3.8	U
alpha-Chlordane	-	-	2.5	U	2.3	U	11	U	2.1	U	4	U	1.9	U	2	U
gamma-Chlordane	540	-	2.5	U	2.3	U	11	U	2.1	U	4	U	1.9	U	2	U
Toxaphene	-	-	250	U	230	U	1,100	U	210	U	400	U	190	U	200	U
Polychlorinated Biphenyls(PCBs)																
(Concentration in ug/kg)																
Aroclor-1016	-	-	48	U	44	U	210	U	40	U	78	U	37	U	38	U
Aroclor-1221	-	-	97	U	89	U	420	U	82	U	160	U	76	U	78	U
Aroclor-1232	-	-	48	U	44	U	210	U	40	U	78	U	37	U	38	U
Aroclor-1242	-	-	48	U	44	U	210	U	40	U	78	U	37	U	38	U
Aroclor-1248	-	-	48	U	44	U	210	U	40	U	78	U	37	U	38	U
Aroclor-1254	-	-	48	U	44	U	210	U	40	U	78	U	37	U	38	U
Aroclor-1260	-	-	48	U	44	U	210	U	40	CD	78		37	U	38	U

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Table 4. Summary of Pesticide and Polychlorinated Compounds in Surficial Soil, Brooklyn Navy Yard
Cogeneration Partners, Building 41 & Utility Routings, 1994

Pesticide Compounds (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (ug/kg)	NYCDEP "Action Levels" Guidance Values (ug/kg)	A5-SB7-SS-01 4-6 4/94 ENSR (ug/kg)		A5-SB7-SS-01* 4-6 4/94 ENSR (ug/kg)		A5-SB9-SS-01 4-6 4/94 ENSR (ug/kg)		A5-SB10-SS-01 4-6 4/94 ENSR (ug/kg)		A5-SB13-SS-01 4-6 4/94 ENSR (ug/kg)		A5-SB15-SS-01 4-6 4/94 ENSR (ug/kg)		A5-SB16-SS-01 4-6 4/94 ENSR (ug/kg)	
alpha-BHC	110	-	0.63	J	17	U	2	U	2	U	2	U	1.9	U	3.8	U
beta-BHC	200	-	4	U	17	U	2	U	2	U	2	U	1.9	U	3.8	U
delta-BHC	300	-	4.4	U	17	U	2	U	2	J	2	U	1.9	U	3.8	U
gamma -BHC(Lindane)	60	-	4	U	17	U	2	U	2	U	2	U	1.9	U	3.8	U
Heptachlor	100	-	4	U	9.8	J	2	U	2	U	2	U	1.9	U	3.8	U
Aldrin	41	-	0.63	J	5.1	J	2	U	2	U	2	J	1.2	J	3.8	U
Heptachlor expoxide	20	-	4	U	17	U	0.32	J	2	U	2	J	0.55	J	1.1	J
Endosulfan I	900	-	4	U	17	U	2	U	2	U	2	U	1.9	U	3.8	U
Dieldrin	44	-	7.9	U	34	U	3.8	U	4	U	3.9	U	3.7	U	7.4	U
4,4'-DDE	2,100	-	7.9	U	34	U	0.42	J	4	U	3.9	U	3.7	U	7.4	U
Endrin	100	-	7.9	U	34	U	3.8	U	4	U	3.9	U	3.7	U	7.4	U
Endosulfan II	900	-	7.9	U	34	U	3.8	U	4	U	3.9	U	3.7	J	2.1	J
4-4'-DDD	2,900	-	7.9	U	4.1	J	3.8	U	4	U	3.9	U	3.7	U	7.4	U
Endosulfan sulfate	1,000	-	7.9	U	34	U	3.8	U	4	U	3.9	U	3.7	U	7.4	U
4,4'-DDT	2,100	-	7.9	U	34	U	3.8	U	4	U	3.9	U	3.7	U	7.4	U
Methoxychlor	<10,000	-	40	U	170	U	20	U	20	U	20	U	19	U	38	U
Endrin ketone	-	-	7.9	U	34	U	3.8	U	4	U	3.9	U	3.7	U	7.4	U
Endrin aldehyde	-	-	5.8	J	9	J	3.8	U	4	U	3.9	U	3.7	U	7.4	U
alpha-Chlordane	-	-	4	U	1.5	J	2	U	2	U	2	U	1.9	U	3.8	U
gamma-Chlordane	540	-	4	U	17	U	2	U	2	U	2	U	1.9	U	3.8	U
Toxaphene	-	-	400	U	1700	U	200	U	200	U	200	U	190	U	380	U
Polychlorinated Biphenyls(PCBs) (Concentration in ug/kg)																
Aroclor-1016	-	-	79	U	340	U	38	U	40	U	39	U	74	U	37	U
Aroclor-1221	-	-	160	U	690	U	78	U	81	U	80	U	150	U	76	U
Aroclor-1232	-	-	79	U	340	U	38	U	40	U	39	U	74	U	37	U
Aroclor-1242	-	-	79	U	340	U	38	U	40	U	39	U	74	U	37	U
Aroclor-1248	-	-	79	U	340	U	38	U	40	U	39	U	74	U	37	U
Aroclor-1254	-	-	79	U	340	U	38	U	40	U	39	U	74	U	37	U
Aroclor-1260	-	-	79	U	340	U	38	U	40	CD	19	J	74	U	37	U

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Cogeneration Partners, Building 41 & Utility Routings, 1994

Pesticide Compounds (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (ug/kg)	NYCDEP "Action Levels" Guidance Values (ug/kg)	A5-SB17-SS-01 4-6 4/94 ENSR (ug/kg)		A5-SB17-SS-01* 4-6 4/94 ENSR (ug/kg)		A5-SB18-SS-01 4-6 4/94 ENSR (ug/kg)		A5-SB20-SS-01 4-6 4/94 ENSR (ug/kg)		A5-SB21-SS-01 4-6 4/94 ENSR (ug/kg)		A5-SB22-SS-01 4-6 4/94 ENSR (ug/kg)		A5-SB23-SS-01 4-6 4/94 ENSR (ug/kg)	
alpha-BHC	110	-	1.9	U	1.9	U	2.5	U	2	U	1.9	U	2.2	U	1.8	U
beta-BHC	200	-	1.9	U	1.9	U	2.5	U	2	U	1.9	U	2.2	U	1.8	U
delta-BHC	300	-	1.9	U	1.9	U	2.5	U	2	J	1.9	U	2.2	U	1.8	U
gamma -BHC(Lindane)	60	-	1.9	U	1.9	U	2.5	U	2	U	1.9	U	2.2	U	1.8	U
Heptachlor	100	-	1.9	U	1.9	U	2.5	U	2	U	1.9	U	2.2	U	1.8	U
Aldrin	41	-	1.9	J	1.9	U	2.5	U	2	U	1.9	J	0.83	J	1.8	U
Heptachlor expoxide	20	-	1.9	U	1.9	U	2.5	J	2	U	1.9	J	2.2	J	1.8	J
Endosulfan I	900	-	1.9	U	1.9	U	2.5	U	2	U	1.9	U	2.2	U	1.8	U
Dieldrin	44	-	3.7	U	3.7	U	4.9	U	3.9	U	3.7	U	4.2	U	3.5	U
4,4'-DDE	2,100	-	3.7	U	3.7	U	4.9	J	3.9	U	3.7	U	4.2	U	3.5	U
Endrin	100	-	3.7	U	3.7	U	4.9	U	3.9	U	3.7	U	4.2	U	3.5	U
Endosulfan II	900	-	3.7	U	3.7	U	4.9	U	3.9	U	3.7	U	4.2	J	3.5	J
4-4'-DDD	2,900	-	3.7	U	3.7	J	4.9	U	3.9	U	3.7	U	4.2	U	3.5	U
Endosulfan sulfate	1,000	-	3.7	U	3.7	U	4.9	U	3.9	U	3.7	U	4.2	U	3.5	U
4,4'-DDT	2,100	-	3.7	U	3.7	U	4.9	U	3.9	U	3.7	U	4.2	U	3.5	U
Methoxychlor	<10,000	-	19	U	19	U	25	U	20	U	19	U	22	U	18	U
Endrin ketone	-	-	3.7	U	3.7	U	4.9	U	3.9	U	3.7	U	4.2	U	3.5	U
Endrin aldehyde	-	-	3.7	J	3.7	U	4.9	U	3.9	U	3.7	U	4.2	U	3.5	U
alpha-Chlordane	-	-	1.9	U	1.9	U	2.5	U	2	U	1.9	U	2.2	U	1.8	U
gamma-Chlordane	540	-	1.9	U	1.9	U	2.5	U	2	U	1.9	U	2.2	U	1.8	U
Toxaphene	-	-	190	U	190	U	250	U	200	U	190	U	220	U	180	U
Polychlorinated Biphenyls(PCBs) (Concentration in ug/kg)																
Aroclor-1016	-	-	37	U	37	U	49	U	39	U	37	U	42	U	35	U
Aroclor-1221	-	-	76	U	76	U	100	U	79		76	U	85	U	72	U
Aroclor-1232	-	-	37	U	37	U	49	U	39	U	37	U	42	U	35	U
Aroclor-1242	-	-	37	U	37	U	49	U	39	U	37	U	42	U	35	U
Aroclor-1248	-	-	37	U	37	U	49	U	39	U	37	U	42	U	35	U
Aroclor-1254	-	-	37	U	37	U	49	U	39	U	37	U	42	U	35	U
Aroclor-1260	-	-	37	U	37	U	49	U	39	U	37	U	42	U	35	U

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Table 4. Summary of Pesticide and Polychlorinated Compounds in Surficial Soil, Brooklyn Navy Yard
Cogeneration Partners, Building 41 & Utility Routings, 1994

Pesticide Compounds (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (ug/kg)	NYCDEP "Action Levels" Guidance Values (ug/kg)	DD-1 0-4 7/93 ENSR (ug/kg)	DD-2 0-4 7/93 ENSR (ug/kg)	DD-3 1-3 7/93 ENSR (ug/kg)	DD-4 2-4 7/93 ENSR (ug/kg)	DD-4* 2-4 7/93 ENSR (ug/kg)	DD5 0-2 7/93 ENSR (ug/kg)	DD5 4-6 7/93 ENSR (ug/kg)
alpha-BHC	110	-	NA	NA	NA	NA	NA	NA	NA
beta-BHC	200	-	NA	NA	NA	NA	NA	NA	NA
delta-BHC	300	-	NA	NA	NA	NA	NA	NA	NA
gamma -BHC(Lindane)	60	-	NA	NA	NA	NA	NA	NA	NA
Heptachlor	100	-	NA	NA	NA	NA	NA	NA	NA
Aldrin	41	-	NA	NA	NA	NA	NA	NA	NA
Heptachlor expoxide	20	-	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	900	-	NA	NA	NA	NA	NA	NA	NA
Dieldrin	44	-	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	2,100	-	NA	NA	NA	NA	NA	NA	NA
Endrin	100	-	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	900	-	NA	NA	NA	NA	NA	NA	NA
4-4'-DDD	2,900	-	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	1,000	-	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	2,100	-	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	<10,000	-	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	-	-	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	-	-	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	-	-	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	540	-	NA	NA	NA	NA	NA	NA	NA
Toxaphene	-	-	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls(PCBs) (Concentration in ug/kg)									
Aroclor-1016	-	-	104 U	120 U	96 U	96 U	96 U	96 U	88 U
Aroclor-1221	-	-	104 U	120 U	96 U	96 U	96 U	96 U	88 U
Aroclor-1232	-	-	104 U	120 U	96 U	96 U	96 U	96 U	88 U
Aroclor-1242	-	-	104 U	120 U	96 U	96 U	96 U	96 U	88 U
Aroclor-1248	-	-	104 U	120 U	96 U	96 U	96 U	96 U	88 U
Aroclor-1254	-	-	208 U	240 U	192 U	192 U	192 U	192 U	176 U
Aroclor-1260	-	-	380	970 U	192 U	192 U	192 U	192 U	176 U

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
C - Pesticide Compound where the identification has been successfully confirmed
P - Pesticide/Aroclor target analyte when there is a >25% difference detected Conc. between GC columns
Y - Several pesticide peaks "detected" in samples SS-1, 2, 4, 5, 6, 8, and 9 are most likely due to Arochlor conditions

Tabel 5. Summary of Toxicity Characteristic Metals in Soil, Brooklyn Navy Yard, New York.
Cogeneration Partners, Building 41 & Utility Routings, 1994

Analytes	Regulatory Level* (ug/kg)	A1-WC-01 4/94 ENSER (ug/kg)	A1-SR-WC-01 4/94 ENSER (ug/kg)	A2-ENSR-MW3-WC-01 4/94 ENSER (ug/kg)	A2-SB1-WC-01 4/94 ENSER (ug/kg)	A2-SB2-WC-01 4/94 ENSER (ug/kg)	A3-WC-01 4/94 ENSER (ug/kg)	A4-WC-01 4/94 ENSER (ug/kg)
Arsenic	5000	4 B	3 B	3 B	22	4 B	5 B	9 B
Barium	100000	656	512	1010	719	537	1140	723
Cadmium	1000	5 U	5 U	6.3	7	5 U	5 U	6.5
Chromium	5000	10 U	10 U	28.8	10 U	10 U	10 U	10 U
Lead	5000	180	371	219	187	47.5	232	979
Mercury	200	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Selenium	1000	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Silver	5000	10 U	10 U	10 U	10 U	10 U	10 U	10 U

Analytes	Regulatory Level* (ug/kg)	A5-WC-01 4/94 ENSER (ug/kg)	A5-WC-02 4/94 ENSER (ug/kg)	A5-WC-03 4/94 ENSER (ug/kg)	A5-WC-03A 4/94 ENSER (ug/kg)	A5-WC-04 4/94 ENSER (ug/kg)	A5-WC-05 4/94 ENSER (ug/kg)	A5-WC-06 4/94 ENSER (ug/kg)
Arsenic	5000	8 B	3 U	3 U	3 U	3 U	5 B	3 U
Barium	100000	723	875	796	570	672	660	389
Cadmium	1000	11	49	197	6	5 U	5.5	5 U
Chromium	5000	10 U	10	10 U	10	10 U	10 U	10 U
Lead	5000	1650	1470	348	251	135	120	30 U
Mercury	200	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Selenium	1000	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Silver	5000	0.6 U	0.6 U	0.6 U	0.6 U	10 U	10 U	10 U

Analytes	Regulatory Level* (ug/kg)	A5-WC-07 4/94 ENSER (ug/kg)	A5-GP-WC-01 4/94 ENSER (ug/kg)
Arsenic	5000	9 B	3 U
Barium	100000	671	696
Cadmium	1000	5 U	46
Chromium	5000	10 U	10 U
Lead	5000	84.9	4140
Mercury	200	0.2 U	0.2 U
Selenium	1000	3 U	3 U
Silver	5000	10 U	0.6 U

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
B - Analyte found in associated blank as well as sample
* - 40 CFR 261.21 through 261.24

Table 6. Summary of Toxicity Characteristic Volatile Organic Compounds in Soil, Brooklyn Navy Yard, New York.
Cogeneration Partners, Building 41 & Utility Routings, 1994

Volatile Organic Compounds	Regulatory Level* (ug/kg)	A1-WC-01 4/94 ENSER (ug/kg)	A1-WC-01-RE 4/94 ENSER (ug/kg)	A1-SR-WC-01 4/94 ENSER (ug/kg)	A1-SR-WC-01-RE 4/94 ENSER (ug/kg)	A2-ENSR-MW3-WC-01 4/94 ENSER (ug/kg)	A2-SB1-WC-01 4/94 ENSER (ug/kg)	A2-SB2-WC-01 4/94 ENSER (ug/kg)
Vinyl Chloride	200	100 U	100 U	100 U	100 U	100 U	12 J	100 U
1,1-Dichloroethene	700	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Chloroform	6000	50 U	50 U	50 U	50 U	50 U	50 U	50 U
1,2-Dichloroethane	500	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2-Butanone	200000	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Carbon Tetrachloride	500	50 U	50 U	50 U	50 U	50 U	16 J	50 U
Trichloroethene	500	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Benzene	500	50 U	50 U	50 U	50 U	50 U	15 J	50 U
Tetrachloroethene	700	50 U	50 U	50 U	50 U	50 U	16 J	50 U
Chlorobenzene	100000	50 U	50 U	50 U	50 U	50 U	50 U	50 U

Volatile Organic Compounds	Regulatory Level* (ug/kg)	A3-SB1-SS-01 4/94 ENSER (ug/kg)	A3-SB1-SS-02 4/94 ENSER (ug/kg)	A3-WC-01 4/94 ENSER (ug/kg)	A4-WC-01 4/94 ENSER (ug/kg)	A5-WC-01 4/94 ENSER (ug/kg)	A5-WC-01-RE 4/94 ENSER (ug/kg)	A5-WC-04 4/94 ENSER (ug/kg)
Vinyl Chloride	200	100 U	100 U	100 U	100 U	100 U	100 U	100 U
1,1-Dichloroethene	700	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Chloroform	6000	50 U	50 U	50 U	50 U	50 U	50 U	50 U
1,2-Dichloroethane	500	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2-Butanone	200000	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Carbon Tetrachloride	500	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Trichloroethene	500	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Benzene	500	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Tetrachloroethene	700	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Chlorobenzene	100000	50 U	50 U	50 U	50 U	50 U	50 U	50 U

Volatile Organic Compounds	Regulatory Level* (ug/kg)	A5-WC-05 4/94 ENSER (ug/kg)	A5-WC-05-RE 4/94 ENSER (ug/kg)	A5-WC-06 4/94 ENSER (ug/kg)	A5-WC-06-RE 4/94 ENSER (ug/kg)	A5-WC-07 4/94 ENSER (ug/kg)	A5-WC-07-RE 4/94 ENSER (ug/kg)	GP-WC-01 4/94 ENSER (ug/kg)
Vinyl Chloride	200	100 U	100 U	100 U	100 U	100 U	100 U	100 U
1,1-Dichloroethene	700	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Chloroform	6000	50 U	50 U	50 U	50 U	50 U	50 U	50 U
1,2-Dichloroethane	500	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2-Butanone	200000	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Carbon Tetrachloride	500	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Trichloroethene	500	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Benzene	500	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Tetrachloroethene	700	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Chlorobenzene	100000	50 U	50 U	50 U	50 U	50 U	50 U	50 U

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
B - Analyte found in associated blank as well as sample
* - 40 CFR 261.21 through 261.24

Table 7. Summary of Toxicity Characteristic Semivolatile Organic Compounds in Soil, Brooklyn Navy Yard, New York.
Cogeneration Partners, Building 41 & Utility Routings, 1994

Semivolatile Organic Compounds	Regulatory Level* (ug/kg)	A1-WC-01 4/94 ENSER (ug/kg)		A1-SR-WC-01 4/94 ENSER (ug/kg)		A2-ENSR-MW3-WC-01 4/94 ENSER (ug/kg)		A2-SB1-WC-01 4/94 ENSER (ug/kg)		A2-SB2-WC-01 4/94 ENSER (ug/kg)		A3-SB1-SS-01 4/94 ENSER (ug/kg)		A3-SB1-SS-02 4/94 ENSER (ug/kg)	
Pyridine	5000	50	U	50	U	50	U	50	U	50	U	50	U	50	U
1,4-Dichlorobenzene	7500	50	U	50	U	50	U	50	U	50	U	50	U	50	U
2-Mehylphenol	200000	50	U	50	U	50	U	50	U	50	U	50	U	50	U
3 & 4-Methylphenol	200000	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Hexachloroethane	3000	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Nitrobenzene	2000	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Hexachlorobutadiene	500	50	U	50	U	50	U	50	U	50	U	50	U	50	U
2,4,6-Trichlorophenol	2000	50	U	50	U	50	U	50	U	50	U	50	U	50	U
2,4,5-Trichlorophenol	1000	250	U	250	U	250	U	250	U	250	U	250	U	250	U
2,4-Dinitrotoluene	100	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Hexachlorobenzene	100	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Pentachlorophenol	100000	250	U	250	U	250	U	250	U	250	U	250	U	250	U

Semivolatile Organic Compounds	Regulatory Level* (ug/kg)	A3-WC-01 4/94 ENSER (ug/kg)		A4-WC-01 4/94 ENSER (ug/kg)		A5-WC-01 4/94 ENSER (ug/kg)		A5-WC-04 4/94 ENSER (ug/kg)		A5-WC-05 4/94 ENSER (ug/kg)		A5-WC-06 4/94 ENSER (ug/kg)		A5-WC-07 4/94 ENSER (ug/kg)	
Pyridine	5000	50	U	50	U	50	U	50	U	50	U	50	U	50	U
1,4-Dichlorobenzene	7500	50	U	50	U	50	U	50	U	50	U	50	U	50	U
2-Mehylphenol	200000	50	U	50	U	50	U	50	U	50	U	50	U	50	U
3 4-Methylphenol	200000	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Hexachloroethane	3000	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Nitrobenzene	2000	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Hexachlorobutadiene	500	50	U	50	U	50	U	50	U	50	U	50	U	50	U
2,4,6-Trichlorophenol	2000	50	U	50	U	50	U	50	U	50	U	50	U	50	U
2,4,5-Trichlorophenol	1000	250	U	250	U	250	U	250	U	250	U	250	U	250	U
2,4-Dinitrotoluene	100	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Hexachlorobenzene	100	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Pentachlorophenol	100000	250	U	250	U	250	U	250	U	250	U	250	U	250	U

Semivolatile Organic Compounds	Regulatory Level* (ug/kg)	A5-GP-WC-01 4/94 ENSER (ug/kg)	
Pyridine	5000	50	U
1,4-Dichlorobenzene	7500	50	U
2-Mehylphenol	200000	50	U
3 4-Methylphenol	200000	50	U
Hexachloroethane	3000	50	U
Nitrobenzene	2000	50	U
Hexachlorobutadiene	500	50	U
2,4,6-Trichlorophenol	2000	50	U
2,4,5-Trichlorophenol	1000	250	U
2,4-Dinitrotoluene	100	50	U
Hexachlorobenzene	100	50	U
Pentachlorophenol	100000	250	U

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
B - Analyte found in associated blank as well as sample
* - 40 CFR 261.21 through 261.24

Table 8. Summary of Toxicity Characteristic Pesticides in Soil, Brooklyn Navy Yard, New York.
Cogeneration Partners, Building 41 & Utility Routings, 1994

Pesticides	Regulatory Level* (ug/kg)	A1-WC-01 4/94 ENSER (ug/kg)		A1-SR-WC-01 4/94 ENSER (ug/kg)		A2-ENSR-MW3-WC-01 4/94 ENSER (ug/kg)		A2-SB1-WC-01 4/94 ENSER (ug/kg)		A2-SB2-WC-01 4/94 ENSER (ug/kg)		A3-SB1-SS-01 4/94 ENSER (ug/kg)		A3-SB1-SS-02 4/94 ENSER (ug/kg)	
gamma-BHC (Lindane)	0.4	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Chlordane	0.03	0.013	U	0.013	U	0.013	U	0.013	U	0.013	U	0.013	U	0.013	U
Endrin	--	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Heptachlor	0.008	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Heptachlor epoxide	0.008	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Methoxychlor	10	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Toxaphene	0.5	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U

Pesticides	Regulatory Level* (ug/kg)	A3-WC-01 4/94 ENSER (ug/kg)		A4-WC-01 4/94 ENSER (ug/kg)		A5-WC-01 4/94 ENSER (ug/kg)		A5-WC-04 4/94 ENSER (ug/kg)		A5-WC-05 4/94 ENSER (ug/kg)		A5-WC-06 4/94 ENSER (ug/kg)		A5-WC-07 4/94 ENSER (ug/kg)	
gamma-BHC (Lindane)	0.4	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Chlordane	0.03	0.013	U	0.013	U	0.013	U	0.013	U	0.013	U	0.013	U	0.013	U
Endrin	--	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Heptachlor	0.008	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Heptachlor epoxide	0.008	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Methoxychlor	10	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Toxaphene	0.5	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U

Pesticides	Regulatory Level* (ug/kg)	A5-GP-WC-01 4/94 ENSER (ug/kg)	
gamma-BHC (Lindane)	0.4	0.001	U
Chlordane	0.03	0.013	U
Endrin	--	0.001	U
Heptachlor	0.008	0.001	U
Heptachlor epoxide	0.008	0.001	U
Methoxychlor	10	0.001	U
Toxaphene	0.5	0.01	U

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
B - Analyte found in associated blank as well as sample
* - 40 CFR 261.21 through 261.24

Table 9. Summary of Ignitability, Corrosivity, and Reactivity in Soil, Brooklyn Navy Yard, New York.
Cogeneration Partners, Building 41 & Utility Routings, 1994

Analytes	Regulatory Level* (ug/kg)	A1-WC-01 4/94 ENSER (ug/kg)		A1-SR-WC-01 4/94 ENSER (ug/kg)		A2-ENSR-MW3-WC-01 4/94 ENSER (ug/kg)		A2-SB1-WC-01 4/94 ENSER (ug/kg)		A2-SB2-WC-01 4/94 ENSER (ug/kg)		A3-WC-01 4/94 ENSER (ug/kg)		A4-WC-01 4/94 ENSER (ug/kg)	
Reactivity-Sulfide (mg/kg)	500	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Reactivity-Cyanide (mg/kg)	250	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Leachable pH (standard units)	<2 or >12.5	11.62		9.35		10.53		8.14		9.12		10.48		7.4	
Flashpoint (F)	<140	>200		>200		>200		>200		>200		>200		>200	

Analytes	Regulatory Level* (ug/kg)	A5-WC-01 4/94 ENSER (ug/kg)		A5-WC-02 4/94 ENSER (ug/kg)		A5-WC-03 4/94 ENSER (ug/kg)		A5-WC-03A 4/94 ENSER (ug/kg)		A5-WC-04 4/94 ENSER (ug/kg)		A5-WC-05 4/94 ENSER (ug/kg)		A5-WC-06 4/94 ENSER (ug/kg)	
Reactivity-Sulfide (mg/kg)	500	10	U	10	U	10	U	10	U	10	U	10	U	18.4	U
Reactivity-Cyanide (mg/kg)	250	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Leachable pH (standard units)	<2 or >12.5	6.51		10.09		9.54		9.87		10.74		9.52		8.43	
Flashpoint (F)	<140	>200		>200		>200		>200		>200		>200		>200	

Analytes	Regulatory Level* (ug/kg)	A5-WC-07 4/94 ENSER (ug/kg)		A5-GP-WC-01 4/94 ENSER (ug/kg)	
Reactivity-Sulfide (mg/kg)	500	10	U	10	U
Reactivity-Cyanide (mg/kg)	250	10	U	10	U
Leachable pH (standard units)	<2 or >12.5	8.49		9.2	
Flashpoint (F)	<140	>200		>200	

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
B - Analyte found in associated blank as well as sample
* - 40 CFR 261.21 through 261.24

138 KV Underground Transmisssion Line
Cogeneration Project 2/1/1996

	Soil Samples			Groundwater Samples	
Description of Location	Sample Designation	No. of Samples Subsurface	Surfical	Sample Designation	No. of Samples
Plymouth St. Between Con-Edison and Red Hook Station	SB01-01 SB01-02 SB02-01 SB02-02 SB03-01 SB03-02	6	0	-	0
Red Hook Station	SB04-01 SB05-01 SB05-02	3	0	-	0
NW Corner of Craneways	SB06-01 SB06-02	2	0	-	0
Western Side of DOT Tow Pound (Along access road to western gate of BNY)	SB07-01 SB07-02 SB08-01 SB08-02 SB09-01 SB09-02	6	0	-	0
Along Perry Ave.	SB10-01 SB10-02 SB11-01	3	0	-	0
Perry Ave. (continued)	SB11-02 SB-11-03 SB12-01 SB12-02 SB13-01 SB13-02	6	0	-	0
Fourth St. East side of Bldg.63	SB14-01 SB14-02 SB14-03	3	0	-	0
New Bldg.132 east side	SB15-01 SB15-02 SB16-01 SB16-02	4	0	-	0
TOTALS	**-**	**33**	**0**	**-**	**0**

Table 1. Soil Analytical Results for 138 KV Transmission Line

Metal Analytes	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP Action Levels (mg/kg)	BNY-SB01-01 (mg/kg)	BNY-SB01-02 (mg/kg)	BNY-SB02-01 (mg/kg)	BNY-SB02-02 (mg/kg)	BNY-SB02-03 (mg/kg)	BNY-SB03-01 (mg/kg)	BNY-SB03-02 (mg/kg)
Aluminum	SB	-	3600	2550	4670	4330	5200	3510	4570
Antinomy	SB	10	2.3 U	1.9 U	2.2 U	1.9 U	2.9 B	1.5 U	2 U
Arsenic	7.5 or SB	9	5.6	1.1 B	1.7 B	2	1.8	2	1.1 B
Barium	300 or SB	400	72.5	41.7	32.9 B	28.7 B	33.6 B	30.1	33.3 B
Beryllium	0.16(HEAST) or SE	1	0.24 B	0.2 B	0.15 B	0.27 B	0.36 B	0.22 B	0.25 B
Cadmium	1 or SB	37	0.37 U	0.3 U	0.35 U	0.31 U	0.4 B	0.16 U	0.32 U
Calcium	SB	-	4660	4150	1050	905	1280	2330	1600
Chromium	10 or SB	46	9.9	5.6	9.9	10.7	10.5	9.3	7.1
Cobalt	30 or SB	-	3.7 B	3.3 B	4.4 B	7.4 B	8.5 B	4.2 B	5.4 B
Copper	25 or SB	170	29.3	8.6	18.7	19.2	26.3	14.9	16.3
Iron	2,000 or SB	-	8610	5440	9150	8540	10400	7720	9070
Lead	SB or **	1000	1540	36.7	23.8	9.9	22.5	50.5	21.9
Magnesium	SB	-	2810	2320	2800	2330	2610	2230	3180
Maganese	SB	-	173	279	111	411	453	158	177
Mercury	0.1	1	9.9	0.05	0.14	0.06	0.05	0.14	0.04
Nickel	13 or SB	100	20.9	10.2	11.6	19.7	23	13.3	15.1
Potassium	SB	-	775 B	666 B	1350	997	1080	986	1680
Selenium	2 or SB	-	0.76 U	0.61 U	0.72 U	0.63 U	0.72 U	0.36 U	0.66 U
Silver	SB	5	0.7 U	0.56 U	0.66 U	0.58 U	0.66 U	0.27 U	0.61 U
Sodium	SB	-	85.8 B	81 B	119 B	182 B	99.9 B	141 B	247 B
Thallium	SB	-	0.52 U	0.42 U	1.1 B	1.3 B	0.5 U	0.44 U	0.46 U
Vanadium	150-SB	-	19.1	7.5 B	16	10.9	14.3	13.9	13.7
Zinc	20 or SB	350	98.6	22.6	27.4	29.4	36.9	51.6	32.3
Cyanide	***	-	0.18 U	0.19 U	0.56	0.19 U	0.18 U	0.12 U	0.21 U

Qualifiers:
mg/kg - Milligram per kilogram
U - Not detected; detection limit shown
B - Analyte Found in associated blank as well as sample
SB - Site Background
* - Soils Concentration found in idustrial settings(McClanahan, 10/3/86)
**- Background levels of lead vary widely. Average background leverls in metropolitan and subban areas average 200 - 500 ppm
*** - Site specific condition should be taken into consideration when establishing clean up levels

Table 1. Soil Analytical Results for 138 KV Transmission Line

Metal Analytes	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP Action Levels (mg/kg)	BNY-SB04-01 (mg/kg)	BNY-SB05-01 (mg/kg)	BNY-SB05-02 (mg/kg)	BNY-SB06-01 (mg/kg)	BNY-SB06-02 (mg/kg)	BNY-SB07-01 (mg/kg)	BNY-SB07-02 (mg/kg)
Aluminum	SB	-	3580	2530	2270	6200	4480	3480	7810
Antinomy	SB	10	1.8 U	1.8 U	2 U	1.9 U	1.9 U	1.9 U	2.1 U
Arsenic	7.5 or SB	9	2.7	1.3 B	0.45 B	5.8	3.6	4	3.4
Barium	300 or SB	400	26.7 B	16.8 B	15.9 B	159	41.9	36	70.8
Beryllium	0.16(HEAST) or SE	1	0.25 B	0.18 B	0.16 B	0.37 B	0.62 B	3.1	0.74 B
Cadmium	1 or SB	37	0.19 U	0.28 U	0.32 U	1.2	0.2 U	0.41 B	0.28 B
Calcium	SB	-	1640	1740	784 B	32500	1880	57200	5850
Chromium	10 or SB	46	11.5	7.2	6.1	14	14.3	38.5	22.4
Cobalt	30 or SB	-	3.8 B	2.6 B	2.7 B	5.1 B	9.4	6.5 B	8.4 B
Copper	25 or SB	170	11.1	11.1	6.5	49.2	38	78.1	23.2
Iron	2,000 or SB	-	7680	6400	5120	12200	17200	12400	18000
Lead	SB or **	1000	25.5	13.6	3.1	543	52	106	9.5
Magnesium	SB	-	1540	1050	1070	4270	2420	30000	5460
Maganese	SB	-	163	104	120	226	380	192	474
Mercury	0.1	1	0.1	0.12	0.05	0.38	0.03 U	0.05	0.03 U
Nickel	13 or SB	100	11.4	7.3	7	18.5	28.4	39.3	31
Potassium	SB	-	610 B	487 B	318 B	1100	771 B	758 B	1960
Selenium	2 or SB	-	0.46 B	0.58 U	0.65 U	0.44 U	0.67 B	0.44 U	0.48 U
Silver	SB	5	0.34 B	0.54 U	0.6 U	0.33 U	0.34 U	0.33 U	0.36 U
Sodium	SB	-	56 B	105 B	55.9 B	234 B	112 B	148 B	199 B
Thallium	SB	-	0.53 U	0.4 U	0.45 U	0.54 U	0.55 U	0.54 U	0.59 U
Vanadium	150-SB	-	10.9	8.7	6.6 B	21	51.8	14	27.6
Zinc	20 or SB	350	38.1	20.3	11.4	420	53.8	321	69.9
Cyanide	***	-	0.13 U	0.2 U	0.17 U	0.12 U	0.14 U	0.13 U	0.14 U

Qualifiers:
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**- Background levels of lead vary widely. Average background leverls in metropolitan and subban areas average 200 - 500 ppm
*** - Site specific condition should be taken into consideration when establishing clean up levels

Table 1. Soil Analytical Results for 138 KV Transmission Line

Metal Analytes	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP Action Levels (mg/kg)	BNY-SB11-02 (mg/kg)	BNY-SB011-03 (mg/kg)	BNY-SB12-01 (mg/kg)	BNY-SB12-02 (mg/kg)	BNY-SB13-01 (mg/kg)	BNY-SB13-02 (mg/kg)	BNY-SB14-01 (mg/kg)
Aluminum	SB	-	5230	3800	4850	3950	5380	3540	8310
Antinomy	SB	10	2.6 U	2.7 U	2.6 U	2.4 U	1.9 U	2.6 B	2.1 U
Arsenic	7.5 or SB	9	3.9	5.3	7.9	4	2.4	3.4	8.2
Barium	300 or SB	400	55.1	48.7	1340	52.9	37.5	30.4 B	66.5
Beryllium	0.16(HEAST) or SB	1	0.68 B	0.36 B	0.28 B	0.33 B	0.29 B	0.2 B	0.51 B
Cadmium	1 or SB	37	0.32 B	0.28 U	0.44 B	0.36 B	0.23 B	0.27 U	0.24 B
Calcium	SB	-	16600	12000	4690	2190	6030	8850	3060
Chromium	10 or SB	46	14.3	11.4	11.7	7.5	13.5	8.6	14.5
Cobalt	30 or SB	-	6.1 B	5.9 B	8.2 B	5.6 B	5.7 B	5.3 B	7.9 B
Copper	25 or SB	170	136	186	159	25.5	21.2	151	53.4
Iron	2,000 or SB	-	11400	12500	18200	12100	9840	21300	17800
Lead	SB or **	1000	99.9	98.5	199	53.9	62.7	149	248
Magnesium	SB	-	9170	6200	1470	1220	2670	2460	2930
Maganese	SB	-	378	256	192	175	224	373	297
Mercury	0.1	1	0.19	0.18	0.42	0.17	0.21	0.13	2
Nickel	13 or SB	100	30.1	25.7	22.7	9.7	25.3	14.6	26.9
Potassium	SB	-	812 B	637 B	586 B	378 B	878	404 B	1050
Selenium	2 or SB	-	0.7 B	1.1 B	1.8	1.4	0.53 B	1.3	1.3
Silver	SB	5	0.45 U	0.46 U	0.45 U	0.41 U	0.34 U	0.44 U	0.52 B
Sodium	SB	-	131 B	129 B	659 B	162 B	137 B	107 B	626 B
Thallium	SB	-	0.75 U	0.76 U	0.83 B	0.68 U	0.56 U	0.73 U	0.59 U
Vanadium	150-SB	-	22.9	22.9	18.2	13.4	14.2	13.6	23.3
Zinc	20 or SB	350	91.2	70.7	129	51.5	44.1	64	131
Cyanide	***	-	0.11 U	0.15	0.19 B	0.15 U	0.13 U	0.13 U	0.15 B

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Table 1. Soil Analytical Results for 138 KV Transmission Line

Metal Analytes	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP Action Levels (mg/kg)	BNY-SB11-02 (mg/kg)	BNY-SB011-03 (mg/kg)	BNY-SB12-01 (mg/kg)	BNY-SB12-02 (mg/kg)	BNY-SB13-01 (mg/kg)	BNY-SB13-02 (mg/kg)	BNY-SB14-01 (mg/kg)
Aluminum	SB	-	5230	3800	4850	3950	5380	3540	8310
Antinomy	SB	10	2.6 U	2.7 U	2.6 U	2.4 U	1.9 U	2.6 B	2.1 U
Arsenic	7.5 or SB	9	3.9	5.3	7.9	4	2.4	3.4	8.2
Barium	300 or SB	400	55.1	48.7	1340	52.9	37.5	30.4 B	66.5
Beryllium	0.16(HEAST) or SE	1	0.68 B	0.36 B	0.28 B	0.33 B	0.29 B	0.2 B	0.51 B
Cadmium	1 or SB	37	0.32 B	0.28 U	0.44 B	0.36 B	0.23 B	0.27 U	0.24 B
Calcium	SB	-	16600	12000	4690	2190	6030	8850	3060
Chromium	10 or SB	46	14.3	11.4	11.7	7.5	13.5	8.6	14.5
Cobalt	30 or SB	-	6.1 B	5.9 B	8.2 B	5.6 B	5.7 B	5.3 B	7.9 B
Copper	25 or SB	170	136	186	159	25.5	21.2	151	53.4
Iron	2,000 or SB	-	11400	12500	18200	12100	9840	21300	17800
Lead	SB or **	1000	99.9	98.5	199	53.9	62.7	149	248
Magnesium	SB	-	9170	6200	1470	1220	2670	2460	2930
Maganese	SB	-	378	256	192	175	224	373	297
Mercury	0.1	1	0.19	0.18	0.42	0.17	0.21	0.13	2
Nickel	13 or SB	100	30.1	25.7	22.7	9.7	25.3	14.6	26.9
Potassium	SB	-	812 B	637 B	586 B	378 B	878	404 B	1050
Selenium	2 or SB	-	0.7 B	1.1 B	1.8	1.4	0.53 B	1.3	1.3
Silver	SB	5	0.45 U	0.46 U	0.45 U	0.41 U	0.34 U	0.44 U	0.52 B
Sodium	SB	-	131 B	129 B	659 B	162 B	137 B	107 B	626 B
Thallium	SB	-	0.75 U	0.76 U	0.83 B	0.68 U	0.56 U	0.73 U	0.59 U
Vanadium	150-SB	-	22.9	22.9	18.2	13.4	14.2	13.6	23.3
Zinc	20 or SB	350	91.2	70.7	129	51.5	44.1	64	131
Cyanide	***	-	0.11 U	0.15	0.19 B	0.15 U	0.13 U	0.13 U	0.15 B

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Table 1. Soil Analytical Results for 138 KV Transmission Line

Metal Analytes	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP Action Levels (mg/kg)	BNY-SB14-02 (mg/kg)	BNY-SB014-03 (mg/kg)	BNY-SB15-01 (mg/kg)	BNY-SB15-02 (mg/kg)	BNY-SB16-01 (mg/kg)	BNY-SB16-02 (mg/kg)	(mg/kg)
Aluminum	SB	-	12100	9280	4730	6920	6570	5580	
Antinomy	SB	10	2.8 U	2.8 B	2.3 U	1.9 U	2 U	3 B	
Arsenic	7.5 or SB	9	6.5	9.7	5.6	4	10.8	8.4	
Barium	300 or SB	400	72.5	73.4	165	57.1	103	315	
Beryllium	0.16(HEAST) or SE	1	0.64 B	0.52 B	0.33 B	0.39 B	0.47 B	0.61 B	
Cadmium	1 or SB	37	0.64 B	0.44 B	0.24 U	0.31 B	0.31 B	0.5 B	
Calcium	SB	-	3380	3000	11900	2440	1950	2820	
Chromium	10 or SB	46	25.4	20.5	12.3	15.1	14.3	8.1	
Cobalt	30 or SB	-	9.8 B	7.9 B	7.4 B	7 B	7.9 B	5.5 B	
Copper	25 or SB	170	129	51.3	63.1	172	599	176	
Iron	2,000 or SB	-	27600	21000	11200	14600	20200	7320	
Lead	SB or **	1000	112	197	482	150	1000	1480	
Magnesium	SB	-	5480	3480	2230	2560	1700	546 B	
Maganese	SB	-	343	324	203	255	226	51.8	
Mercury	0.1	1	0.52	1.7	0.36	0.22	1.3	3.5	
Nickel	13 or SB	100	26.8	27.4	18.3	27.5	23.8	11.8	
Potassium	SB	-	2420	1310	682 B	827	1150	631 B	
Selenium	2 or SB	-	2.2	1.3	1.1	1.1	1.7	1.2	
Silver	SB	5	0.49 U	0.4 B	0.39 U	0.33 U	0.52 B	0.45 U	
Sodium	SB	-	760 B	818 B	537 B	246 B	524 B	560 B	
Thallium	SB	-	0.8 U	0.64 U	0.65 U	0.55 U	0.58 U	0.74 U	
Vanadium	150-SB	-	30.3	25.4	15.5	22.7	21.5	27.9	
Zinc	20 or SB	350	355	129	123	160	257	95.6	
Cyanide	***	-	0.2 U	0.13 U	0.13 U	0.15 U	0.14 U	0.17 U	

Qualifiers:
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Table 2. Soil Analytical Results for 138 KV Transmission Line

CPL Volatiles	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP Action Levels (mg/kg)	BNY-SB01-01 (ug/Kg)	BNY-SB01-02 (ug/Kg)	BNY-SB02-01 (ug/Kg)	BNY-SB02-02 (ug/Kg)	BNY-SB02-03 (ug/Kg)	BNY-SB03-01 (ug/Kg)	BNY-SB03-02 (ug/Kg)
Chloromethane	-	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
Bromomethane	-	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
Vinyl Chloride	200	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
Chloroethane	1900	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
Methylene Chloride	100	40	11 U	11 U	7 JB	8 JB	7 JB	2 JB	11 U
Acetone	200	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
Carbon Disulfide	200	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
1,1 Dichloroethene	400	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
1,1 Dichloroethane	200	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
1,2 (Total) Dichloroethene	300	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
Chloroform	300	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
1,2 Dichloroethane	100	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
2-Butanone	300	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
1,1,1 Trichloroethane	800	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
Carbon Tetrachloride	600	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
Bromodichloromethane	-	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
1,2 Dichloropropane	-	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
Cis-1,3 Dichloropropene	-	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
Trichloroethene	700	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
Dibromochloromethane	-	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
1,1,2-Trichloroethane	-	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
Benzene	60	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
Trans-1,3-Dichloropropene	-	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
Bromoform	-	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
4-Methyl-2-Pentanone	1000	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
2 Hexanone	-	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
Tetrachloroethene	1400	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
1,1,2,2,-Tetrachloroethane	600	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
Toluene	1500	13	11 U	11 U	10 U	11 U	11 U	6 J	11 U
Chlorobenzene	1700	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
Ethylbenzene	5500	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
Styrene	-	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U
Total Xylene	1200	13	11 U	11 U	10 U	11 U	11 U	11 U	11 U

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Table 2. Soil Analytical Results for 138 KV Transmission Line

CPL Volatiles	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP Action Levels (mg/kg)	BNY-SB04-01 (ug/Kg)	BNY-SB05-01 (ug/Kg)	BNY-SB05-02 (ug/Kg)	BNY-SB06-01 (ug/Kg)	BNY-SB06-02 (ug/Kg)	BNY-SB07-01 (ug/Kg)	BNY-SB07-02 (ug/Kg)
Chloromethane	-	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
Bromomethane	-	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
Vinyl Chloride	200	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
Chloroethane	1900	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
Methylene Chloride	100	40	11 U	10 U	11 U	2 JB	3 JB	3 JB	3 JB
Acetone	200	13	11 U	10 U	11 U	23	11 U	3 J	4 JB
Carbon Disulfide	200	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
1,1 Dichloroethene	400	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
1,1 Dichloroethane	200	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
1,2 (Total) Dichloroethene	300	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
Chloroform	300	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
1,2 Dichloroethane	100	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
2-Butanone	300	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
1,1,1 Trichloroethane	800	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
Carbon Tetrachloride	600	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
Bromodichloromethane	-	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
1,2 Dichloropropane	-	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
Cis-1,3 Dichloropropene	-	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
Trichloroethene	700	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
Dibromochloromethane	-	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
1,1,2-Trichloroethane	-	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
Benzene	60	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
Trans-1,3-Dichloropropene	-	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
Bromoform	-	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
4-Methyl-2-Pentanone	1000	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
2 Hexanone	-	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
Tetrachloroethene	1400	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
1,1,2,2,-Tetrachloroethane	600	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
Toluene	1500	13	4 J	10 U	11 U	1 J	11 U	1 J	1 J
Chlorobenzene	1700	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
Ethylbenzene	5500	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
Styrene	-	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U
Total Xylene	1200	13	11 U	10 U	11 U	12 U	11 U	11 U	11 U

Qualifiers:
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**- Background levels of lead vary widely. Average background leverls in metropolitan and subban areas average 200 - 500 ppm
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Table 2. Soil Analytical Results for 138 KV Transmission Line

CPL Volatiles	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP Action Levels (mg/kg)	BNY-SB08-01 (ug/Kg)	BNY-SB08-02 (ug/Kg)	BNY-SB09-01 (ug/Kg)	BNY-SB09-02 (ug/Kg)	BNY-SB10-01 (ug/Kg)	BNY-SB10-02 (ug/Kg)	BNY-SB11-01 (ug/Kg)
Chloromethane	-	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
Bromomethane	-	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
Vinyl Chloride	200	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
Chloroethane	1900	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
Methylene Chloride	100	40	12 B	3 JB	7 JB	4 JB	4 JB	15 B	2 JB
Acetone	200	13	57	2 J	14 B	10 JB	3 JB	4 JB	29
Carbon Disulfide	200	13	12 U	12 U	12 U	11 U	12 U	12 U	1 J
1,1 Dichloroethene	400	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
1,1 Dichloroethane	200	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
1,2 (Total) Dichloroethene	300	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
Chloroform	300	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
1,2 Dichloroethane	100	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
2-Butanone	300	13	12 U	12 U	12 U	11 U	12 U	12 U	8 J
1,1,1 Trichloroethane	800	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
Carbon Tetrachloride	600	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
Bromodichloromethane	-	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
1,2 Dichloropropane	-	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
Cis-1,3 Dichloropropene	-	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
Trichloroethene	700	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
Dibromochloromethane	-	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
1,1,2-Trichloroethane	-	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
Benzene	60	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
Trans-1,3-Dichloropropene	-	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
Bromoform	-	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
4-Methyl-2-Pentanone	1000	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
2 Hexanone	-	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
Tetrachloroethene	1400	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
1,1,2,2,-Tetrachloroethane	600	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
Toluene	1500	13	4 J	12 U	2 J	11 U	1 J	12 U	1 J
Chlorobenzene	1700	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
Ethylbenzene	5500	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
Styrene	-	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U
Total Xylene	1200	13	12 U	12 U	12 U	11 U	12 U	12 U	12 U

Qualifiers:
mg/kg - Milligram per kilogram
U - Not detected; detection limit shown
B - Analyte Found in associated blank as well as sample
SB - Site Background
* - Soils Concentration found in idustrial settings(McClanahan, 10/3/86)
**- Background levels of lead vary widely. Average background leverls in metropolitan and subban areas average 200 - 500 ppm
*** - Site specific condition should be taken into consideration when establishing clean up levels

Table 2. Soil Analytical Results for 138 KV Transmission Line

CPL Volatiles	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP Action Levels (mg/kg)	BNY-SB11-02 (ug/Kg)	BNY-SB11-03 (ug/Kg)	BNY-SB12-01 (ug/Kg)	BNY-SB12-02 (ug/Kg)	BNY-SB13-01 (ug/Kg)	BNY-SB13-02 (ug/Kg)	BNY-SB14-01 (ug/Kg)
Chloromethane	-	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
Bromomethane	-	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
Vinyl Chloride	200	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
Chloroethane	1900	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
Methylene Chloride	100	40	1 JB	3 JB	3 JB	6 JB	2 JB	5 JB	3 JB
Acetone	200	13	20	2 J	12 U	35 B	26	14	12 U
Carbon Disulfide	200	13	11 U	11 U	12 U	1 J	11 U	13 U	12 U
1,1 Dichloroethene	400	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
1,1 Dichloroethane	200	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
1,2 (Total) Dichloroethene	300	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
Chloroform	300	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
1,2 Dichloroethane	100	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
2-Butanone	300	13	11 U	11 U	12 U	2 J	11 U	13 U	12 U
1,1,1 Trichloroethane	800	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
Carbon Tetrachloride	600	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
Bromodichloromethane	-	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
1,2 Dichloropropane	-	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
Cis-1,3 Dichloropropene	-	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
Trichloroethene	700	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
Dibromochloromethane	-	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
1,1,2-Trichloroethane	-	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
Benzene	60	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
Trans-1,3-Dichloropropene	-	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
Bromoform	-	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
4-Methyl-2-Pentanone	1000	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
2 Hexanone	-	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
Tetrachloroethene	1400	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
1,1,2,2,-Tetrachloroethane	600	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
Toluene	1500	13	11 U	11 U	1 J	2 J	0.9 J	2 J	0.9 J
Chlorobenzene	1700	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
Ethylbenzene	5500	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
Styrene	-	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U
Total Xylene	1200	13	11 U	11 U	12 U	12 U	11 U	13 U	12 U

Qualifiers:
mg/kg - Milligram per kilogram
U - Not detected; detection limit shown
B - Analyte Found in associated blank as well as sample
SB - Site Background
* - Soils Concentration found in idustrial settings(McClanahan, 10/3/86)
**- Background levels of lead vary widely. Average background leverls in metropolitan and subban areas average 200 - 500 ppm
*** - Site specific condition should be taken into consideration when establishing clean up levels

Table 2. Soil Analytical Results for 138 KV Transmission Line

CPL Volatiles	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP Action Levels (mg/kg)	BNY-SB14-02 (ug/Kg)	BNY-SB14-03 (ug/Kg)	BNY-SB15-01 (ug/Kg)	BNY-SB15-02 (ug/Kg)	BNY-SB16-01 (ug/Kg)	BNY-SB16-02 (ug/Kg)
Chloromethane	-	13	15 U	11 U	11 U	12 U	11 U	14 U
Bromomethane	-	13	15 U	11 U	11 U	12 U	11 U	14 U
Vinyl Chloride	200	13	15 U	11 U	11 U	12 U	11 U	14 U
Chloroethane	1900	13	15 U	11 U	11 U	12 U	11 U	14 U
Methylene Chloride	100	40	5 JB	6 JB	4 JB	4 JB	2 JB	5 JB
Acetone	200	13	73	11 U	2 J	36	11 U	66 B
Carbon Disulfide	200	13	15 U	11 U	11 U	12 U	11 U	14 U
1,1 Dichloroethene	400	13	15 U	11 U	11 U	12 U	11 U	14 U
1,1 Dichloroethane	200	13	15 U	11 U	11 U	12 U	11 U	14 U
1,2 (Total) Dichloroethene	300	13	15 U	11 U	11 U	12 U	11 U	14 U
Chloroform	300	13	15 U	11 U	11 U	12 U	11 U	14 U
1,2 Dichloroethane	100	13	15 U	11 U	11 U	12 U	11 U	14 U
2-Butanone	300	13	20	11 U	11 U	12 U	11 U	14 U
1,1,1 Trichloroethane	800	13	15 U	11 U	11 U	12 U	11 U	14 U
Carbon Tetrachloride	600	13	15 U	11 U	11 U	12 U	11 U	14 U
Bromodichloromethane	-	13	15 U	11 U	11 U	12 U	11 U	14 U
1,2 Dichloropropane	-	13	15 U	11 U	11 U	12 U	11 U	14 U
Cis-1,3 Dichloropropene	-	13	15 U	11 U	11 U	12 U	11 U	14 U
Trichloroethene	700	13	15 U	11 U	11 U	12 U	11 U	14 U
Dibromochloromethane	-	13	15 U	11 U	11 U	12 U	11 U	14 U
1,1,2-Trichloroethane	-	13	15 U	11 U	11 U	12 U	11 U	14 U
Benzene	60	13	15 U	11 U	11 U	12 U	5 J	11 J
Trans-1,3-Dichloropropene	-	13	15 U	11 U	11 U	12 U	11 U	14 U
Bromoform	-	13	15 U	11 U	11 U	12 U	11 U	14 U
4-Methyl-2-Pentanone	1000	13	15 U	11 U	11 U	12 U	11 U	14 U
2 Hexanone	-	13	15 U	11 U	11 U	12 U	11 U	14 U
Tetrachloroethene	1400	13	15 U	11 U	11 U	12 U	11 U	14 U
1,1,2,2,-Tetrachloroethane	600	13	15 U	11 U	11 U	12 U	11 U	14 U
Toluene	1500	13	2 J	1 J	2 J	12 U	4 U	3 J
Chlorobenzene	1700	13	15 U	11 U	11 U	12 U	11 U	14 U
Ethylbenzene	5500	13	15 U	11 U	11 U	12 U	11 U	14 U
Styrene	-	13	15 U	11 U	11 U	12 U	11 U	14 U
Total Xylene	1200	13	15 U	11 U	11 U	12 U	11 U	14 U

Qualifiers:
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B - Analyte Found in associated blank as well as sample
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Table 3. Soil Analytical Results for 138 KV Transmission Line

Semi Volatiles	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP Action Levels (mg/kg)	BNY-SB01-01 (ug/Kg)	BNY-SB01-02 (ug/Kg)	BNY-SB02-01 (ug/Kg)	BNY-SB02-02 (ug/Kg)	BNY-SB02-03 (ug/Kg)	BNY-SB03-01 (ug/Kg)	BNY-SB03-02 (ug/Kg)
Phenol	30 or MDL	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
bis(2-Chloroethyl)Ether	-	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
2-Chlorophenol	800	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
1,3-Dichlorobenzene	-	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
1,4-Dichlorobenzene	-	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
1,2-Dichlorobenzene	-	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
2-Methylphenol	100	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
2,2'-Oxybis (1-Chloropropane)	-	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
4-Mehylphenol	900	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
N-Nitroso-Di-N-Propylamine	-	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
Hexachloroethane	-	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
Nitrobenzene	200	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
Isophorone	4400	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
2-Nitrophenol	330	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
2,4-Dimethlphenol	-	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
bis(2-Chloroethoxy) Methane	400	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
2,4-Dichlorophenol	-	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
1,2,4-Trichlorobenzene	13000	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
Naphthalene	220	-	19 J	360 U	350 U	380 U	350 U	350 U	350 U
4-Chloroaniline	410	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
Hexachlorobutadiene	-	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
4-Chloro-3-Methylphenol	240	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
2-Methylnapthalene	36400	-	23 J	360 U	350 U	380 U	350 U	350 U	350 U
Hexachlorocyclopentadiene	-	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
2,4,6-Trichlorophenol	-	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
2,4,5-Trichlorophenol	100	-	840 U	870 U	850 U	910 U	850 U	850 U	850 U
2-Chloronaphthalene	-	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
2-Nitroaniline	430	-	840 U	870 U	850 U	910 U	850 U	850 U	850 U
Dimethylphthalate	2000	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
Acenaphthylene	50000	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
2,6-Dinitrotoluene	1000	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
3-Nitroaniline	500	-	840 U	870 U	850 U	910 U	850 U	850 U	850 U
Acenaphthene	50000	-	22 J	360 U	350 U	380 U	350 U	350 U	350 U
2,4-Dinitrophenol	200	-	840 U	870 U	850 U	910 U	850 U	850 U	850 U
4-Nitrophenol	100	-	840 U	870 U	850 U	910 U	850 U	850 U	850 U
Dibenzofuran	6200	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
2,4-Dinitrotoluene	-	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
Diethylphthalate	7100	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
4-Chlorophenyl-Phenylether	-	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
Fluorene	50000	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
4-Nitroaniline	-	-	840 U	870 U	850 U	910 U	850 U	850 U	850 U
4,6-Dinitro-2-Methylphenol	-	-	840 U	870 U	850 U	910 U	850 U	850 U	850 U
N-Nitrosodiphenylamine1	-	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
4-Bromophyl-Phenylether	-	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
Hexachlorobenzene	410	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
Pentachlorophenol	1000	-	840 U	870 U	850 U	910 U	850 U	850 U	850 U
Phenathrene	50000	-	380	110 J	350 U	380 U	350 U	130 J	16 J
Anthracene	50000	-	73 J	20 J	350 U	380 U	350 U	35 J	350 U
Carbazole	-	-	38 J	360 U	350 U	380 U	350 U	350 U	350 U
Di-N-Buthylphthalate	8100	-	54 J	120 J	350 U	380 U	350 U	110 JB	15 J
Fluoranthene	50000	200 - 166,000	990	350 J	350 U	380 U	350 U	380	50 J
Pyrene	50000	145 - 147,000	670	350 J	350 U	380 U	350 U	260 J	98 J
Butylbenzylphthalate	50000	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
3,3-Dichlorobenzidine	-	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
Benzo (a) Anthracene	224 or MDL	169 - 59,000	480 U	230 J	350 U	380 U	350 U	210 J	60 J
Chrysene	400	251 - 640	470 U	220 J	350 U	380 U	350 U	180 J	65 J
bis(2-Ethylhexyl) Phthalate	50000	-	350 U	360 U	120 J	210 J	350 U	120 JB	350 U
Di-N-Octyphthalate	50000	-	350 U	360 U	350 U	380 U	350 U	350 U	350 U
Benzo (b) Fluoranthene	1100	15,000 - 62,000	700	340 J	350 U	380 U	350 U	360	82 J
Benzo (k) Fluoranthene	1100	300 - 26,000	350 U	360 U	350 U	380 U	350 U	350 U	350 U
Benzo (a) Pyrene	61 or MDL	165 - 220	390	180 J	350 U	380 U	350 U	200 J	49 J
Indeno(1,2,3-cd)Pyrene	3200	8,000 - 61,000	250 J	110 J	350 U	380 U	350 U	120 J	350 U
Dibenz(a,h)Anthracene	14 or MDL	-	81 J	360 U	350 U	380 U	350 U	350 U	350 U
Benzp(g,h,i)Perylene	50000	900 - 47,000	69 J	71 J	350 U	380 U	350 U	130 J	350 U

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Table 3. Soil Analytical Results for 138 KV Transmission Line

Semi Volatiles	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP Action Levels (mg/kg)	BNY-SB04-01 (ug/Kg)	BNY-SB05-01 (ug/Kg)	BNY-SB05-02 (ug/Kg)	BNY-SB06-01 (ug/Kg)	BNY-SB06-02 (ug/Kg)	BNY-SB07-01 (ug/Kg)	BNY-SB07-02 (ug/Kg)
Phenol	30 or MDL	-	350 U	350 U	60 J	390 U	370 U	350 U	360 U
bis(2-Chloroethyl)Ether	-	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
2-Chlorophenol	800	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
1,3-Dichlorobenzene	-	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
1,4-Dichlorobenzene	-	-	350 U	350 U	15 J	390 U	370 U	350 U	360 U
1,2-Dichlorobenzene	-	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
2-Methylphenol	100	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
2,2'-Oxybis (1-Chloropropane)	-	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
4-Mehylphenol	900	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
N-Nitroso-Di-N-Propylamine	-	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
Hexachloroethane	-	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
Nitrobenzene	200	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
Isophorone	4400	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
2-Nitrophenol	330	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
2,4-Dimethlphenol	-	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
bis(2-Chloroethoxy) Methane	400	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
2,4-Dichlorophenol	-	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
1,2,4-Trichlorobenzene	13000	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
Naphthalene	220	-	350 U	350 U	340 U	100 J	370 U	700	360 U
4-Chloroaniline	410	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
Hexachlorobutadiene	-	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
4-Chloro-3-Methylphenol	240	-	350 U	350 U	27 J	390 U	370 U	350 U	360 U
2-Methylnapthalene	36400	-	350 U	350 U	340 U	27 J	370 U	200 J	360 U
Hexachlorocyclopentadiene	-	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
2,4,6-Trichlorophenol	-	-	350 U	360 U	340 U	390 U	370 U	350 U	360 U
2,4,5-Trichlorophenol	100	-	860 U	840 U	830 U	950 U	900 U	860 U	880 U
2-Chloronaphthalene	-	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
2-Nitroaniline	430	-	860 U	840 U	830 U	950 U	900 U	860 U	880 U
Dimethylphthalate	2000	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
Acenaphthylene	50000	-	350 U	350 U	340 U	42 J	370 U	350 U	360 U
2,6-Dinitrotoluene	1000	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
3-Nitroaniline	500	-	860 U	840 U	830 U	950 U	900 U	860 U	880 U
Acenaphthene	50000	-	350 U	350 U	340 U	72 J	370 U	210 J	360 U
2,4-Dinitrophenol	200	-	860 U	840 U	830 U	950 U	900 U	860 U	880 U
4-Nitrophenol	100	-	860 U	840 U	830 U	950 U	900 U	860 U	880 U
Dibenzofuran	6200	-	350 U	350 U	340 U	42 U	370 U	300 J	360 U
2,4-Dinitrotoluene	-	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
Diethylphthalate	7100	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
4-Chlorophenyl-Phenylether	-	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
Fluorene	50000	-	350 U	350 U	340 U	72 U	370 U	240 J	360 U
4-Nitroaniline	-	-	860 U	840 U	830 U	950 U	900 U	860 U	880 U
4,6-Dinitro-2-Methylphenol	-	-	860 U	840 U	830 U	950 U	900 U	860 U	880 U
N-Nitrosodiphenylamine1	-	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
4-Bromophyl-Phenylether	-	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
Hexachlorobenzene	410	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
Pentachlorophenol	1000	-	860 U	840 U	830 U	950 U	900 U	860 U	880 U
Phenathrene	50000	-	120 J	25 J	12 J	1100	370 U	2100	360 U
Anthracene	50000	-	44 J	350 U	340 U	180 J	370 U	660	360 U
Carbazole	-	-	14 J	350 U	340 U	95 J	370 U	240 J	360 U
Di-N-Buthylphthalate	8100	-	240 JB	91 J	88 J	43 JB	110 JB	170 JB	30 JB
Fluoranthene	50000	200 - 166,000	210 J	63 J	19 J	1700	370 U	1500	360 U
Pyrene	50000	145 - 147,000	140 J	49 J	67 J	1600	370 U	1100	360 U
Butylbenzylphthalate	50000	-	350 U	350 U	340 U	390 U	370 U	350 U	22 J
3,3-Dichlorobenzidine	-	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
Benzo (a) Anthracene	224 or MDL	169 - 59,000	85 J	33 J	340 U	640	370 U	730	360 U
Chrysene	400	251 - 640	97 J	36 J	340 U	1400	24 J	600	360 U
bis(2-Ethylhexyl) Phthalate	50000	-	62 JB	28 J	340 U	190 JB	70 J	110 J	56 JB
Di-N-Octyphthalate	50000	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
Benzo (b) Fluoranthene	1100	15,000 - 62,000	190 J	61 J	15 J	1600	370 U	1400	360 U
Benzo (k) Fluoranthene	1100	300 - 26,000	350 U	350 U	340 U	390 U	370 U	350 U	360 U
Benzo (a) Pyrene	61 or MDL	165 - 220	100 J	31 J	340 U	890	370 U	570	360 U
Indeno(1,2,3-cd)Pyrene	3200	8,000 - 61,000	67 J	24 J	340 U	530	370 U	420	360 U
Dibenz(a,h)Anthracene	14 or MDL	-	350 U	350 U	340 U	390 U	370 U	350 U	360 U
Benzp(g,h,i)Perylene	50000	900 - 47,000	79 J	350 U	340 U	610	370 U	590	360 U

Qualifiers:
mg/kg - Milligram per kilogram
U - Not detected; detection limit shown
B - Analyte Found in associated blank as well as sample
SB - Site Background
* - Soils Concentration found in idustrial settings(McClanahan, 10/3/86)
**- Background levels of lead vary widely. Average background leverls in metropolitan and subban areas average 200 - 500 ppm
*** - Site specific condition should be taken into consideration when establishing clean up levels

Table 3. Soil Analytical Results for 138 KV Transmission Line

Semi Volatiles	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP Action Levels (mg/kg)	BNY-SB08-01 (ug/Kg)	BNY-SB08-02 (ug/Kg)	BNY-SB09-01 (ug/Kg)	BNY-SB09-02 (ug/Kg)	BNY-SB10-01 (ug/Kg)	BNY-SB10-02 (ug/Kg)	BNY-SB11-01 (ug/Kg)
Phenol	30 or MDL	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
bis(2-Chloroethyl)Ether	-	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
2-Chlorophenol	800	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
1,3-Dichlorobenzene	-	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
1,4-Dichlorobenzene	-	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
1,2-Dichlorobenzene	-	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
2-Methylphenol	100	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
2,2'-Oxybis (1-Chloropropane)	-	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
4-Mehylphenol	900	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
N-Nitroso-Di-N-Propylamine	-	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
Hexachloroethane	-	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
Nitrobenzene	200	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
Isophorone	4400	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
2-Nitrophenol	330	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
2,4-Dimethlphenol	-	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
bis(2-Chloroethoxy) Methane	400	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
2,4-Dichlorophenol	-	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
1,2,4-Trichlorobenzene	13000	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
Naphthalene	220	-	130000 D	2700	69 J	380 U	13 J	410 U	400 U
4-Chloroaniline	410	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
Hexachlorobutadiene	-	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
4-Chloro-3-Methylphenol	240	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
2-Methylnapthalene	36400	-	42000	640	31 J	380 U	380 U	410 U	16 J
Hexachlorocyclopentadiene	-	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
2,4,6-Trichlorophenol	-	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
2,4,5-Trichlorophenol	100	-	29000 U	980 U	910 U	910 U	930 U	990 U	960 U
2-Chloronaphthalene	-	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
2-Nitroaniline	430	-	29000 U	980 U	910 U	910 U	930 U	990 U	960 U
Dimethylphthalate	2000	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
Acenaphthylene	50000	-	12000 U	400 U	10 J	380 U	380 U	410 U	400 U
2,6-Dinitrotoluene	1000	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
3-Nitroaniline	500	-	29000 U	980 U	910 U	910 U	930 U	990 U	960 U
Acenaphthene	50000	-	48000	580	24 J	380 U	380 U	410 U	400 U
2,4-Dinitrophenol	200	-	29000 U	980 U	910 U	910 U	930 U	990 U	960 U
4-Nitrophenol	100	-	29000 U	980 U	910 U	910 U	930 U	990 U	960 U
Dibenzofuran	6200	-	65000	890	45 J	380 U	380 U	410 U	400 U
2,4-Dinitrotoluene	-	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
Diethylphthalate	7100	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
4-Chlorophenyl-Phenylether	-	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
Fluorene	50000	-	62000	780	37 J	380 U	380 U	410 U	400 U
4-Nitroaniline	-	-	29000 U	980 U	910 U	910 U	930 U	990 U	960 U
4,6-Dinitro-2-Methylphenol	-	-	29000 U	980 U	910 U	910 U	930 U	990 U	960 U
N-Nitrosodiphenylamine1	-	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
4-Bromophyl-Phenylether	-	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
Hexachlorobenzene	410	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
Pentachlorophenol	1000	-	29000 U	980 U	910 U	910 U	930 U	990 U	960 U
Phenathrene	50000	-	390000 D	4600 D	460	69 J	30 J	410 U	87 J
Anthracene	50000	-	130000 D	1700	160 J	29 J	380 U	410 U	14 J
Carbazole	-	-	80000	720	44 J	380 U	380 U	410 U	400 U
Di-N-Buthylphthalate	8100	-	3600 JB	110 JB	56 JB	98 JB	72 JB	38 JB	110 JB
Fluoranthene	50000	200 - 166,000	320000 D	3200	700	93 J	35 JB	410 U	57 J
Pyrene	50000	145 - 147,000	260000 D	2300	520	62 J	28 J	410 U	52 J
Butylbenzylphthalate	50000	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
3,3-Dichlorobenzidine	-	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
Benzo (a) Anthracene	224 or MDL	169 - 59,000	120000 D	1300	320 J	28 J	16 J	410 U	24 J
Chrysene	400	251 - 640	110000 D	1100	340 J	28 J	25 J	410 U	34 J
bis(2-Ethylhexyl) Phthalate	50000	-	12000 U	83 J	140 J	230 J	210 J	33 J	87 J
Di-N-Octyphthalate	50000	-	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
Benzo (b) Fluoranthene	1100	15,000 - 62,000	150000 D	2400	490	47 J	42 J	410 U	70 J
Benzo (k) Fluoranthene	1100	300 - 26,000	12000 U	400 U	380 U	380 U	380 U	410 U	400 U
Benzo (a) Pyrene	61 or MDL	165 - 220	100000 D	1000	280 J	60 J	21 J	14 J	38 J
Indeno(1,2,3-cd)Pyrene	3200	8,000 - 61,000	56000	640	160 J	380 U	21 J	410 U	22 J
Dibenz(a,h)Anthracene	14 or MDL	-	12000 U	400 U	35 J	380 U	380 U	410 U	400 U
Benzp(g,h,i)Perylene	50000	900 - 47,000	65000	800	180 J	17 J	26 J	410 U	23 J

Qualifiers:
mg/kg - Milligram per kilogram
U - Not detected; detection limit shown
B - Analyte Found in associated blank as well as sample
SB - Site Background
* - Soils Concentration found in idustrial settings(McClanahan, 10/3/86)
**- Background levels of lead vary widely. Average background leverls in metropolitan and subban areas average 200 - 500 ppm
*** - Site specific condition should be taken into consideration when establishing clean up levels

Table 3. Soil Analytical Results for 138 KV Transmission Line

Semi Volatiles	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP Action Levels (mg/kg)	BNY-SB11-02 (ug/Kg)	BNY-SB11-03 (ug/Kg)	BNY-SB12-01 (ug/Kg)	BNY-SB12-02 (ug/Kg)	BNY-SB13-01 (ug/Kg)	BNY-SB13-02 (ug/Kg)	BNY-SB14-01 (ug/Kg)
Phenol	30 or MDL	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
bis(2-Chloroethyl)Ether	-	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
2-Chlorophenol	800	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
1,3-Dichlorobenzene	-	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
1,4-Dichlorobenzene	-	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
1,2-Dichlorobenzene	-	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
2-Methylphenol	100	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
2,2'-Oxybis (1-Chloropropane)	-	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
4-Mehylphenol	900	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
N-Nitroso-Di-N-Propylamine	-	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
Hexachloroethane	-	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
Nitrobenzene	200	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
Isophorone	4400	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
2-Nitrophenol	330	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
2,4-Dimethlphenol	-	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
bis(2-Chloroethoxy) Methane	400	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
2,4-Dichlorophenol	-	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
1,2,4-Trichlorobenzene	13000	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
Naphthalene	220	-	15 J	17 J	380 U	400 U	380 U	17 J	420 J
4-Chloroaniline	410	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
Hexachlorobutadiene	-	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
4-Chloro-3-Methylphenol	240	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
2-Methylnapthalene	36400	-	14 J	380 U	380 U	15 J	380 U	430 U	390 J
Hexachlorocyclopentadiene	-	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
2,4,6-Trichlorophenol	-	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
2,4,5-Trichlorophenol	100	-	910 U	910 U	930 U	960 U	910 U	1000 U	9300 U
2-Chloronaphthalene	-	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
2-Nitroaniline	430	-	910 U	910 U	930 U	960 U	910 U	1000 U	9300 U
Dimethylphthalate	2000	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
Acenaphthylene	50000	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
2,6-Dinitrotoluene	1000	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
3-Nitroaniline	500	-	910 U	910 U	930 U	960 U	910 U	1000 U	9300 U
Acenaphthene	50000	-	380 U	14 J	380 U	400 U	30 J	430 U	3000 J
2,4-Dinitrophenol	200	-	910 U	910 U	930 U	960 U	910 U	1000 U	9300 U
4-Nitrophenol	100	-	910 U	910 U	930 U	960 U	910 U	430 U	9300 U
Dibenzofuran	6200	-	380 U	13 J	380 U	400 U	21 J	430 U	1600 J
2,4-Dinitrotoluene	-	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
Diethylphthalate	7100	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
4-Chlorophenyl-Phenylether	-	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
Fluorene	50000	-	380 U	15 J	380 U	400 U	38 J	21 J	2900 J
4-Nitroaniline	-	-	910 U	910 U	930 U	960 U	910 U	1000 U	9300 U
4,6-Dinitro-2-Methylphenol	-	-	910 U	910 U	930 U	960 U	910 U	1000 U	9300 U
N-Nitrosodiphenylamine1	-	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
4-Bromophyl-Phenylether	-	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
Hexachlorobenzene	410	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
Pentachlorophenol	1000	-	910 U	910 U	930 U	960 U	910 U	1000 U	9300 U
Phenathrene	50000	-	77 J	120 J	89 J	25 J	290 J	91 J	28000
Anthracene	50000	-	380 U	17 J	380 U	400 U	71 J	20 J	8600
Carbazole	-	-	380 U	380 U	380 U	400 U	28 J	430 U	1500 J
Di-N-Buthylphthalate	8100	-	97 JB	110 JB	59 JB	50 JB	40 JB	57 JB	3800 U
Fluoranthene	50000	200 - 166,000	69 J	78 J	160 JB	22 JB	430 B	83 JB	25000 DB
Pyrene	50000	145 - 147,000	70 J	66 J	120 J	20 J	320 J	62 J	28000
Butylbenzylphthalate	50000	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
3,3-Dichlorobenzidine	-	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
Benzo (a) Anthracene	224 or MDL	169 - 59,000	45 J	50 J	59 J	400 U	200 J	430 U	17000
Chrysene	400	251 - 640	47 J	49 J	84 J	11 J	210 J	47 J	13000
bis(2-Ethylhexyl) Phthalate	50000	-	71 J	86 J	360 J	64 J	43 J	160 J	340 J
Di-N-Octyphthalate	50000	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
Benzo (b) Fluoranthene	1100	15,000 - 62,000	120 J	130 J	110 J	13 J	280 J	60 J	20000
Benzo (k) Fluoranthene	1100	300 - 26,000	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
Benzo (a) Pyrene	61 or MDL	165 - 220	44 J	53 J	59 J	400 U	180 J	38 J	12000
Indeno(1,2,3-cd)Pyrene	3200	8,000 - 61,000	24 J	26 J	32 J	400 U	110 J	24 J	6400
Dibenz(a,h)Anthracene	14 or MDL	-	380 U	380 U	380 U	400 U	380 U	430 U	3800 U
Benzp(g,h,i)Perylene	50000	900 - 47,000	41 J	46 J	43 J	400 U	120 J	26 J	8500

Qualifiers:
mg/kg - Milligram per kilogram
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B - Analyte Found in associated blank as well as sample
SB - Site Background
* - Soils Concentration found in idustrial settings(McClanahan, 10/3/86)
**- Background levels of lead vary widely. Average background leverls in metropolitan and subban areas average 200 - 500 ppm
*** - Site specific condition should be taken into consideration when establishing clean up levels

Table 3. Soil Analytical Results for 138 KV Transmission Line

Semi Volatiles	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP Action Levels (mg/kg)	BNY-SB14-02 (ug/Kg)	BNY-SB14-03 (ug/Kg)	BNY-SB15-01 (ug/Kg)	BNY-SB15-02 (ug/Kg)	BNY-SB16-01 (ug/Kg)	BNY-SB16-02 (ug/Kg)
Phenol	30 or MDL	-	490 U	9500 U	380 U	390 U	380 U	450 U
bis(2-Chloroethyl)Ether	-	-	490 U	9500 U	380 U	390 U	380 U	450 U
2-Chlorophenol	800	-	490 U	9500 U	380 U	390 U	380 U	450 U
1,3-Dichlorobenzene	-	-	490 U	9500 U	380 U	390 U	380 U	450 U
1,4-Dichlorobenzene	-	-	490 U	9500 U	380 U	390 U	380 U	450 U
1,2-Dichlorobenzene	-	-	490 U	9500 U	380 U	390 U	380 U	450 U
2-Methylphenol	100	-	490 U	9500 U	380 U	390 U	380 U	450 U
2,2'-Oxybis (1-Chloropropane)	-	-	490 U	9500 U	380 U	390 U	380 U	450 U
4-Mehylphenol	900	-	490 U	9500 U	380 U	390 U	380 U	450 U
N-Nitroso-Di-N-Propylamine	-	-	490 U	9500 U	380 U	390 U	380 U	450 U
Hexachloroethane	-	-	490 U	9500 U	380 U	390 U	380 U	450 U
Nitrobenzene	200	-	490 U	9500 U	380 U	390 U	380 U	450 U
Isophorone	4400	-	490 U	9500 U	380 U	390 U	380 U	450 U
2-Nitrophenol	330	-	490 U	9500 U	380 U	390 U	380 U	450 U
2,4-Dimethlphenol	-	-	490 U	9500 U	380 U	390 U	380 U	450 U
bis(2-Chloroethoxy) Methane	400	-	490 U	9500 U	380 U	390 U	380 U	450 U
2,4-Dichlorophenol	-	-	490 U	9500 U	380 U	390 U	380 U	450 U
1,2,4-Trichlorobenzene	13000	-	490 U	9500 U	380 U	390 U	380 U	450 U
Naphthalene	220	-	17 J	430 J	40 J	18 J	32 J	450 U
4-Chloroaniline	410	-	490 U	9500 U	380 U	390 U	380 U	450 U
Hexachlorobutadiene	-	-	490 U	9500 U	380 U	390 U	380 U	450 U
4-Chloro-3-Methylphenol	240	-	490 U	9500 U	380 U	390 U	380 U	450 U
2-Methylnapthalene	36400	-	22 J	550 J	45 J	24 J	16 J	450 U
Hexachlorocyclopentadiene	-	-	490 U	9500 U	380 U	390 U	380 U	450 U
2,4,6-Trichlorophenol	-	-	490 U	9500 U	380 U	390 U	380 U	450 U
2,4,5-Trichlorophenol	100	-	1200 U	23000 U	910 U	940 U	910 U	1100 U
2-Chloronaphthalene	-	-	490 U	9500 U	380 U	390 U	380 U	450 U
2-Nitroaniline	430	-	1200 U	23000 U	910 U	940 U	910 U	1100 U
Dimethylphthalate	2000	-	490 U	9500 U	380 U	390 U	380 U	450 U
Acenaphthylene	50000	-	490 U	9500 U	380 U	390 U	380 U	450 U
2,6-Dinitrotoluene	1000	-	490 U	9500 U	380 U	390 U	380 U	450 U
3-Nitroaniline	500	-	1200 U	23000 U	910 U	940 U	910 U	1100 U
Acenaphthene	50000	-	50 J	6200 J	22 J	390 U	34 J	450 U
2,4-Dinitrophenol	200	-	1200 U	23000 U	910 U	940 U	910 U	1100 U
4-Nitrophenol	100	-	1200 U	23000 U	910 U	940 U	910 U	1100 U
Dibenzofuran	6200	-	490 U	3000 J	36 J	390 U	22 J	450 U
2,4-Dinitrotoluene	-	-	490 U	9500 U	380 U	390 U	380 U	450 U
Diethylphthalate	7100	-	490 U	9500 U	380 U	390 U	380 U	450 U
4-Chlorophenyl-Phenylether	-	-	490 U	9500 U	380 U	390 U	380 U	450 U
Fluorene	50000	-	32 J	6000 J	22 J	21 J	28 J	450 U
4-Nitroaniline	-	-	1200 U	23000 U	910 U	940 U	910 U	1100 U
4,6-Dinitro-2-Methylphenol	-	-	1200 U	23000 U	910 U	940 U	910 U	1100 U
N-Nitrosodiphenylamine1	-	-	490 U	9500 U	380 U	390 U	380 U	450 U
4-Bromophyl-Phenylether	-	-	490 U	9500 U	380 U	390 U	380 U	450 U
Hexachlorobenzene	410	-	490 U	9500 U	380 U	390 U	380 U	450 U
Pentachlorophenol	1000	-	1200 U	23000 U	910 U	940 U	910 U	1100 U
Phenathrene	50000	-	180 J	51000	480	130 J	360 J	25 J
Anthracene	50000	-	37 J	21000	94 J	26 J	68 J	450 U
Carbazole	-	-	490 U	2200 J	42 J	390 U	53 J	450 U
Di-N-Buthylphthalate	8100	-	110 JB	9500 U	61 JB	48 JB	32 JB	53 J
Fluoranthene	50000	200 - 166,000	160 JB	54000	780 B	130 JB	500	40 J
Pyrene	50000	145 - 147,000	150 J	58000	600	110 J	420	41 J
Butylbenzylphthalate	50000	-	490 U	9500 U	380 U	390 U	380 U	450 U
3,3-Dichlorobenzidine	-	-	490 U	9500 U	380 U	390 U	380 U	450 U
Benzo (a) Anthracene	224 or MDL	169 - 59,000	87 J	28000	460	74 J	290 J	44 J
Chrysene	400	251 - 640	70 J	26000	380	89 J	350 J	54 J
bis(2-Ethylhexyl) Phthalate	50000	-	24 J	9500 U	700	220 J	42 J	53 J
Di-N-Octyphthalate	50000	-	490 U	9500 U	380 U	390 U	380 U	450 U
Benzo (b) Fluoranthene	1100	15,000 - 62,000	130 J	35000	600	97 J	560	120 J
Benzo (k) Fluoranthene	1100	300 - 26,000	490 U	9500 U	380 U	390 U	380 U	450 U
Benzo (a) Pyrene	61 or MDL	165 - 220	140 J	24000	330 J	61 J	350 J	87 J
Indeno(1,2,3-cd)Pyrene	3200	8,000 - 61,000	24 J	14000	270 J	38 J	240 J	72 J
Dibenz(a,h)Anthracene	14 or MDL	-	490 U	9500 U	380 U	390 U	60 J	450 U
Benzp(g,h,i)Perylene	50000	900 - 47,000	43 J	15000	300 J	53 J	280 J	80 J

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**- Background levels of lead vary widely. Average background leverls in metropolitan and subban areas average 200 - 500 ppm
*** - Site specific condition should be taken into consideration when establishing clean up levels

Table 4. Soil Analytical Results for 138 KV Transmission Line

Pesticides & PCBs	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP Action Levels (mg/kg)	BNY-SB01-01 (ug/Kg)	BNY-SB01-02 (ug/Kg)	BNY-SB02-01 (ug/Kg)	BNY-SB02-02 (ug/Kg)	BNY-SB02-03 (ug/Kg)	BNY-SB03-01 (ug/Kg)	BNY-SB03-02 (ug/Kg)
Alpha BHC	110	-	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U
Beta BHC	200	-	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U
Delta BHC	300	-	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U
Gamma BHC (Lindane)	60	-	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U
Heptachlor	100	-	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U
Aldrin	41	-	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U
Heptachlor Epoxide	20	-	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U
Endosulfan I	900	-	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U
Dieldrin	44	-	3.5 U	3.5 U	3.5 U	3.7 U	3.5 U	3.4 U	3.5 U
4,4'-DDE	2100	-	3.5 U	3.5 U	3.5 U	3.7 U	3.5 U	3.4 U	3.5 U
Endrin	100	-	3.5 U	3.5 U	3.5 U	3.7 U	3.5 U	3.4 U	3.5 U
Endosulfan II	900	-	3.5 U	3.5 U	3.5 U	3.7 U	3.5 U	3.4 U	3.5 U
4,4'-DDD	2900	-	3.5 U	3.5 U	3.5 U	3.7 U	3.5 U	3.4 U	3.5 U
Ensosulfan Sulfate	1000	-	3.5 U	3.5 U	3.5 U	3.7 U	3.5 U	3.4 U	3.5 U
4,4' DDT	2100	-	3.5 U	3.5 U	3.5 U	3.7 U	3.5 U	3.4 U	3.5 U
Methoxychlor	<10,000	-	18 U	18 U	18 U	19 U	18 U	17 U	18 U
Endrin Keytone	-	-	3.5 U	3.5 U	3.5 U	3.7 U	3.5 U	3.4 U	3.5 U
Endrin Aldehyde	-	-	3.5 U	3.5 U	3.5 U	3.7 U	3.5 U	3.4 U	3.5 U
Alpha-Chlordane	-	-	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U
Gamma-Chlordane	540	-	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.7 U	1.8 U
Toxaphene	-	-	180 U	180 U	180 U	190 U	180 U	170 U	180 U
Arochlor 1016	-	-	35 U	35 U	35 U	37 U	35 U	34 U	35 U
Arochlor 1221	-	-	70 U	71 U	70 U	76 U	72 U	69 U	71 U
Arochlor 1232	-	-	35 U	35 U	35 U	37 U	35 U	34 U	35 U
Arochlor 1242	-	-	35 U	35 U	35 U	35 U	35 U	34 U	35 U
Arochlor 1248	-	-	35 U	35 U	35 U	35 U	35 U	34 U	3.5 U
Arochlor 1254	-	-	35 U	35 U	35 U	35 U	35 U	34 U	35 U
Arochlor 1260	-	-	66 P	35 U	35 U	35 U	35 U	34 U	35 U

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**- Background levels of lead vary widely. Average background leverls in metropolitan and subban areas average 200 - 500 ppm
*** - Site specific condition should be taken into consideration when establishing clean up levels

Table 4. Soil Analytical Results for 138 KV Transmission Line

Pesticides & PCBs	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP Action Levels (mg/kg)	BNY-SB04-01 (ug/Kg)	BNY-SB05-01 (ug/Kg)	BNY-SB05-02 (ug/Kg)	BNY-SB06-01 (ug/Kg)	BNY-SB06-02 (ug/Kg)	BNY-SB07-01 (ug/Kg)	BNY-SB07-02 (ug/Kg)
Alpha BHC	110	-	1.8 U	1.8 U	1.8 U	2 U	1.8 U	1.9 U	2 U
Beta BHC	200	-	1.8 U	1.8 U	1.8 U	2 U	1.8 U	1.9 U	2 U
Delta BHC	300	-	1.8 U	1.8 U	1.8 U	2 U	1.8 U	1.9 U	2 U
Gamma BHC (Lindane)	60	-	1.8 U	1.8 U	1.8 U	2 U	1.8 U	1.9 U	2 U
Heptachlor	100	-	1.8 U	1.8 U	1.8 U	2 U	1.8 U	1.9 U	2 U
Aldrin	41	-	1.8 U	1.8 U	1.8 U	2 U	1.8 U	1.9 U	2 U
Heptachlor Epoxide	20	-	1.1 JP	1.8 U	1.8 U	2 U	1.8 U	1.9 U	2 U
Endosulfan I	900	-	1.8 U	1.8 U	1.8 U	2 U	1.8 U	1.9 U	2 U
Dieldrin	44	-	3.8 U	3.4 U	3.4 U	3.9 U	3.5 U	3.7 U	3.8 U
4,4'-DDE	2100	-	15 U	3.4 U	3.4 U	3.9 U	3.5 U	3.7 U	3.8 U
Endrin	100	-	3.5 U	3.4 U	3.4 U	3.9 U	3.5 U	3.7 U	3.8 U
Endosulfan II	900	-	3.5 U	3.4 U	3.4 U	3.9 U	3.5 U	3.7 U	3.8 U
4,4'-DDD	2900	-	3.5 JP	3.4 U	3.4 U	3.9 U	3.5 U	3.7 U	3.8 U
Ensosulfan Sulfate	1000	-	3.5 U	3.4 U	3.4 U	3.9 U	3.5 U	3.7 U	3.8 U
4,4' DDT	2100	-	13	3.4 U	3.4 U	3.9 U	3.5 U	3.7 U	3.8 U
Methoxychlor	<10,000	-	18 U	18 U	18 U	20 U	18 U	19 U	20 U
Endrin Keytone	-	-	3.5 U	3.4 U	3.4 U	3.9 U	3.5 U	3.7 U	3.8 U
Endrin Aldehyde	-	-	3.5 U	3.4 U	3.4 U	3.9 U	3.5 U	3.7 U	3.8 U
Alpha-Chlordane	-	-	2.8	1 J	1.8 U	2 U	1.8 U	1.9 U	2 U
Gamma-Chlordane	540	-	1.3 JP	1.1 J	1.8 U	2 U	1.8 U	1.9 U	2 U
Toxaphene	-	-	180 U	180 U	180 U	200 U	180 U	190 U	200 U
Arochlor 1016	-	-	35 U	3.4 U	34 U	39 U	35 U	37 U	38 U
Arochlor 1221	-	-	71 U	69 U	69 U	79 U	71 U	74 U	77 U
Arochlor 1232	-	-	35 U	34 U	34 U	39 U	35 U	37 U	38 U
Arochlor 1242	-	-	35 U	34 U	34 U	39 U	35 U	37 U	38 U
Arochlor 1248	-	-	35 U	34 U	34 U	39 U	35 U	37 U	38 U
Arochlor 1254	-	-	35 U	34 U	34 U	39 U	35 U	37 U	38 U
Arochlor 1260	-	-	35 U	34 U	34 U	39 U	35 U	74 P	38 U

Qualifiers:
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**- Background levels of lead vary widely. Average background leverls in metropolitan and subban areas average 200 - 500 ppm
*** - Site specific condition should be taken into consideration when establishing clean up levels

Table 4. Soil Analytical Results for 138 KV Transmission Line

Pesticides & PCBs	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP Action Levels (mg/kg)	BNY-SB08-01 (ug/Kg)	BNY-SB08-02 (ug/Kg)	BNY-SB09-01 (ug/Kg)	BNY-SB09-02 (ug/Kg)	BNY-SB10-01 (ug/Kg)	BNY-SB10-02 (ug/Kg)	BNY-SB11-01 (ug/Kg)
Alpha BHC	110	-	1.9 U	2.3 U	1.8 U	1.9 U	2 U	2 U	2.1 U
Beta BHC	200	-	1.9 U	2.3 U	1.8 U	1.9 U	2 U	2 U	2.1 U
Delta BHC	300	-	1.9 U	2.3 U	1.8 U	1.9 U	2 U	2 U	2.1 U
Gamma BHC (Lindane)	60	-	7.2 P	2.3 U	1.8 U	1.9 U	2 U	2 U	2.1 U
Heptachlor	100	-	3.4	2.3 U	1.8 U	1.9 U	2 U	2 U	2.1 U
Aldrin	41	-	1.9 U	2.3 U	1.8 U	1.9 U	2 U	2 U	2.1 U
Heptachlor Epoxide	20	-	1.9 U	2.3 U	1.7 JP	1.9 U	2 U	2 U	1.1 J
Endosulfan I	900	-	1.9 U	2.3 U	1.8 U	1.9 U	2 U	2 U	2.1 U
Dieldrin	44	-	3.7 U	4.5 U	3.6 U	3.6 U	3.8 U	3.9 U	4 U
4,4'-DDE	2100	-	3.7 U	4.5 U	3.6 U	3.6 U	3.8 U	3.9 U	4 U
Endrin	100	-	3.7 U	4.5 U	3.6 U	3.6 U	3.8 U	3.9 U	4 U
Endosulfan II	900	-	3.7 U	4.5 U	3.6 U	3.6 U	3.8 U	3.9 U	4 U
4,4'-DDD	2900	-	3.7 U	4.5 U	3.6 U	3.6 U	3.8 U	3.9 U	4 U
Ensosulfan Sulfate	1000	-	3.7 U	4.5 U	3.6 U	3.6 U	3.8 U	3.9 U	4 U
4,4' DDT	2100	-	3.7 U	4.5 U	3.6 U	3.6 U	3.8 U	3.9 U	4 U
Methoxychlor	<10,000	-	19 U	23 U	18 U	19 U	20 U	20 U	21 U
Endrin Keytone	-	-	3.7 U	4.5 U	3.6 U	3.9 U	3.8 U	3.9 U	4 U
Endrin Aldehyde	-	-	3.7 U	4.5 U	3.6 U	3.6 U	3.8 U	3.9 U	4 U
Alpha-Chlordane	-	-	1.9 U	2.3 U	1.8 U	1.9 U	2 U	2 U	2.1 U
Gamma-Chlordane	540	-	1.9 U	2.3 U	1.8 U	1.9 U	2 U	2 U	2.1 U
Toxaphene	-	-	190 U	230 U	180 U	190 U	200 U	200 U	210 U
Arochlor 1016	-	-	37 U	45 U	36 U	36 U	38 U	39 U	40 U
Arochlor 1221	-	-	75 U	91 U	73 U	73 U	78 U	79 U	82 U
Arochlor 1232	-	-	37 U	45 U	36 U	36 U	38 U	39 U	40 U
Arochlor 1242	-	-	37 U	45 U	36 U	36 U	38 U	39 U	40 U
Arochlor 1248	-	-	37 U	45 U	36 U	36 U	38 U	39 U	40 U
Arochlor 1254	-	-	37 U	45 U	36 U	36 U	38 U	39 U	40 U
Arochlor 1260	-	-	37 U	45 U	36 U	36 U	38 U	39 U	40 U

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Table 4. Soil Analytical Results for 138 KV Transmission Line

Pesticides & PCBs	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP Action Levels (mg/kg)	BNY-SB11-02 (ug/Kg)	BNY-SB11-03 (ug/Kg)	BNY-SB12-01 (ug/Kg)	BNY-SB12-02 (ug/Kg)	BNY-SB13-01 (ug/Kg)	BNY-SB13-02 (ug/Kg)	BNY-SB14-01 (ug/Kg)
Alpha BHC	110	-	2.1 U	2.1 U	1.9 U	2.1 U	1.9 U	2.1 U	1.9 U
Beta BHC	200	-	2.1 U	2.1 U	1.9 U	2.1 U	1.9 U	2.1 U	1.9 U
Delta BHC	300	-	2.1 U	2.1 U	1.9 U	2.1 U	1.9 U	2.1 U	1.9 U
Gamma BHC (Lindane)	60	-	2.1 U	2.1 U	1.9 U	2.1 U	1.9 U	2.1 U	1.9 U
Heptachlor	100	-	2.1 U	2.1 U	1.9 U	2.1 U	1.9 U	2.1 U	1.9 U
Aldrin	41	-	2.1 U	2.1 U	1.9 U	2.1 U	1.9 U	2.1 U	1.9 U
Heptachlor Epoxide	20	-	2.1 U	2.1 U	1.5 JP	1.7 JP	1.9 U	2.1 U	1.9 U
Endosulfan I	900	-	2.1 U	2.1 U	1.9 U	2.1 U	1.9 U	2.1 U	1.9 U
Dieldrin	44	-	4 U	4 U	3.7 U	4.1 U	3.8 U	4 U	3.8 U
4,4'-DDE	2100	-	4 U	4 U	3.7 U	4.1 U	3.8 U	4 U	3.8 U
Endrin	100	-	4 U	4 U	3.7 U	4.1 U	3.8 U	4 U	3.8 U
Endosulfan II	900	-	4 U	4 U	3.7 U	4.1 U	3.8 U	4 U	3.8 U
4,4'-DDD	2900	-	4 U	4 U	3.7 U	4.1 U	3.8 U	4 U	3.8 U
Ensosulfan Sulfate	1000	-	4 U	4 U	3.7 U	4.1 U	3.8 U	4 U	3.8 U
4,4' DDT	2100	-	4 U	4 U	3.7 U	4.1 U	3.8 U	4 U	3.8 U
Methoxychlor	<10,000	-	21 U	21 U	19 U	21 U	19 U	21 U	19 U
Endrin Keytone	-	-	4 U	4 U	3.7 U	4.1 U	3.8 U	4 U	3.8 U
Endrin Aldehyde	-	-	4 U	4 U	3.7 U	4.1 U	3.8 U	4 U	3.8 U
Alpha-Chlordane	-	-	2.1 U	2.1 U	1.9 U	2.1 U	1.9 U	2.1 U	1.9 U
Gamma-Chlordane	540	-	2.1 U	2.1 U	1.9 U	2.1 U	1.9 U	2.1 U	1.9 U
Toxaphene	-	-	210 U	210 U	190 U	210 U	190 U	210 U	190 U
Arochlor 1016	-	-	40 U	40 U	37 U	41 U	38 U	40 U	38 U
Arochlor 1221	-	-	81 U	82 U	76 U	84 U	77 U	81 U	76 U
Arochlor 1232	-	-	40 U	40 U	37 U	41 U	38 U	40 U	38 U
Arochlor 1242	-	-	40 U	40 U	37 U	41 U	38 U	40 U	38 U
Arochlor 1248	-	-	40 U	40 U	37 U	41 U	38 U	40 U	38 U
Arochlor 1254	-	-	40 U	40 U	37 U	41 U	38 U	40 U	38 U
Arochlor 1260	-	-	40 U	40 U	37 U	41 U	38 U	40 U	38 U

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Table 4. Soil Analytical Results for 138 KV Transmission Line

Pesticides & PCBs	Recommended Soil Cleanup Objectives (mg/kg)	NYCDEP Action Levels (mg/kg)	BNY-SB14-02 (ug/Kg)	BNY-SB14-03 (ug/Kg)	BNY-SB15-01 (ug/Kg)	BNY-SB15-02 (ug/Kg)	BNY-SB16-01 (ug/Kg)	BNY-SB16-02 (ug/Kg)
Alpha BHC	110	-	2.7 U	1.9 U	1.8 U	2 U	1.9 U	2.3 U
Beta BHC	200	-	2.7 U	1.9 U	1.8 U	2 U	1.9 U	2.3 U
Delta BHC	300	-	2.7 U	1.9 U	1.8 U	2 U	1.9 U	2.3 U
Gamma BHC (Lindane)	60	-	2.7 U	1.9 U	1.8 U	2 U	1.9 U	2.3 U
Heptachlor	100	-	2.7 U	1.1 JP	1.8 U	2 U	1.9 U	2.3 U
Aldrin	41	-	2.7 U	1.9 U	1.8 U	2 U	1.9 U	2.3 U
Heptachlor Epoxide	20	-	2.7 U	1.9 U	1.3 JP	2 U	1.5 JP	2.3 U
Endosulfan I	900	-	2.7 U	1.9 U	1.8 U	2 U	1.9 U	2.3 U
Dieldrin	44	-	5.2 U	3.7 U	3.6 U	3.8 U	3.6 U	4.4 U
4,4'-DDE	2100	-	5.2 U	3.7 U	3.6 U	3.8 U	3.6 U	4.4 U
Endrin	100	-	5.2 U	3.7 U	3.6 U	3.8 U	3.6 U	4.4 U
Endosulfan II	900	-	5.2 U	3.7 U	3.6 U	3.8 U	3.6 U	4.4 U
4,4'-DDD	2900	-	5.2 U	3.7 U	3.6 U	3.8 U	3.6 U	4.4 U
Ensosulfan Sulfate	1000	-	5.2 U	3.7 U	3.6 U	3.8 U	3.6 U	4.4 U
4,4' DDT	2100	-	5.2 U	3.7 U	3.6 U	3.8 U	3.6 U	4.4 U
Methoxychlor	<10,000	-	27 U	19 U	18 U	20 U	19 U	23 U
Endrin Keytone	-	-	5.2 U	3.7 U	3.6 U	3.8 U	3.6 U	4.4 U
Endrin Aldehyde	-	-	5.2 U	3.7 U	3.6 U	3.8 U	3.6 U	4.4 U
Alpha-Chlordane	-	-	2.7 U	1.9 U	1.8 U	2 U	1.9 U	2.3 U
Gamma-Chlordane	540	-	2.7 U	1.9 U	1.8 U	2 U	1.9 U	2.3 U
Toxaphene	-	-	270 U	190 U	180 U	200 U	190 U	230 U
Arochlor 1016	-	-	52 U	37 U	36 U	38 U	36 U	44 U
Arochlor 1221	-	-	110 U	76 U	72 U	77 U	74 U	89 U
Arochlor 1232	-	-	52 U	37 U	36 U	38 U	36 U	44 U
Arochlor 1242	-	-	52 U	37 U	36 U	38 U	36 U	44 U
Arochlor 1248	-	-	52 U	37 U	36 U	38 U	36 U	44 U
Arochlor 1254	-	-	52 U	37 U	36 U	38 U	36 U	44 U
Arochlor 1260	-	-	52 U	37 U	36 U	38 U	36 U	44 U

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Pipeline Route - Sampling Results by F. P. & M.
Cogeneration Project 5/1/1995

Description of Location	Soil Samples			Groundwater Samples	
	Sample Designation	No. of Samples Subsurface	Surfical	Sample Designation	No. of Samples
Pipeline Route (See Map)	B-1, B-2 B-3, B-4 B-5, B-6 B-7, B-8	8	0	-	0
Totals	**-**	**8**	**0**	**-**	**0**

Table 1. Total Analyte List Metals Analysis
Fanning, Phillips & Molnar Gas Line

Soil Samples (0-6 feet)

Metal Analytes (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (mg/kg)	Soill Concentration Industrial Setting* (mg/kg)	B-1 (mg/kg)	B-2 (mg/kg)	B-3 (mg/kg)	B-4 (mg/kg)	B-5 (mg/kg)	B-6 (mg/kg)	B-7 (mg/kg)	B-8 (mg/kg)
Silver	SB	0.01 - 8	1.20 U	1.10 U	1.10	1.10	1.10 U	1.10 U	1.10 U	1.10
Arsenic	7.5 or SB	0.1-194	10.3	12.2	8.8	3.5	4.5	3.7	5.5	4.5
Barium	300 or SB	100-3,000	153	129	170	57.8	54.2	84.5	68.2	75.8
Cadmium	1 or SB	0.01-7	0.82	0.86	1.1	0.56 U	0.57 U	0.57 U	0.57 U	0.67
Chromium	10 or SB	5 -3,000	16.5	26.9	21.5	12.2	13.6	19.4	12.5	27.9
Mercury	0.10	0.001 - 4.6	0.62	2.4	4.3	0.41	0.27	0.26	0.31	2.4
Lead	SB or **	1- 800	306	603	783	70.6	78.9	194	111	212
Selenium	2 or SB	0.1 - 38	0.59 U	0.54 U	0.57 U	0.56 U	0.57 U	0.57 U	0.57 U	0.58 U
Total Solids (%)	-	-	85.00	92.90	88.20	89.90	88.50	87.60	88.00	89.70

Qualifiers:
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B - Analyte Found in associated blank as well as sample
SB - Site Background
* - Soils Concentration found in idustrial settings(McClanahan, 10/3/86)
**- Background levels of lead vary widely. Average background leverls in metropolitan and suburban areas average 200 - 500 ppm
*** - Site specific condition should be taken into consideration when establishing clean up levels

Table 2. Total Compound List Volatile Analysis
Fanning, Phillips & Molnar Gas Line
Soil Samples (0-6 feet)

Volatile Organic Compounds (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (ug/kg)	B-1 (ug/kg)	B-2 (ug/kg)	B-3 (ug/kg)	B-4 (ug/kg)	B-5 (ug/kg)	B-6 (ug/kg)	B-7 (ug/kg)	B-8 (ug/kg)
Chloromethane	-	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Bromomethane	-	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Vinyl Chloride	200	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Chloroethane	1900	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Methylene Chloride	100	18	34 B	19 U	13 B	29 B	17 B	11 U	13 B
1,1-Dichloroethene	400	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
1,1-Dichloroethane	200	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
1,2-Dichloroethene (total)	300	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Chloroform	300	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
1,2-Dichloroethane	100	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
1,1,1-Trichloroethane	800	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Carbon Tetrachloride	600	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Bromodichloromethane	-	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
1,2-Dichloropropane	-	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
trans-1,3-Dichloropropene	-	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Trichloroethene	700	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Dibromochloromethane	-	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
1,1,2-Trichloroethane	-	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
cis-1,3-Dichloropropene	-	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Benzene	60	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Bromoform	-	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
1,1,2,2-Tetrachloroethane	600	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Tetrachloroethene	1400	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Toluene	1500	14	23	11 U	11 U	11 U	11 U	11 U	11 U
Chlorobenzene	1700	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Ethylbenzene	5500	120	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Xylene (total)	1200	910	21	11 U	11 U	11 U	11 U	11 U	11 U
Acetone	200	190 B	33 B	40 B	19 B	67 B	110 B	28 B	200 B
2-Butanone	300	12 U	11 U	11 U	11 U	11 U	11 U	11 U	42 U
4-Methyl-2-pentanone	1000	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Carbon Disulfide	200	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
2-Hexanone	-	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Styrene	-	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
N-Butylbezene	-	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Sec-Butylbenzene	-	720 E	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Tert-Butylbenzene	-	12 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Isopropylbenzene	-	400 E	11 U	11 U	11 U	11 U	11 U	11 U	11 U
P-Isopropylbenzene	-	1800 E	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Naphthalene	-	1700 E	11 U	11 U	11 U	11 U	11 U	11 U	21
N-Propylbenzene	-	820 E	11 U	11 U	11 U	11 U	11 U	11 U	11 U
1,2,4-Trimethylbenzene	-	8300 E	11 U	11 U	11 U	11 U	11 U	11 U	26
1,3,5-Trimethylbenzene	-	13000 E	26	11 U	11 U	11 U	11 U	11 U	35
Methyl Tert. Butyl Ether	-	12 U	11	11 U	11 U	11 U	11 U	11 U	11 U
m-Xylene	-	460 E	20	11 U	11 U	11 U	11 U	11 U	11 U
p-Xylene	-	-	-	11 U	11 U	11 U	11 U	11 U	11 U
o-xylene	-	450 E	11 U	11 U	11 U	11 U	11 U	11 U	11 U

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the quantification limit
D - Compound identified at a secondary dilution

Table 3. Total Compound List Semivolatile Analysis
Fanning, Phillips & Molnar Gas Line

Soil Samples (0-6 feet)

Semivolatile Organic Compounds (Concentration in ug/kg)	NYSDEC Recommended Soil Cleanup Objectives (ug/kg)	ATSDR Background Soil Concentrations PAHs in Urban Soils (ug/kg)	F. Blk. (ug/L)	B-1 (ug/kg)		B-2 (ug/kg)	B-3 (ug/kg)	B-4 (ug/kg)	B-5 (ug/kg)	B-6 (ug/kg)	B-7 (ug/kg)	B-8 (ug/kg)
1,3-Dichlorobenzene	-	-	10	19000		360	370	370	370	380	380	370
1,4-Dichlorobenzene	-	-	10	19000		360	370	370	370	380	380	370
Hexachloroethane	-	-	10	19000		360	370	370	370	380	380	370
bis (2-chloroethyl) ether	-	-	10	19000		360	370	370	370	380	380	370
1,2-Dichlorobenzene	-	-	10	19000		360	370	370	370	380	430	370
2,2-Oxybis (1-Chl. Propane)			10	19000		360	370	370	370	380	380	370
N-Nitroso-di-n-propylamine	-	-	10	19000		360	370	370	370	380	380	370
Nitrobenzene	200	-	10	19000		360	370	370	370	380	380	370
Hexachlorobutadiene	410	-	10	19000		360	370	370	370	380	380	370
1,2,4-Trichlorobenzene	-	-	10	19000		360	370	370	370	380	380	620
Isophorone	4,400	-	10	19000		360	370	370	370	380	380	370
Naphthalene	13,000	-	10	4800	JD	360	370	370	370	380	380	370
bis (2-Chloroethoxy) methane	-	-	10	19000		360	370	370	370	380	380	370
Carbazole			10	19000		360	370	370	370	380	380	370
Hexachlorocyclopentadiene	-	-	10	19000		360	370	370	370	380	380	370
2-Chloronaphthalene	-	-	10	19000		360	370	370	370	380	380	370
Acenaphthylene	50,000	-	10	19000		360	370	370	370	380	380	370
Acenaphthene	50,000	-	10	19000		360	370	370	370	380	380	370
Dimethyl phthalate	2,000	-	10	19000		360	370	370	370	380	380	370
2,6-Dinitotoluene	1,000	-	10	19000		360	370	370	370	380	380	370
Flourene	50,000	-	10	19000		360	370	370	370	380	380	370
4-Chlorophenyl-phenylether	-	-	10	19000		360	370	370	370	380	380	370
2,4-Dinitrotoluene	-	-	10	19000		360	370	370	370	380	380	370
Diethylphthalate	7,100	-	10	19000		360	370	370	370	380	380	370
N-Nitrosodiphenylamine	-	-	10	19000		360	370	370	370	380	380	370
Hexachlorobenzene	410	-	10	19000		360	370	370	370	380	380	370
4-Bromophenyl-phenylether	-	-	10	19000		360	370	370	370	380	380	370
Phenanthrene	50,000	-	10	19000		520	370	370	450	900	870	890
Anthracene	50,000	-	10	19000		360	370	370	370	380	380	370
Di-n-butylphthalate	8,100	-	10	19000		360	370	370	370	380	380	370
Fluoranthene	50,000	200 - 166,000	10	19000		590	370	370	590	2000	1100	870
Pyrene	50,000	145 - 147,000	10	19000		610	370	370	490	1900	1100	970
Butylbenzylphthalate	50,000	-	10	19000		360	370	370	370	380	380	370
bis(2-ethylhexyl) phthalate	50,000	-	10	19000		360	370	370	370	380	380	370
Chrysene	400	251 - 640	10	19000		420	370	370	370	1400	680	470
Benzo(a)anthracene	224 or MDL	169 - 59,000	10	19000		360	370	370	370	1400	630	460
3,3'-Dichlorobenzidine	-	-	10	19000		360	370	370	370	380	380	370
Di-n-octyl phthalate	50,000	-	10	19000		360	370	370	370	380	380	370
Benzo (b) fluoranthene	1,100	15,000 - 62,000	10	19000		370	370	370	370	1900	700	520
Benzo (k) fluoranthene	1,100	300 - 26,000	10	19000		360	370	370	370	570	510	370
Benzo (a) pyrene	61 or MDL	165 - 220	10	19000		360	370	370	370	780	600	410
Indeno (1,2,3-cd) pyrene	3,200	8,000 - 61,000	10	19000		360	370	370	370	590	390	370
Dibenzo (a,h) anthracene	14 or MDL	-	10	19000		360	370	370	370	380	380	370
Benzo (g,h,i) perylene	50,000	900 - 47,000	10	19000		360	370	370	370	380	380	370
4-Chloroaniline			10	19000		360	370	370	370	380	380	370
2-Methylnaphthalene			10	16000	J	360	370	370	370	380	380	370
2-Nitroaniline			25	47000		890	940	920	930	940	940	920
3-Nitroaniline			25	47000		890	940	920	930	940	940	920
Dibenzofuran			10	19000		360	370	370	370	380	380	370
4-Nitroaniline			25	47000		890	940	920	930	940	940	920

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution

Table 4. Pesticide and Herbicide Analysis
Fanning, Phillips & Molnar Gas Line
Soil Sampling (0-6 feet)

Pesticide Compounds (Concentration in ug/kg)	Regulatory Level (ug/L)	B-1 (ug/L)		B-2 (ug/L)		B-3 (ug/L)		B-4 (ug/L)		B-5 (ug/L)		B-6 (ug/L)		B-7 (ug/L)		B-8 (ug/L)	
2,4,-D	10,000	100	U	100	U	100	U	100	U	100	U	100	U	100	U	100	U
2,4,5-TP (Silvex)	1,000	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
gamma -BHC(Lindane)	400	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Heptachlor	8	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Heptachlor expoxide	8	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Endrin	20	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methoxychlor	10,000	100	U	100	U	100	U	100	U	100	U	100	U	100	U	100	U
Toxaphene	500	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Chlordane	30	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U

Polychlorinated Biphenyl Analysis
Soil Sampling (0-6 feet)

Polychlorinated Biphenyls(PCBs) (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (ug/L)	B-1 (ug/kg)		B-2 (ug/kg)		B-3 (ug/kg)		B-4 (ug/kg)		B-5 (ug/kg)		B-6 (ug/kg)		B-7 (ug/kg)		B-8 (ug/kg)	
Aroclor-1016	50,000	39	U	35	U	38	U	36	U	36	U	36	U	36	U	36	U
Aroclor-1221	50,000	78	U	70	U	75	U	72	U	72	U	72	U	72	U	72	U
Aroclor-1232	50,000	39	U	35	U	38	U	36	U	36	U	36	U	36	U	36	U
Aroclor-1242	50,000	39	U	35	U	38	U	36	U	36	U	36	U	36	U	36	U
Aroclor-1248	50,000	39	U	35	U	38	U	36	U	36	U	36	U	36	U	36	U
Aroclor-1254	50,000	39	U	35	U	38	U	36	U	36	U	36	U	36	U	36	U
Aroclor-1260	50,000	41		52		44		36	U	36	U	36	U	36	U	2300	

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
C - Pesticide Compound where the identification has been successfully confirmed
P - Pesticide/Aroclor target analyte when there is a >25% difference detected Conc. between GC columns
Y - Several pesticide peaks "detected" in samples SS-1, 2, 4, 5, 6, 8, and 9 are most likely due to Arochlor conditions

Table 1. Summary of Analytical Results For Soil Samples Collected From Test Borings/Monitoring Wells
Building #41 Subsurface Assessment Cogeneration Project

Parameters Metal Analytes (mg/kg)	Recommended Soil Cleanup Objectives	NYCDEP Action Levels	TB-1	TB-1	TB-2	TB-2	MW-3	MW-3	MW-4	MW-4	MW-5	MW-5	SS-1
Sample Depth (ft below grade)			1.0-3.0	7.0-9.0	1.0-3.0	7.0-9.0	0.5-2.5	10.5-12.5	0.5-2.5	4.5-6.5	1.0-3.0	5.0-7.0	
Aluminum	SB	-	6740	3320	6830	7120	4740	2870	2140	2020	1400	3430	6800
Antimony	SB	10	13	13.6	12.4	13.4	16.2	13.7	11.8	12.8	11.3	13.3	12.3
Arsenic	7.5 or SB	9	8.42	3.44	10.2	3.67	6.9	4.51	13.3	16.6	2.01	2.07	429
Barium	300 or SB	400	110	45.2	129	66.5	54	344	39.4	42.6	37.6	44.4	351
Beryllium	0.16(HEAST) or SB	1	1.08	1.13	1.04	1.12	1.35	1.14	0.98	1.07	0.94	1.11	2.2
Cadmium	1 or SB	37	2.16	2.26	2.08	2.24	2.7	2.29	1.97	2.13	1.88	2.22	5.38
Calcium	SB	-	11800	6890	2770	4530	19800	7620	15200	9160	408	805	6800
Chromium	10 or SB	46	14.5	20.8	14.7	13.4	8.93	10.8	6.05	5.97	4.4	7.66	141
Cobalt	30 or SB	-	10.8	11.3	10.4	11.2	13.5	11.5	9.85	10.7	9.4	11.1	19.2
Copper	25 or SB	170	117	18.4	1420	41.4	62.7	29.2	8.9	5.33	4.7	51.3	353
Iron	2,000 or SB	-	14900	11500	16900	13000	12000	10400	8760	8520	3370	9610	93400
Lead	SB or **	1000	5460	20.2	915	192	694	100	14	17.1	4.24	95.4	2070
Magnesium	SB	-	2810	1460	2870	2370	1860	1120	1270	1370	488	1650	1740
Maganese	SB	-	240	173	283	249	143	144	222	197	70	116	671
Mercury	0.1	1	1.46	0.09	0.76	0.44	0.47	0.15	0.11	0.11	0.09	0.1	0.69
Nickel	13 or SB	100	22.2	12.8	23.4	17.4	13.4	9.45	7.88	8.53	7.52	11.5	95.4
Potassium	SB	-	1280	509	946	997	800	529	491	213	262	601	894
Selenium	2 or SB	-	1.13	1.16	1.1	1.12	1.31	1.13	0.86	1.05	1	1.03	5.5
Silver	SB	5	2.16	2.26	2.08	2.24	2.7	2.29	1.97	2.13	1.88	2.22	4.55
Sodium	SB	-	222	226	208	224	270	229	197	213	188	222	300
Thallium	SB	-	2.26	2.33	2.2	2.24	2.62	2.27	1.73	2.09	2.01	2.07	2.12
Vanadium	150-SB	-	19.6	11.3	20.6	16.5	13.5	11.5	10.4	10.7	9.4	11.1	73.6
Zinc	20 or SB	350	180	53.7	523	77.2	168	89.3	105	139	8.48	44	1280
Cyanide	***	-	2.91	2.91	2.8	2.98	3.44	2.96	2.51	2.64	2.48	2.78	7.69

Qualifiers:
mg/kg - Milligram per kilogram
U - Not detected; detection limit shown
B - Analyte Found in associated blank as well as sample
SB - Site Background
* - Soils Concentration found in idustrial settings(McClanahan, 10/3/86)
**- Background levels of lead vary widely. Average background leverls in metropolitan and subban areas average 200 - 500 ppm
*** - Site specific condition should be taken into consideration when establishing clean up levels

NOTE: All samples analyzed for Target Compound List (TCL) volatile, semi-volatile, and PCB parameters, and Target Analyte List (TAL) metals and cyanide per EPA ASP 1988 SOW. This Table contains only those parameters detected in at least one sample.
J - Parameter detected below minimum instrument detection limit and should be considered an estimated value.
B - Parameter also detected in method blank
ND - Not detected
NR - Not run

Table 2. Summary of Analytical Results For Soil Samples Collected From Test Borings/Monitoring Wells Volatiles and PCBs
Building #41 Subsurface Assessment

Parameters PCBs (ug/kg)	Recommended Soil Cleanup Objectives	NYCDEP Action Levels	TB-1	TB-1	TB-2	TB-2	MW-3	MW-3	MW-4	MW-4	MW-5	MW-5
Sample Depth (ft below grade)			1.0-3.0	7.0-9.0	1.0-3.0	7.0-9.0	0.5-2.5	10.5-12.5	0.5-2.5	4.5-6.5	1.0-3.0	5.0-7.0
Aroclor - 1254	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor - 1260	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Parameters Volatile Organics (ug/kg)	Recommended Soil Cleanup Objectives	NYCDEP Action Levels	TB-1	TB-1	TB-2	TB-2	MW-3	MW-3	MW-4	MW-4	MW-5	MW-5
Sample Depth (ft below grade)			1.0-3.0	7.0-9.0	1.0-3.0	7.0-9.0	0.5-2.5	10.5-12.5	0.5-2.5	4.5-6.5	1.0-3.0	5.0-7.0
Acetone	200		16 B	ND	15 B	74 B	22 B	6 JB	50	75 B	9 JB	26 B
1,1-Dichloroethane	200		ND	ND	ND	ND	ND	ND	ND	ND	ND	2 J
1,2-Dichloroethene (total)	300		1 J	ND	ND	ND	ND	ND	ND J	ND	ND	ND
Chloroform	300		ND	ND	ND	ND	ND	ND	0.7	ND	ND	ND
2-Butanone	300		ND	ND	ND	11 J	ND	ND	ND J	ND	ND	ND
1,1,1-Trichloroethane	800		2 J	ND	2 J	ND	ND	ND	5	9 J	ND	1 J
Trichloroethene	700		9	ND	ND	ND	2 J	ND	ND	ND	ND	ND
Toluene	1500		1 J	ND	3 J	ND	ND	ND	ND	4 J	ND	1 J
Xylene (total)	1200		0.7 J	ND	ND	ND	ND	ND	ND	ND	ND	ND

Qualifiers:
mg/kg - Milligram per kilogram
U - Not detected; detection limit shown
B - Analyte Found in associated blank as well as sample
SB - Site Background
* - Soils Concentration found in idustrial settings(McClanahan, 10/3/86)
**- Background levels of lead vary widely. Average background leverls in metropolitan and subban areas average 200 - 500 ppm
*** - Site specific condition should be taken into consideration when establishing clean up levels

Table 3. Summary of Analytical Results For Soil Samples Collected From Test Borings/Monitoring Wells Semivolatile Organic Compounds
Building #41 Subsurface Assessment Cogeneration Project

Paramaters Semivolatile Analytes	Recommended Soil Cleanup Objectives	NYCDEP Action Levels	TB-1	TB-1	TB-2	TB-2	MW-3	MW-3	MW-4	MW-4	MW-5	MW-5	SS-1	SS-2
Acenapthene	50000	-	560 J	ND	180 J	43 J	ND	ND	ND	ND	ND	ND	280 J	120
Dibenzofuran	6200	-	370 J	ND	140 J	24 J	ND	ND	ND	ND	ND	ND	160 J	85
Flourene	50000	-	730 J	ND	210 J	36 J	ND	ND	ND	ND	ND	ND	240 J	120
N-Nitrosodiphenylamine (1)	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	86
Phenanthrene	50000	-	7000	50 J	2100	470	280 J	69 J	74	730 J	ND	ND	3400	1500
Anthracene	50000	-	1700	ND	480	110 J	42 J	12 J	ND J	ND	ND	ND	560 J	200
Di-n-butylphthlate	8100	-	ND	16 J	ND	ND	17 J	27 J	ND	ND	ND	ND	290 J	560
Flouranthene	50000	200 - 166000	8700	ND	2700	570	510	130 J	44	ND	ND	ND	5100	2300
Pyrene	50000	145 - 147000	6600	83 J	2100	550	440	130 J	89 J	550 J	ND	ND	7500	2800
Butylbenzylphthalate	50000	-	ND	ND	ND	ND	ND	ND	ND J	ND	ND	ND	850	830
Benzo (a) anthracene	224 or MDL	169 - 59000	4100	49 J	1100	250 J	240 J	77 J	ND	ND	ND	ND	2900	1100
Chrysene	400	251 - 640	4300	ND	1200	260 J	290 J	ND	ND	ND	ND	ND	3700	1500
bis (2-Ethylhexl) phthalate	50000	-	1600 B	670 B	850 B	620 B	1500 B	840 B	310	8300 B	150 J	340 J	9300 B	14000
Di-n-octylphthalate	50000	-	ND	ND	ND	ND	24 J	ND	ND JB	ND	ND	ND	490 J	450
Benzo (b) flouranthene	1100	15000 - 62000	3600	39 J	900	170 J	240 J	72 J	ND	ND	ND	ND	6000	2100
Benzo (k) flouranthene	1100	300 - 26000	2400	ND	840	100 J	200 J	7 J	ND	ND	ND	ND	4800	1600
Benzo (a) pyrene	61 or MDL	165 - 220	3400	40 J	940	210 J	210 J	72 J	ND	ND	ND	ND	2900	1100
Ideno (1,2,3-cd) pyrene	3200	8000 - 61000	2000	ND	580	140 J	180 J	57 J	ND	ND	ND	ND	1000	ND
Benzo (g,h,i) perylene	50000	900 - 47000	1700	ND	540	140 J	200 J	65 J	ND	ND	ND	ND	1200	ND

Qualifiers:
mg/kg - Milligram per kilogram
U - Not detected; detection limit shown
B - Analyte Found in associated blank as well as sample
SB - Site Background
* - Soils Concentration found in idustrial settings(McClanahan, 10/3/86)
**- Background levels of lead vary widely. Average background leverls in metropolitan and subban areas average 200 - 500 ppm
*** - Site specific condition should be taken into consideration when establishing clean up levels

PROJECT:
Brooklyn Navy Yard
Sampling Locations

DWN. BY RDW
CHK. BY NM
SCALE: N/A

PREVIOUS SOIL SAMPLING LOCATIONS
STEINER STUDIOS (OP1 & OP2)
Brooklyn Navy Yard
Brooklyn, NY 11205

Quay Consulting

QUAY CONSULTING, LLC

HYPACK TAG:	DATE
ANALOG # 041506	APR. 15, 2006
FIELD BOOK: N/A	LINE FILE: BNY 01

FIGURE NO. B
BROOKLYN NAVY YARD
DEVELOPMENT CORP

STEINER STUDIO PROJECT

(Operable Unit 1 & 2)

Analytical data has been submitted to New York State Department of Environmental Conservation (DEC), Division of Environmental Remediation. The data has been accepted for both Operable Units by DEC.

PROJECT:
Brooklyn Navy Yard
Sampling Locations

DWN. BY RDW
CHK. BY NM
SCALE: N/A

PREVIOUS SOIL SAMPLING LOCATIONS
ROADWAY RECONSTRUCTION
Brooklyn Navy Yard
Brooklyn, NY 11205

Quay Consulting
QUAY CONSULTING, LLC

HYPACK TAG:
ANALOG # 041506
FIELD BOOK: N/A
DATE APR. 15, 2006
LINE FILE: BNY 01
FIGURE NO. C
BROOKLYN NAVY YARD DEVELOPMENT CORP

Table 1. Summary of Metals, Cyanide & TOC in Soil Samples
Proposed Wilson Avenue Roadway

Metal Analytes (Concentration in mg/kg)	Recommended Soil Cleanup Objectives (mg/kg)	Eastern US Element Conc. in Soils (Shacklette) (mg/kg)	New York State Background Conc. in Soils (McGovern) (mg/kg)	03/01/04 Split Spoon SS-01 (0'-2') (mg/kg)	03/01/04 Split Spoon SS-01 (4'-6') (mg/kg)	03/01/04 Split Spoon SS-02 (0'-2') (mg/kg)	03/01/04 Split Spoon SS-02 (6'-8') (mg/kg)	03/01/04 Split Spoon SS-03 (0'-2') (mg/kg)	03/01/04 Split Spoon SS-03 (6'-8') (mg/kg)	03/01/04 Split Spoon SS-04 (0'-2') (mg/kg)	03/01/04 Split Spoon SS-04 (6'-8') (mg/kg)
Aluminum	SB	7,000 -100,000	33,000	7360	6240	7780	5280	6110	6850	5540	7110
Antimony	SB	<1 - 8.8	NA	1.38 B	7.27 B	3.25 B	1.48 B	1.22 B	3.00 B	1.98 B	5.03 B
Arsenic	7.5 or SB	<0.1 - 73	3.0 - 12	0.60 B	2.70	0.75 B	6.77	4.09	64.2	2.93	1.24
Barium	300 or SB	10 - 1,500	15 - 600	42.9	46.1	46.0	38.4	40.5	242	70.4	58.7
Beryllium	0.16(HEAST) or SB	<1 - 7	0 - 1.75	0.091 B	0.18 B	0.054 B	0.20 B	<0.011 U	0.059 B	0.034 B	<0.011 U
Cadmium	1 or SB	NA	0.1 - 1	2.22	1.69	1.31	1.32	1.10	1.72	2.96	1.35
Calcium	SB	100 - 280,000	130 - 35,000	689	4990	970	1630	1050	3320	10100	1460
Chromium	10 or SB	1 - 1,000	1.5 - 40	17.8	14.9	16.2	11.8	14.1	28.2	15.2	15.1
Cobalt	30 or SB	<0.3 - 70	2.5 - 60	6.77	5.19 B	6.53	9.70	5.31 B	5.62 B	8.00	6.59
Copper	25 or SB	<1 - 700	<1 - 50	19.8	39.9	26.4	57.0	30.7	132	92.8	177
Iron	2,000 or SB	100 - 100,000	2,000 - 550,000	21100	14600	14400	12400	12300	15600	26000	14500
Lead	SB or *	<10 - 300	200 - 500	15.6	37.3	27.9	42.1	190	445	159	42.7
Magnesium	SB	50 - 50,000	100 - 5,000	2110	2260	1750	1540	1570	2190	3540	2200
Manganese	SB	<2 - 7,000	50 - 5,000	203	136	149	90.4	184	165	391	247
Mercury	0.10	0.01 - 3.4	0.001 - 0.2	0.028	0.34	0.13	0.083	4.55	<0.18 U	0.81	0.50
Nickel	13 or SB	<5 - 700	0.5 - 25	13.9	12.7	9.86	19.6	10.0	13.3	17.7	10.8
Potassium	SB	50 - 37,000	8,500 - 43,000	977	741	696	623	592	743 U	973	843
Selenium	2 or SB	<0.1 - 3.9	<0.1 - 3.9	<0.62 U	<0.67 U	<0.59 U	<0.62 U	<0.63 U	<0.64 U	<0.62 U	<0.61 U
Silver	SB	NA	NA	<0.12 U	<0.13 U	<0.12 U	<0.12 U	<0.13	<0.13 U	<0.12 U	<0.12 U
Sodium	SB	<500 - 50,000	6,000 - 8,000	173 B	167	500 B	339 B	1060	1000	758	276 B
Thallium	SB	2.2 - 23	NA	<0.20 U	2.51	<0.19 U	<0.20 U	<0.21 U	<0.21 U	0.81 B	<0.22 U
Vanadium	150-SB	<7 - 300	1 - 300	28.7	21.2	28.5	15.3	18.1	21.9	19.8	22.4
Zinc	20 or SB	<5 - 2,900	9.0 - 50	36.5	51.3	38.3	38.9	43.3	340	151	58.6
Cyanide	**	NA	NA	0.028 B	0.88	<0.17 U	<0.18 U	<0.17 U	0.20	<0.17 U	<0.17 U
Total Organic Carbon	TOC Original			<500 U	8620	<500 U	<500 U	<500 U	<500 U	12600	<500 U
% Total Solids	% Solids			84.9	83.9	87.1	84.4	83.9	89.8	87.0	90.8

Qualifiers:
mg/kg - Milligram per kilogram
U - Not detected; instrument detection limit shown
B - Analyte Found in associated blank as well as sample
SB - Site Background
*- Background levels of lead vary widely. Average background levels in metropolitan and suburban areas average 200 - 500 ppm
** - Site specific condition should be taken into consideration when establishing clean up levels
Scacklette, HT and JG Boerngen, 1984. *"Element Concentration in Soils and other Surficial Materials of the Conterminus United States, USGS Professional Paper 1270."*
E. Carol McGovern, NYSDEC Wildlife Resource Center. *"Background Concentrations of 20 elements in Soils with Special Regard for New York State."*

Table 1. Summary of Metals, Cyanide & TOC in Soil Samples. Continued
Washington Avenue Roadway

Metal Analytes (Concentration in mg/kg)	Recommended Soil Cleanup Objectives (mg/kg)	Eastern US Element Conc. in Soils (Shacklette) (mg/kg)	New York State Background Conc. in Soils (McGovern) (mg/kg)	03/01/04 Split Spoon SS-05 (0'-2') (mg/kg)	03/01/04 Split Spoon SS-05 (6'-8') (mg/kg)	03/01/04 Split Spoon SS-06 (0'-2') (mg/kg)	03/01/04 Split Spoon SS-06 (4'-6') (mg/kg)	03/01/04 Split Spoon SS-07 (mg/kg)	03/01/04 Split Spoon SS-08 (4'-6') (mg/kg)
Aluminum	SB	7,000 -100,000	33,000	5170	5200	3400	6770	NR	5310
Antimony	SB	<1 - 8.8	NA	4.79 B	2.40 B	5.99 B	<0.60 U	NR	<0.59 U
Arsenic	7.5 or SB	<0.1 - 73	3.0 - 12	21.6	6.29	7.65	<0.28 U	NR	4.64
Barium	300 or SB	10 - 1,500	15 - 600	188	107	65.8	40.8	NR	35.4
Beryllium	0.16(HEAST) or SB	<1 - 7	0 - 1.75	<0.011 U	<0.011 U	0.24 B	<0.010 U	NR U	<0.010 U
Cadmium	1 or SB	NA	0.1 - 1	1.84	2.02	2.08	1.33	NR	0.94
Calcium	SB	100 - 280,000	130 - 35,000	10100	8050	21600	1160	NR	802
Chromium	10 or SB	1 - 1,000	1.5 - 40	16.8	13.7	29.5	18.4	NR	10.4
Cobalt	30 or SB	<0.3 - 70	2.5 - 60	5.02	5.38 B	6.48	6.06	NR	4.87 B
Copper	25 or SB	<1 - 700	<1 - 50	88.6	81.8	162	30.9	NR	31.6
Iron	2,000 or SB	100 - 100,000	2,000 - 550,000	15700	15100	14500	15300	NR	10800
Lead	SB or *	<10 - 300	200 - 500	324	445	213	12.8	NR	143
Magnesium	SB	50 - 50,000	100 - 5,000	2930	2750	4510	2200	NR	1580
Manganese	SB	<2 - 7,000	50 - 5,000	249	207	158	269	NR	239
Mercury	0.10	0.01 - 3.4	0.001 - 0.2	23.6	34.3	1.30	0.050	NR	3.13
Nickel	13 or SB	<5 - 700	0.5 - 25	12.6	13.1	33.5	11.7	NR	8.91
Potassium	SB	50 - 37,000	8,500 - 43,000	989	991	734	1100	NR	560
Selenium	2 or SB	<0.1 - 3.9	<0.1 - 3.9	<0.60 U	<0.61 U	<0.60 U	<0.57 U	NR U	<0.56 U
Silver	SB	NA	NA	<0.12 U	<0.12 U	<0.12 U	<0.11 U	NR	<0.11 U
Sodium	SB	<500 - 50,000	6,000 - 8,000	203 B	178 B	290 B	112 B	NR	918
Thallium	SB	2.2 - 23	NA	1.37	0.67 B	2.55	<0.19 U	NR	<0.18 U
Vanadium	150-SB	<7 - 300	1 - 300	17.3	18.7	19.7	23.2	NR	15.4
Zinc	20 or SB	<5 - 2,900	9.0 - 50	252	1770	324	33.6	NR	39.3
Cyanide	**	NA	NA	NR	<0.20 U	0.23	<0.17 U	NR	<0.17 U
Total Organic Carbon	TOC Original			NR	5820	29400	2530	NR	857
% Total Solids	% Solids			90.2	87.6	90.0	90.7	NR	90.8

Qualifiers:
mg/kg - Milligram per kilogram
U - Not detected; detection limit shown
B - Analyte Found in associated blank as well as sample
SB - Site Background
*- Background levels of lead vary widely. Average background levels in metropolitan and suburban areas average 200 - 500 ppm
** - Site specific condition should be taken into consideration when establishing clean up levels
Scacklette, HT and JG Boerngen, 1984. *"Element Concentration in Soils and other Surficial Materials of the Conterminus United States, USGS Professional Paper 1270."*
E. Carol McGovern, NYSDEC Wildlife Resource Center. *"Background Concentrations of 20 elements in Soils with Special Regard for New York State."*
NR-Not Reported

Table 2. Summary of Volatile Organic Compounds in Soil Samples
Proposed Wilson Avenue Roadway

Volatile Compounds (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (ug/kg)	03/01/04 Split Spoon SS-01 (0'-2') (ug/kg)	03/01/04 Split Spoon SS-01 (4'-6') (ug/kg)	03/01/04 Split Spoon SS-02 (0'-2') (ug/kg)	03/01/04 Split Spoon SS-02 (6'-8') (ug/kg)	03/01/04 Split Spoon SS-03 (0'-2') (ug/kg)	03/01/04 Split Spoon SS-03 (6'-8') (ug/kg)	03/01/04 Split Spoon SS-04 (0'-2') (ug/kg)	03/01/04 Split Spoon SS-04 (6'-8') (ug/kg)
Chloromethane	-	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
Bromomethane	-	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
Vinyl Chloride	200	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
Chloroethane	1900	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
Methylene Chloride	100	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
Acetone	200	130	39.7	30.1	45.5	70.8	29.4	<22.0 U	41.3
Carbon disulfide	2700	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
1,1-Dichloroethene	400	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
1,1-Dichloroethane	200	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
1,2-Dichloroethene (total)	300	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
Chloroform	300	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
1,2-Dichloroethane	100	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
2-Butanone	300	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
1,1,1-Trichloroethane	800	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
Carbon Tetrachloride	600	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
Bromodichloromethane	-	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
1,2-Dichloropropane	-	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
cis-1,3-Dichloropropene	300	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
Trichloroethene	700	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
Dibromochloromethane	100	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
1,1,2-Trichloroethane	6000	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
Benzene	60	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
trans-1,3-Dichloropropene	300	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
Bromoform	-	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
4-Methyl-2-pentanone	1000	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
2-Hexanone	-	<2.08 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
Tetrachloroethene	1400	2.87 J	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	1.79 J
1,1,2,2-Tetrachloroethane	800	<0.92 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
Toluene	1500	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
Chlorobenzene	1700	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
Ethylbenzene	5500	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
Styrene	-	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
Xylene (Total)	1200	<23.6 U	<23.8 U	<23.0 U	<23.7 U	<22.3 U	<23.0 U	<22.0 U	<22.6 U
TVOC's	10,000	132.87	39.7	30.1	45.5	70.8	29.4	0	43

Qualifiers:
ug/kg - Microgram per kilogram of part per billion (ppb) equivalent
ug/l - Microgram per liter (Aq) of part per billion (ppb) equivalent
U - Not detected; instrument detection limit shown
B - Analyte Found in associated blank as well as sample

Table 2. Summary of Volatile Organic Compounds in Soil Samples
Washington Avenue Roadway

Volatile Compounds (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (ug/kg)	03/01/04 Split Spoon SS-05 (0'-2') (ug/kg)	03/01/04 Split Spoon SS-05 (6'-8') (ug/kg)	03/01/04 Split Spoon SS-06 (0'-2') (ug/kg)	03/01/04 Split Spoon SS-06 (4'-6') (ug/kg)	03/01/04 Split Spoon SS-07 (ug/kg)	03/01/04 Split Spoon SS-08 (4'-6') (ug/kg)
Chloromethane	-	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
Bromomethane	-	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
Vinyl Chloride	200	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
Chloroethane	1900	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
Methylene Chloride	100	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
Acetone	200	NR	68.6	<22.2 U	<22.1 U	NR	67.6
Carbon disulfide	2700	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
1,1-Dichloroethene	400	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
1,1-Dichloroethane	200	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
1,2-Dichloroethene (total)	300	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
Chloroform	300	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
1,2-Dichloroethane	100	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
2-Butanone	300	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
1,1,1-Trichloroethane	800	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
Carbon Tetrachloride	600	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
Bromodichloromethane	-	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
1,2-Dichloropropane	-	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
cis-1,3-Dichloropropene	300	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
Trichloroethene	700	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
Dibromochloromethane	100	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
1,1,2-Trichloroethane	6000	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
Benzene	60	NR	1.42 J	<22.2 U	<22.1 U	NR	<22.0 U
trans-1,3-Dichloropropene	300	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
Bromoform	-	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
4-Methyl-2-pentanone	1000	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
2-Hexanone	-	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
Tetrachloroethene	1400	NR	2.11 J	1.88 J	1.60 J	NR	1.47 J
1,1,2,2-Tetrachloroethane	800	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
Toluene	1500	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
Chlorobenzene	1700	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
Ethylbenzene	5500	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
Styrene	-	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
Xylene (Total)	1200	NR	<22.8 U	<22.2 U	<22.1 U	NR	<22.0 U
TVOC's	10,000	0.00	72.13	1.88	1.60	NR	1.47

Qualifiers:
ug/kg - Microgram per kilogram of part per billion (ppb) equivalent
ug/l - Microgram per liter (Aq) of part per billion (ppb) equivalent
U - Not detected; instrument detection limit shown
B - Analyte Found in associated blank as well as sample
U - Not detected; detection limit shown
B - Analyte Found in associated blank as well as sample
NR - Not Reported

Table 3. Summary of Semivolatile Organic Compounds in Soil Samples
Proposed Wilson Avenue Roadway

Semivolatile Compounds (Concentration in ug/kg)	NYSDEC Recommended Soil Cleanup Objectives (ug/kg)	ATSDR Background Soil Concentrations PAHs in Urban Soils (ug/kg)	03/01/04 Split Spoon SS-01 (0'-2') (ug/kg)	03/01/04 Split Spoon SS-01 (4'-6') (ug/kg)	03/01/04 Split Spoon SS-02 (0'-2') (ug/kg)	03/01/04 Split Spoon SS-02 (6'-8') (ug/kg)	03/01/04 Split Spoon SS-03 (0'-2') (ug/kg)	03/01/04 Split Spoon SS-03 (6'-8') (ug/kg)	03/01/04 Split Spoon SS-04 (0'-2') (ug/kg)	03/01/04 Split Spoon SS-04 (6'-8') (ug/kg)
Phenol	30 or MDL	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
bis(2-Chloroethyl)ether	-	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
2-Chlorophenol	800	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
1,3-Dichlorobenzene	1,600	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
1,4-Dichlorobenzene	8,500	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
1,2-Dichlorobenzene	7,900	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
2-Methylphenol	100	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
bis(2-Chloroisopropyl)ether	-	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
3,4-Methylphenol	-	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	36.6 J	<5510 U	<1130 U
N-Nitrosodi-n-propylamine	-	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
Hexachloroethane	-	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
Nitrobenzene	200	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
Isophorone	4,400	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
2-Nitrophenol	100	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
2,4-Dimethylphenol	-	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
bis(2-Chloroethoxy)methane	-	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
2,4-Dichlorophenol	400	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
1,2,4-Trichlorobenzene	3,400	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
Naphthalene	13,000	-	44.6 J	49.1 J	<1150 U	26.9 J	<1110 U	528 J	<5510 U	269 J
4-Chloroaniline	220	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
Hexachlorobutadiene	-	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
4-Chloro-3-methylphenol	240	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
2-Methylnaphthalene	36,400	-	27.3 J	<1190 U	<1150 U	<1180 U	<1110 U	346 J	<5510 U	97.3 J
Hexachlorocyclopentadiene	-	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
2,4,6-Trichlorophenol	-	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
2,4,5-Trichlorophenol	100	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
2-Chloronaphthalene	-	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
2-Nitroaniline	430	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
Dimethylphthalate	2,000	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
Acenaphthylene	41,000	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	257 J	<5510 U	71.8 J
2,6-Dinitrotoluene	1,000	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
3-Nitroaniline	500	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
Acenaphthene	50,000	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	1200	<5510 U	273 J
2,4-Dinitrophenol	200	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<13800 U	<1130 U
4-Nitrophenol	100	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<13800 U	<1130 U
Dibenzofuran	6,200	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	872 J	<5510 U	200 J
2,4-Dinitrotoluene	-	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
Diethylphthalate	7,100	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
4-Chlorophenyl phenylether	-	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
Fluorene	50,000	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	1630	<5510 U	382 J
4-Nitroaniline	-	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<13800 U	<1130 U
4,6-Dinitro-2-methylphenol	-	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
N-Nitrosodiphenylamine	-	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
4-Bromophenyl phenyl ether	-	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
Hexachlorobenzene	410	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
Pentachlorophenol	1,000	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<13800 U	<1130 U
Phenanthrene	50,000	-	<1180 U	56.5 J	30.0 J	89.1 J	125 J	10100	736 J	2450
Anthracene	50,000	-	<1180 U	<1190 U	<1150 U	27.0 J	28.5 J	2810	262 J	629 J
Carbazole	-	-	<1180 U	<1190 U	<1150 U	<1180 U	28.5 J	1750	<5510 U	458 J
Di-n-butylphthalate	8,100	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	34.0 J	<5510 U	<1130 U
Fluoranthene	50,000	200 - 166,000	<1180 U	85.9 J	50.8 J	134 J	168 J	9810	995 J	2560
Pyrene	50,000	145 - 147,000	<1180 U	114 J	63.0 J	137 J	163 J	9800	1300 J	2500
Butylbenzylphthalate	50,000	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
3,3'-Dichlorobenzidine	-	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
Benzo(a)anthracene	224	169 - 59,000	<1180 U	77.2 J	40.0 J	77.2 J	104 J	5470	634 J	1410
Chrysene	400	251 - 640	<15.3 U	111 J	42.9 J	72.2 J	106 J	5020	712 J	1330
bis(2-Ethylhexyl)phthalate	50,000	-	35.2 J	<1190 U	35.0 J	44.8 J	59.1 J	<1150 U	151 J	<1130 U
Di-n-octylphthalate	50,000	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	<1150 U	<5510 U	<1130 U
Benzo(b)fluoranthene	1,100	15,000 - 62,000	<1180 U	84.0 J	23.8 J	42.7 J	68.9 J	3600	478 J	998 J
Benzo(k)fluoranthene	1,100	300 - 26,000	<1180 U	61.8 J	24.3 J	47.1 J	76.6 J	3310	442 J	882 J
Benzo(a)pyrene	61	165 - 220	<1180 U	67.0 J	27.7 J	49.9 J	82.1 J	4330	633 J	1130
Indeno(1,2,3-cd)pyrene	3200	8,000 - 61,000	<1180 U	<1190 U	<1150 U	<1180 U	44.5 J	2080	292 J	574 J
Dibenz(a,h)anthracene	14	-	<1180 U	<1190 U	<1150 U	<1180 U	<1110 U	743 J	<5510 U	198 J
Benzo(g,h,i)perylene	50,000	900 - 47,000	<1180 U	40.3 J	<1150 U	28.4 J	49.4 J	2190	314 J	628 J
Total SVOC's	500,000		107	698	338	776.3	979	65,917	6,213	16,143

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; instrument detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
B - Analyte Found in associated blank as well as sample

Table 3. Summary of Semivolatile Organic Compounds in Soil Samples. Continued.
Washington Avenue Roadway

Semivolatile Compounds (Concentration in ug/kg)	NYSDEC Recommended Soil Cleanup Objectives (ug/kg)	ATSDR Background Soil Concentrations PAHs in Urban Soils (ug/kg)	03/01/04 Split Spoon SS-05 (0'-2') (ug/kg)	03/01/04 Split Spoon SS-05 (6'-8') (ug/kg)	03/01/04 Split Spoon SS-06 (0'-2') (ug/kg)	03/01/04 Split Spoon SS-06 (4'-6') (ug/kg)	03/01/04 Split Spoon SS-07 (ug/kg)	03/01/04 Split Spoon SS-08 (4'-6') (ug/kg)
Phenol	30 or MDL	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
bis(2-Chloroethyl)ether	-	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
2-Chlorophenol	800	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
1,3-Dichlorobenzene	1,600	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
1,4-Dichlorobenzene	8,500	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
1,2-Dichlorobenzene	7,900	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
2-Methylphenol	100	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
bis(2-Chloroisopropyl)ether	-	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
3,4-Methylphenol	-	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
N-Nitrosodi-n-propylamine	-	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
Hexachloroethane	-	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
Nitrobenzene	200	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
Isophorone	4,400	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
2-Nitrophenol	100	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
2,4-Dimethylphenol	-	-	<2220 U	37.9 J	<5560 U	<1100 U	NR	<1100 U
bis(2-Chloroethoxy)methane	-	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
2,4-Dichlorophenol	400	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
1,2,4-Trichlorobenzene	3,400	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
Naphthalene	13,000	-	1360 J	1560	153 J	58.8 J	NR	29.1 J
4-Chloroaniline	220	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
Hexachlorobutadiene	-	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
4-Chloro-3-methylphenol	240	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
2-Methylnaphthalene	36,400	-	639 J	640 J	<5560 U	82.7 J	NR	37.7 J
Hexachlorocyclopentadiene	-	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
2,4,6-Trichlorophenol	-	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
2,4,5-Trichlorophenol	100	-	<2220 U	<1140 U	<13900 U	<2750 U	NR	<2750 U
2-Chloronaphthalene	-	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
2-Nitroaniline	430	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
Dimethylphthalate	2,000	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
Acenaphthylene	41,000	-	466 J	448 J	467 J	<1100 U	NR	<1100 U
2,6-Dinitrotoluene	1,000	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
3-Nitroaniline	500	-	<2220 U	<1140 U	<13900 U	<2750 U	NR	<2750 U
Acenaphthene	50,000	-	1420 J	1240	<5560 U	<1100 U	NR	<1100 U
2,4-Dinitrophenol	200	-	<2220 U	<1140 U	<13900 U	<2750 U	NR	<2750 U
4-Nitrophenol	100	-	<2220 U	<1140 U	<13900 U	<2750 U	NR	<2750 U
Dibenzofuran	6,200	-	979 J	867 J	<5560 U	<1100 U	NR	<1100 U
2,4-Dinitrotoluene	-	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
Diethylphthalate	7,100	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
4-Chlorophenyl phenylether	-	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
Fluorene	50,000	-	1630 J	1440	<5560 U	<1100 U	NR	<1100 U
4-Nitroaniline	-	-	<2220 U	<1140 U	<13900 U	<2750 U	NR	<2750 U
4,6-Dinitro-2-methylphenol	-	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
N-Nitrosodiphenylamine	-	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
4-Bromophenyl phenyl ether	-	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
Hexachlorobenzene	410	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
Pentachlorophenol	1,000	-	<2220 U	<1140 U	<13900 U	<1100 U	NR	<1100 U
Phenanthrene	50,000	-	10700	7780	630 J	27.9 J	NR	71.0 J
Anthracene	50,000	-	3090	2320	615 J	<1100 U	NR	<1100 U
Carbazole	-	-	1590 J	1480	<5560 U	<1100 U	NR	<1100 U
Di-n-butylphthalate	8,100	-	<2220 U	26.4 J	<5560 U	<1100 U	NR	<1100 U
Fluoranthene	50,000	200 - 166,000	11700	9180	1270 J	33.6 J	NR	101 J
Pyrene	50,000	145 - 147,000	12700	10400	1640 J	33.5 J	NR	100 J
Butylbenzylphthalate	50,000	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
3,3'-Dichlorobenzidine	-	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
Benzo(a)anthracene	224	169 - 59,000	6390	5790	797 J	<1100 U	NR	67.6 J
Chrysene	400	251 - 640	6330	5340	1560 J	<1100 U	NR	74.8 J
bis(2-Ethylhexyl)phthalate	50,000	-	<2220 U	<1140 U	133 J	34.7 J	NR	50.3 J
Di-n-octylphthalate	50,000	-	<2220 U	<1140 U	<5560 U	<1100 U	NR	<1100 U
Benzo(b)fluoranthene	1,100	15,000 - 62,000	4520	4710	2060 J	<1100 U	NR	44.6 J
Benzo(k)fluoranthene	1,100	300 - 26,000	5460	4530	1660 J	<1100 U	NR	38.9 J
Benzo(a)pyrene	61	165 - 220	6200	5510	1740 J	<1100 U	NR	48.8 J
Indeno(1,2,3-cd)pyrene	3200	8,000 - 61,000	3370	2010	1290 J	<1100 U	NR	24.6 J
Dibenz(a,h)anthracene	14	-	1590 J	595 J	508 J	<1100 U	NR	<1100 U
Benzo(g,h,i)perylene	50,000	900 - 47,000	3540	2000	1650 J	<1100 U	NR	28.1 J
Total SVOC's	500,000		117,920	65,104	15,706	212	NR	687

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; instrument detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
B - Analyte Found in associated blank as well as sample
NR - Not Reported

Table 4. Summary of Pesticide & PCB Compounds in Soil Samples
Proposed Wilson Avenue Roadway

TCL Pesticide and PCB Compounds (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (ug/kg)	03/01/04 Split Spoon SS-01 (0'-2') (ug/kg)	03/01/04 Split Spoon SS-01 (4'-6') (ug/kg)	03/01/04 Split Spoon SS-02 (0'-2') (ug/kg)	03/01/04 Split Spoon SS-02 (6'-8') (ug/kg)	03/01/04 Split Spoon SS-03 (0'-2') (ug/kg)	03/01/04 Split Spoon SS-03 (6'-8') (ug/kg)	03/01/04 Split Spoon SS-04 (0'-2') (ug/kg)	03/01/04 Split Spoon SS-04 (6'-8') (ug/kg)
alpha-BHC	110	<0.059 U	<0.060 U	<0.058 U	<0.059 U	<0.056 U	<0.058 U	<0.055 U	<0.056 U
beta-BHC	200	<0.059 U	<0.060 U	<0.058 U	<0.059 U	<0.056 U	<0.058 U	<0.055 U	<0.056 U
delta-BHC	300	<0.059 U	<0.060 U	<0.058 U	<0.059 U	<0.056 U	<0.058 U	<0.055 U	<0.056 U
gamma -BHC(Lindane)	60	<0.059 U	<0.060 U	<0.058 U	<0.059 U	<0.056 U	<0.058 U	<0.055 U	<0.056 U
Heptachlor	100	<0.059 U	<0.060 U	<0.058 U	<0.059 U	<0.056 U	<0.058 U	<0.055 U	<0.056 U
Aldrin	41	<0.059 U	<0.060 U	<0.058 U	<0.059 U	<0.056 U	<0.058 U	<0.055 U	<0.056 U
Heptachlor epoxide	20	<0.059 U	<0.060 U	<0.058 U	<0.059 U	<0.056 U	<0.058 U	<0.055 U	<0.056 U
Endosulfan I	900	<0.059 U	<0.060 U	<0.058 U	<0.059 U	<0.056 U	<0.058 U	<0.055 U	<0.056 U
Dieldrin	44	<0.12 U	<0.12 U	<0.12 U	<0.12 U	<0.11 U	<0.12 U	<0.11 U	<0.11 U
4,4'-DDE	2,100	<0.12 U	<0.12 U	<0.12 U	<0.12 U	<0.11 U	<0.12 U	<0.11 U	<0.11 U
Endrin	100	<0.12 U	<0.12 U	<0.12 U	<0.12 U	<0.11 U	<0.12 U	<0.11 U	<0.11 U
Endosulfan II	900	<0.12 U	<0.12 U	<0.12 U	<0.12 U	<0.11 U	<0.12 U	<0.11 U	<0.11 U
4-4'-DDD	2,900	<0.12 U	<0.12 U	<0.12 U	<0.12 U	<0.11 U	<0.12 U	<0.11 U	<0.11 U
Endosulfan sulfate	1,000	<0.12 U	<0.12 U	<0.12 U	<0.12 U	<0.11 U	<0.12 U	<0.11 U	<0.11 U
4,4'-DDT	2,100	<0.12 U	<0.12 U	<0.12 U	<0.12 U	<0.11 U	<0.12 U	<0.11 U	<0.11 U
Methoxychlor	-	<0.59 U	<0.60 U	<0.57 U	<0.59 U	<0.56 U	<0.57 U	<0.55 U	<0.56 U
Endrin ketone	-	<0.12 U	<0.12 U	<0.12 U	<0.12 U	<0.11 U	<0.12 U	<0.11 U	<0.11 U
Endrin aldehyde	-	<0.12 U	<0.12 U	<0.12 U	<0.12 U	<0.11 U	<0.12 U	<0.11 U	<0.11 U
alpha-Chlordane	540	<0.059 U	<0.060 U	<0.058 U	<0.059 U	<0.056 U	<0.058 U	<0.055 U	<0.056 U
gamma-Chlordane	540	<0.059 U	<0.060 U	<0.058 U	<0.059 U	<0.056 U	<0.058 U	<0.055 U	<0.056 U
Toxaphene	-	<5.90 U	<5.95 U	<5.75 U	<5.90 U	<5.55 U	<5.75 U	<5.50 U	<5.65 U
Total Pesticides	10,000	0.00	0.00	<0.12	0.00	0.00	0.00	0.00	0.00
Polychlorinated Biphenyls (PCBs) (Concentration in ug/kg)									
Aroclor-1016	10,000	<1.18 U	<1.19	<1.15 U	<1.18 U	<1.11 U	<1.15 U	<1.10 U	<1.13 U
Aroclor-1221	10,000	<1.18 U	<1.19	<1.15 U	<1.18 U	<1.11 U	<1.15 U	<1.10 U	<1.13 U
Aroclor-1232	10,000	<1.18 U	<1.19	<1.15 U	<1.18 U	<1.11 U	<1.15 U	<1.10 U	<1.13 U
Aroclor-1242	10,000	<1.18 U	<1.19	<1.15 U	<1.18 U	<1.11 U	<1.15 U	<1.10 U	<1.13 U
Aroclor-1248	10,000	<1.18 U	<1.19	<1.15 U	<1.18 U	<1.11 U	<1.15 U	<1.10 U	<1.13 U
Aroclor-1254	10,000	<1.18 U	<1.19	<1.15 U	<1.18 U	<1.11 U	<1.15 U	<1.10 U	<1.13 U
Aroclor-1260	10,000	<1.18 U	<1.19	<1.15 U	<1.18 U	<1.11 U	<1.15 U	<1.10 U	<1.13 U
Total PCB	25,000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; instrument detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
C - Pesticide Compound where the identification has been successfully confirmed
P - Pesticide/Aroclor target analyte when there is a >25% difference detected Conc. between GC columns
Y - Several pesticide peaks "detected" in samples SS-1, 2, 4, 5, 6, 8, and 9 are most likely due to Arochlor conditions

Table 4. Summary of Pesticide & PCB Compounds in Soil Samples. Continued.
Washington Avenue Roadway

TCL Pesticide and PCB Compounds (Concentration in ug/kg)	Recommended Soil Cleanup Objectives (ug/kg)	03/01/04 Split Spoon SS-05 (0'-2') (ug/kg)	03/01/04 Split Spoon SS-05 (6'-8') (ug/kg)	03/01/04 Split Spoon SS-06 (0'-2') (ug/kg)	03/01/04 Split Spoon SS-06 (4'-6') (ug/kg)	03/01/04 Split Spoon SS-07 (ug/kg)	03/01/04 Split Spoon SS-08 (4'-6') (ug/kg)
alpha-BHC	110	NR	<0.057 U	<0.056 U	<0.055 U	NR	<0.055 U
beta-BHC	200	NR	<0.057 U	<0.056 U	<0.055 U	NR	<0.055 U
delta-BHC	300	NR	<0.057 U	<0.056 U	<0.055 U	NR	<0.055 U
gamma -BHC(Lindane)	60	NR	<0.057 U	<0.056 U	<0.055 U	NR	<0.055 U
Heptachlor	100	NR	<0.057 U	<0.056 U	<0.055 U	NR	<0.055 U
Aldrin	41	NR	<0.057 U	<0.056 U	<0.055 U	NR	<0.055 U
Heptachlor epoxide	20	NR	<0.057 U	<0.056 U	<0.055 U	NR	<0.055 U
Endosulfan I	900	NR	<0.057 U	<0.056 U	<0.055 U	NR	<0.055 U
Dieldrin	44	NR	<0.11 U	<0.11 U	<0.11 U	NR	<0.11 U
4,4'-DDE	2,100	NR	<0.11 U	<0.11 U	<0.11 U	NR	<0.11 U
Endrin	100	NR	<0.11 U	<0.11 U	<0.11 U	NR	<0.11 U
Endosulfan II	900	NR	<0.11 U	<0.11 U	<0.11 U	NR	<0.11 U
4-4'-DDD	2,900	NR	<0.11 U	<0.11 U	<0.11 U	NR	<0.11 U
Endosulfan sulfate	1,000	NR	<0.11 U	<0.11 U	<0.11 U	NR	<0.11 U
4,4'-DDT	2,100	NR	<0.11 U	<0.11 U	<0.11 U	NR	<0.11 U
Methoxychlor	-	NR	<0.57 U	<0.56 U	<0.55 U	NR	<0.55 U
Endrin ketone	-	NR	<0.11 U	<0.11 U	<0.11 U	NR	<0.11 U
Endrin aldehyde	-	NR	<0.11 U	<0.11 U	<0.11 U	NR	<0.11 U
alpha-Chlordane	540	NR	<0.057 U	<0.056 U	<0.055 U	NR	<0.055 U
gamma-Chlordane	540	NR	<0.057 U	<0.056 U	<0.055 U	NR	<0.055 U
Toxaphene	-	NR	<5.70 U	<5.55 U	<5.50 U	NR	<5.50 U
Total Pesticides	10,000	NR	0.00	0.00	0.00	0.00	0.00
Polychlorinated Biphenyls (PCBs) (Concentration in ug/kg)							
Aroclor-1016	10,000	<1.11 U	<1.14	<1.11 U	<1.10 U	NR	<1.10 U
Aroclor-1221	10,000	<1.11 U	<1.14	<1.11 U	<1.10 U	NR	<1.10 U
Aroclor-1232	10,000	<1.11 U	<1.14	<1.11 U	<1.10 U	NR	<1.10 U
Aroclor-1242	10,000	<1.11 U	<1.14	<1.11 U	<1.10 U	NR	<1.10 U
Aroclor-1248	10,000	<1.11 U	<1.14	<1.11 U	<1.10 U	NR	<1.10 U
Aroclor-1254	10,000	<1.11 U	<1.14	<1.11 U	<1.10 U	NR	<1.10 U
Aroclor-1260	10,000	<1.11 U	<1.14	898	<1.10 U	NR	<1.10 U
Total PCB	25,000	0.00	0.00	898	0.00	NR	0.00

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; instrument detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
C - Pesticide Compound where the identification has been successfully confirmed
P - Pesticide/Aroclor target analyte when there is a >25% difference detected Conc. between GC columns
Y - Several pesticide peaks "detected" in samples SS-1, 2, 4, 5, 6, 8, and 9 are most likely due to Arochlor conditions
NR - Not Reported

Tabel 5. Summary of RCRA & Toxicity Characteristics in Soil.
Proposed Wilson Avenue Roadway

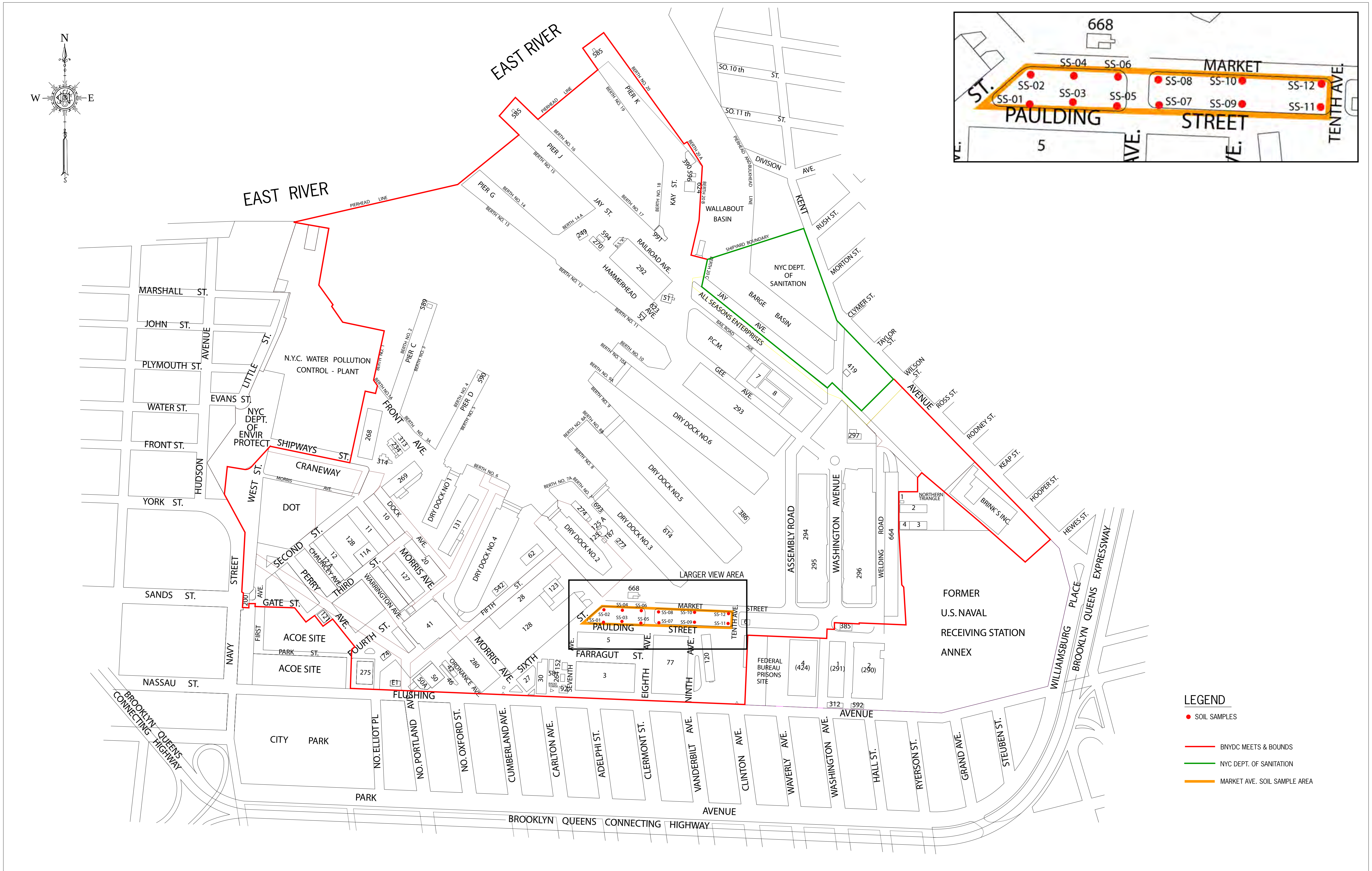
TCLP Metal Analytes	Regulatory Level* (mg/l)	**03/01/04 Split Spoon SS-01 (0'-2')** (mg/l)	**03/01/04 Split Spoon SS-01 (4'-6')** (mg/l)	**03/01/04 Split Spoon SS-02 (0'-2')** (mg/l)	**03/01/04 Split Spoon SS-02 (6'-8')** (mg/l)	**03/01/04 Split Spoon SS-03 (0'-2')** (mg/l)	**03/01/04 Split Spoon SS-03 (6'-8')** (mg/l)	**03/01/04 Split Spoon SS-04 (0'-2')** (mg/l)	**03/01/04 Split Spoon SS-04 (6'-8')** (mg/l)
Arsenic	5	<0.027 U	0.12	<0.027 U	0.037 B	<0.027 U	0.072 B	0.12	<0.027 U
Barium	100	0.71 B	0.58 B	0.64 B	0.58 B	0.81 B	2.04	0.41 B	0.70 B
Cadmium	1	0.012 B	0.012 B	0.0080 B	0.011 B	0.0070 B	0.013 B	0.011 B	0.0070 B
Chromium	5	<0.015 U	<0.015 U	<0.015 U	<0.015 U	<0.015 U	<0.015 U	<0.015 U	<0.015 U
Lead	5	0.11	0.12	0.091	0.13	0.75	4.58	0.16	1.27
Mercury	0.2	<0.000018 U	<0.000018 U	<0.000018 U	<0.000018 U	<0.000018 U	<0.000063	<0.000018 U	<0.000018 U
Selenium	1	<0.055 U	0.13	<0.055 U	<0.055 U	<0.055 U	<0.055 U	<0.055 U	<0.055 U
Silver	5	<0.011 U	<0.011 U	<0.011 U	<0.011 U	<0.011 U	<0.011 U	<0.011 U	<0.011 U
TCLP Volatile Organic Compounds									
Benzene	0.5	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
Carbon Tetrachloride	0.5	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
Chlorobenzene	100	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
Chloroform	6	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
1,2-Dichloroethane	0.5	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
1,1-Dichloroethene	0.7	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
Methyl Ethyl Ketone	200	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
Tetrachloroethene	0.7	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
Trichloroethene	0.5	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
Vinyl Chloride	0.2	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
TCLP Semivolatile Organic Compounds									
o-cresol	200	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
m,p-cresol	200	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
Cresol	200	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
1,4-Dichlorobenzene	7.5	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
2,4-Dinitrotoluene	0.13	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
Hexachlorobenzene	0.13	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
Hexachlorobutadiene	0.5	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
Hexachloroethane	3	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
Nitrobenzene	2	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
Pentachlorophenol	100	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
Pyridine	5	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
2,4,5-Trichlorophenol	400	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
2,4,6-Trichlorophenol	2	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
TCLP Herbicide Compounds									
2,4 - D	10	<0.020 U	<0.020 U	<0.020 U	<0.020 U	<0.020 U	<0.020 U	<0.020 U	<0.020 U
2,4,5-TP (Silvex)	1	<0.020 U	<0.020 U	<0.020 U	<0.020 U	<0.020 U	<0.020 U	<0.020 U	<0.020 U
TCLP Pesticide Compounds									
Chlordane	0.03	<0.00010 U	<0.00010 U	<0.00010 U	<0.00010 U	<0.00010 U	<0.00010 U	<0.00010 U	<0.00010 U
Endrin	0.02	<0.00010 U	<0.00010 U	<0.00010 U	<0.00010 U	<0.00010 U	<0.00010 U	<0.00010 U	<0.00010 U
Heptachlor	0.008	<0.000050 U	<0.000050 U	<0.000050 U	<0.000050 U	<0.000050 U	<0.000050 U	<0.000050 U	<0.000050 U
Heptachlor epoxide	0.008	<0.000050 U	<0.000050 U	<0.000050 U	<0.000050 U	<0.000050 U	<0.000050 U	<0.000050 U	<0.000050 U
Lindane	0.4	<0.000050 U	<0.000050 U	<0.000050 U	<0.000050 U	<0.000050 U	<0.000050 U	<0.000050 U	<0.000050 U
Methoxychlor	10	<0.00050 U	<0.00050 U	<0.00050 U	<0.00050 U	<0.00050 U	<0.00050 U	<0.00050 U	<0.00050 U
Toxaphene	0.5	<0.0050 U	<0.0050 U	<0.0050 U	<0.0050 U	<0.0050 U	<0.0050 U	<0.0050 U	<0.0050 U
RCRA Characteristics Compounds									
Flash Point (Ignitability)	deg C	>100 U	>100 U	>100 U	>100 U	>100 U	>100 U	>100 U	>100 U
pH - Soil in Water		6.00	7.17	6.84	7.12	7.17	7.62	8.27	7.74
Temperature	C	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Releasable Cyanide	ppm	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
Releasable H2 Sulfide	ppm	<0.010 U	<0.010 U	<0.010 U	<0.010 U	<0.010 U	<0.010 U	<0.010 U	<0.010 U
Reactivity	Negative/Positive	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative

Qualifiers:
mg/l - Milligram per liter
U - Not detected; instrument detection limit shown
B - Analyte Found in associated blank as well as sample

Tabel 5. Summary of RCRA & Toxicity Characteristics in Soil. Continued.
Washington Avenue Roadway

TCLP Metal Analytes	Regulatory Level* (mg/l)	03/01/04 Split Spoon SS-05 (0'-2') (mg/l)	03/01/04 Split Spoon SS-05 (6'-8') (mg/l)	03/01/04 Split Spoon SS-06 (0'-2') (mg/l)	03/01/04 Split Spoon SS-06 (4'-6') (mg/l)	03/01/04 Split Spoon SS-07 (mg/l)	03/01/04 Split Spoon SS-08 (4'-6') (mg/l)
Arsenic	5	NR	0.043 B	0.15	<0.027 U	**NR**	<0.027 U
Barium	100	NR	0.78 B	0.48 B	0.36 B	NR	0.50
Cadmium	1	NR	0.0070 B	0.0080 B	0.0040 B	NR	<0.0040 U
Chromium	5	NR	<0.015 U	<0.015 U	<0.015 U	NR	<0.015 U
Lead	5	NR	1.86	0.15	0.062	NR	0.40
Mercury	0.2	NR	0.000026	0.00042	<0.00018 U	NR	<0.000018 U
Selenium	1	NR	0.12	0.087	<0.055 U	NR	<0.055 U
Silver	5	NR	<0.011 U	<0.011 U	<0.011 U	NR	<0.011 U
TCLP Volatile Organic Compounds							
Benzene	0.5	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
Carbon Tetrachloride	0.5	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
Chlorobenzene	100	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
Chloroform	6	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
1,2-Dichloroethane	0.5	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
1,1-Dichloroethene	0.7	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
Methyl Ethyl Ketone	200	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
Tetrachloroethene	0.7	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
Trichloroethene	0.5	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
Vinyl Chloride	0.2	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
TCLP Semivolatile Organic Compounds							
o-cresol	200	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
m,p-cresol	200	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
Cresol	200	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
1,4-Dichlorobenzene	7.5	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
2,4-Dinitrotoluene	0.13	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
Hexachlorobenzene	0.13	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
Hexachlorobutadiene	0.5	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
Hexachloroethane	3	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
Nitrobenzene	2	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
Pentachlorophenol	100	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
Pyridine	5	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
2,4,5-Trichlorophenol	400	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
2,4,6-Trichlorophenol	2	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
TCLP Herbicide Compounds							
2,4 - D	10	NR	<0.020 U	<0.020 U	<0.020 U	NR	<0.020 U
2,4,5-TP (Silvex)	1	NR	<0.020 U	<0.020 U	<0.020 U	NR	<0.020 U
TCLP Pesticide Compounds							
Chlordane	0.03	NR	<0.00010 U	<0.00010 U	<0.00010 U	NR	<0.00010 U
Endrin	0.02	NR	<0.00010 U	<0.00010 U	<0.00010 U	NR	<0.00010 U
Heptachlor	0.008	NR	<0.000050 U	<0.000050 U	<0.000050 U	NR	<0.000050 U
Heptachlor epoxide	0.008	NR	<0.000050 U	<0.000050 U	<0.000050 U	NR	<0.000050 U
Lindane	0.4	NR	<0.000050 U	<0.000050 U	<0.000050 U	NR	<0.000050 U
Methoxychlor	10	NR	<0.00050 U	<0.00050 U	<0.00050 U	NR	<0.00050 U
Toxaphene	0.5	NR	<0.0050 U	<0.0050 U	<0.0050 U	NR	<0.0050 U
RCRA Characteristics Compounds							
Flash Point (Ignitability)	deg C	NR	>100 U	>100 U	>100 U	NR	>100 U
pH - Soil in Water		NR	7.33	8.33	6.86	NR	7.46
Temperature	C	NR	18	20.0	20.0	NR	20.0
Releasable Cyanide	ppm	NR	<0.10 U	<0.10 U	<0.10 U	NR	<0.10 U
Releasable H2 Sulfide	ppm	NR	<0.010 U	<0.010 U	<0.010 U	NR	<0.010 U
Reactivity	Negative/Positive	NR	Negative	Negative	Negative	NR	Negative

Qualifiers:
mg/l - Milligram per liter
U - Not detected; instrument detection limit shown
B - Analyte Found in associated blank as well as sample
NR- Not Reported



PROJECT: Brooklyn Navy Yard Sampling Locations	DWN. BY RDW CHK. BY NM SCALE: N/A	PREVIOUS SOIL SAMPLING LOCATIONS MARKET AVE. DEVELOPMENT Brooklyn Navy Yard Brooklyn, NY 11205	Quay Consulting QUAY CONSULTING, LLC	HYPACK TAG: ANALOG # 041506 FIELD BOOK: N/A FIGURE NO. D BROOKLYN NAVY YARD DEVELOPMENT CORP	DATE APR. 15, 2006 LINE FILE: BNY 01

Table 1. Summary of Metals, Cyanide & TOC in Soil Samples
Project: Market St. Dev., Brooklyn Navy Yard

Client Sample ID: Laboratory ID: Sampling Date: Analytes	Units	Recommended Soil Cleanup Objectives (mg/kg)	Eastern US Element Conc. in Soils (Shacklette) (mg/kg)	New York State Background Conc. in Soils (McGovern) (mg/kg)	B2 [8'-12'] 0508111-01 07/29/2005 Q	B1 [8'-12'] 0508111-02 07/29/2005 Q	B4 [10'-12'] 0508111-03 08/01/2005 Q	B11 [2'-4'] 0508111-04 08/02/2005 Q	B11 [8'-10'] 0508111-05 08/02/2005 Q	B7 [2'-4'] 0508111-06 08/03/2005 Q	B7 [10'-12'] 0508111-07 08/03/2005 Q	B8 [2'-4'] 0508111-08 08/04/2005 Q	B8 [4'-6'] 0508111-09 08/04/2005 Q	B6 [4'-6'] 0508111-10 08/08/2005 Q	B6 [6'-8'] 0508111-11 08/08/2005 Q	B12 [4'-6'] 0508111-12 08/09/2005 Q	B12 [8'-10'] 0508111-13 08/09/2005 Q
TAGM METALS (Concentration in mg/kg)	**Units:**																
Aluminum	mg/kg	SB	7,000 -100,000	33,000	3170	3790	7420	4490	4100	8480	7660	2340	4820	4940	5810	4940	4810
Antimony	mg/kg	SB	<1 - 8.8	NA	0.935 U	0.594 U	0.709 U	0.522 U	0.613 U	0.748 U	0.758 U	4.70	0.602 U	0.569 U	0.634 U	0.828	0.562 U
Arsenic	mg/kg	7.5 or SB	<0.1 - 73	3.0 - 12	15.3	6.12	6.03	18.6	18.2	7.19	8.95	17.1	4.05	9.05	5.77	5.53	5.15
Barium	mg/kg	300 or SB	10 - 1,500	15 - 600	172	59.6	20.9	36.1	91.2	47.6	38.3	76.1	56.1	47.4	34.3	60.4	79.5
Beryllium	mg/kg	0.16(HEAST) or SB	<1 - 7	0 - 1.75	0.748 U	0.475 U	0.567 U	0.418 U	0.490 U	0.599 U	0.606 U	0.403 U	0.481 U	0.456 U	0.507 U	0.419 U	0.449 U
Cadmium	mg/kg	1 or SB	NA	0.1 - 1	0.374 U	0.238 U	0.284 U	0.209 U	0.245 U	0.299 U	0.303 U	0.289	0.436	0.214 J	0.254 U	0.153 J	0.173 J
Calcium	mg/kg	SB	100 - 280,000	130 - 35,000	3680	1150	4990	1630	3910	5250	2100	399	5220	2050	1960	1140	2200
Chromium	mg/kg	10 or SB	1 - 1,000	1.5 - 40	9.27	9.12	18.6	12.3	11.0	23.1	21.5	45.6	11.1	18.2	16.0	14.3	18.4
Cobalt	mg/kg	30 or SB	<0.3 - 70	2.5 - 60	29.4	8.24	13.6	9.47	8.71	16.9	16.8	22.5	11.3	17.3	12.6	12.2	9.63
Copper	mg/kg	25 or SB	<1 - 700	<1 - 50	173	21.7	8.67	20.6	35.3	36.9	26.4	277	121	63.8	24.7	35.0	79.9
Iron	mg/kg	2,000 or SB	100 - 100,000	2,000 - 550,000	12700	5630	9200	6290	6870	10000	10000	7170	7110	7640	8180	7690	6760
Lead	mg/kg	SB or *	<10 - 300	200 - 500	3030	413	8.17	27.3	829	79.1	53.2	626	181	95.3	35.8	150	130
Magnesium	mg/kg	SB	50 - 50,000	100 - 5,000	1720	1420	4190	2120	1320	4900	4560	762	4510	2220	2790	1540	1450
Manganese	mg/kg	SB	<2 - 7,000	50 - 5,000	483	57.8	305	264	328	680	534	202	395	206	239	217	179
Mercury	mg/kg	0.10	0.01 - 3.4	0.001 - 0.2	0.884	0.508	0.183	0.169	0.946	0.621	0.272	0.807	0.780	14.3	12.8	1.14	0.913
Nickel	mg/kg	13 or SB	<5 - 700	0.5 - 25	23.7	19.4	16.6	12.0	12.8	21.0	19.8	40.8	26.2	17.1	15.1	11.8	20.0
Potassium	mg/kg	SB	50 - 37,000	8,500 - 43,000	1080	686	2150	859	773	2490	2410	535	1140	1290	1650	747	817
Selenium	mg/kg	2 or SB	<0.1 - 3.9	<0.1 - 3.9	0.935 U	0.594 U	0.709 U	0.522 U	0.613 U	0.748 U	0.758 U	0.504 U	0.602 U	0.569 U	0.634 U	0.523 U	0.562 U
Silver	mg/kg	SB	NA	NA	0.458 J	0.475 U	0.567 U	0.418 U	0.490 U	0.599 U	0.606 U	0.240 J	0.481 U	0.456 U	0.507 U	0.419 U	0.449 U
Sodium	mg/kg	SB	<500 - 50,000	6,000 - 8,000	1430	208	1080	166	172	769	1170	219	520	1250	1480	383	396
Thallium	mg/kg	SB	2.2 - 23	NA	0.561 U	0.357 U	0.426 U	0.313 U	0.368 U	0.449 U	0.455 U	0.302 U	0.361 U	0.342 U	0.381 U	0.314 U	0.337 U
Vanadium	mg/kg	150-SB	<7 - 300	1 - 300	14.0	16.7	23.4	19.6	17.6	30.9	29.5	29.0	18.6	22.6	20.9	18.0	20.2
Zinc	mg/kg	20 or SB	<5 - 2,900	9.0 - 50	557	37.8	49.3	62.3	88.8	80.9	64.0	400	277	254	95.6	198	104
Cyanide, Total & Amenable: Auto Colorimetric	mg/kg	**	NA	NA	1.98 U	1.28 U	1.54 U	1.11 U	1.23 U	1.62 U	1.52 U	1.13 U	1.23 U	1.25 U	1.38 U	1.16 U	1.19 U
Percent Moisture	wt%				49.5	22.1	35.0	9.72	18.7	38.4	34.3	11.1	18.9	20.2	27.5	13.8	15.7

Qualifiers:
mg/kg - Milligram per kilogram
U - Not detected; detection limit shown
B - Analyte Found in associated blank as well as sample
SB - Site Background
*- Background levels of lead vary widely. Average background levels in metropolitan and suburban areas average 200 - 500 ppm
** - Site specific condition should be taken into consideration when establishing clean up levels
Scacklette, HT and JG Boerngen, 1984. *"Element Concentration in Soils and other Surficial Materials of the Conterminus United States, USGS Professional Paper 1270."*
E. Carol McGovern, NYSDEC Wildlife Resource Center. *"Background Concentrations of 20 elements in Soils with Special Regard for New York State."*
Above State RSCO's

Table 2. Summary of Volatile Organic Compounds in Soil Samples
Project: Market St. Dev., Brooklyn Navy Yard

Client Sample ID:		Recommended	B2 [8'-12']	B1 [8'-12']	B4 [10'-12']	B11 [2'-4']	B11 [8'-10']	B7 [2'-4']	B7 [10'-12']	B8 [2'-4']	B8 [4'-6']	B6 [4'-6']	B6 [6'-8']	B12 [4'-6']	B12 [8'-10']
Laboratory ID:		Soil Cleanup	0508111-01	0508111-02	0508111-03	0508111-04	0508111-05	0508111-06	0508111-07	0508111-08	0508111-09	0508111-10	0508111-11	0508111-12	0508111-13
Sampling Date:		Objectives	07/29/2005	07/29/2005	08/01/2005	08/02/2005	08/02/2005	08/03/2005	08/03/2005	08/04/2005	08/04/2005	08/08/2005	08/08/2005	08/09/2005	08/09/2005
Analyte:	Units:		Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Volatile Compounds (Concentration in ug/kg)															
1,1,1-Trichloroethane	ug/kg	800	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
1,1,2,2-Tetrachloroethane	ug/kg	600	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
1,1,2-Trichloroethane	ug/kg	600	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
1,1-Dichloroethane	ug/kg	200	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
1,1-Dichloroethene	ug/kg	400	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
1,2-Dichloroethane	ug/kg	100	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
1,2-Dichloropropane	ug/kg	-	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
2-Butanone	ug/kg	300	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
2-Chloroethyl vinyl ether	ug/kg	-	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
2-Hexanone	ug/kg	-	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
4-Methyl-2-pentanone	ug/kg	1,000	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
Acetone	ug/kg	200	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
Benzene	ug/kg	60	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
Bromodichloromethane	ug/kg	-	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
Bromoform	ug/kg	-	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
Bromomethane	ug/kg	-	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
Carbon disulfide	ug/kg	2700	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
Carbon tetrachloride	ug/kg	600	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
Chlorobenzene	ug/kg	1700	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
Chloroethane	ug/kg	1,900	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
Chloroform	ug/kg	300	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
Chloromethane	ug/kg	-	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
cis-1,3-Dichloropropene	ug/kg	600	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
Dibromochloromethane	ug/kg	100	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
Ethylbenzene	ug/kg	5500	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
Methylene chloride	ug/kg	100	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	42	12	5.9 U
Styrene	ug/kg	-	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
Tetrachloroethene	ug/kg	1400	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
Toluene	ug/kg	1500	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
trans-1,2-Dichloroethene	ug/kg	300	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
trans-1,3-Dichloropropene	ug/kg	600	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
Trichloroethene	ug/kg	700	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
Vinyl chloride	ug/kg	120	9.9 U	6.4 U	7.7 U	5.5 U	6.2 U	8.1 U	7.6 U	5.6 U	6.2 U	6.3 U	6.9 U	5.8 U	5.9 U
Xylenes, Total	ug/kg	1200	30 U	19 U	23 U	17 U	18 U	24 U	23 U	17 U	18 U	19 U	21 U	17 U	18 U
Total VOCs	ug/kg	10,000	0	0	0	0	0	0	0	0	0	0	0	0	0

Qualifiers:
ug/kg - Microgram per kilogram of part per billion (ppb) equivalent
ug/l - Microgram per liter (Aq) of part per billion (ppb) equivalent
U - Not detected; detection limit shown
B - Analyte Found in associated blank as well as sample
U - Not detected; detection limit shown
B - Analyte Found in associated blank as well as sample
NR - Not Reported
Above State RSCO's

Table 3. Summary of Semivolatile Organic Compounds in Soil Samples
Project: Market St. Dev., Brooklyn Navy Yard

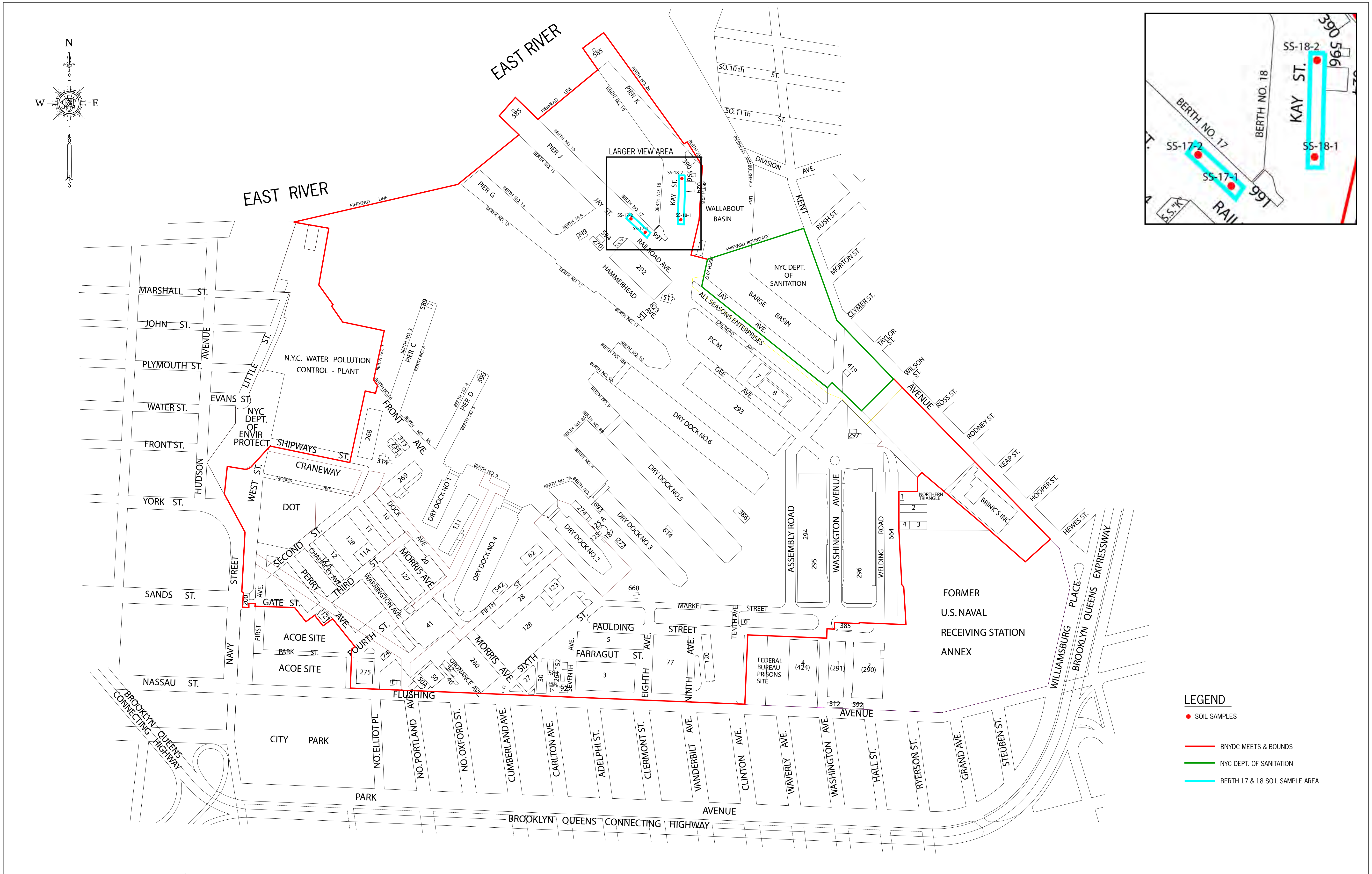
Client Sample ID:		NYSDEC	ATSDR	B2 [8'-12']	B1 [8'-12']	B4 [10'-12']	B11 [2'-4']	B11 [8'-10']	B7 [2'-4']	B7 [10'-12']	B8 [2'-4']	B8 [4'-6']	B6 [4'-6']	B6 [6'-8']	B12 [4'-6']	B12 [8'-10']
Laboratory ID:		Recommended	Background Soil	0508111-01	0508111-02	0508111-03	0508111-04	0508111-05	0508111-06	0508111-07	0508111-08	0508111-09	0508111-10	0508111-11	0508111-12	0508111-13
Sampling Date:		Soil Cleanup	Concentrations PAHs	07/29/2005	07/29/2005	08/01/2005	08/02/2005	08/02/2005	08/03/2005	08/03/2005	08/04/2005	08/04/2005	08/08/2005	08/08/2005	08/09/2005	08/09/2005
Analyte:	Units:	Objectives	in Urban Soils	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
SEMIVOLATILE SW-846 8270																
1,2,4-Trichlorobenzene	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
1,2-Dichlorobenzene	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
1,3-Dichlorobenzene	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
1,4-Dichlorobenzene	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
2,4,5-Trichlorophenol	ug/kg	100	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
2,4,6-Trichlorophenol	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
2,4-Dichlorophenol	ug/kg	400	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
2,4-Dimethylphenol	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
2,4-Dinitrophenol	ug/kg	200	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
2,4-Dinitrotoluene	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
2,6-Dinitrotoluene	ug/kg	100	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
2-Chloronaphthalene	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
2-Chlorophenol	ug/kg	800	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
2-Methylnaphthalene	ug/kg	36,400	-	240 U	150 U	180 U	130 U	150 U	190 U	110 J	140 U	150 U	91 J	170 U	800	140 U
2-Methylphenol	ug/kg	100	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
2-Nitroaniline	ug/kg	430	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
2-Nitrophenol	ug/kg	100	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
3,3´-Dichlorobenzidine	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
3+4-Methylphenol	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
3-Nitroaniline	ug/kg	500	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
4,6-Dinitro-2-methylphenol	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
4-Bromophenyl phenyl ether	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
4-Chloro-3-methylphenol	ug/kg	240	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
4-Chloroaniline	ug/kg	220	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
4-Chlorophenyl phenyl ether	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
4-Nitroaniline	ug/kg	500	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
4-Nitrophenol	ug/kg	100	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Acenaphthene	ug/kg	90,000	-	240 U	150 U	180 U	130 U	210	190 U	270	140 U	150 U	150 U	170 U	4300	180
Acenaphthylene	ug/kg	41,000	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Aniline	ug/kg	100	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Anthracene	ug/kg	50,000	-	240 U	150 U	180 U	130 U	430	220	330	140 U	150 U	140 J	120 J	11000	410
Azobenzene	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Benzidine	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Benzo(a)anthracene	ug/kg	224	169 - 59,000	240 U	150 U	180 U	130 U	1500	410	320	140 U	150 U	380	380	19000	1000
Benzo(a)pyrene	ug/kg	61	165 - 220	240 U	150 U	180 U	130 U	2200	340	230	140 U	150 U	320	260	13000	820
Benzo(b)fluoranthene	ug/kg	1,100	15,000 - 62,000	240 U	150 U	180 U	450	2500	190 U	280	140 U	95 J	580	410	17000	1100
Benzo(g,h,i)perylene	ug/kg	50,000	900 - 47,000	240 U	150 U	180 U	130 U	1200	190 J	130 J	140 U	150 U	280	170	6800	570
Benzo(k)fluoranthene	ug/kg	1,100	300 - 26,000	240 U	150 U	180 U	120 J	680	190 U	180 U	140 U	150 U	200	180	6200	350
Benzoic acid	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Benzyl alcohol	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Bis(2-chloroethoxy)methane	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Bis(2-chloroethyl)ether	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Bis(2-chloroisopropyl)ether	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Bis(2-ethylhexyl)phthalate	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	1900 B	5600 B	140 U	730 B	390 B	1700 B	1700 B	380 B
Butyl benzyl phthalate	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	440 B	390 B	140 U	260 B	300 B	370 B	230 B	250 B
Carbazole	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	2200	110 J
Chrysene	ug/kg	400	251 - 640	240 U	150 U	180 U	130 U	1500	420	310	140 U	150 U	490	490	17000	1000
Dibenzo(a,h)anthracene	ug/kg	-	-	240 U	150 U	180 U	130 U	260	190 U	180 U	140 U	150 U	150 U	170 U	1900	150
Dibenzofuran	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	3400	110 J
Diethyl phthalate	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Dimethyl phthalate	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Di-n-butyl phthalate	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	170 J	120 J	140 U	150 U	100 J	120 J	140 U	140 U
Di-n-octyl phthalate	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Fluoranthene	ug/kg	50,000	200 - 166,000	240 U	150 U	180 U	580	2400	870	1000	140 U	150 U	690	610	47000	1900
Fluorene	ug/kg	50,000	-	240 U	150 U	180 U	130 U	150 U	190 U	220	140 U	150 U	150 U	170 U	5200	140 J
Hexachlorobenzene	ug/kg	410	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Hexachlorobutadiene	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Hexachlorocyclopentadiene	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Hexachloroethane	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Indeno(1,2,3-c,d)pyrene	ug/kg	50,000	200 - 166,000	240 U	150 U	180 U	130 U	1300	150 J	95 J	140 U	150 U	240	140 J	6300	460
Isophorone	ug/kg	4,400	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Naphthalene	ug/kg	13,000	-	240 U	150 U	180 U	130 U	150 U	190 U	220	140 U	150 U	140 J	170 U	1200	140 U
Nitrobenzene	ug/kg	200	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
N-Nitrosodimethylamine	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
N-Nitrosodi-n-propylamine	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
N-Nitrosodiphenylamine	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Pentachlorophenol	ug/kg	1,000	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Phenanthrene	ug/kg	50,000	-	240 U	150 U	180 U	130 U	1300	260	1100	4600	99 J	420	280	49000	1600
Phenol	ug/kg	30 or MDL	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Pyrene	ug/kg	50,000	145 - 147,000	240 U	150 U	180 U	560	2300	880	1000	140 U	110 J	710	620	36000	2200
Pyridine	ug/kg	-	-	240 U	150 U	180 U	130 U	150 U	190 U	180 U	140 U	150 U	150 U	170 U	140 U	140 U
Total SVOC's	ug/kg	500,000		0	0	0	1590	17520	6250	11725	4600	1294	5471	5850	249230	12730

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
B - Analyte Found in associated blank as well as sample
NR - Not Reported
Above State RSCO's

Table 4. Summary of Pesticide & PCB Compounds in Soil Samples
Project: Market St. Dev., Brooklyn Navy Yard

Client Sample ID:		Recommended	B2 [8'-12']	B1 [8'-12']	B4 [10'-12']	B11 [2'-4']	B11 [8'-10']	B7 [2'-4']	B7 [10'-12']	B8 [2'-4']	B8 [4'-6']	B6 [4'-6']	B6 [6'-8']	B12 [4'-6']	B12 [8'-10']
Laboratory ID:		Soil Cleanup	0508111-01	0508111-02	0508111-03	0508111-04	0508111-05	0508111-06	0508111-07	0508111-08	0508111-09	0508111-10	0508111-11	0508111-12	0508111-13
Sampling Date:		Objectives	07/29/2005	07/29/2005	08/01/2005	08/02/2005	08/02/2005	08/03/2005	08/03/2005	08/04/2005	08/04/2005	08/08/2005	08/08/2005	08/09/2005	08/09/2005
Analyte:	Units:	(ug/kg)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
PCB's as AROCLORS SW-846 METHOD 8082															
Aroclor 1016	ug/kg	10,000	160 U	100 U	120 U	89 U	98 U	130 U	120 U	90 U	99 U	100 U	110 U	93 U	95 U
Aroclor 1221	ug/kg	10,000	160 U	100 U	120 U	89 U	98 U	130 U	120 U	90 U	99 U	100 U	110 U	93 U	95 U
Aroclor 1232	ug/kg	10,000	160 U	100 U	120 U	89 U	98 U	130 U	120 U	90 U	99 U	100 U	110 U	93 U	95 U
Aroclor 1242	ug/kg	10,000	160 U	100 U	120 U	89 U	98 U	130 U	120 U	90 U	99 U	100 U	110 U	93 U	95 U
Aroclor 1248	ug/kg	10,000	160 U	100 U	120 U	89 U	98 U	130 U	120 U	90 U	99 U	100 U	110 U	93 U	95 U
Aroclor 1254	ug/kg	10,000	160 U	100 U	120 U	89 U	98 U	130 U	120 U	90 U	99 U	100 U	110 U	93 U	95 U
Aroclor 1260	ug/kg	10,000	160 U	100 U	120 U	89 U	98 U	130 U	120 U	90 U	99 U	100 U	110 U	93 U	95 U
Total PCB	ug/kg	25,000	0	0	0	0	0	0	0	0	0	0	0	0	0
PESTICIDES SW-846 METHOD 8081															
4,4´-DDD	ug/kg	2,900	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	9.3	5.8 J	5.8 U	5.9 U
4,4´-DDE	ug/kg	2,100	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	6.2 U	6.9 U	5.8 U	5.9 U
4,4´-DDT	ug/kg	2,100	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	8.4	6.9 U	5.8 U	5.9 U
Aldrin	ug/kg	41	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	6.2 U	6.9 U	5.8 U	5.9 U
alpha-BHC	ug/kg	110	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	6.2 U	6.9 U	5.8 U	5.9 U
beta-BHC	ug/kg	200	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	6.2 U	6.9 U	5.8 U	5.9 U
Chlordane	ug/kg	540	30 U	19 U	23 U	17 U	18 U	24 U	23 U	17 U	18 U	19 U	21 U	17 U	18 U
Chlorobenzilate	ug/kg	-	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	6.2 U	6.9 U	5.8 U	5.9 U
DBCP	ug/kg	-	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	6.2 U	6.9 U	5.8 U	5.9 U
delta-BHC	ug/kg	300	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	6.2 U	6.9 U	5.8 U	5.9 U
Dieldrin	ug/kg	44	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	6.2 U	6.9 U	5.8 U	5.9 U
Endosulfan I	ug/kg	900	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	6.2 U	6.9 U	5.8 U	5.9 U
Endosulfan II	ug/kg	900	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	6.2 U	6.9 U	5.8 U	5.9 U
Endosulfan sulfate	ug/kg	1,000	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	6.2 U	6.9 U	5.8 U	5.9 U
Endrin	ug/kg	100	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	6.2 U	6.9 U	5.8 U	5.9 U
Endrin aldehyde	ug/kg	-	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	6.2 U	6.9 U	5.8 U	5.9 U
Endrin ketone	ug/kg	-	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	6.2 U	6.9 U	5.8 U	5.9 U
gamma-BHC	ug/kg	540	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	6.2 U	6.9 U	5.8 U	5.9 U
Heptachlor	ug/kg	100	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	6.2 U	6.9 U	5.8 U	5.9 U
Heptachlor epoxide	ug/kg	20	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	6.2 U	6.9 U	5.8 U	5.9 U
Hexachlorobenzene	ug/kg	-	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	6.2 U	6.9 U	5.8 U	5.9 U
Hexachlorocyclopentadiene	ug/kg -		9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	6.2 U	6.9 U	5.8 U	5.9 U
Methoxychlor	ug/kg	-	9.9 U	6.4 U	7.7 U	5.5 U	6.1 U	8.1 U	7.6 U	5.6 U	6.1 U	6.2 U	6.9 U	5.8 U	5.9 U
Toxaphene	ug/kg	-	95 U	62 U	74 U	53 U	59 U	78 U	73 U	54 U	59 U	60 U	66 U	56 U	57 U
Total Pesticides	ug/kg	10,000	0	0	0	0	0	0	0	0	0	0	0	0	0
TAGM HERBICIDES SW 846 8151A															
2,4,5-T		1,900	99 U	64 U	77 U	55 U	62 U	81 U	76 U	56 U	62 U	63 U	69 U	58 U	59 U
2,4,5-TP (Silvex)		700	99 U	64 U	77 U	55 U	62 U	81 U	76 U	56 U	62 U	63 U	69 U	58 U	59 U
2,4-D		5	99 U	64 U	77 U	55 U	62 U	81 U	76 U	56 U	62 U	63 U	69 U	58 U	59 U

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
C - Pesticide Compound where the identification has been successfully confirmed
P - Pesticide/Aroclor target analyte when there is a >25% difference detected Conc. between GC columns



PROJECT: Brooklyn Navy Yard Sampling Locations	DWN. BY RDW CHK. BY NM SCALE: N/A	PREVIOUS SOIL SAMPLING LOCATIONS WATERFRONT REHABILITATION Brooklyn Navy Yard Brooklyn, NY 11205	QUAY CONSULTING, LLC	HYPACK TAG: ANALOG # 041506 FIELD BOOK: N/A	DATE APR. 15, 2006 LINE FILE: BNY 01
				FIGURE NO. E BROOKLYN NAVY YARD DEVELOPMENT CORP	

Table 1. Summary of Volatile Organic Compounds Detected in Soil, Berth 17, Brooklyn Navy Yard, Brooklyn, New York.

Analyte (Concentrations in mg/kg)	NYSDEC RSCOs	Sample Name / Sample Depth (ft bls): / Sample Date:	B17-1-2 0-2 09/17/01	B17-1-4 2-4 09/17/01	B17-2-2 0-2 09/17/01	B17-2-4 2-4 09/17/01
1,1,1-Trichloroethane	0.8		0.0056 U	0.0058 U	0.0039 J	0.0056 U
1,1,2,2-Tetrachloroethane	0.6		0.0056 U	0.0058 U	0.0052 U	0.0056 U
1,1,2-Trichloroethane	6		0.0056 U	0.0058 U	0.0052 U	0.0056 U
1,1-Dichloroethane	0.2		0.0056 U	0.0058 U	0.0052 U	0.0056 U
1,1-Dichloroethene	0.4		0.0056 U	0.0058 U	0.0052 U	0.0056 U
1,2-Dichloroethane	0.1		0.0056 U	0.0058 U	0.0052 U	0.0056 U
1,2-Dichloropropane	--		0.0056 U	0.0058 U	0.0052 U	0.0056 U
2-Butanone	0.3		0.028 U	0.029 U	0.026 U	0.028 U
2-Hexanone	--		0.022 U	0.023 U	0.021 U	0.022 U
4-Methyl-2-Pentanone	1		0.022 U	0.023 U	0.021 U	0.022 U
Acetone	0.2		0.022 U	0.023 U	0.021 U	0.022 U
Benzene	0.06		0.0011 U	0.0012 U	0.001 U	0.0011 U
Bromodichloromethane	--		0.0056 U	0.0058 U	0.0052 U	0.0056 U
Bromoform	--		0.0056 U	0.0058 U	0.0052 U	0.0056 U
Bromomethane	--		0.0056 U	0.0058 U	0.0052 U	0.0056 U
Carbon disulfide	2.7		0.0056 U	0.0026 J	0.0052 U	0.0056 U
Carbon tetrachloride	0.6		0.0056 U	0.0058 U	0.0052 U	0.0056 U
Chlorobenzene	1.7		0.0056 U	0.0058 U	0.0052 U	0.0056 U
Chloroethane	1.9		0.0056 U	0.0058 U	0.0052 U	0.0056 U
Chloroform	0.3		0.0056 U	0.0058 U	0.0052 U	0.0056 U
Chloromethane	--		0.0056 U	0.0058 U	0.0052 U	0.0056 U
Cis-1,2-Dichloroethene	0.3		0.0056 U	0.0058 U	0.0052 U	0.0056 U
Cis-1,3-Dichloropropene	0.3		0.0056 U	0.0058 U	0.0052 U	0.0056 U
Dibromochloromethane	0.1		0.0056 U	0.0058 U	0.0052 U	0.0056 U
Ethylbenzene	5.5		0.0011 U	0.0012 U	0.001 U	0.0011 U
M&p-Xylenes	1.2*		0.0022 U	0.0023 U	0.0021 U	0.0022 U
Methylene chloride	0.1		0.0026 JB	0.0033 JB	0.003 JB	0.0033 JB
O-Xylene	1.2*		0.0011 U	0.0012 U	0.001 U	0.0011 U
Styrene	--		0.0011 U	0.0012 U	0.001 U	0.0011 U
Tetrachloroethene	1.4		0.0056 U	0.0058 U	0.0052 U	0.0056 U
Toluene	1.5		0.0011 U	0.0012 U	0.001 U	0.0011 U
Trans-1,2-Dichloroethene	0.3		0.0056 U	0.0058 U	0.0052 U	0.0056 U
Trans-1,3-Dichloropropene	0.3		0.0056 U	0.0058 U	0.0052 U	0.0056 U
Trichloroethene	0.7		0.0056 U	0.0058 U	0.0052 U	0.0056 U
Vinyl chloride	0.2		0.0056 U	0.0058 U	0.0052 U	0.0056 U

Notes:

mg/kg - Milligrams per kilogram
NYSDEC - New York State Department of Environmental Conservation
U - Not detected, detection limit is shown
RSCOs - Recommened Soil Cleanup Objectives
ft bls - Feet below land surface
-- - No NYSDEC RSCO available
* - Standard is for mixed xylenes
J - Estimated concentration
B - Detected in Laboratory Blank

Table 2. Summary of Semivolatile Organic Compounds Detected in Soil, Berth 17, Brooklyn Navy Yard, Brooklyn, New York.

Analyte (Concentrations in mg/kg)	NYSDEC RSCOs	Sample Name / Sample Depth (ft bls): / Sample Date:	B17-1-2 / 0-2 / 09/17/01	B17-1-4 / 2-4 / 09/17/01	B17-2-2 / 0-2 / 09/17/01	B17-2-4 / 2-4 / 09/17/01
1,2,4-Trichlorobenzene	3.4		0.37 U	0.39 U	0.34 U	0.37 U
1,2-Dichlorobenzene	7.9		0.37 U	0.39 U	0.34 U	0.37 U
1,3-Dichlorobenzene	1.6		0.37 U	0.39 U	0.34 U	0.37 U
1,4-Dichlorobenzene	8.5		0.37 U	0.39 U	0.34 U	0.37 U
2,4,5-Trichlorophenol	0.1		0.37 U	0.39 U	0.34 U	0.37 U
2,4,6-Trichlorophenol	--		0.37 U	0.39 U	0.34 U	0.37 U
2,4-Dichlorophenol	0.4		0.37 U	0.39 U	0.34 U	0.37 U
2,4-Dimethylphenol	--		0.37 U	0.39 U	0.34 U	0.37 U
2,4-Dinitrophenol	0.2		0.37 U	0.39 U	0.34 U	0.37 U
2,4-Dinitrotoluene	--		0.37 U	0.39 U	0.34 U	0.37 U
2,6-Dinitrotoluene	1		0.37 U	0.39 U	0.34 U	0.37 U
2-Chloronaphthalene	--		0.37 U	0.39 U	0.34 U	0.37 U
2-Chlorophenol	0.8		0.37 U	0.39 U	0.34 U	0.37 U
2-Methylnaphthalene	36.4		0.12 J	0.39 U	0.34 U	0.37 U
2-Methylphenol	0.1		0.37 U	0.39 U	0.34 U	0.37 U
2-Nitroaniline	0.43		0.37 U	0.39 U	0.34 U	0.37 U
2-Nitrophenol	0.33		0.37 U	0.39 U	0.34 U	0.37 U
3&4-Methylphenol	--		0.37 U	0.39 U	0.34 U	0.37 U
3,3'-Dichlorobenzidine	--		0.37 U	0.39 U	0.34 U	0.37 U
3-Nitroaniline	0.5		0.37 U	0.39 U	0.34 U	0.37 U
4,6-Dinitro-2-methylphenol	--		0.37 U	0.39 U	0.34 U	0.37 U
4-Bromophenyl-phenylether	--		0.37 U	0.39 U	0.34 U	0.37 U
4-Chloro-3-methylphenol	0.24		0.37 U	0.39 U	0.34 U	0.37 U
4-Chloroaniline	0.22		0.37 U	0.39 U	0.34 U	0.37 U
4-Chlorophenyl-phenylether	--		0.37 U	0.39 U	0.34 U	0.37 U
4-Nitroaniline	--		0.37 U	0.39 U	0.34 U	0.37 U
4-Nitrophenol	0.1		0.37 U	0.39 U	0.34 U	0.37 U
Acenaphthene	50		0.13 J	0.11 J	0.34 U	0.37 U
Acenaphthylene	41		0.37 U	0.046 J	0.34 U	0.37 U
Anthracene	50		0.33 J	0.3 J	0.056 J	0.37 U
Benzo[a]anthracene	0.224		**0.78**	**0.76**	0.14 J	0.11 J
Benzo[a]pyrene	0.061		**0.81**	**0.64**	**0.12 J**	**0.089 J**
Benzo[b]fluoranthene	1.1		0.98	0.89	0.2 J	0.12 J
Benzo[g,h,i]perylene	50		0.47	0.51	0.079 J	0.37 U
Benzo[k]fluoranthene	1.1		0.4	0.23 J	0.079 J	0.048 J
Bis(2-Chloroethoxy)methane	--		0.37 U	0.39 U	0.34 U	0.37 U
Bis(2-Chloroethyl)Ether	--		0.37 U	0.39 U	0.34 U	0.37 U
Bis(2-Chloroisopropyl)ether	--		0.37 U	0.39 U	0.34 U	0.37 U
Bis(2-Ethylhexyl)phthalate	50		0.046 JB	0.39 U	0.098 JB	0.054 JB
Butylbenzylphthalate	50		0.37 U	0.39 U	0.34 U	0.37 U
Carbazole	--		0.11 J	0.11 J	0.34 U	0.37 U
Chrysene	0.4		0.77	0.72	0.14 J	0.1 J
Di-n-butylphthalate	8.1		0.12 JB	0.054 JB	0.34 U	0.066 JB
DI-n-octylphthalate	50		0.37 U	0.39 U	0.34 U	0.37 U
Dibenzo[a,h]Anthracene	0.014		**0.047 J**	**0.066 J**	0.34 U	0.37 U
Dibenzofuran	6.2		0.17 J	0.077 J	0.34 U	0.37 U
Diethylphthalate	7.1		0.37 U	0.041 J	0.34 U	0.37 U
Dimethylphthalate	2		0.37 U	0.39 U	0.34 U	0.37 U
Fluoranthene	50		1.3	1.4	0.22 J	0.11 J
Fluorene	50		0.14 J	0.11 J	0.34 U	0.37 U
Hexachlorobenzene	0.41		0.37 U	0.39 U	0.34 U	0.37 U
Hexachlorobutadiene	--		0.37 U	0.39 U	0.34 U	0.37 U
Hexachlorocyclopentadiene	--		0.74 U	0.78 U	0.69 U	0.75 U
Hexachloroethane	--		0.37 U	0.39 U	0.34 U	0.37 U
Indeno[1,2,3-cd]pyrene	3.2		0.47	0.49	0.089 J	0.082 J
Isophorone	4.4		0.37 U	0.39 U	0.34 U	0.37 U
N-Nitroso-Di-N-Propylamine	--		0.37 U	0.39 U	0.34 U	0.37 U
N-Nitrosodiphenylamine	--		0.37 U	0.39 U	0.34 U	0.37 U
Naphthalene	13		0.14 J	0.05 J	0.34 U	0.37 U
Nitrobenzene	0.2		0.37 U	0.39 U	0.34 U	0.37 U
Pentachlorophenol	1		0.37 U	0.39 U	0.34 U	0.37 U
Phenanthrene	50		1.2	0.9	0.19 J	0.073 J
Phenol	0.03		0.37 U	0.39 U	0.34 U	0.37 U
Pyrene	50		1.3	1.3	0.26 J	0.15 J

Notes:

mg/kg - Milligrams per kilogram
NYSDEC - New York State Department of Environmental Conservation
U - Not detected, detection limit is shown
RSCOs - Recommened Soil Cleanup Objectives
ft bls - Feet below land surface
-- - No NYSDEC RSCO available
Bold - Concentration exceeds NYSDEC RSCO
J - Estimated concentration
B - Detected in Laboratory Blank

Table 3. Summary of Metal Analytes Detected in Soil, Berth 17, Brooklyn Navy Yard, Brooklyn, New York.

Analyte (Concentrations in mg/kg)	NYSDEC RSCOs	**Sample Name** / **Sample Depth (ft bls):** / **Sample Date:**	B17-1-2 / 0-2 / 09/17/01	B17-1-4 / 2-4 / 09/17/01	B17-2-2 / 0-2 / 09/17/01	B17-2-4 / 2-4 / 09/17/01
Aluminum	8250*		5300	7100	4400	7900
Antimony	2.1		2.2 U	2.3 U	2.1 U	2.2 U
Arsenic	7.5		6.6	4.6	6.7	3.1
Barium	300		67	53	**420**	55
Beryllium	0.16		0.67 U	0.7 U	0.62 U	0.67 U
Cadmium	1.0		0.67 U	0.7 U	0.62 U	0.67 U
Calcium	1888*		**5800**	**3000**	**23000**	**24000**
Chromium	10		**13**	**13**	10	**14**
Cobalt	30		6.3	6.1	7	5.9
Copper	25		**38**	**31**	**49**	**45**
Cyanide	0.2*		**0.41**	**0.37**	**0.26 U**	**0.28 U**
Iron	2000		**17000**	**16000**	**14000**	**14000**
Lead	8029*		220	92	50	14
Magnesium	1089*		**3900**	**2100**	**9800**	**6000**
Manganese	2931*		410	280	410	320
Mercury	0.1		**1.8**	**0.35**	0.15 U	0.16 U
Nickel	13		**18**	12	**15**	11
Potassium	347.9*		**1000**	**990**	**660**	**1000**
Selenium	2		2.2 U	2.3 U	2.1 U	2.2 U
Silver	0.5*		2.8 U	2.9 U	2.6 U	2.8 U
Sodium	169.8*		560 U	580 U	520 U	560 U
Thallium	0.8*		1.3 U	1.4 U	1.2 U	1.3 U
Vanadium	150		24	22	21	24
Zinc	20		**160**	**92**	**220**	**55**

Notes:

mg/kg - Milligrams per kilogram
NYSDEC - New York State Department of Environmental Conservation
U - Not detected, detection limit is shown
RSCOs - Recommened Soil Cleanup Objectives
ft bls - Feet below land surface
* - Site Background Concentration
Bold - Concentration exceeds NYSDEC RSCO

Table 4. Summary of Pesticide Compounds Detected in Soil, Berth 17, Brooklyn Navy Yard, Brooklyn, New York.

Analyte (Concentrations in mg/kg)	NYSDEC RSCOs	Sample Name / Sample Depth (ft bls): / Sample Date:	B17-1-2 0-2 09/17/01	B17-1-4 2-4 09/17/01	B17-2-2 0-2 09/17/01	B17-2-4 2-4 09/17/01
Aldrin	0.041		0.0037 U	0.0039 U	0.0034 U	0.0037 U
Alpha-BHC	0.11		0.0037 U	0.0039 U	0.0034 U	0.0037 U
Beta-BHC	0.2		0.0037 U	0.0039 U	0.0034 U	0.0037 U
Chlordane	0.54		0.0074 U	0.0078 U	0.0069 U	0.0075 U
Delta-BHC	0.3		0.0037 U	0.0039 U	0.0034 U	0.0037 U
Dieldrin	0.044		0.0037 U	0.0039 U	0.0034 U	0.0037 U
Endosulfan I	0.9		0.0037 U	0.0039 U	0.0034 U	0.0037 U
Endosulfan II	0.9		0.0037 U	0.0039 U	0.0036	0.0037 U
Endosulfan Sulfate	1		0.0037 U	0.0039 U	0.0034 U	0.0037 U
Endrin	0.1		0.0037 U	0.0039 U	0.0034 U	0.0037 U
Endrin Aldehyde	--		0.0037 U	0.0039 U	0.0037	0.0037 U
Endrin Ketone	0.1		0.0037 U	0.0039 U	0.0034 U	0.0037 U
Gamma-BHC	0.06		0.0037 U	0.0039 U	0.0034 U	0.0037 U
Heptachlor	0.02		0.0037 U	0.0039 U	0.0034 U	0.0037 U
Heptachlor Epoxide	0.02		0.0037 U	0.0039 U	0.0034 U	0.0037 U
Methoxychlor	10*		0.0037 U	0.0039 U	0.0034 U	0.0037 U
P,P'-DDD	2.9		0.0037 U	0.0039 U	0.0034 U	0.0037 U
P,P'-DDE	2.1		0.0037 U	0.0039 U	0.0034 U	0.0037 U
P,P'-DDT	2.1		0.0037 U	0.0039 U	0.019	0.0037 U
Toxaphene	--		0.037 U	0.039 U	0.034 U	0.037 U

Notes:

mg/kg - Milligrams per kilogram
NYSDEC - New York State Department of Environmental Conservation
U - Not detected, detection limit is shown
RSCOs - Recommened Soil Cleanup Ob Jectives
ft bls - Feet below land surface
-- - No NYSDEC RSCO available
* - Total Pesticides less than 10 mg/kg

Table 5. Summary of Polychlorinated Biphenyl Compounds Detected in Soil, Berth 17, Brooklyn Navy Yard, Brooklyn, New York.

Analyte (Concentrations in mg/kg)	NYSDEC RSCOs	Sample Name / Sample Depth (ft bls): / Sample Date:	B17-1-2 / 0-2 / 09/17/01	B17-1-4 / 2-4 / 09/17/01	B17-2-2 / 0-2 / 09/17/01	B17-2-4 / 2-4 / 09/17/01
Aroclor-1016	10*		0.019 U	0.019 U	0.017 U	0.019 U
Aroclor-1221	10*		0.019 U	0.019 U	0.017 U	0.019 U
Aroclor-1232	10*		0.019 U	0.019 U	0.017 U	0.019 U
Aroclor-1242	10*		0.019 U	0.019 U	0.017 U	0.019 U
Aroclor-1248	10*		0.019 U	0.019 U	0.017 U	0.019 U
Aroclor-1254	10*		0.019 U	0.019 U	0.017 U	0.019 U
Aroclor-1260	10*		0.019 U	0.019 U	0.12	0.019 U
Total Aroclors:	10		ND	ND	0.12	ND

Notes:

mg/kg - Milligrams per kilogram
NYSDEC - New York State Department of Environmental Conservation
U - Not detected, detection limit is shown
RSCOs - Recommened Soil Cleanup Objectives
ft bls - Feet below land surface
-- - No NYSDEC RSCO available
* - NYSDEC RSCO is for Total PCBs
ND - Not detected

Table 6. Summary of Hazardous Waste Characteristic Volatile Organic Compounds Detected in Soil, Berth 17, Brooklyn Navy Yard, Brooklyn, New York.

Analyte (Concentrations in µg/L)	Hazardous Waste Regulatory Levels for Toxicity Characteristic	**Sample Name** / **Sample Depth (ft bls):** / **Sample Date:**	B17-1-2 / 0-2 / 09/17/01	B17-1-4 / 2-4 / 09/17/01	B17-2-2 / 0-2 / 09/17/01	B17-2-4 / 2-4 / 09/17/01
1,1-Dichloroethene	700		5 U	5 U	5 U	5 U
1,2-Dichloroethane	500		5 U	5 U	5 U	5 U
1,4-Dichlorobenzene	7500		21	5 U	5 U	5 U
2-Butanone	--		25 U	25 U	25 U	25 U
Benzene	500		1 U	1 U	1 U	1 U
Carbon tetrachloride	500		5 U	5 U	5 U	5 U
Chlorobenzene	100000		1.8 J	5 U	5 U	5 U
Chloroform	600		1.7 J	1.7 J	1.7 J	1.7 J
Tetrachloroethene	700		5 U	5 U	5 U	5 U
Trichloroethene	500		5 U	5 U	5 U	5 U
Vinyl chloride	200		5 U	5 U	5 U	5 U

Notes:

µg/L - Micrograms per liter
U - Not detected, detection limit is shown
ft bls - Feet below land surface
-- - No standard available
J - Estimated concentration

Table 7. Summary of Hazardous Waste Characteristic Semivolatile Organic Compounds Detected in Soil, Berth 17, Brooklyn Navy Yard, Brooklyn, New York.

Analyte (Concentrations in µg/L)	Hazardous Waste Regulatory Levels for Toxicity Characteristic	**Sample Name**	B17-1-2	B17-1-4	B17-2-2	B17-2-4
		Sample Depth (ft bls):	0-2	2-4	0-2	2-4
		Sample Date:	09/17/01	09/17/01	09/17/01	09/17/01
2,4,5-Trichlorophenol	400000		40 U	40 U	40 U	40 U
2,4,6-Trichlorophenol	2000		40 U	40 U	40 U	40 U
2,4-Dinitrotoluene	130		40 U	40 U	40 U	40 U
2-Methylphenol	--		40 U	40 U	40 U	40 U
3&4-Methylphenol	--		40 U	40 U	40 U	40 U
Hexachlorobenzene	130		40 U	40 U	40 U	40 U
Hexachlorobutadiene	500		40 U	40 U	40 U	40 U
Hexachloroethane	300		40 U	40 U	40 U	40 U
Nitrobenzene	2000		40 U	40 U	40 U	40 U
Pentachlorophenol	100000		40 U	40 U	40 U	40 U
Pyridine	5000		80 U	80 U	80 U	80 U

Notes:

µg/L - Micrograms per liter
U - Not detected, detection limit is shown
ft bls - Feet below land surface

Table 8. Summary of Hazardous Waste Characteristic metal Analytes Detected in Soil, Berth 17, Brooklyn Navy Yard, Brooklyn, New York.

Analyte (Concentrations in µg/L)	Hazardous Waste Regulatory Levels for Toxicity Characteristic	**Sample Name**	B17-1-2	B17-1-4	B17-2-2	B17-2-4
		Sample Depth (ft bls):	0-2	2-4	0-2	2-4
		Sample Date:	09/17/01	09/17/01	09/17/01	09/17/01
Arsenic	5000		300 U	300 U	300 U	300 U
Barium	100000		600	460	1400	590
Cadmium	1000		100 U	100 U	100 U	100 U
Chromium	5000		200 U	200 U	200 U	200 U
Lead	5000		300 U	300 U	300 U	300 U
Mercury	200		0.75 U	0.75 U	0.75 U	0.75 U
Nickel	--		200 U	200 U	200 U	200 U
Selenium	1000		200 U	200 U	200 U	200 U
Silver	5000		100 U	100 U	100 U	100 U

Notes:

µg/L - Micrograms per liter
U - Not detected, detection limit is shown
ft bls - Feet below land surface

Table 9. Summary of Hazardous Waste Characteristic Pesticide Compounds Detected in Soil, Berth 17, Brooklyn Navy Yard, Brooklyn, New York.

Analyte (Concentrations in µg/L)	Hazardous Waste Regulatory Levels for Toxicity Characteristic	**Sample Name**	B17-1-2	B17-1-4	B17-2-2	B17-2-4
		Sample Depth (ft bls):	0-2	2-4	0-2	2-4
		Sample Date:	09/17/01	09/17/01	09/17/01	09/17/01
Chlordane	30		2 U	2 U	2 U	2 U
Endrin	20		1 U	1 U	1 U	1 U
Gamma-BHC	--		1 U	1 U	1 U	1 U
Heptachlor	8		1 U	1 U	1 U	1 U
Heptachlor Epoxide	8		1 U	1 U	1 U	1 U
Methoxychlor	10000		1 U	1 U	1 U	1 U
Toxaphene	5000		10 U	10 U	10 U	10 U

Notes:

µg/L - Micrograms per liter
U - Not detected, detection limit is shown
ft bls - Feet below land surface

Table 10. Summary of Volatile Organic Compounds Detected in Soil, Berth 18, Brooklyn Navy Yard, Brooklyn, New York.

Analyte (Concentrations in mg/kg)	NYSDEC RSCOs	Sample Name / Sample Depth (ft bls): / Sample Date:	B18-1-2 0-2 09/17/01	B18-1-4 2-4 09/17/01	B18-2-2 0-2 09/17/01	B18-2-4 2-4 09/17/01
1,1,1-Trichloroethane	0.8		0.0061 U	0.0068 U	0.0061 U	0.0058 U
1,1,2,2-Tetrachloroethane	0.6		0.0061 U	0.0068 U	0.0061 U	0.0058 U
1,1,2-Trichloroethane	6		0.0061 U	0.0068 U	0.0061 U	0.0058 U
1,1-Dichloroethane	0.2		0.0061 U	0.0068 U	0.0061 U	0.0058 U
1,1-Dichloroethene	0.4		0.0061 U	0.0068 U	0.0061 U	0.0058 U
1,2-Dichloroethane	0.1		0.0061 U	0.0068 U	0.0061 U	0.0058 U
1,2-Dichloropropane	--		0.0061 U	0.0068 U	0.0061 U	0.0058 U
2-Butanone	0.3		0.03 U	0.034 U	0.03 U	0.029 U
2-Hexanone	--		0.024 U	0.027 U	0.024 U	0.023 U
4-Methyl-2-Pentanone	1		0.024 U	0.027 U	0.024 U	0.023 U
Acetone	0.2		0.024 U	0.027 U	0.024 U	0.023 U
Benzene	0.06		0.0012 U	0.0014 U	0.0012 U	0.0012 U
Bromodichloromethane	--		0.0061 U	0.0068 U	0.0061 U	0.0058 U
Bromoform	--		0.0061 U	0.0068 U	0.0061 U	0.0058 U
Bromomethane	--		0.0061 U	0.0068 U	0.0061 U	0.0058 U
Carbon disulfide	2.7		0.0061 U	0.0068 U	0.0061 U	0.0058 U
Carbon tetrachloride	0.6		0.0061 U	0.0068 U	0.0061 U	0.0058 U
Chlorobenzene	1.7		0.0061 U	0.0068 U	0.0061 U	0.0058 U
Chloroethane	1.9		0.0061 U	0.0068 U	0.0061 U	0.0058 U
Chloroform	0.3		0.0061 U	0.0068 U	0.0061 U	0.0058 U
Chloromethane	--		0.0061 U	0.0068 U	0.0061 U	0.0058 U
Cis-1,2-Dichloroethene	0.3		0.0061 U	0.0068 U	0.0061 U	0.0058 U
Cis-1,3-Dichloropropene	0.3		0.0061 U	0.0068 U	0.0061 U	0.0058 U
Dibromochloromethane	0.1		0.0061 U	0.0068 U	0.0061 U	0.0058 U
Ethylbenzene	5.5		0.0012 U	0.0014 U	0.0012 U	0.0012 U
M&p-Xylenes	1.2*		0.0024 U	0.0027 U	0.0024 U	0.0023 U
Methylene chloride	0.1		0.0021 JB	0.0028 JB	0.0018 JB	0.0033 JB
O-Xylene	1.2*		0.0012 U	0.0014 U	0.0012 U	0.0012 U
Styrene	--		0.0012 U	0.0014 U	0.0012 U	0.0012 U
Tetrachloroethene	1.4		0.0061 U	0.0068 U	0.0061 U	0.0058 U
Toluene	1.5		0.0012 U	0.0014 U	0.0012 U	0.0012 U
Trans-1,2-Dichloroethene	0.3		0.0061 U	0.0068 U	0.0061 U	0.0058 U
Trans-1,3-Dichloropropene	0.3		0.0061 U	0.0068 U	0.0061 U	0.0058 U
Trichloroethene	0.7		0.0061 U	0.0068 U	0.0061 U	0.0058 U
Vinyl chloride	0.2		0.0061 U	0.0068 U	0.0061 U	0.0058 U

Notes:

mg/kg - Milligrams per kilogram
NYSDEC - New York State Department of Environmental Conservation
U - Not detected, detection limit is shown
RSCOs - Recommened Soil Cleanup Objectives
ft bls - Feet below land surface
-- - No NYSDEC RSCO available
* - Standard is for mixed xylenes
J - Estimated Concentration
B - Detected in Laboratory Blank

Table 11. Summary of Semivolatile Organic Compounds Detected in Soil, Berth 18, Brooklyn Navy Yard, Brooklyn, New York.

Analyte (Concentrations in mg/kg)	NYSDEC RSCOs	Sample Name / Sample Depth (ft bls): / Sample Date:	B18-1-2 0-2 09/17/01	B18-1-4 2-4 09/17/01	B18-2-2 0-2 09/17/01	B18-2-4 2-4 09/17/01
1,2,4-Trichlorobenzene	3.4		0.41 U	0.45 U	0.41 U	1.2 U
1,2-Dichlorobenzene	7.9		0.41 U	0.45 U	0.41 U	1.2 U
1,3-Dichlorobenzene	1.6		0.41 U	0.45 U	0.41 U	1.2 U
1,4-Dichlorobenzene	8.5		0.41 U	0.45 U	0.41 U	1.2 U
2,4,5-Trichlorophenol	0.1		0.41 U	0.45 U	0.41 U	1.2 U
2,4,6-Trichlorophenol	--		0.41 U	0.45 U	0.41 U	1.2 U
2,4-Dichlorophenol	0.4		0.41 U	0.45 U	0.41 U	1.2 U
2,4-Dimethylphenol	--		0.41 U	0.45 U	0.41 U	1.2 U
2,4-Dinitrophenol	0.2		0.41 U	0.45 U	0.41 U	1.2 U
2,4-Dinitrotoluene	--		0.41 U	0.45 U	0.41 U	1.2 U
2,6-Dinitrotoluene	1		0.41 U	0.45 U	0.41 U	1.2 U
2-Chloronaphthalene	--		0.41 U	0.45 U	0.41 U	1.2 U
2-Chlorophenol	0.8		0.41 U	0.45 U	0.41 U	1.2 U
2-Methylnaphthalene	36.4		0.25 J	0.12 J	0.068 J	1.2 U
2-Methylphenol	0.1		0.41 U	0.45 U	0.41 U	1.2 U
2-Nitroaniline	0.43		0.41 U	0.45 U	0.41 U	1.2 U
2-Nitrophenol	0.33		0.41 U	0.45 U	0.41 U	1.2 U
3&4-Methylphenol	--		0.41 U	0.45 U	0.41 U	1.2 U
3,3'-Dichlorobenzidine	--		0.41 U	0.45 U	0.41 U	1.2 U
3-Nitroaniline	0.5		0.41 U	0.45 U	0.41 U	1.2 U
4,6-Dinitro-2-methylphenol	--		0.41 U	0.45 U	0.41 U	1.2 U
4-Bromophenyl-phenylether	--		0.41 U	0.45 U	0.41 U	1.2 U
4-Chloro-3-methylphenol	0.24		0.41 U	0.45 U	0.41 U	1.2 U
4-Chloroaniline	0.22		0.41 U	0.45 U	0.41 U	1.2 U
4-Chlorophenyl-phenylether	--		0.41 U	0.45 U	0.41 U	1.2 U
4-Nitroaniline	--		0.41 U	0.45 U	0.41 U	1.2 U
4-Nitrophenol	0.1		0.41 U	0.45 U	0.41 U	1.2 U
Acenaphthene	50		0.059 J	0.45 U	0.051 J	1.2 U
Acenaphthylene	41		0.26 J	0.64	0.41 U	1.2 U
Anthracene	50		0.28 J	0.28 J	0.054 J	1.2 U
Benzo[a]anthracene	0.224		**0.79**	**1.3**	**0.49**	**0.36 J**
Benzo[a]pyrene	0.061		**0.9**	**1.6**	**0.45**	1.2 U
Benzo[b]fluoranthene	1.1		**1.4**	**2.2**	0.62	1.2 U
Benzo[g,h,i]perylene	50		0.75	1.2	0.34 J	1.2 U
Benzo[k]fluoranthene	1.1		0.33 J	0.58	0.26 J	1.2 U
Bis(2-Chloroethoxy)methane	--		0.41 U	0.45 U	0.41 U	1.2 U
Bis(2-Chloroethyl)Ether	--		0.41 U	0.45 U	0.41 U	1.2 U
Bis(2-Chloroisopropyl)ether	--		0.41 U	0.45 U	0.41 U	1.2 U
Bis(2-Ethylhexyl)phthalate	50		0.13 JB	0.17 JB	0.13 JB	1.2 U
Butylbenzylphthalate	50		0.41 U	0.45 U	0.41 U	1.2 U
Carbazole	--		0.089 J	0.086 J	0.064 J	1.2 U
Chrysene	0.4		0.93	1.5	0.54	0.3 J
Di-n-butylphthalate	8.1		0.18 JB	0.13 JB	0.098 JB	1.2 U
DI-n-octylphthalate	50		0.41 U	0.45 U	0.41 U	1.2 U
Dibenzo[a,h]Anthracene	0.014		**0.11 J**	**0.16 J**	0.41 U	1.2 U
Dibenzofuran	6.2		0.096 J	0.45 U	0.41 U	1.2 U
Diethylphthalate	7.1		0.41 U	0.45 U	0.053 J	1.2 U
Dimethylphthalate	2		0.41 U	0.45 U	0.41 U	1.2 U
Fluoranthene	50		0.82	1.3	0.49	0.34 J
Fluorene	50		0.08 J	0.12 J	0.41 U	1.2 U
Hexachlorobenzene	0.41		0.41 U	0.45 U	0.41 U	1.2 U
Hexachlorobutadiene	--		0.41 U	0.45 U	0.41 U	1.2 U
Hexachlorocyclopentadiene	--		0.81 U	0.9 U	0.81 U	2.3 U
Hexachloroethane	--		0.41 U	0.45 U	0.41 U	1.2 U
Indeno[1,2,3-cd]pyrene	3.2		0.57	1.1	0.26 J	1.2 U
Isophorone	4.4		0.41 U	0.45 U	0.41 U	1.2 U
N-Nitroso-Di-N-Propylamine	--		0.41 U	0.45 U	0.41 U	1.2 U
N-Nitrosodiphenylamine	--		0.41 U	0.45 U	0.41 U	1.2 U
Naphthalene	13		0.17 J	0.14 J	0.059 J	1.2 U
Nitrobenzene	0.2		0.41 U	0.45 U	0.41 U	1.2 U
Pentachlorophenol	1		0.41 U	0.45 U	0.41 U	1.2 U
Phenanthrene	50		0.75	0.66	0.32 J	0.22 J
Phenol	0.03		0.41 U	0.45 U	0.41 U	1.2 U
Pyrene	50		1.2	1.9	0.45	0.23 J

Notes:

mg/kg - Milligrams per kilogram
NYSDEC - New York State Department of Environmental Conservation
U - Not detected, detection limit is shown
RSCOs - Recommened Soil Cleanup Objectives
ft bls - Feet below land surface
-- - No NYSDEC RSCO available
Bold - Concentration exceeds NYSDEC RSCO
J - Estimated Concentration

Table 12. Summary of Metal Analytes Detected in Soil, Berth 17, Brooklyn Navy Yard, Brooklyn, New York.

Analyte (Concentrations in mg/kg)	NYSDEC RSCOs	**Sample Name** / **Sample Depth (ft bls):** / **Sample Date:**	B18-1-2 0-2 09/17/01	B18-1-4 2-4 09/17/01	B18-2-2 0-2 09/17/01	B18-2-4 2-4 09/17/01
Aluminum	8250*		5400	4400	6200	2300
Antimony	2.1		**5.4**	2.7 U	**15**	**4.5**
Arsenic	7.5		**8.5**	**8.1**	**12**	4.1
Barium	300		98	56	99	29
Beryllium	0.16		**1.3**	0.81 U	**5.4**	0.7 U
Cadmium	1.0		**1.1**	0.81 U	0.96	0.7 U
Calcium	1888*		**50000**	**3100**	**4600**	**5600**
Chromium	10		**22**	**12**	**33**	**15**
Cobalt	30		13	8.7	22	3
Copper	25		**290**	**87**	**330**	**43**
Cyanide	0.2*		**0.39**	**2.6**	**1.4**	**1.5**
Iron	2000		**23000**	**18000**	**21000**	**6500**
Lead	8029*		280	220	500	99
Magnesium	1089*		**25000**	**3500**	**2000**	900
Manganese	2931*		310	320	250	76
Mercury	0.1		**0.86**	**1.1**	**1.5**	**0.53**
Nickel	13		**52**	**37**	**84**	**14**
Potassium	347.9*		**540**	**980**	**460**	290 U
Selenium	2		2.4 U	2.7 U	2.4 U	2.3 U
Silver	0.5*		3 U	3.4 U	3 U	2.9 U
Sodium	169.8*		610 U	680 U	610 U	580 U
Thallium	0.8*		1.5 U	1.6 U	1.5 U	1.4 U
Vanadium	150		35	25	29	12 U
Zinc	20		**1500**	**760**	**1800**	**220**

Notes:

mg/kg - Milligrams per kilogram
NYSDEC - New York State Department of Environmental Conservation
U - Not detected, detection limit is shown
RSCOs - Recommened Soil Cleanup Objectives
ft bls - Feet below land surface
* - Site Background Concentration
Bold - Concentration exceeds NYSDEC RSCO

Table 13. Summary of Pesticide Compounds Detected in Soil, Berth 18, Brooklyn Navy Yard, Brooklyn, New York.

Analyte (Concentrations in mg/kg)	NYSDEC RSCOs	Sample Name / Sample Depth (ft bls): / Sample Date:	B18-1-2 0-2 09/17/01	B18-1-4 2-4 09/17/01	B18-2-2 0-2 09/17/01	B18-2-4 2-4 09/17/01
Aldrin	0.041		0.0041 U	0.0045 U	0.0041 U	0.39 U
Alpha-BHC	0.11		0.0041 U	0.0045 U	0.0041 U	0.39 U
Beta-BHC	0.2		0.0041 U	0.0045 U	0.0041 U	0.39 U
Chlordane	0.54		0.0081 U	0.009 U	0.016	0.083
Delta-BHC	0.3		0.0041 U	0.0045 U	0.0041 U	0.39 U
Dieldrin	0.044		0.0041 U	0.0045 U	0.0041 U	0.39 U
Endosulfan I	0.9		0.0041 U	0.0045 U	0.0041 U	0.39 U
Endosulfan II	0.9		0.0041 U	0.0045 U	0.0041 U	0.39 U
Endosulfan Sulfate	1		0.0041 U	0.0045 U	0.0041 U	0.39 U
Endrin	0.1		0.0041 U	0.0045 U	0.0041 U	0.39 U
Endrin Aldehyde	--		0.015	0.0045 U	0.016	0.39 U
Endrin Ketone	0.1		0.0041 U	0.0045 U	0.0041 U	0.39 U
Gamma-BHC	0.06		0.0041 U	0.0045 U	0.0041 U	0.39 U
Heptachlor	0.02		0.0041 U	0.0045 U	0.0041 U	0.39 U
Heptachlor Epoxide	0.02		0.0041 U	0.0045 U	0.0041 U	0.39 U
Methoxychlor	10*		0.0041 U	0.044	0.0041 U	0.39 U
P,P'-DDD	2.9		0.041	0.019	0.0074	0.39 U
P,P'-DDE	2.1		0.0041 U	0.0045 U	0.01	0.39 U
P,P'-DDT	2.1		0.011	0.0045 U	0.0041 U	0.39 U
Toxaphene	--		0.041 U	0.045 U	0.041 U	3.9 U

Notes:

mg/kg - Milligrams per kilogram
NYSDEC - New York State Department of Environmental Conservation
U - Not detected, detection limit is shown
RSCOs - Recommened Soil Cleanup Objectives
ft bls - Feet below land surface
-- - No NYSDEC RSCO available
* - Total Pesticides less and 10 mg/kg

Table 14. Summary of Polychlorinated Biphenyl Compounds Detected in Soil, Berth 18, Brooklyn Navy Yard, Brooklyn, New York.

Analyte (Concentrations in mg/kg)	NYSDEC RSCOs	**Sample Name**	B18-1-2	B18-1-4	B18-2-2	B18-2-4
		Sample Depth (ft bls):	0-2	2-4	0-2	2-4
		Sample Date:	09/17/01	09/17/01	09/17/01	09/17/01
Aroclor-1016	10*		0.02 U	0.023 U	0.02 U	0.019 U
Aroclor-1221	10*		0.02 U	0.023 U	0.02 U	0.019 U
Aroclor-1232	10*		0.02 U	0.023 U	0.02 U	0.019 U
Aroclor-1242	10*		0.02 U	0.023 U	0.02 U	0.019 U
Aroclor-1248	10*		0.02 U	0.023 U	0.02 U	0.019 U
Aroclor-1254	10*		0.02 U	0.023 U	0.02 U	0.019 U
Aroclor-1260	10*		0.25	0.023 U	0.27	0.11
Total Aroclors:	10		0.25	ND	0.27	0.11

Notes:

mg/kg - Milligrams per kilogram
NYSDEC - New York State Department of Environmental Conservation
U - Not detected, detection limit is shown
RSCOs - Recommened Soil Cleanup Objectives
ft bls - Feet below land surface
* - NYSDEC RSCO is for Total PCBs
ND - Not detected

Table 15. Summary of Hazardous Waste CharacteristicVolatile Organic Compounds Detected in Soil, Berth 18, Brooklyn Navy Yard, Brooklyn, New York.

Analyte (Concentrations in µg/L)	Hazardous Waste Regulatory Levels for Toxicity Characteristic	**Sample Name**	B18-1-2	B18-1-4	B18-2-2	B18-2-4
		Sample Depth (ft bls):	0-2	2-4	0-2	2-4
		Sample Date:	09/17/01	09/17/01	09/17/01	09/17/01
1,1-Dichloroethene	700		5 U	5 U	5 U	5 U
1,2-Dichloroethane	500		5 U	5 U	5 U	5 U
1,4-Dichlorobenzene	7500		5 U	5 U	5 U	5 U
2-Butanone	--		25 U	25 U	25 U	25 U
Benzene	500		1 U	1 U	1 U	1 U
Carbon tetrachloride	500		5 U	5 U	5 U	5 U
Chlorobenzene	100000		5 U	5 U	5 U	5 U
Chloroform	600		1.3 J	5 U	1.3 J	5 U
Tetrachloroethene	700		5 U	5 U	5 U	5 U
Trichloroethene	500		5 U	5 U	5 U	5 U
Vinyl chloride	200		5 U	5 U	5 U	5 U

Notes:

µg/L - Micrograms per liter
U - Not detected, detection limit is shown
ft bls - Feet below land surface
-- - No standard available
J - Estimated concentration

Table 16. Summary of Hazardous Waste Characteristics Semivolatile Organic Compounds Detected in Soil, Berth 18, Brooklyn Navy Yard, Brooklyn, New York.

Analyte (Concentrations in µg/L)	Hazardous Waste Regulatory Levels for Toxicity Characteristic	**Sample Name** **Sample Depth (ft bls):** **Sample Date:**	B18-1-2 0-2 09/17/01	B18-1-4 2-4 09/17/01	B18-2-2 0-2 09/17/01	B18-2-4 2-4 09/17/01
2,4,5-Trichlorophenol	400000		40 U	40 U	40 U	40 U
2,4,6-Trichlorophenol	2000		40 U	40 U	40 U	40 U
2,4-Dinitrotoluene	130		40 U	40 U	40 U	40 U
2-Methylphenol	--		40 U	40 U	40 U	40 U
3&4-Methylphenol	--		40 U	40 U	40 U	40 U
Hexachlorobenzene	130		40 U	40 U	40 U	40 U
Hexachlorobutadiene	500		40 U	40 U	40 U	40 U
Hexachloroethane	300		40 U	40 U	40 U	40 U
Nitrobenzene	2000		40 U	40 U	40 U	40 U
Pentachlorophenol	100000		40 U	40 U	40 U	40 U
Pyridine	5000		80 U	80 U	80 U	80 U

Notes:

µg/L - Micrograms per liter
U - Not detected, detection limit is shown
ft bls - Feet below land surface

Table 17. Summary of Hazardous Waste Characteristics Metal Analytes Detected in Soil, Berth 18, Brooklyn Navy Yard, Brooklyn, New York.

Analyte (Concentrations in µg/L)	Hazardous Waste Regulatory Levels for Toxicity Characteristic	**Sample Name** **Sample Depth (ft bls):** **Sample Date:**	B18-1-2 0-2 09/17/01	B18-1-4 2-4 09/17/01	B18-2-2 0-2 09/17/01	B18-2-4 2-4 09/17/01
Arsenic	5000		300 U	300 U	300 U	300 U
Barium	100000		1000	260	390	300
Cadmium	1000		100 U	100 U	100 U	100 U
Chromium	5000		200 U	200 U	200 U	200 U
Lead	5000		300 U	300 U	300 U	300 U
Mercury	200		0.75 U	0.75 U	0.75 U	0.75 U
Nickel	--		200 U	200 U	200 U	200 U
Selenium	1000		200 U	200 U	200 U	200 U
Silver	5000		100 U	100 U	100 U	100 U

Notes:

µg/L - Micrograms per liter
U - Not detected, detection limit is shown
ft bls - Feet below land surface

Table 18. Summary of Hazardous Waste Characteristic Pesticide Compounds Detected in Soil, Berth 18, Brooklyn Navy Yard, Brooklyn, New York.

Analyte (Concentrations in µg/L)	Hazardous Waste Regulatory Levels for Toxicity Characteristic	**Sample Name** / **Sample Depth (ft bls):** / **Sample Date:**	B18-1-2 / 0-2 / 09/17/01	B18-1-4 / 2-4 / 09/17/01	B18-2-2 / 0-2 / 09/17/01	B18-2-4 / 2-4 / 09/17/01
Chlordane	30		2 U	2 U	2 U	2 U
Endrin	20		1 U	1 U	1 U	1 U
Gamma-BHC	--		1 U	1 U	1 U	1 U
Heptachlor	8		1 U	1 U	1 U	1 U
Heptachlor Epoxide	8		1 U	1 U	1 U	1 U
Methoxychlor	10000		1 U	1 U	1 U	1 U
Toxaphene	5000		10 U	10 U	10 U	10 U

Notes:

µg/L - Micrograms per liter

U - Not detected, detection limit is shown

ft bls - Feet below land surface

Table 1. Summary of Volatile Organic Compounds Detected in Soil, Berth 17, Brooklyn Navy Yard, Brooklyn, New York.

Analyte (Concentrations in µg/kg)	Number of Samples	Number of Detections	Mimimum	Maximum	Average
Methylene Chloride	38	31	1.0	15.0	4.4
Acetone	38	22	2.0	73.0	19.0
Carbon Disulfide	38	2	1.0	1.0	1.0
2-Butanone	38	3	2.0	20.0	10.0
Benzene	38	2	5.0	11.0	8.0
Toluene	38	18	0.9	6.0	2.0

Source: PMNC February 1996 "Brooklyn Navy Yard Cogeneration Project 138 kv Underground Transmission Line Summary of Soil Testing Results" Final.

Table 1. Summary of Volatile Organic Compounds Detected in Soil, Berth 17, Brooklyn Navy Yard, Brooklyn, New York.

Analyte (Concentrations in µg/kg)	Number of Samples	Number of Detections	Mimimum	Maximum	Average
Naphthalene	34	16	13.0	130,000.0	8,412.9
4-Chloro-3-Methylphenol	34	1	27.0	27.0	27.0
2-Methylnaphthalene	34	15	14.0	42,000.0	2,934.2
Acenaphthylene	34	2	10.0	42.0	26.0
Acenaphthene	34	13	14.0	48,000.0	4,481.4
Dibenzofuran	34	10	13.0	66,000.0	7,092.7
Fluorene	34	13	16.0	62,000.0	8,548.8
Phenathrene	34	28	12.0	390,000.0	17,146.6
Anthracene	34	20	20.0	21,000.0	1,756.2
Carbazole	34	12	14.0	80,000.0	7,081.2
Di-N-Buthylphthalate	34	29	15.0	3,600.0	202.5
Fluoranthene	34	28	19.0	320,000.0	14,671.4
Pyrene	34	28	20.0	260,000.0	12,688.4
Butylbenzyiphthalate	34	1	22.0	22.0	22.0
Benzo(a)Anthracene	34	24	16.0	120,000.0	7,082.7
Chrysene	34	27	11.0	110,000.0	5,723.7
bis(2-Ethylhexyl)Phthalate	34	27	24.0	700.0	144.9
Benzo(b)Fluoranthene	34	28	13.0	150,000.0	7,679.2
Benzo(a)Pyrene	34	27	14.0	100,000.0	5,228.3
Indeno(1,2,3-cd)Pyrene	34	24	21.0	56,000.0	3,317.7
Dibenzo(a,h)Anthracene	34	24	21.0	56,000.0	3,317.7
Benzo(g,h,i)Perylene	34	24	17.0	65,000.0	3,838.6

Source: PMNC February 1996 "Brooklyn Navy Yard Cogeneration Project 138 kv Underground Transmission Line Summary of Soil Testing Results" Final.

Table 1. Summary of Volatile Organic Compounds Detected in Soil, Berth 17, Brooklyn Navy Yard, Brooklyn, New York.

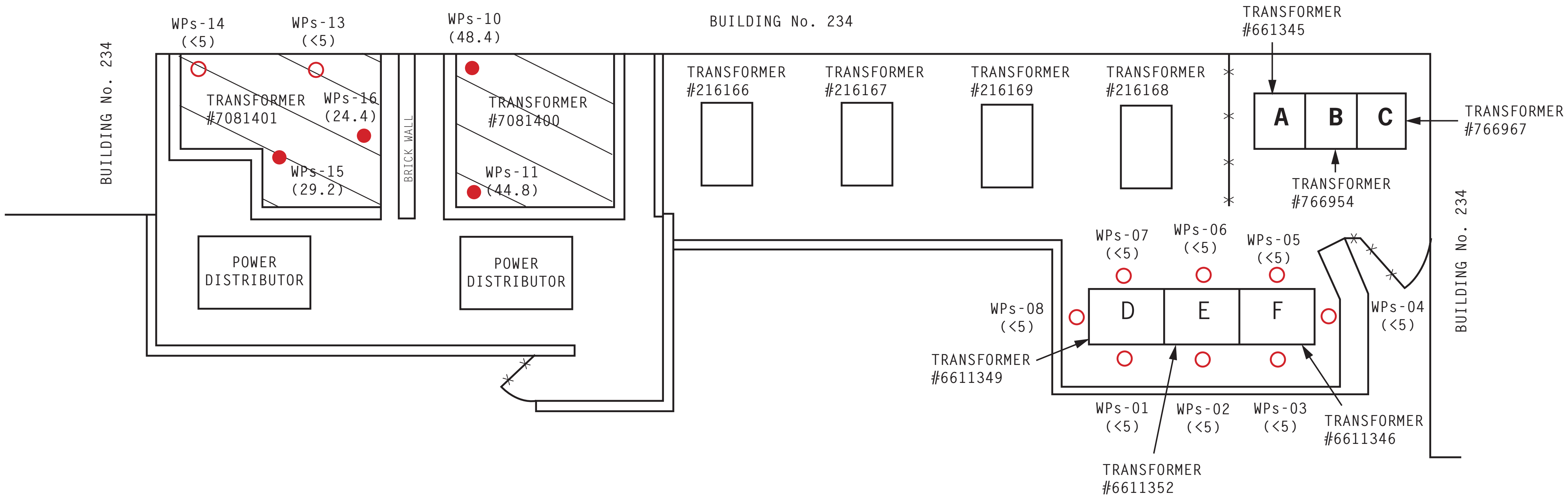
Analyte (Concentrations in mg/kg)	Number of Samples	Number of Detections	Mimimum	Maximum	Average
Aluminum	12	12	3540.0	12,100.0	8,250.8
Antimony	34	8	0.0	2.6	2.1
Arsenic	34	34	1.5	10.8	3.7
Barium	34	34	0.5	1,340.0	73.6
Beryllium	34	34	0.5	308.0	40.4
Cadmium	34	17	0.5	1.0	0.4
Calcium	34	34	0.2	12,000.0	1,888.4
Chromium	34	34	7.5	67,200.0	6,200.4
Cobalt	34	34	5.3	106.0	14.4
Copper	34	34	2.6	599.0	88.3
Iron	34	34	6.6	27,600.0	5,907.2
Lead	34	34	83.9	31,900.0	8,128.9
Magnesium	34	34	3.1	6,200.0	1,088.9
Manganese	34	34	51.8	30,000.0	2,930.6
Mercury	34	31	0.0	378.0	13.0
Nickel	34	34	0.0	27.5	8.0
Potassium	34	34	7.0	2,420.0	347.8
Selenium	34	20	0.5	2.2	1.1
Silver	34	5	0.0	0.5	0.5
Sodium	34	34	0.3	818.0	159.8
Thallium	34	3	1.3	1.3	0.8
Vanadium	34	34	0.4	30.3	7.9
Zinc	34	34	6.6	355	60.1
Cyanide	34	5	0.2	0.2	0.2

Source: PMNC February 1996 "Brooklyn Navy Yard Cogeneration Project 138 kv Underground Transmission Line Summary of Soil Testing Results" Final.

APPENDIX B
PCB IMPACTED SUBSTATIONS FIGURES & DATA SETS

BROOKLYN NAVY YARD VOLUNTARY CLEANUP AGREEMENT

Location	Total Number Transformers	Concrete Surface Cleanup Area (Sq. Ft)	Impacted Soil Removal (Cubic Yards)
Substation B	12	50	NA
Substation G	10	1,345	50
Substation K	2	250	190
Substation Q	1	197	10
Substation L	5	1,500	NA
Substation D	2	120	NA
Substation 1	4	2,250	NA
Substation 9	3	200	NA
Substation 13	0	72	3
Substation 18	1	100	8
Substation 19	2	48	NA
Substation 22	4	128	NA
Substation 24	3	NA	NA
Substation 25	4	266	NA
Substation 28	3	NA	NA
Substation 29	3	341	NA
Building 3	4	84	NA
Building 22	0	140	NA
Building 41	5	1,130	NA
Building 198	1	32	NA
Building 200	3	130	NA
Building 274	1	100	NA
Building 275	1	240	NA
Building 292	3	200	NA
Building 292	3	200	NA
Building 664	2	432	NA
Buillding 125A	1	16	NA
Total		9,571.00	261



TOTAL CONCRETE AREA= 1330 Sq. FT.
ELECT. EQUIPMENT AREA= 399 Sq. FT
TOTAL CONCRETE AREA 931 Sq. FT.

LEGEND

● WIPE SAMPLE LOCATION > 10ug/wipe PCBs

○ WIPE SAMPLE LOCATION < 10ug/wipe PCBs

ALL ANALYTICAL RESULTS REPORTED IN ug/100cm^2 PCB

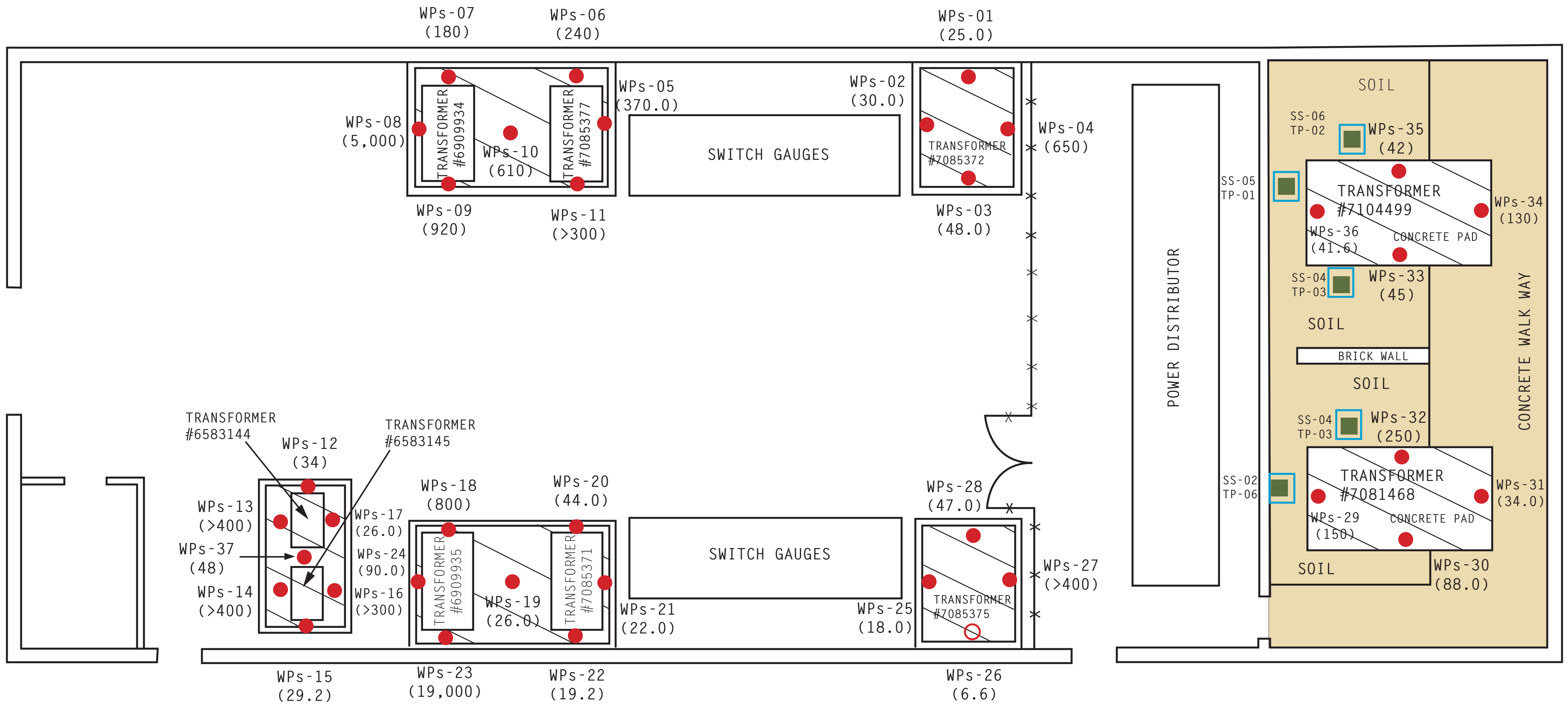
AREA TO BE CLEANED (50 Sq. Ft.)

LOCATION: SUBSTATION B BUILDING #234	DWN. BY RDW CHK. BY NM SCALE: 1/8" = 1'	Concrete Wipe Sampling Locations & Remedial Design BROOKLYN NAVY YARD DEVELOPMENT CORP. Brooklyn Navy Yard Brooklyn, NY 11205	Quay Consulting	QUAY CONSULTING, LLC	HYPACK TAG: ANALOG # 120505a FIELDBOOK: NA DATE DEC. 05, 2005 LINE FILE: CDD 01 APPENDIX B FIG No. 1 BROOKLYN NAVY YARD

OUTDOOR TRANSFORMER AREA
PCB ANALYTICAL RESULTS
SUBSTATION G, BROOKLYN NAVY YARD

Total TCL PCB (Concentration in mg/kg) Recommended Cleanup Objectives	LOCATION SS-01 TP-05	RESULT SS-01 TP-05 (mg/kg)	LOCATION SS-02 TP-06	RESULT SS-02 TP-06 (mg/kg)	LOCATION SS-03 TP-04	RESULT SS-03 TP-04 (mg/kg)	LOCATION SS-04 TP-03	RESULT SS-04 TP-03 (mg/kg)	LOCATION SS-05 TP-01	RESULT SS-05 TP-01 (mg/kg)	LOCATION SS-06 TP-02	RESULT SS-06 TP-02 (mg/kg)
1	SS-01 (0-6")	12.3	SS-02 (0-6")	22.1	SS-03 (0-6")	14.4	SS-04 (0-6")	19.4	SS-04 (0-6")	37.4	SS-06 (0-6")	21.4
10	TP-05 (1'-2')	14.05	TP-06 (1'-2')	42.72	TP-04 (1'-2')	6.85	TP-03 (1'-2')	60.37	TP-01 (1'-2')	36.4	TP-02 (1'-2')	67.06
10	TP-05 (2'-3')	19.32	Utility Obstruction	-	TP-04 (2'-3')	<1.25	TP-03 (2'-3')	63.76	TP-01 (2'-3')	<1.25	TP-02 (2'-3')	7.45
10	TP-05 (3'-4')	4.8		-	TP-04 (3'-4')	<1.25	TP-03 (3'-4')	<1.25	TP-01 (3'-4')	2.15	TP-02 (3'-4')	3.92
10	TP-05 (4'-5')	9.55		-	TP-04 (4'-5')	<1.25	TP-03 (4'-5')	-	TP-01 (4'-5')	-	TP-02 (4'-5')	9.2
10	TP-05 (5'-6')	<1.25		-	TP-04 (5'-6')	<1.25	TP-03 (5'-6')	-	TP-01 (5'-6')	-	TP-02 (5'-6')	7

Notes
SS = Surficial Soil Sample
TP = Test Pit Soil Samples



LEGEND

- WIPE SAMPLE LOCATION > 10ug/wipe PCBs
- WIPE SAMPLE LOCATION < 10ug/wipe PCBs
- ALL ANALYTICAL RESULTS REPORTED IN ug/100cm^2 PCB
- ALL SOIL SAMPLES IN mg/kg PCB
- SOIL SAMPLE LOCATION > 10ug/wipe PCBs
- TP-01 TEST PIT LOCATION
- EXCAVATION OF SOIL TO BE REMOVED (DEPTH 3.5'= 50cy)
- AREA TO BE SURFACE WASHED (1,345 Sq. Ft.)

TOTAL CONCRETE AREA= 1330 Sq. FT.
ELECT. EQUIPMENT AREA= 399 Sq. FT
TOTAL CONCRETE AREA 931 Sq. FT.

LOCATION: SUBSTATION G BUILDING #386	DWN. BY RDW CHK. BY NM SCALE: 3/32" = 1'	Concrete Wipe and Soil Sampling Locations & Remedial Design BROOKLYN NAVY YARD DEVELOPMENT CORP. Brooklyn Navy Yard Brooklyn, NY 11205	QUAY CONSULTING, LLC	HYPACK TAG: ANALOG # 120505a FIELDBOOK: NA DATE DEC. 05, 2005 LINE FILE: CDD 01 APPENDIX B FIG No. 2 BROOKLYN NAVY YARD

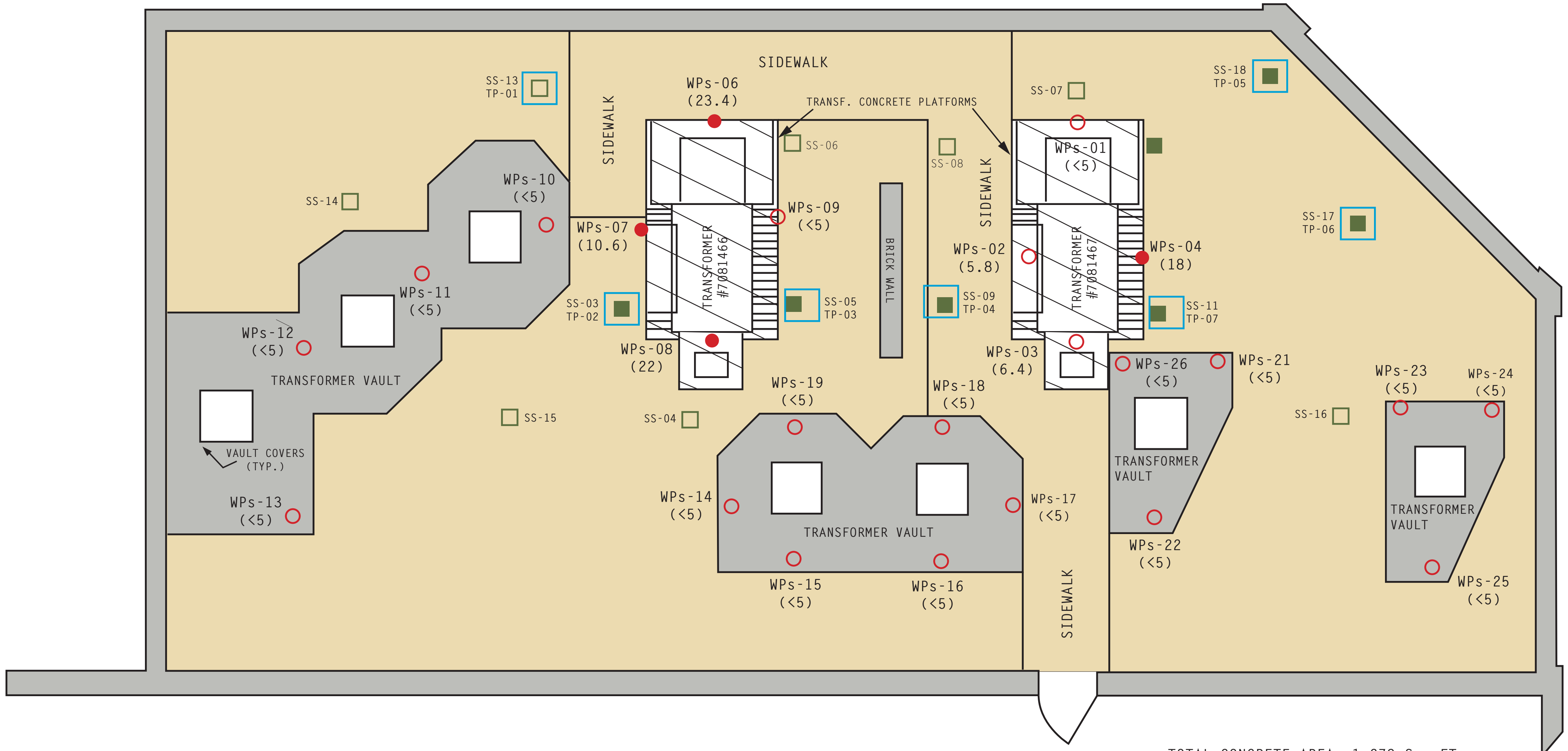
OUTDOOR TRANSFORMER AREA
PCB ANALYTICAL RESULTS
SUBSTATION K, BROOKLYN NAVY YARD

Total TCL PCB (mg/kg) Recommended Cleanup Objectives	LOCATION SS-03 TP-02	RESULT SS-03 TP-02 (mg/kg)	LOCATION SS-04	RESULT SS-04 TP-06 (mg/kg)	LOCATION SS-05 TP-03	RESULT SS-05 TP-03 (mg/kg)	LOCATION SS-06	RESULT SS-06 (mg/kg)	LOCATION SS-07	RESULT SS-07	LOCATION SS-08	RESULT SS-08 (mg/kg)
1	SS-03 (0-6")	19.8	SS-04 (0-6")	6.8	SS-05 (0-6")	48	SS-06 (0-6")	5.3	SS-07 (0-6")	7.8	SS-08 (0-6")	6.1
10	TP-02 (1'-2')	1.07	-	-	TP-03 (1'-2')	3.08	-	-	-	-	-	-
10	TP-02 (2'-3')	<1.25	-	-	TP-03 (2'-3')	3.95	-	-	-	-	-	-
10	TP-02 (3'-4')	<1.25	-	-	TP-03 (3'-4')	<1.25	-	-	-	-	-	-
10	TP-02 (4'-5')	-	-	-	TP-03 (4'-5')	<1.25	-	-	-	-	-	-
10	TP-02 (5'-6')	-	-	-	TP-03 (5'-6')	-	-	-	-	-	-	-

OUTDOOR TRANSFORMER AREA
PCB ANALYTICAL RESULTS
SUBSTATION K, BROOKLYN NAVY YARD

Total TCL PCB (mg/kg) Recommended Cleanup Objectives	LOCATION SS-09 TP-04	RESULT SS-09 TP-04 (mg/kg)	LOCATION SS-11 TP-07	RESULT SS-11 TP-07 (mg/kg)	LOCATION SS-12	RESULT SS-12 (mg/kg)	LOCATION SS-13 TP-01	RESULT SS-13 TP-01 (mg/kg)	LOCATION SS-14	RESULT SS-14 (mg/kg)
1	SS-09 (0-6")	14.3	SS-011 (0-6")	11.5	SS-11 (0-6")	11	SS-13 (0-6")	9.5	SS-14 (0-6")	6.4
10	TP-04 (1'-2')	5.88	TP-07 (1'-2')	6.42	-	-	TP-01 (1'-2')	36.42	-	-
10	TP-04 (2'-3')	<1.25	TP-07 (2'-3')	<1.25	-	-	TP-01 (2'-3')	<1.25	-	-
10	TP-04 (3'-4')	<1.25	TP-07 (3'-4')	<1.25	-	-	TP-01 (3'-4')	2.15	-	-
10	TP-04 (4'-5')	<1.25	TP-07 (4'-5')	<1.25	-	-	TP-01 (4'-5')	-	-	-
10	TP-04 (5'-6')	<1.25	TP-07 (5'-6')	-	-	-	TP-01 (5'-6')	-	-	-

Total TCL PCB (mg/kg) Recommended Cleanup Objectives	LOCATION SS-15	RESULT SS-15 (mg/kg)	LOCATION SS-16	RESULT SS-16 (mg/kg)	LOCATION SS-17 TP-06	RESULT SS-17 TP-06 (mg/kg)	LOCATION SS-18 TP-05	RESULT SS-18 TP-05 (mg/kg)
1	SS-15 (0-6")	5.9	SS-16 (0-6")	7.6	SS-17 (0-6")	51	SS-18 (0-6")	12
10	-	-	-	-	TP-06 (1'-2')	83.25	TP-05 (1'-2')	3.74
10	-	-	-	-	TP-06 (2'-3')	<1.25	TP-05 (2'-3')	<1.25
10	-	-	-	-	TP-06 (3'-4')	<1.25	TP-05 (3'-4')	<1.25
10	-	-	-	-	TP-06 (4'-5')	<1.25	TP-05 (4'-5')	<1.25
10	-	-	-	-	TP-06 (5'-6')	<1.25	TP-05 (5'-6')	<1.25

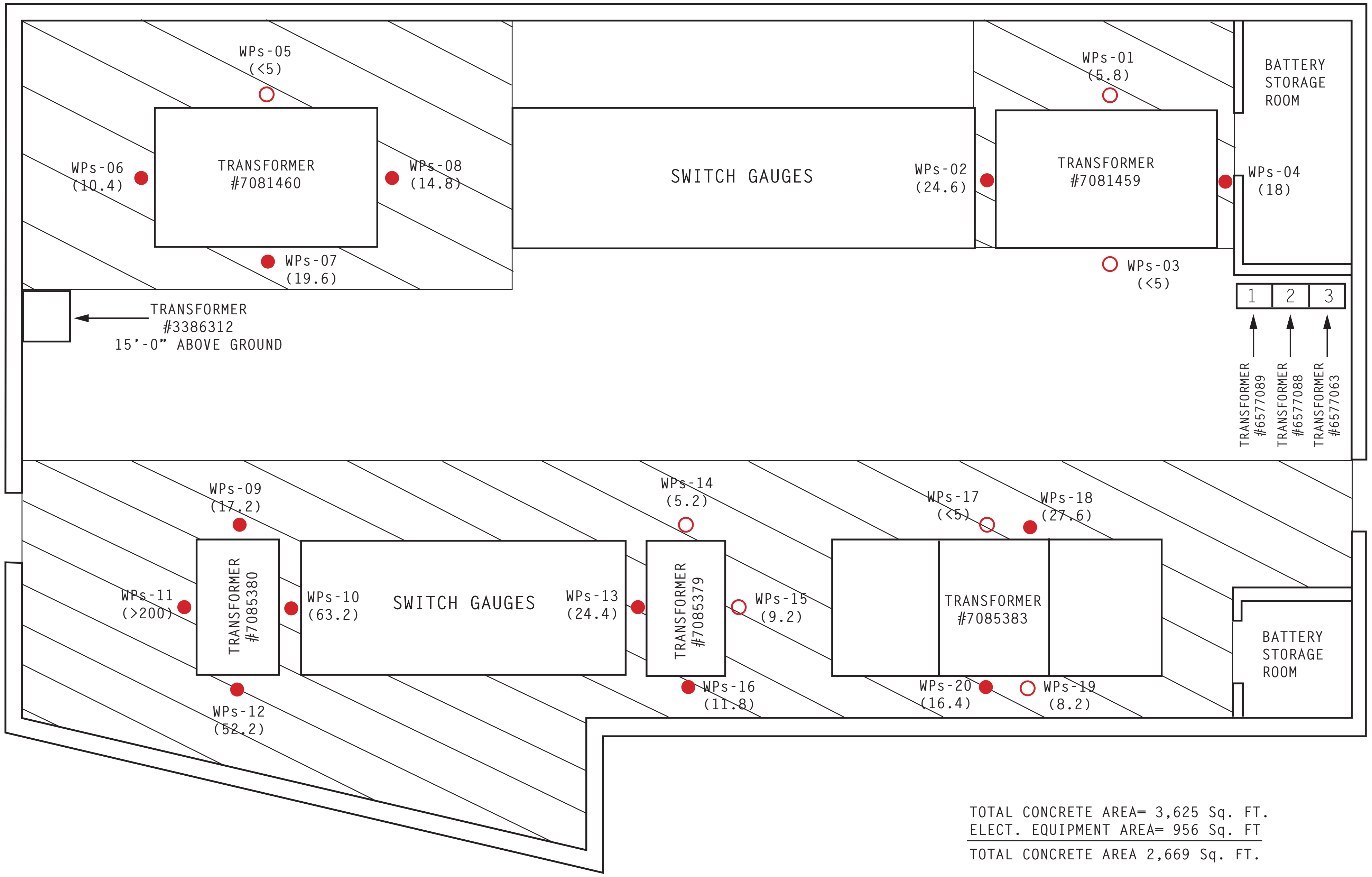


TOTAL CONCRETE AREA= 1,273 Sq. FT.
TOTAL SOIL AREA 2,062 Sq. FT.

LEGEND

- WIPE SAMPLE LOCATION > 10ug/wipe PCBs
- WIPE SAMPLE LOCATION < 10ug/wipe PCBs
- ALL WIPE SAMPLE RESULTS REPORTED IN $ug/100cm^2$ PCB
- ALL SOIL SAMPLES IN mg/kg PCB
- SOIL SAMPLE LOCATION > 10ug/wipe PCBs
- SOIL SAMPLE LOCATION < 10ug/wipe PCBs
- TP-01 TEST PIT LOCATION
- EXCAVATION OF SOIL TO BE REMOVED (DEPTH 2.5'= 190cy)
- AREA TO BE SURFACE WASHED (250 Sq. Ft.)

LOCATION: SUBSTATION K BUILDING #292	DWN. BY RDW CHK. BY NM SCALE: 1/8" = 1'	Concrete Wipe and Soil Sampling Locations & Remedial Design BROOKLYN NAVY YARD DEVELOPMENT CORP. Brooklyn Navy Yard Brooklyn, NY 11205	QUAY CONSULTING, LLC	HYPACK TAG: ANALOG # 120505a FIELDBOOK: NA APPENDIX B FIG No. 3 BROOKLYN NAVY YARD	DATE DEC. 05, 2005 LINE FILE: CDD 01



TOTAL CONCRETE AREA= 3,625 Sq. FT.
ELECT. EQUIPMENT AREA= 956 Sq. FT

TOTAL CONCRETE AREA 2,669 Sq. FT.

LEGEND

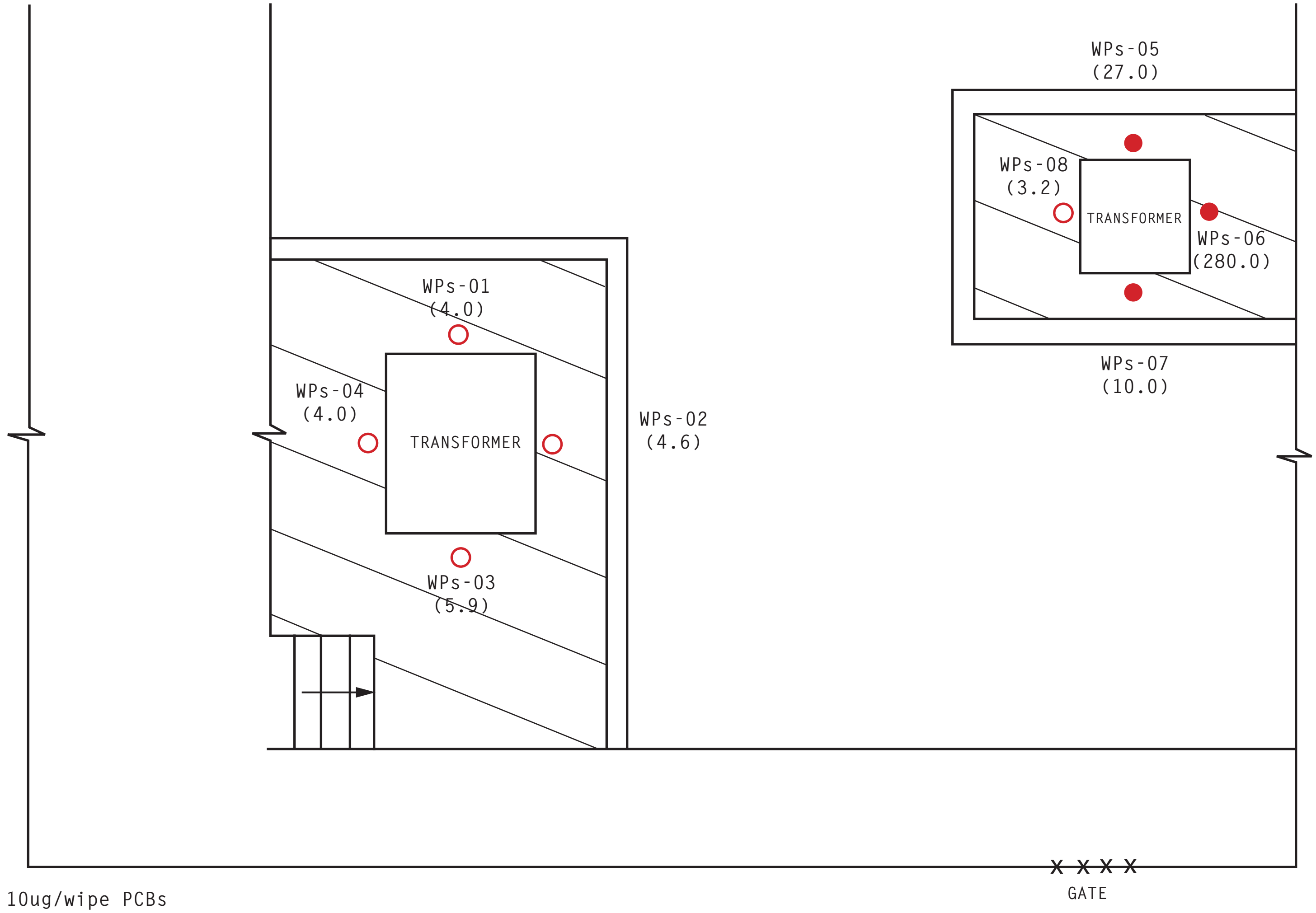
● WIPE SAMPLE LOCATION > 10ug/wipe PCBs

○ WIPE SAMPLE LOCATION < 10ug/wipe PCBs

ALL WIPE SAMPLE RESULTS REPORTED IN ug/100cm^2 PCB

AREA TO BE SURFACE WASHED (1,500 Sq. Ft.)

LOCATION: SUBSTATION L BUILDING #390	DWN. BY RDW CHK. BY NM SCALE: 1/8" = 1'	Concrete Wipe Sampling Locations & Remedial Design BROOKLYN NAVY YARD DEVELOPMENT CORP. Brooklyn Navy Yard Brooklyn, NY 11205	QUAY CONSULTING, LLC	HYPACK TAG: ANALOG # 120505a FIELDBOOK: NA DATE DEC. 05, 2005 LINE FILE: CDD 01 APPENDIX B FIG No. 5 BROOKLYN NAVY YARD



LEGEND

● WIPE SAMPLE LOCATION > 10ug/wipe PCBs

○ WIPE SAMPLE LOCATION < 10ug/wipe PCBs

ALL ANALYTICAL RESULTS REPORTED IN ug/100cm^2 PCB

TWO AREAS = 410 Sq. Ft.

AREA TO BE SURFACE WASHED (120 Sq. Ft.)

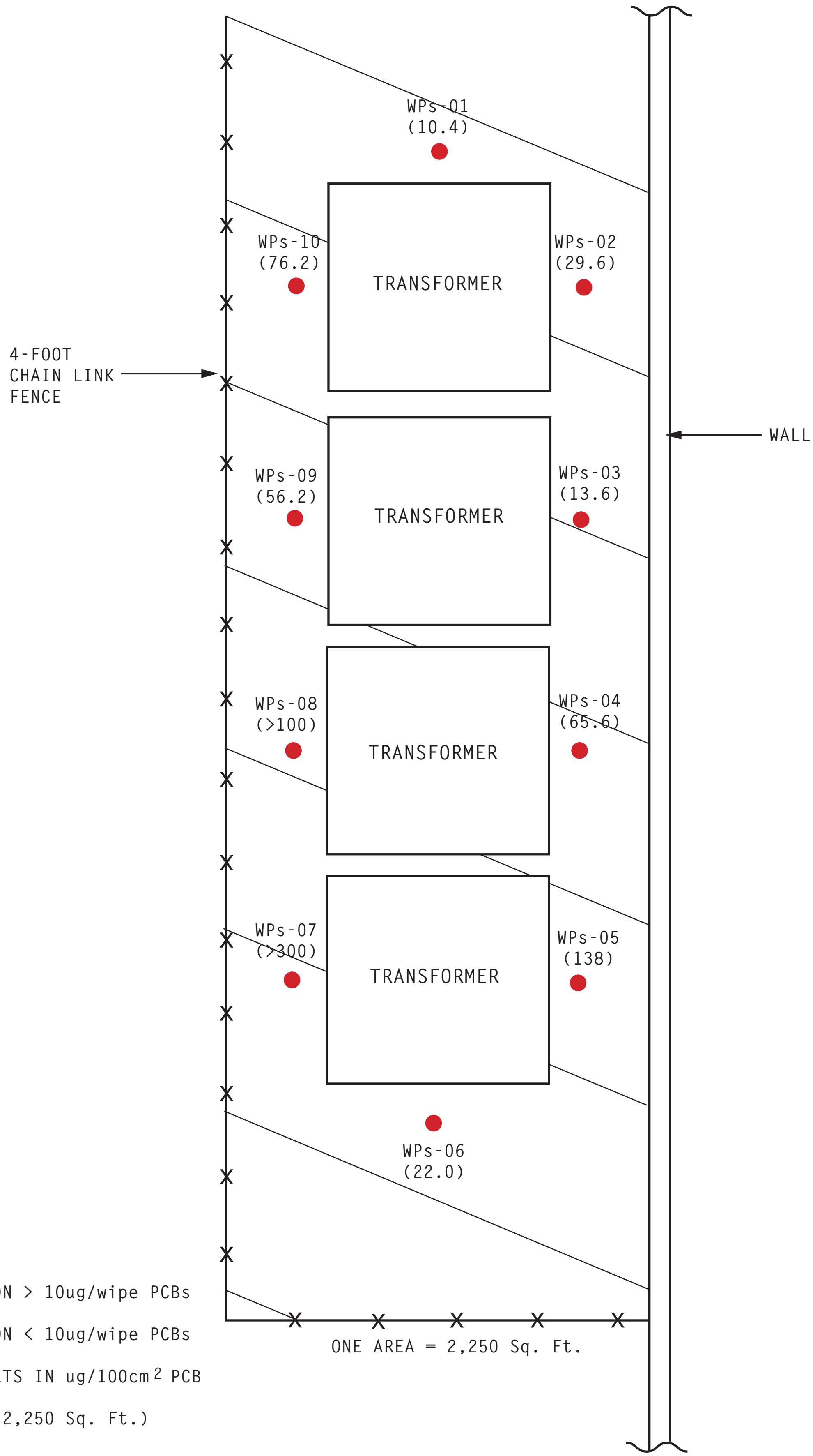
LOCATION:
SUBSTATION D
BUILDING #280

DWN. BY RDW
CHK. BY NM
SCALE: N/A

Concrete Wipe Sampling Locations & Remedial Design
BROOKLYN NAVY YARD DEVELOPMENT CORP.
Brooklyn Navy Yard
Brooklyn, NY 11205

QUAY CONSULTING, LLC

HYPACK TAG:
ANALOG # 41701
FIELD BOOK: N/A
DATE NOV. 15, 2005
LINE FILE: BNY001
APPENDIX B FIG No. 6
BROOKLYN NAVY YARD



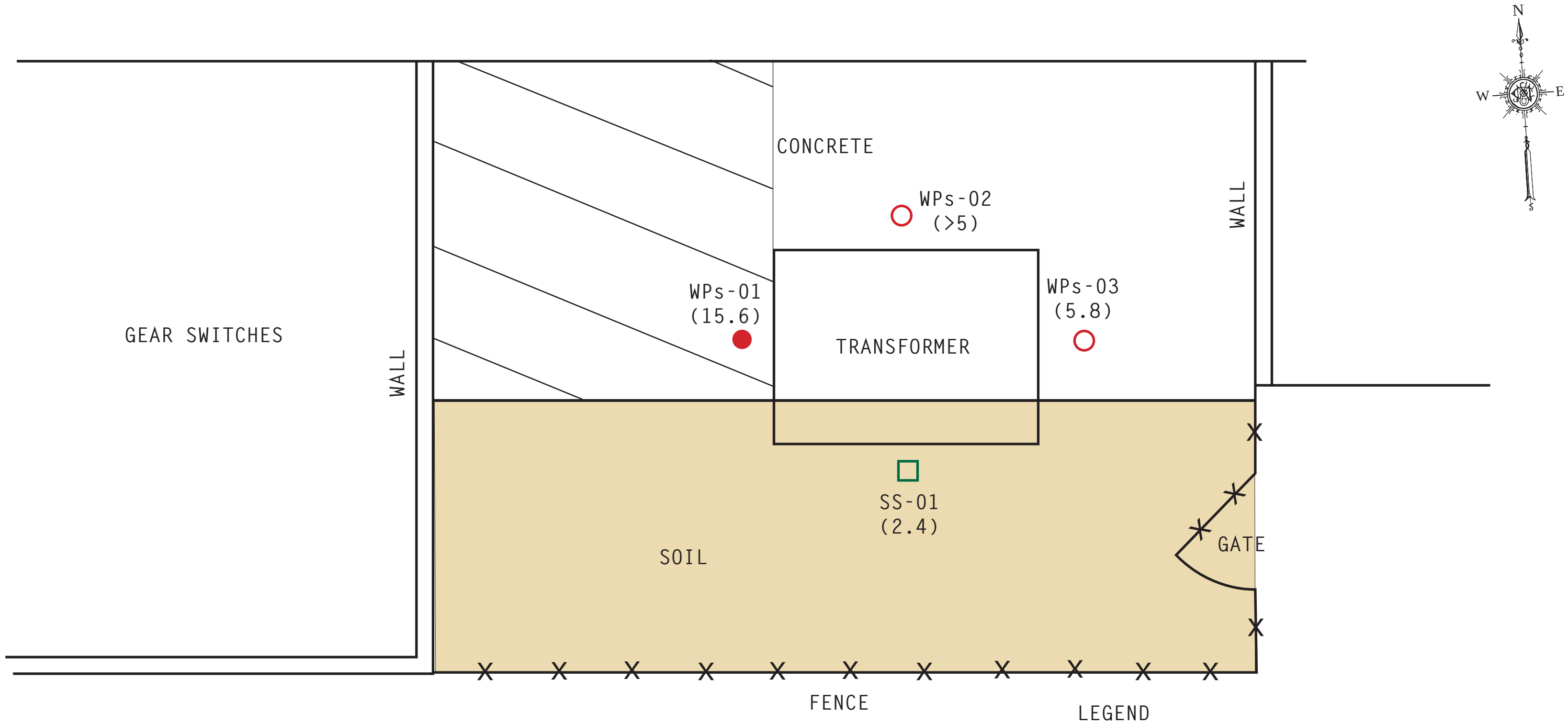
LEGEND

- WIPE SAMPLE LOCATION > 10ug/wipe PCBs (filled red circle)
- WIPE SAMPLE LOCATION < 10ug/wipe PCBs (open red circle)

ALL NUMERICAL RESULTS IN ug/100cm^2 PCB

AREA TO BE WASHED (2,250 Sq. Ft.)

LOCATION: SUBSTATION #1 BUILDING #4	DWN. BY RDW CHK. BY NM SCALE: N/A	Concrete Wipe Sampling Locations & Remedial Design BROOKLYN NAVY YARD DEVELOPMENT CORP. Brooklyn Navy Yard Brooklyn, NY 11205	QUAY CONSULTING, LLC	HYPACK TAG: ANALOG # 41701 FIELD BOOK: N/A DATE NOV. 15, 2005 LINE FILE: BNY001 APPENDIX B FIG No. 7 BROOKLYN NAVY YARD



LEGEND

- WIPE SAMPLE LOCATION > 10ug/wipe PCBs (filled red circle)
- WIPE SAMPLE LOCATION < 10ug/wipe PCBs (open red circle)
- SOIL SAMPLE LOCATION > 10mg/kg PCBs (filled green square)
- SOIL SAMPLE LOCATION < 10mg/kg PCBs (open green square)

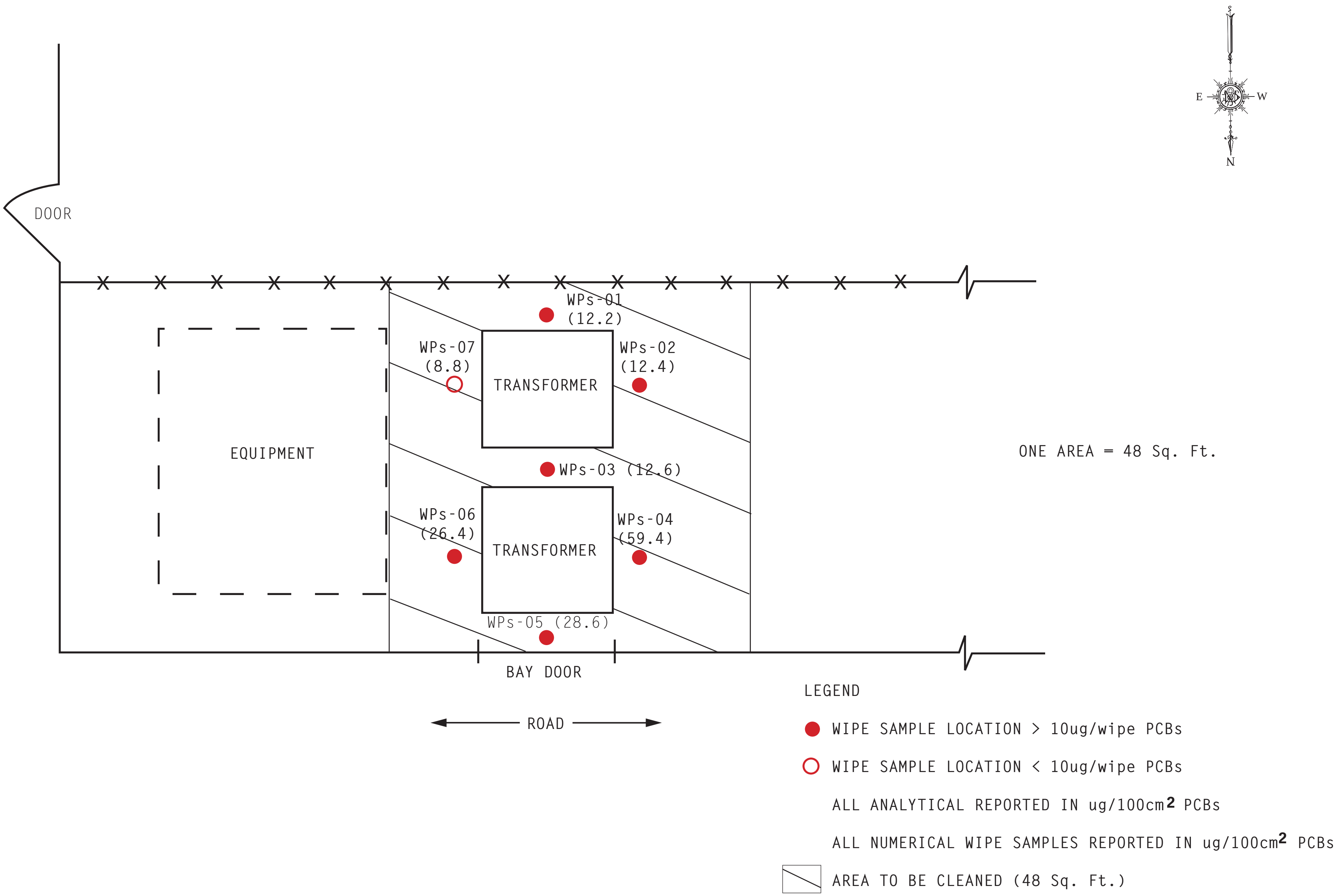
ALL NUMERICAL WIPE SAMPLES IN $ug/100cm^2$ PCBs

ALL NUMBERICAL SOIL SAMPLES IN mg/kg PCBs

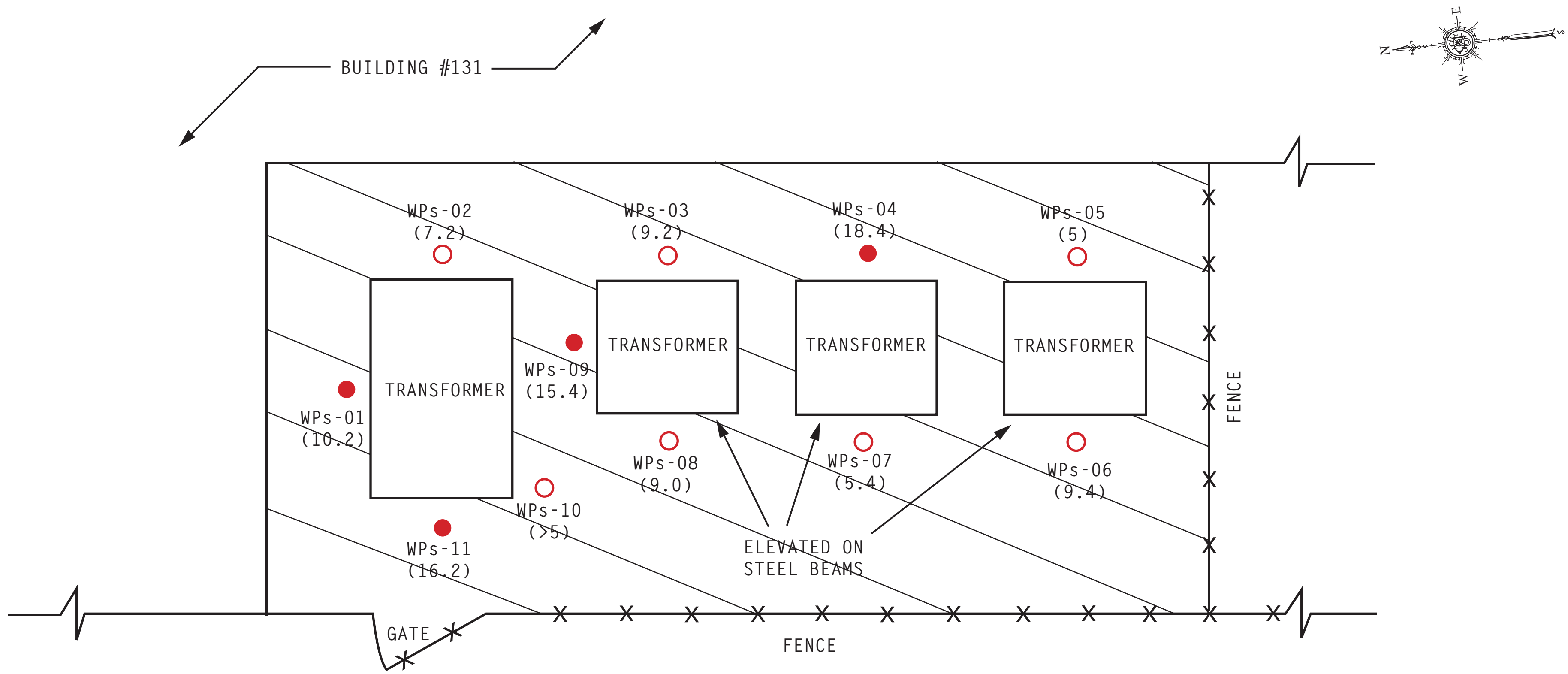
AREA TO BE WASHED (100 Sq. Ft.)

SOIL REMOVEL TO 1 Ft. DEPTH (8cy Disposal)

LOCATION: SUBSTATION #18 BUILDING #562	DWN. BY RDW CHK. BY NM SCALE: N/A	Concrete Wipe and Soil Sampling Locations & Remedial BROOKLYN NAVY YARD DEVELOPMENT CORP. Brooklyn Navy Yard Brooklyn, NY 11205	QUAY CONSULTING, LLC	HYPACK TAG: ANALOG # 41701 FIELD BOOK: N/A DATE NOV. 15, 2005 LINE FILE: BNY001 APPENDIX B FIG No. 10 BROOKLYN NAVY YARD



LOCATION: SUBSTATION #19 BUILDING #5	DWN. BY RDW CHK. BY NM SCALE: N/A	Concrete Wipe Sampling Locations & Remedial Design BROOKLYN NAVY YARD DEVELOPMENT CORP. Brooklyn Navy Yard Brooklyn, NY 11205	QUAY CONSULTING, LLC	HYPACK TAG: ANALOG # 41701 FIELD BOOK: N/A DATE NOV. 15, 2005 LINE FILE: BNY001 APPENDIX B FIG No. 11 BROOKLYN NAVY YARD



ONE AREA = 266 Sq. Ft.

LEGEND

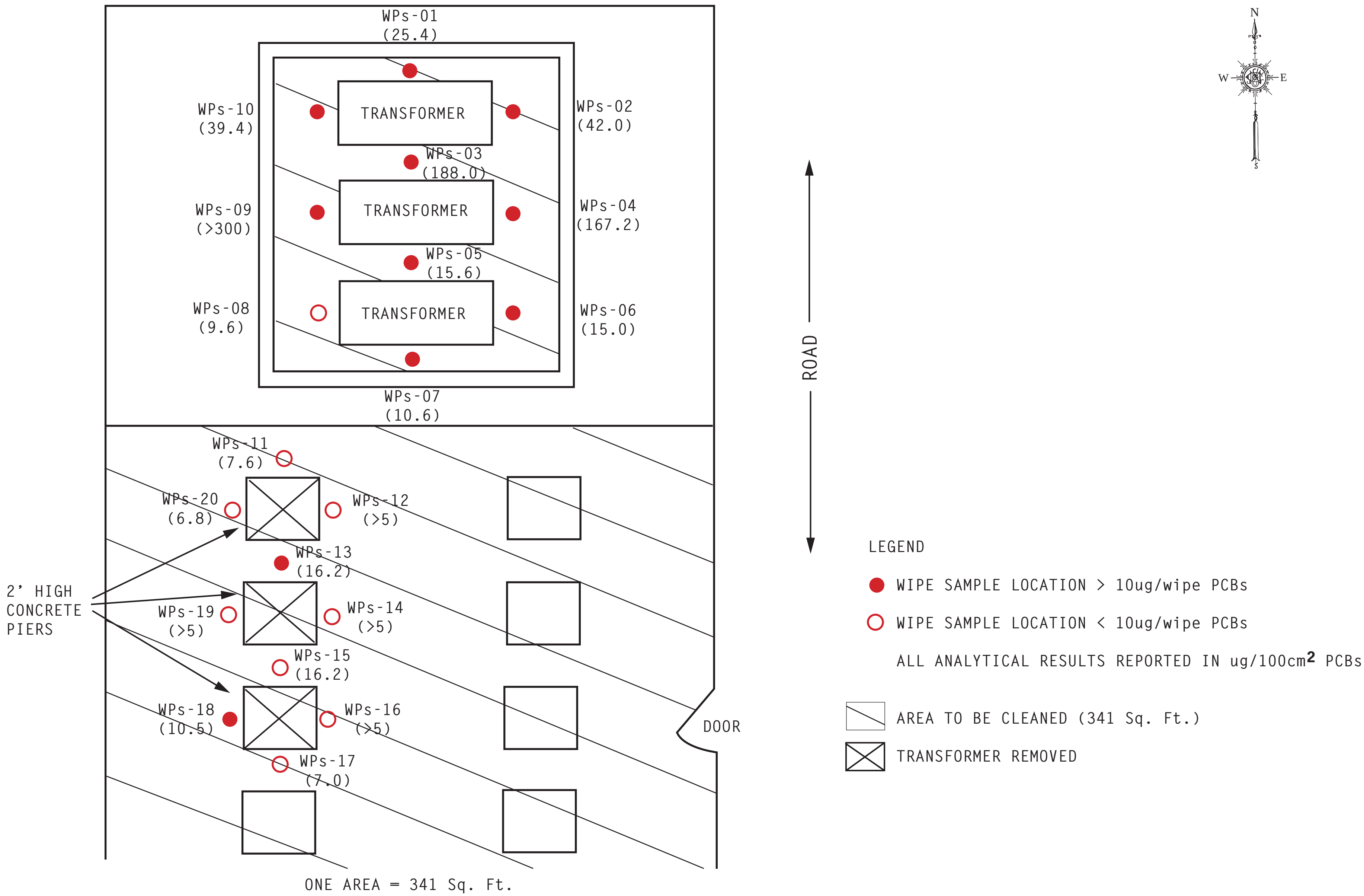
● WIPE SAMPLE LOCATION > 10ug/wipe PCBs

○ WIPE SAMPLE LOCATION < 10ug/wipe PCBs

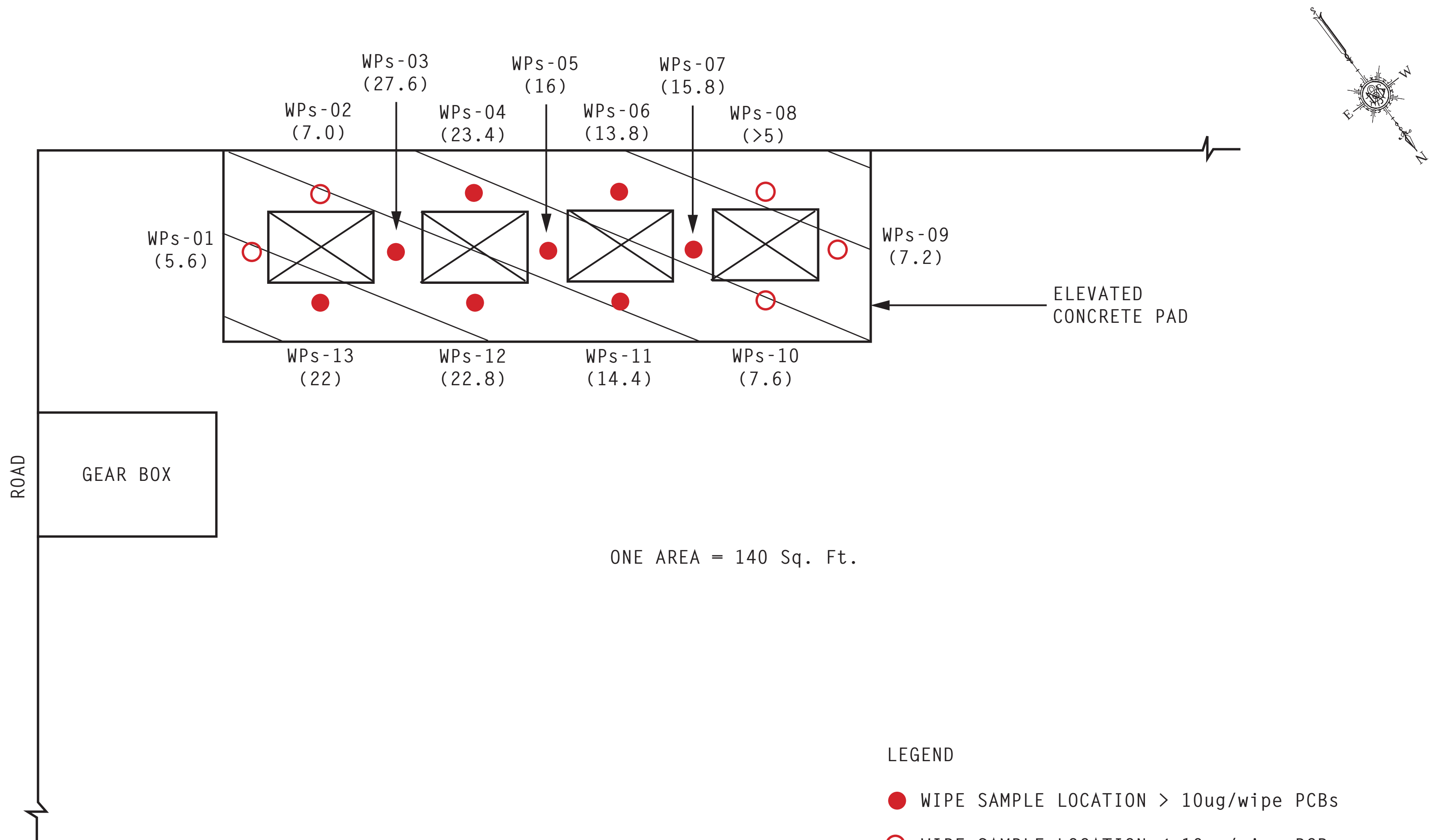
ALL ANALYTICAL RESULTS REPORTED IN ug/100cm^2 PCBs

AREA TO BE CLEANED (266 Sq. Ft.)

LOCATION: SUBSTATION #25 BUILDING #131	DWN. BY RDW CHK. BY NM SCALE: N/A	Concrete Wipe Sampling Locations & Remedial Design BROOKLYN NAVY YARD DEVELOPMENT CORP. Brooklyn Navy Yard Brooklyn, NY 11205	QUAY CONSULTING, LLC	HYPACK TAG: ANALOG # 41701 FIELD BOOK: N/A DATE NOV. 15, 2005 LINE FILE: BNY001 APPENDIX B FIG No. 14 BROOKLYN NAVY YARD



LOCATION: SUBSTATION #29 BUILDING #664	DWN. BY RDW CHK. BY NM SCALE: N/A	Concrete Wipe Sampling Locations & Remedial Design BROOKLYN NAVY YARD DEVELOPMENT CORP. Brooklyn Navy Yard Brooklyn, NY 11205	Quay Consulting QUAY CONSULTING, LLC	HYPACK TAG: ANALOG # 41701 FIELD BOOK: N/A DATE NOV. 15, 2005 LINE FILE: BNY001 APPENDIX B FIG No. 16 BROOKLYN NAVY YARD



LEGEND

WIPE SAMPLE LOCATION > 10ug/wipe PCBs

WIPE SAMPLE LOCATION < 10ug/wipe PCBs

ALL ANALYTICAL RESULTS REPORTED IN ug/100cm^2 PCBs

AREA TO BE CLEANED (140 Sq. Ft.)

TRANSFORMER REMOVED

LOCATION:

BUILDING #22

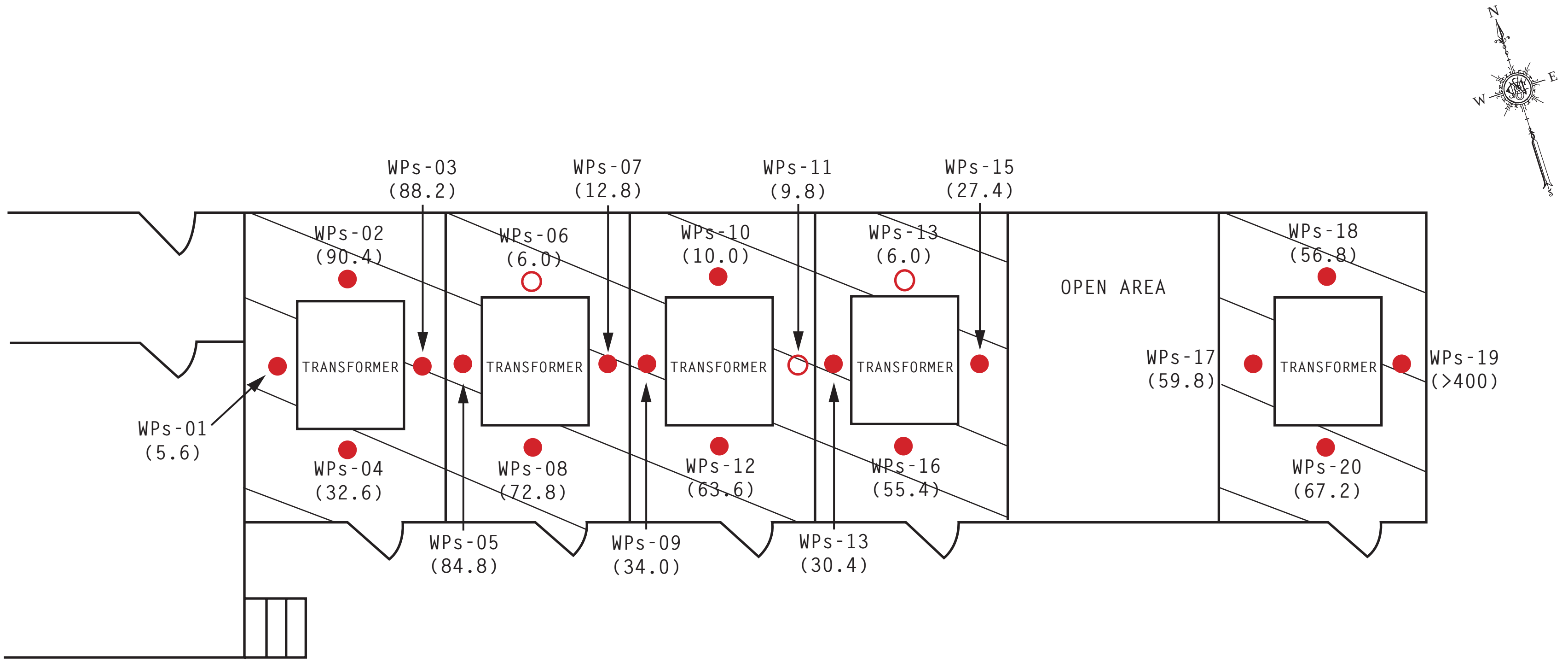
DWN. BY RDW
CHK. BY NM
SCALE: N/A

Concrete Wipe Sampling Locations & Remedial Design
BROOKLYN NAVY YARD DEVELOPMENT CORP.
Brooklyn Navy Yard
Brooklyn, NY 11205

QUAY CONSULTING, LLC

HYPACK TAG:
ANALOG # 41701
FIELD BOOK: N/A
DATE NOV. 15, 2005
LINE FILE: BNY001

APPENDIX B FIG No. 18
BROOKLYN NAVY YARD



FIVE AREA = 1130 Sq. Ft.

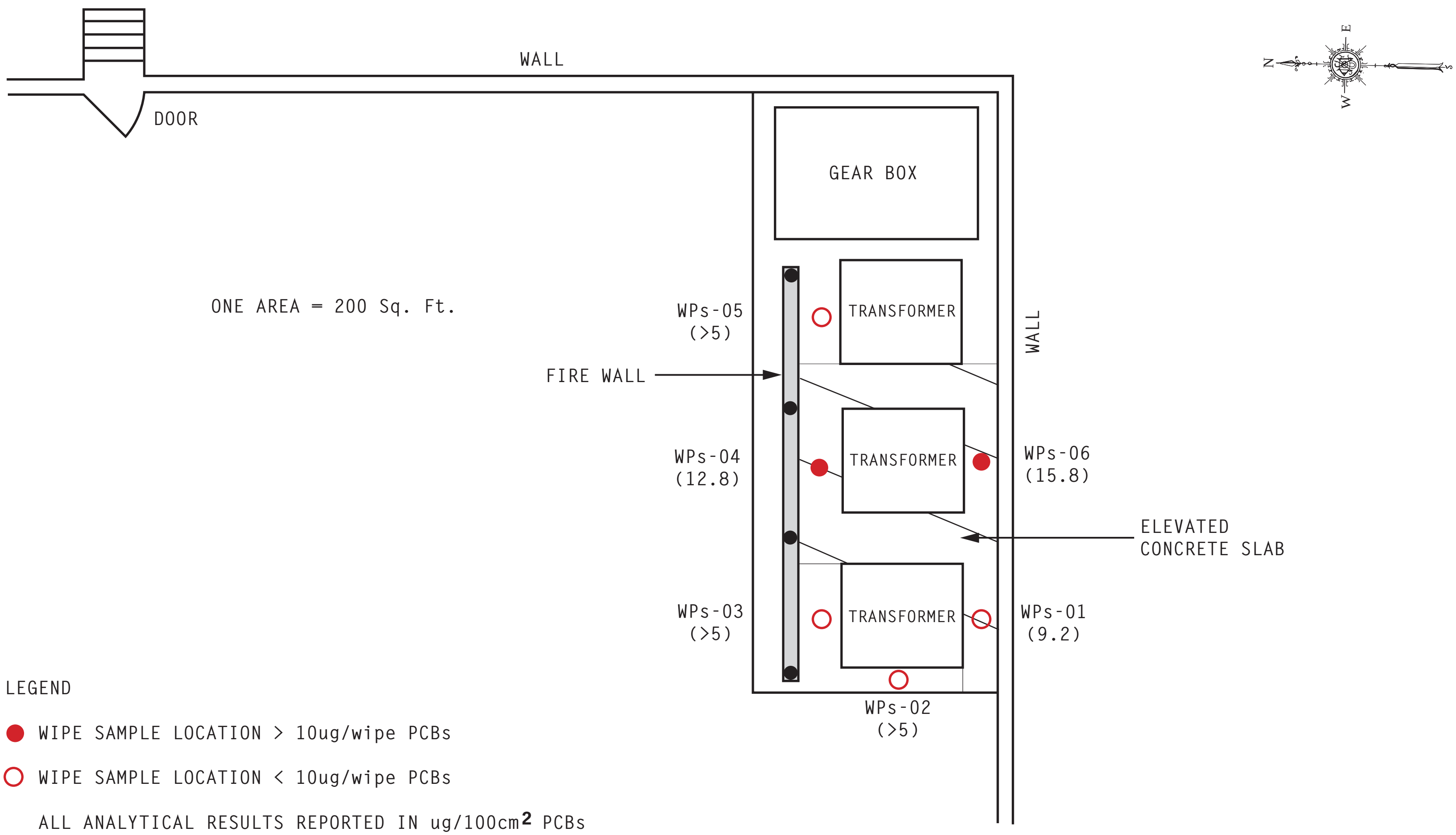
LEGEND

- WIPE SAMPLE LOCATION > 10ug/wipe PCBs
- WIPE SAMPLE LOCATION < 10ug/wipe PCBs

ALL ANALYTICAL RESULTS REPORTED IN ug/100cm^2 PCBs

AREA TO BE CLEANED (1130 Sq. Ft.)

LOCATION: BUILDING #41	DWN. BY RDW CHK. BY NM SCALE: N/A	Concrete Wipe Sampling Locations & Remedial Design BROOKLYN NAVY YARD DEVELOPMENT CORP. Brooklyn Navy Yard Brooklyn, NY 11205	QUAY CONSULTING, LLC	HYPACK TAG: ANALOG # 41701 FIELD BOOK: N/A DATE NOV. 15, 2005 LINE FILE: BNY001 APPENDIX B FIG No. 19 BROOKLYN NAVY YARD



LEGEND

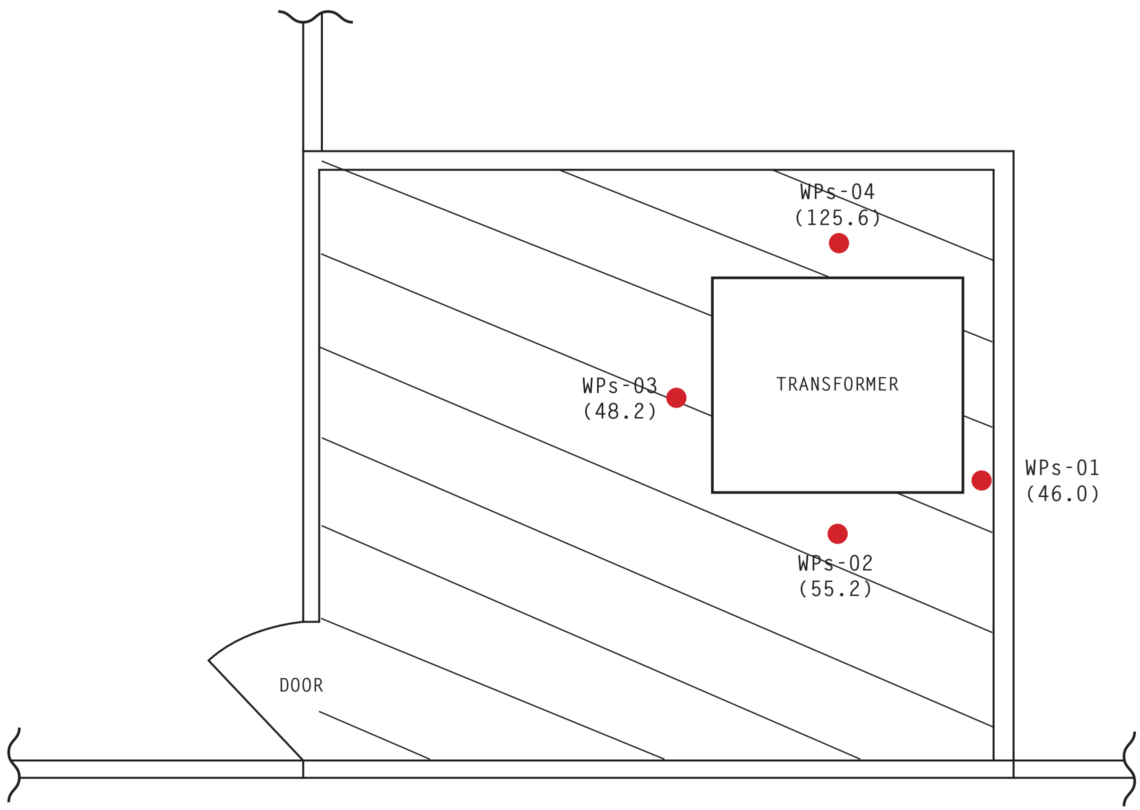
WIPE SAMPLE LOCATION > 10ug/wipe PCBs

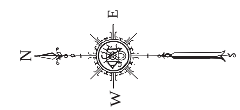
WIPE SAMPLE LOCATION < 10ug/wipe PCBs

ALL ANALYTICAL RESULTS REPORTED IN ug/100cm^2 PCBs

AREA TO BE CLEANED (130 Sq. Ft.)

LOCATION: BUILDING #200	DWN. BY RDW CHK. BY NM SCALE: N/A	Concrete Wipe Sampling Locations & Remedial Design BROOKLYN NAVY YARD DEVELOPMENT CORP. Brooklyn Navy Yard Brooklyn, NY 11205	QUAY CONSULTING, LLC	HYPACK TAG: ANALOG # 41701 FIELD BOOK: N/A	DATE NOV. 15, 2005 LINE FILE: BNY001
				APPENDIX B FIG No. 21 BROOKLYN NAVY YARD	





ONE AREA = 240 Sq. Ft.

LEGEND

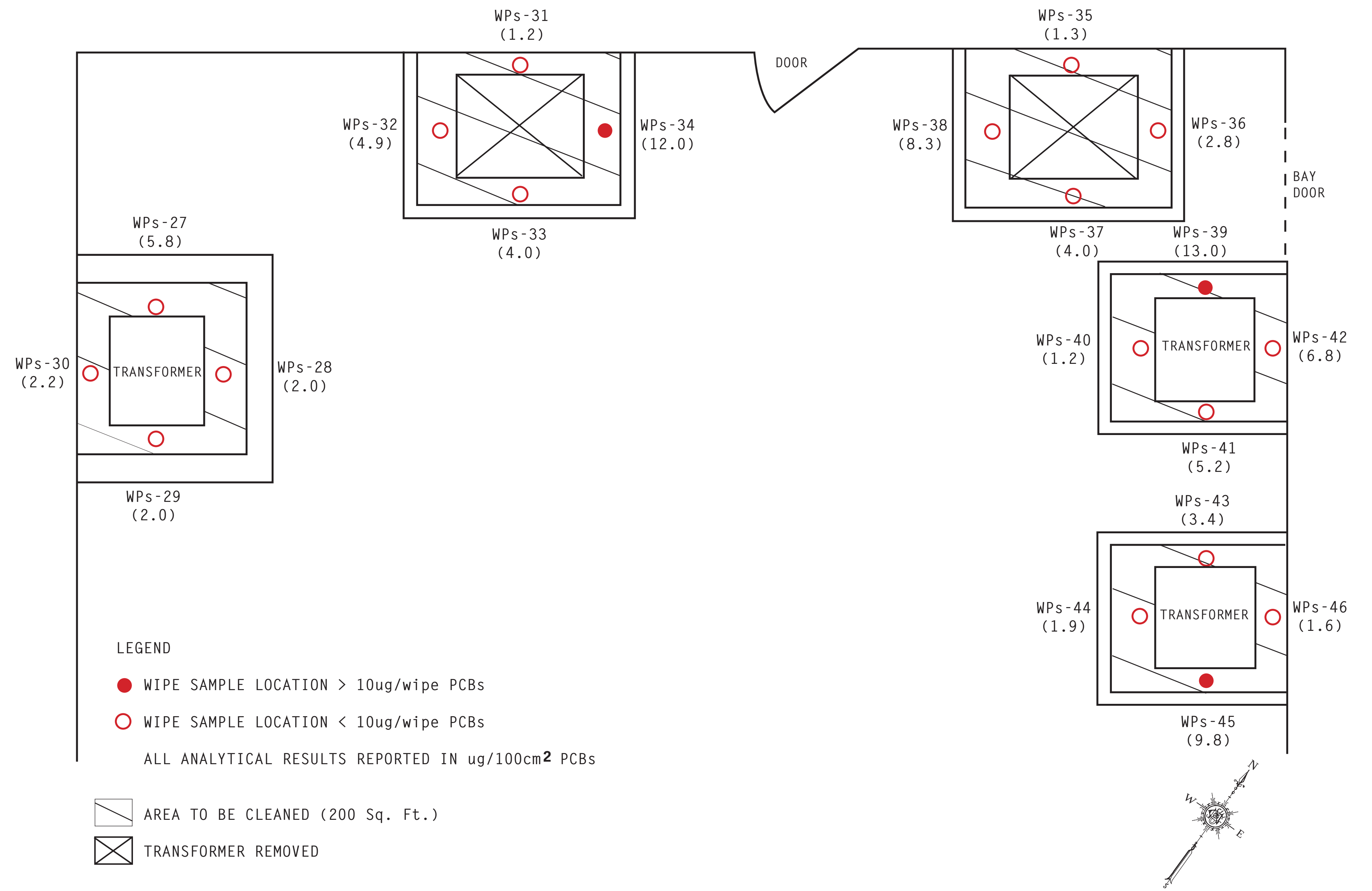
● WIPE SAMPLE LOCATION > 10ug/wipe PCBs

○ WIPE SAMPLE LOCATION < 10ug/wipe PCBs

ALL ANALYTICAL RESULTS REPORTED IN ug/100cm^2 PCBs

AREA TO BE CLEANED (240 Sq. Ft.)

LOCATION: BUILDING #275	DWN. BY RDW CHK. BY NM SCALE: N/A		Concrete Wipe Sampling Locations & Remedial Design BROOKLYN NAVY YARD DEVELOPMENT CORP. Brooklyn Navy Yard Brooklyn, NY 11205	QUAY CONSULTING, LLC	HYPACK TAG: ANALOG # 41701 FIELD BOOK: N/A DATE NOV. 15, 2005 LINE FILE: BNY001 APPENDIX B FIG No. 23 BROOKLYN NAVY YARD



LOCATION:

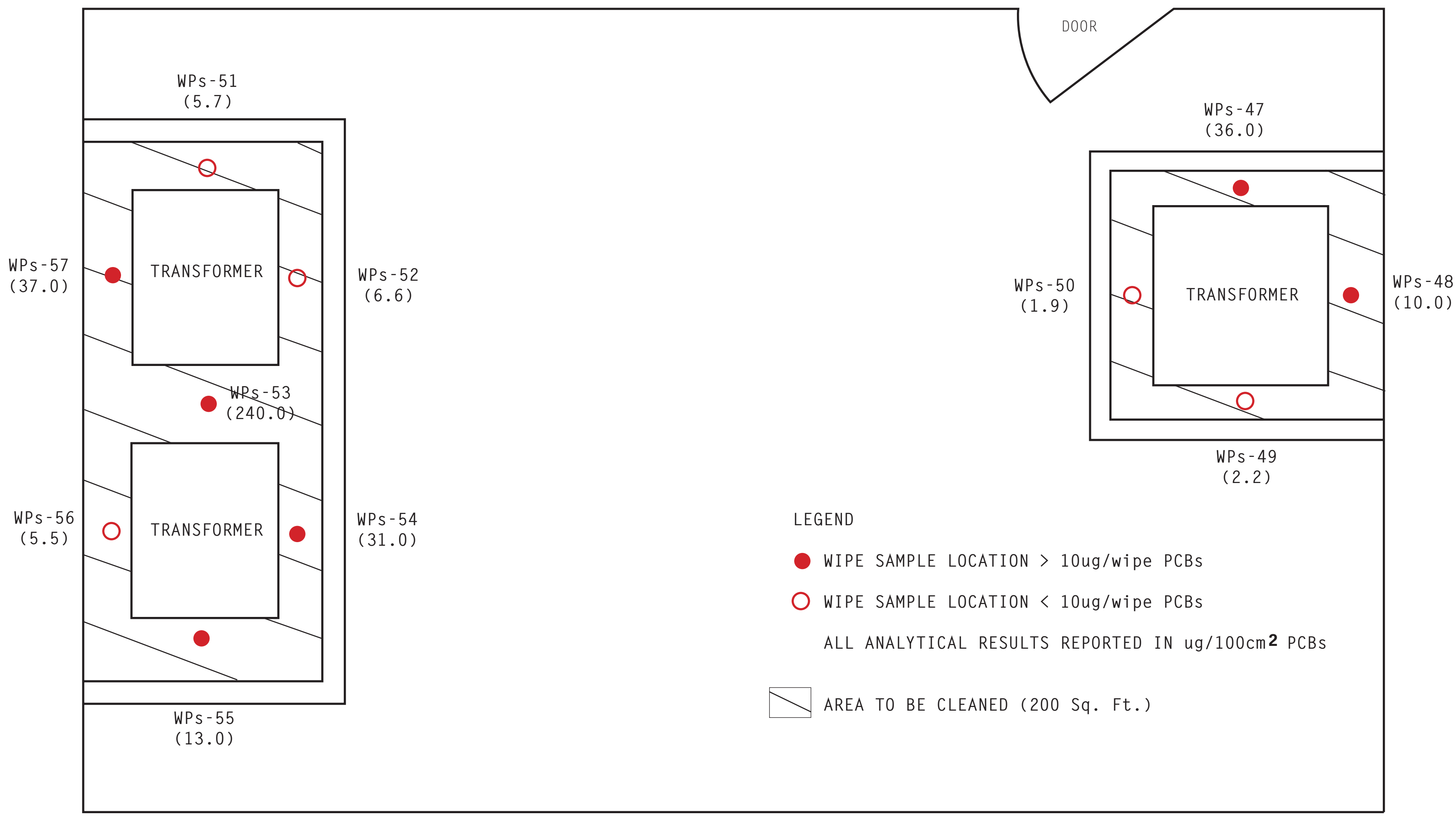
BUILDING #292

DWN. BY RDW
CHK. BY NM
SCALE: N/A

Concrete Wipe Sampling Locations & Remedial Design
BROOKLYN NAVY YARD DEVELOPMENT CORP.
Brooklyn Navy Yard
Brooklyn, NY 11205

QUAY CONSULTING, LLC

HYPACK TAG:
ANALOG # 41701
FIELD BOOK: N/A
DATE NOV. 15, 2005
LINE FILE: BNY001
APPENDIX B FIG No. 24
BROOKLYN NAVY YARD



LOCATION:

BUILDING #292

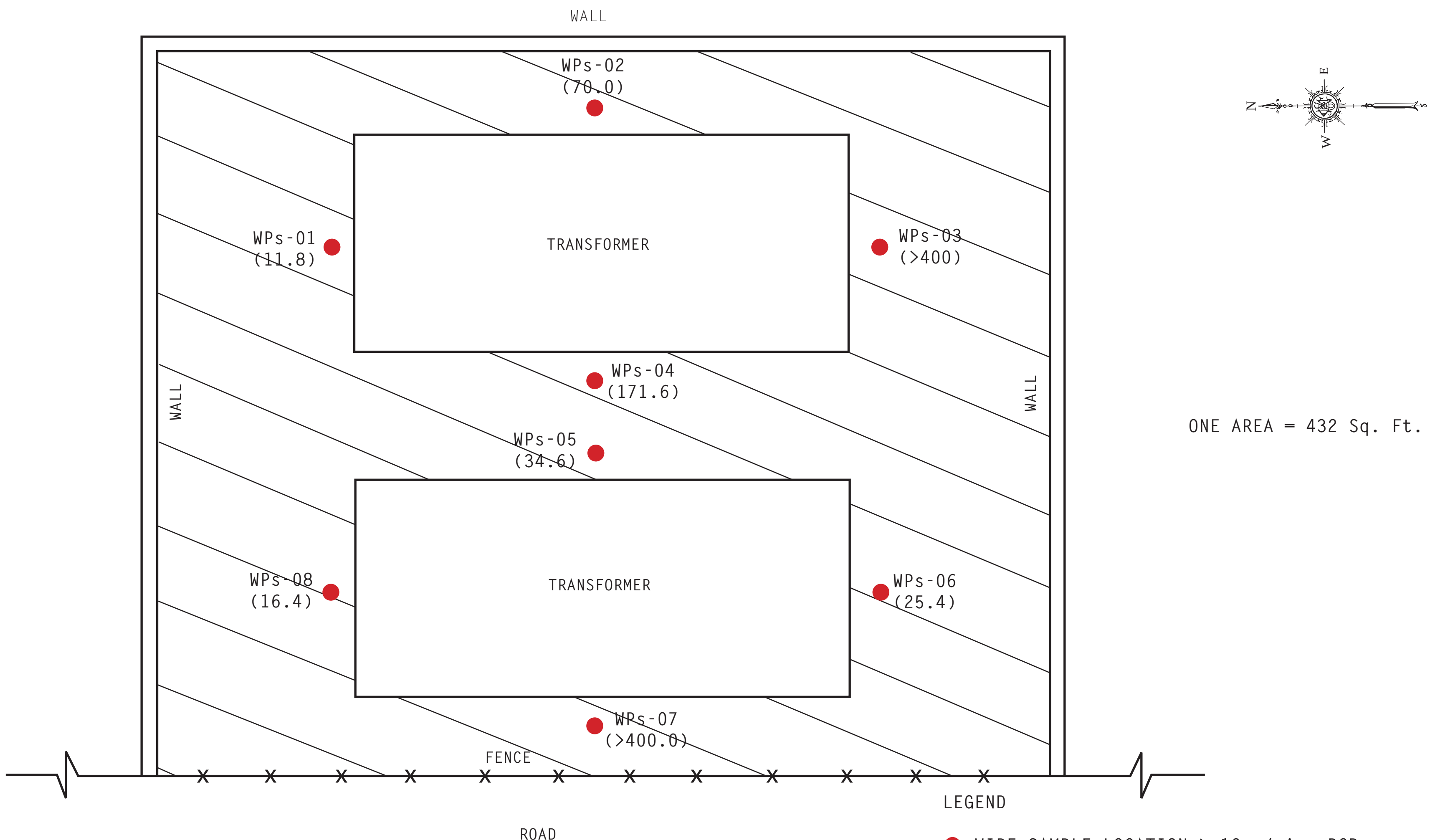
DWN. BY RDW
CHK. BY NM
SCALE: N/A

Concrete Wipe Sampling Locations & Remedial Design
BROOKLYN NAVY YARD DEVELOPMENT CORP.
Brooklyn Navy Yard
Brooklyn, NY 11205

QUAY CONSULTING, LLC

HYPACK TAG:
ANALOG # 41701
FIELD BOOK: N/A
DATE NOV. 15, 2005
LINE FILE: BNY001

APPENDIX B FIG No. 25
BROOKLYN NAVY YARD



ONE AREA = 432 Sq. Ft.

LEGEND

● WIPE SAMPLE LOCATION > 10ug/wipe PCBs

○ WIPE SAMPLE LOCATION < 10ug/wipe PCBs

ALL ANALYTICAL RESULTS REPORTED IN ug/100cm^2 PCBs

AREA TO BE CLEANED (432 Sq. Ft.)

LOCATION: BUILDING #664	DWN. BY RDW CHK. BY NM SCALE: N/A	Concrete Wipe Sampling Locations & Remedial Design BROOKLYN NAVY YARD DEVELOPMENT CORP. Brooklyn Navy Yard Brooklyn, NY 11205	Quay Consulting QUAY CONSULTING, LLC	HYPACK TAG: ANALOG # 41701 FIELD BOOK: N/A DATE NOV. 15, 2005 LINE FILE: BNY001 APPENDIX B FIG No. 26 BROOKLYN NAVY YARD

Quay, 2011
Vegetative Area Delineation Remediation Work Plan

CORE ENVIRONMENTAL CONSULTANTS

DATA SUMMARY TABLES

Table 1. Summary of Metals, and Cyanide in Soil Samples
Project: Vegetative Area Soil Sampling

Client Sample ID: / Laboratory ID: / Sampling Date: / Analyte:	Units:	Unrestricted Use 375-6,8(a) Soil Cleanup Objectives (mg/kg)	Restricted (Commercial) Use 375-6(b) Soil Cleanup Objectives (mg/kg)	Eastern US Element Conc. in Soils (Shacklette) (mg/kg)	New York State Background Conc. in Soils (McGovern) (mg/kg)
TAGM METALS (Concentration in mg/kg)					
Aluminum	mg/kg	SB	SB	7,000 -100,000	33,000
Antimony	mg/kg	SB	SB	<1 - 8.8	NA
Arsenic	mg/kg	13	16	<0.1 - 73	3.0 - 12
Barium	mg/kg	350	400	10 - 1,500	15 - 600
Beryllium	mg/kg	7.2	590	<1 - 7	0 - 1.75
Cadmium	mg/kg	2.5	9.3	NA	0.1 - 1
Calcium	mg/kg	SB	SB	100 - 280,000	130 - 35,000
Chromium	mg/kg	1 Hexa, 30 tri	400 Hexa, 1,500 Tri	1 - 1,000	1.5 - 40
Cobalt	mg/kg	SB	SB	<0.3 - 70	2.5 - 60
Copper	mg/kg	50	270	<1 - 700	<1 - 50
Iron	mg/kg	SB	SB	100 - 100,000	2,000 - 550,000
Lead	mg/kg	63	1,000	<10 - 300	200 - 500
Magnesium	mg/kg	SB	SB	50 - 50,000	100 - 5,000
Manganese	mg/kg	1,600	10,000	<2 - 7,000	50 - 5,000
Mercury	mg/kg	0.80	2.80	0.01 - 3.4	0.001 - 0.2
Nickel	mg/kg	30	310	<5 - 700	0.5 - 25
Potassium	mg/kg	SB	SB	50 - 37,000	8,500 - 43,000
Selenium	mg/kg	3.9	1,500	<0.1 - 3.9	<0.1 - 3.9
Silver	mg/kg	2	1,500	NA	NA
Sodium	mg/kg	SB	SB	<500 - 50,000	6,000 - 8,000
Thallium	mg/kg	SB	SB	2.2 - 23	NA
Vanadium	mg/kg	SB	SB	<7 - 300	1 - 300
Zinc	mg/kg	109	10,000	<5 - 2,900	9.0 - 50
Cyanide, Total & Amenable: Auto Colorimetric	mg/kg	27	27	NA	NA

Analyte	SS-01 480-25387-1 9/19/12	Q	SS-02 480-25387-2 9/19/12	Q	SS-03 480-25387-3 9/19/12	Q	SS-04 480-25387-4 9/19/12	Q	SS-05 480-25387-5 9/19/12	Q	SS-06 480-25387-6 9/19/12	Q
Aluminum	7810		5,540		3.39		2,170		8,650		6,020	
Antimony	ND	U	ND	U	2.1	J	2.7	J	0.502	U	ND	U
Arsenic	9.6		2.9		3.45		2.85		7.85		2.65	
Barium	42.1		68.9		111		88.3		171		69	
Beryllium	0.39		0.47		0.49		0.44		0.6		0.72	
Cadmium	0.37		0.69		0.79		0.88		1.5		0.45	
Calcium	2700	B	7,720	B	9,780	B	8,330	B	15,400	B	9,190	B
Chromium	14.7		46.1		49.4		38.4		126		30	
Cobalt	3.3		6.2		5.7		5.5		8.5		6.5	
Copper	35.9		106		201		172		227		91.2	
Iron	11,000	B	12,300	B	10,300	B	8,930	B	18,600	B	13,500	B
Lead	52.9		131		205		195		471		92.9	
Magnesium	1,370		2,620		1,990		1,790		4,530		3,500	
Manganese	137	B	281	B	205	B	132	B	374	B	351	B
Mercury	0.13		0.21		0.32		0.15		0.61		0.36	
Nickel	7.8		14.1		13		9.8		23.6		12.2	
Potassium	522		759		671		524		1,310		987	
Selenium	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Silver	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Sodium	66	J	249		137	B	187	J	277	J	165	J
Thallium	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Vanadium	18		22		12.9		8.8		31		18.2	
Zinc	85.7	B	314	B	466	B	390	B	493	B	289	B
Cyanide, Total & Amenable: Auto Colorimetric	0.238		1.52		0.370		1.4		0.329		2.16	

Analyte	SS-07 480-25387-7 9/19/12	Q	SS-08 480-25387-8 9/19/12	Q	SS-09 480-25387-9 9/19/12	Q	SS-10 480-25387-10 9/19/12	Q	SS-11 480-25387-11 9/19/12	Q	SS-12 480-25387-12 9/19/12	Q	SS-12D 480-25387-13 9/19/12	Q
Aluminum	9,810		6,950		8,340		5,290		5,130		2,020		3,340	
Antimony	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Arsenic	10.3		7.9		9.2		5.3		4.1		1.1	J	1.4	J
Barium	127		85.3		96.6		71.3		64.9		21.5		42.8	
Beryllium	4.6	U	0.79		0.8		0.46		0.32		0.15	J	0.25	
Cadmium	0.48	U	1.1		1.4		0.43		0.35		0.035	J	0.1	J
Calcium	8,390	B	3,880	B	5,990	B	5,420	B	8,700	B	3,510	B	4,590	B
Chromium	30.6		34.3		27.4		24.3		13.6		1.2		4.7	
Cobalt	13		10.7		8.4		5.6		3.80		3.2		3.7	U
Copper	46		195		161		108		34		3.2		10.4	
Iron	21,170	B	21,200	B	17,100	B	11,500	B	9,090		7,130	B	9,840	B
Lead	261		355		627		254		89		1.8		8.8	
Magnesium	2,860		2,210		3,200		2,480		2,370		1,240		1,760	
Manganese	405	B	291	B	264	B	209	B	183	B	94.7	B	144	B
Mercury	0.15		0.73		0.79		0.63		0.14		ND	U	0.013	J
Nickel	69.2		59.5		34.7		18.3		10.9		1.1		4.4	
Potassium	1,350		724		779		904		799		96.7		1,440	
Selenium	0.86	J	1.2	J	1.4	J	ND	U	ND	U	ND	U	ND	U
Silver	ND	U	0.58	U	0.99		0.22	J	ND	U	ND	U	ND	U
Sodium	476		140		115	J	94.4		77.2	J	145		156	
Thallium	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Vanadium	24.5		44.6		83.7		18.8		16.3		2.6		6.6	
Zinc	1,500		497		289		145		111		15.7		31.5	
Cyanide, Total & Amenable: Auto Colorimetric	0.223		0.250		0.972		0.327		0.113	U	0.138		0.405	

Qualifiers:
mg/kg - Milligram per kilogram
U - Not detected; detection limit shown
B - Analyte Found in associated blank as well as sample
SB - Site Background
*- Background levels of lead vary widely. Average background levels in metropolitan and suburban areas average 200 - 500 ppm
** - Site specific condition should be taken into consideration when establishing clean up levels
Scacklette, HT and JG Boerngen, 1984. *"Element Concentration in Soils and other Surficial Materials of the Conterminus United States, USGS Professional Paper 1270."*
E. Carol McGovern, NYSDEC Wildlife Resource Center. *"Background Concentrations of 20 elements in Soils with Special Regard for New York State."*

Above State RSCO's

Above State Restricted Commercial Use

Table 2. Summary of Volatile Organic Compounds in Soil Samples
Project: Vegetative Area Soil Sampling

Client Sample ID:		Unrestricted Use	Restricted(Commercial) Use	SS-01	SS-02	SS-03	SS-04	SS-05	SS-06	SS-07	SS-08	SS-09	SS-10	SS-11	SS-12	SS-12D
Laboratory ID:		375-6,8(a) Soil Cleanup	375-6(b) Soil Cleanup	480-25387-1	480-25387-2	480-25387-3	480-25387-4	480-25387-5	480-25387-6	480-25387-7	480-25387-8	480-25387-9	480-25387-10	480-25387-11	480-25387-12	480-25387-13
Sampling Date:		Objectives	Objectives	9/19/12	9/19/12	9/19/12	9/19/12	9/19/12	9/19/12	9/19/12	9/19/12	9/19/12	9/19/12	9/19/12	9/19/12	9/19/12
Analyte:	Units:	(ug/kg)	(ug/kg)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Volatile Compounds (Concentration in ug/kg)																
1,1,1-Trichloroethane	ug/kg	680	500,000	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
1,1,2,2-Tetrachloroethane	ug/kg	-	-	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/kg	-	-	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
1,1-Dichloroethane	ug/kg	270	240,000	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
1,1-Dichloroethene	ug/kg	330	500,000	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
1,2,3-Trichloropropane	ug/kg	-	-	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
1,2,4-Trichlorobenzene	ug/kg	-	-	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
1,2-Dichlorobenzene	ug/kg	500	500,000	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
1,2-Dichloroethane	ug/kg	20	30,000	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
1,3-Dichlorobenzene	ug/kg	2,400	280,000	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
1,3-Dichloropropane	ug/kg	-	-	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
1,4-Dichlorobenzene	ug/kg	1,800	130,000	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
2-Butanone	ug/kg	-	-	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
4-Methyl-2-pentanone	ug/kg	-	-	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
Acetone	ug/kg	50	500,000	ND U	6.4 J	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
Benzene	ug/kg	60	44,000	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
Carbon disulfide	ug/kg	-	-	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
Carbon tetrachloride	ug/kg	760	22,000	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
Chlorobenzene	ug/kg	1,100	500,000	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
Chloroethane	ug/kg	-	-	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
Chloroform	ug/kg	370	350,000	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
Dibromochloromethane	ug/kg	-	-	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
Ethylbenzene	ug/kg	-	-	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
Methylene chloride	ug/kg	50	500,000	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
Tetrachloroethene	ug/kg	1,300	150,000	1.3 J	1.5 J	2.2 J	1.8 J	ND U	0.88 J	1.3 J	0.93 J	ND U	ND U	ND U	ND U	ND U
Toluene	ug/kg	700	500,000	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
trans-1,2-Dichloroethene	ug/kg	190	500,000	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
Trichloroethene	ug/kg	470	200,000	ND U	ND U	73	ND U	76	34	51	ND U	25	30	3.3 J	3.3 J	6.2
Vinyl chloride	ug/kg	20	13,000	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
Xylenes, Total	ug/kg	520	500,000	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U

Qualifiers:
ug/kg - Microgram per kilogram of part per billion (ppb) equivalent
ug/l - Microgram per liter (Aq) of part per billion (ppb) equivalent
U - Not detected; detection limit shown
B - Analyte Found in associated blank as well as sample
U - Not detected; detection limit shown
B - Analyte Found in associated blank as well as sample
ND - Not Detected

Above State RSCO's

Above State Resticted Commercial Use

Table 3. Summary of Semivolatile Organic Compounds in Soil Samples
Project: Vegetative Area Soil Sampling

Client Sample ID:		Unrestricted Use	Restricted(Commercial) Use	ATSDR	SS-01		SS-02		SS-03		SS-04		SS-05		SS-06		SS-07		SS-08		SS-09		SS-10		SS-11		SS-12		SS-12D		
Laboratory ID:		375-6,8(a) Soil Cleanup	375-6(b) Soil Cleanup	Background Soil	480-25387-1		480-25387-2		480-25387-3		480-25387-4		480-25387-5		480-25387-6		480-25387-7		480-25387-8		480-25387-9		480-25387-10		480-25387-11		480-25387-12		480-25387-13		
Sampling Date:		Objectives	Objectives	Concentrations PAHs	9/19/12		9/19/12		9/19/12		9/19/12		9/19/12		9/19/12		9/19/12		9/19/12		9/19/12		9/19/12		9/19/12		9/19/12		9/19/12		
Analyte:	Units:	(ug/kg)	(ug/kg)	in Urban Soils		Q		Q		Q		Q		Q		Q		Q		Q		Q		Q		Q		Q		Q	
SEMIVOLATILE SW-846 8270																															
Phenol	ug/kg	330	500,000	-	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	
bis(2-Chloroethyl)ether	ug/kg	-		-	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	
2-Chlorophenol	ug/kg	-		-	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	
2-Methylphenol	ug/kg	-		-	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	
3+4-Methylphenols	ug/kg	-		-	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	
Nitrobenzene	ug/kg	-		-	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	
Isophorone	ug/kg	-		-	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	
2-Nitrophenol	ug/kg	-		-	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	
2,4-Dichlorophenol	ug/kg	-		-	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	
Naphthalene	ug/kg	12,000	500,000	-	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	
4-Chloroaniline	ug/kg	-		-	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	
4-Chloro-3-methylphenol	ug/kg	-		-	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	
2-Methylnaphthalene	ug/kg	-		-	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	
2,4,5-Trichlorophenol	ug/kg	-		-	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	
2-Nitroaniline	ug/kg	-		-	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	
Dimethylphthalate	ug/kg	-		-	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	
Acenaphthylene	ug/kg	100,000	500,000	-	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	
2,6-Dinitrotoluene	ug/kg	-		-	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	
3-Nitroaniline	ug/kg	-		-	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	
Acenaphthene	ug/kg	20,000	500,000	-	77	J	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	4	J	
2,4-Dinitrophenol	ug/kg	-		-	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	
4-Nitrophenol	ug/kg	-		-	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	
Dibenzofuran	ug/kg	7,000	-	-	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	
2,4-Dinitrotoluene	ug/kg	-		-	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	
Diethylphthalate	ug/kg	-		-	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	
Fluorene	ug/kg	30,000	500,000	-	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	
3-Nitroaniline	ug/kg	-		-	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	
Hexachlorobenzene	ug/kg	-		-	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	
Pentachlorophenol	ug/kg	800	6,700	-	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	
Phenanthrene	ug/kg	100,000	500,000	-	1,300		590	J	610	J	ND	U	590	J	460	J	ND	U	1,100	J	1,100	J	700	J	730	J	18	J	60	J	
Anthracene	ug/kg	100,000	500,000	-	260	J	ND	U	ND	U	ND	U	ND	U	420	U	ND	U	420	J	220	J	ND	U	ND	U	ND	U	13	J	
Di-n-butylphthalate	ug/kg	-		-	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	
Fluoranthene	ug/kg	100,000	500,000	200 - 166,000	2,800	U	1,400	J	1,500	J	1,600	J	2,200	J	1,100	J	1200	J	5,300		2,200	J	1,700	J	1,500	J	42	J	130	J	
Pyrene	ug/kg	100,000	500,000	145 - 147,000	2,100	U	1,200	J	1,100	J	1,200	J	1,600	J	840	J	860	J	4,100		1,700	J	1,400	J	1,200	J	35	J	100	J	
Butylbenzylphthalate	ug/kg	-		-	ND	U	ND	U	2,100	J	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	
3,3-Dichlorobenzidine	ug/kg	-		-	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	
Benzo(a)anthracene	ug/kg	1,000	5,600	169 - 59,000	1,300	U	1,200	J	920	J	1,100	J	1,700	J	720	J	680	J	3,000	J	1,000	J	1,000	J	850	J	27	J	60	J	
Chrysene	ug/kg	1,000	56,000	251 - 640	1,300		1,200	J	1,100	J	1,200	J	2,000	J	770	J	620	J	3,700	J	1,200	J	980	J	830	J	27	J	73	J	
bis(2-Ethylhexyl)phthalate	ug/kg	-		-	570	J	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	
Di-n-octyl phthalate	ug/kg	-		-	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	
Benzo(b)fluoranthene	ug/kg	1,000	5,600	15,000 - 62,000	2,000		1,400	J	1,500	J	1,900	J	2,700	J	1,100	J	870	J	4,600		1,600	J	1,400	U	1,300	J	52	U	110	J	
Benzo(k)fluoranthene	ug/kg	800	56,000	300 - 26,000	620	J	790	J	830	J	630	J	1,300	J	630	J	560	J	1,700	J	730	J	970	J	490	J	18	J	51	J	
Benzo(a)pyrene	ug/kg	1,000	1,000	165 - 220	1,300		1,100	J	1,000	J	1,000	J	1,500	J	760	J	640	J	3,000	J	1,100	J	1,200	J	850	J	32	J	75	J	1129.75
Indeno(1,2,3-cd)pyrene	ug/kg	500	5,600	200 - 166,000	440	J	380	J	320	J	380	J	460	J	280	J	220	J	970	J	200	J	450	J	370	J	13	J	28	J	
Dibenz(a,h)anthracene	ug/kg	330	560	-	160	J	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	280	J	ND	U	ND	U	ND	U	ND	U	11	J	
Benzo(g,h,i)perylene	ug/kg	100,000	500,000	900 - 47,000	490	J	400	J	420	J	450	J	560	J	300	J	ND	U	920	J	430	J	610	J	430	J	15	J	35	J	
Total SVOC's																															

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
B - Analyte Found in associated blank as well as sample
NR - Not Reported

Above State RSCO's

Above State Resticted Commercial Use

Table 4. Summary of Pesticide & PCB Compounds in Soil Samples
Project: Vegetative Area Soil Sampling

Client Sample ID:		Unrestricted Use	Restricted(Commercial) Use	SS-01	SS-02	SS-03	SS-04	SS-05	SS-06	SS-07	SS-08	SS-09	SS-10	SS-11	SS-12	SS-12D
Laboratory ID:		375-6,8(a) Soil Cleanup	375-6(b) Soil Cleanup	480-25387-1	480-25387-2	480-25387-3	480-25387-4	480-25387-5	480-25387-6	480-25387-7	480-25387-8	480-25387-9	480-25387-10	480-25387-11	480-25387-12	480-25387-13
Sampling Date:		Objectives	Objectives	9/19/12	9/19/12	9/19/12	9/19/12	9/19/12	9/19/12	9/19/12	9/19/12	9/19/12	9/19/12	9/19/12	9/19/12	9/19/12
Analyte:	Units:	(ug/kg)	(ug/kg)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
PCB's as AROCLORS SW-846 METHOD 8082																
Aroclor 1016	ug/kg	100	1000@1ft & 10,000@<1ft	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
Aroclor 1221	ug/kg	100	1000@1ft & 10,000@<1ft	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
Aroclor 1232	ug/kg	100	1000@1ft & 10,000@<1ft	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
Aroclor 1242	ug/kg	100	1000@1ft & 10,000@<1ft	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
Aroclor 1248	ug/kg	100	1000@1ft & 10,000@<1ft	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
Aroclor 1254	ug/kg	100	1000@1ft & 10,000@<1ft	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
Aroclor 1260	ug/kg	100	1000@1ft & 10,000@<1ft	ND U	ND U	390	210 J	ND U	ND U	230 J	120 J	ND U	160 J	130 J	ND U	ND U
Total PCB	ug/kg			0	0	0	0	0	0	0	0	0	0	0	0	0

		Unrestricted Use	Restricted(Commercial) Use	SS-01	SS-02	SS-03	SS-04	SS-05	SS-06	SS-07	SS-08	SS-09	SS-10	SS-11	SS-12	SS-12D
		375-6,8(a) Soil Cleanup	375-6(b) Soil Cleanup	480-25387-1	480-25387-2	480-25387-3	480-25387-4	480-25387-5	480-25387-6	480-25387-7	480-25387-8	480-25387-9	480-25387-10	480-25387-11	480-25387-12	480-25387-13
		Objectives	Objectives	9/19/12	9/19/12	9/19/12	9/19/12	9/19/12	9/19/12	9/19/12	9/19/12	9/19/12	9/19/12	9/19/12	9/19/12	9/19/12
		(ug/kg)	(ug/kg)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
PESTICIDES SW-846 METHOD 8081																
alpha-BHC	ug/kg	20	3,400	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
beta-BHC	ug/kg	36	3,000	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
delta-BHC	ug/kg	40	500,000	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
gamma-BHC	ug/kg	-	-	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
Heptachlor	ug/kg	42	15,000	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
Aldrin	ug/kg	5	680	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
Heptachlor epoxide	ug/kg	-	-	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
Endosulfan I	ug/kg	2,400	200,000	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
Dieldrin	ug/kg	5	1,400	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
4,4-DDE	ug/kg	3.3	62,000	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
Endrin	ug/kg	14	89,000	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
Endosulfan II	ug/kg	2,400	200,000	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
4,4-DDD	ug/kg	3.3	92,000	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
Endosulfan Sulfate	ug/kg	2,400	200,000	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
4,4-DDT	ug/kg	3.3	47,000	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
Methoxychlor	ug/kg	-	-	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
Endrin ketone	ug/kg	-	-	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
Endrin aldehyde	ug/kg	-	-	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
Chlordane	ug/kg	94	24,000	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
Total Pesticides	ug/kg				0	0	0	0	0	0	0	0	0	0	0	0

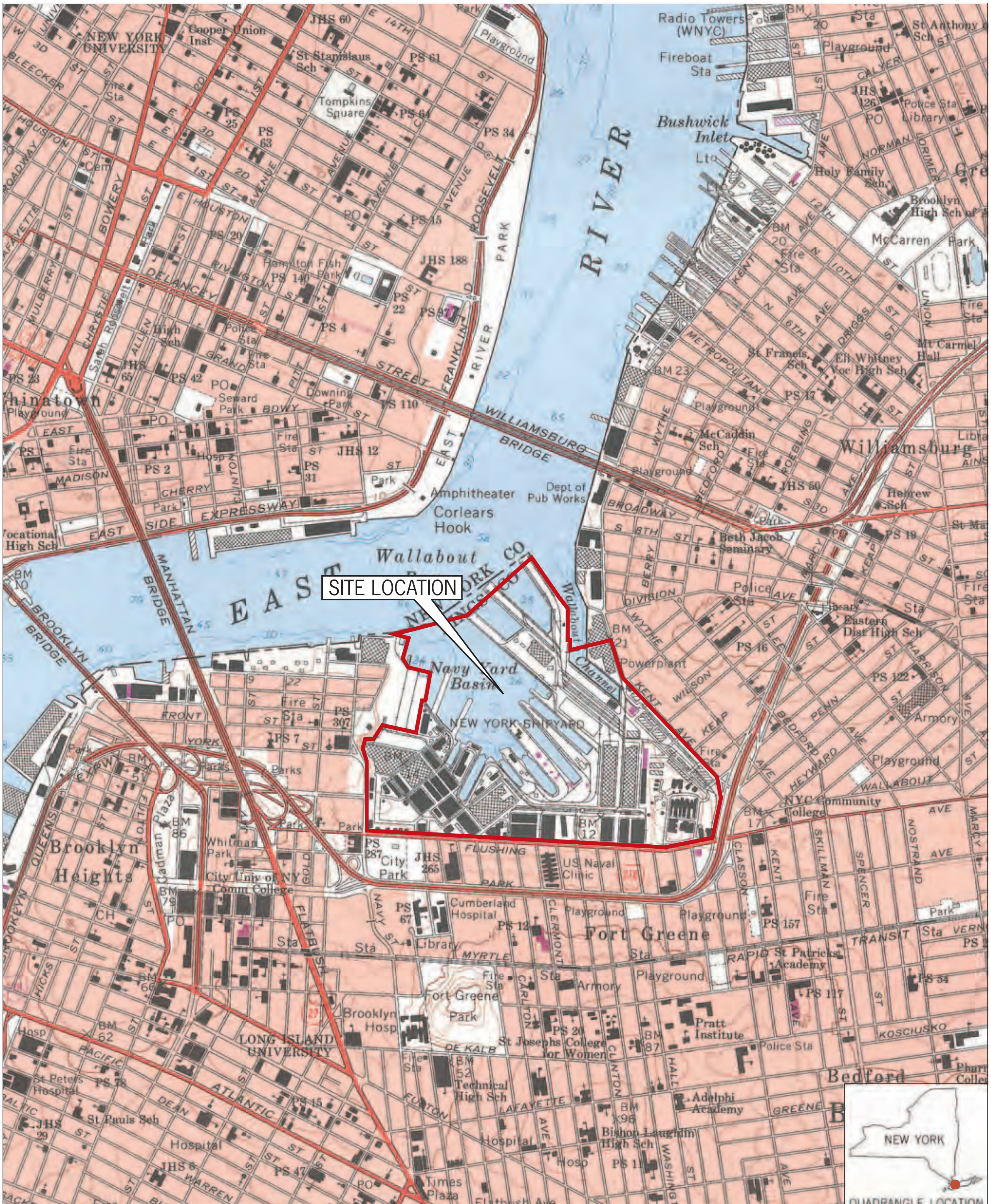
		Unrestricted Use	Restricted(Commercial) Use	SS-01	SS-02	SS-03	SS-04	SS-05	SS-06	SS-07	SS-08	SS-09	SS-10	SS-11	SS-12	SS-12D
		375-6,8(a) Soil Cleanup	375-6(b) Soil Cleanup	480-25387-1	480-25387-2	480-25387-3	480-25387-4	480-25387-5	480-25387-6	480-25387-7	480-25387-8	480-25387-9	480-25387-10	480-25387-11	480-25387-12	480-25387-13
		Objectives	Objectives	9/19/12	9/19/12	9/19/12	9/19/12	9/19/12	9/19/12	9/19/12	9/19/12	9/19/12	9/19/12	9/19/12	9/19/12	9/19/12
		(ug/kg)	(ug/kg)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
TAGM HERBICIDES SW 846 8151A																
2,4-D	mg/kg			ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
Silvex(2,4,5-TP)	mg/kg			ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
2,4,5-T	mg/kg			ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U
2,4-D	mg/kg			ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
C - Pesticide Compound where the identification has been successfully confirmed
P - Pesticide/Aroclor target analyte when there is a >25% difference detected Conc. between GC columns

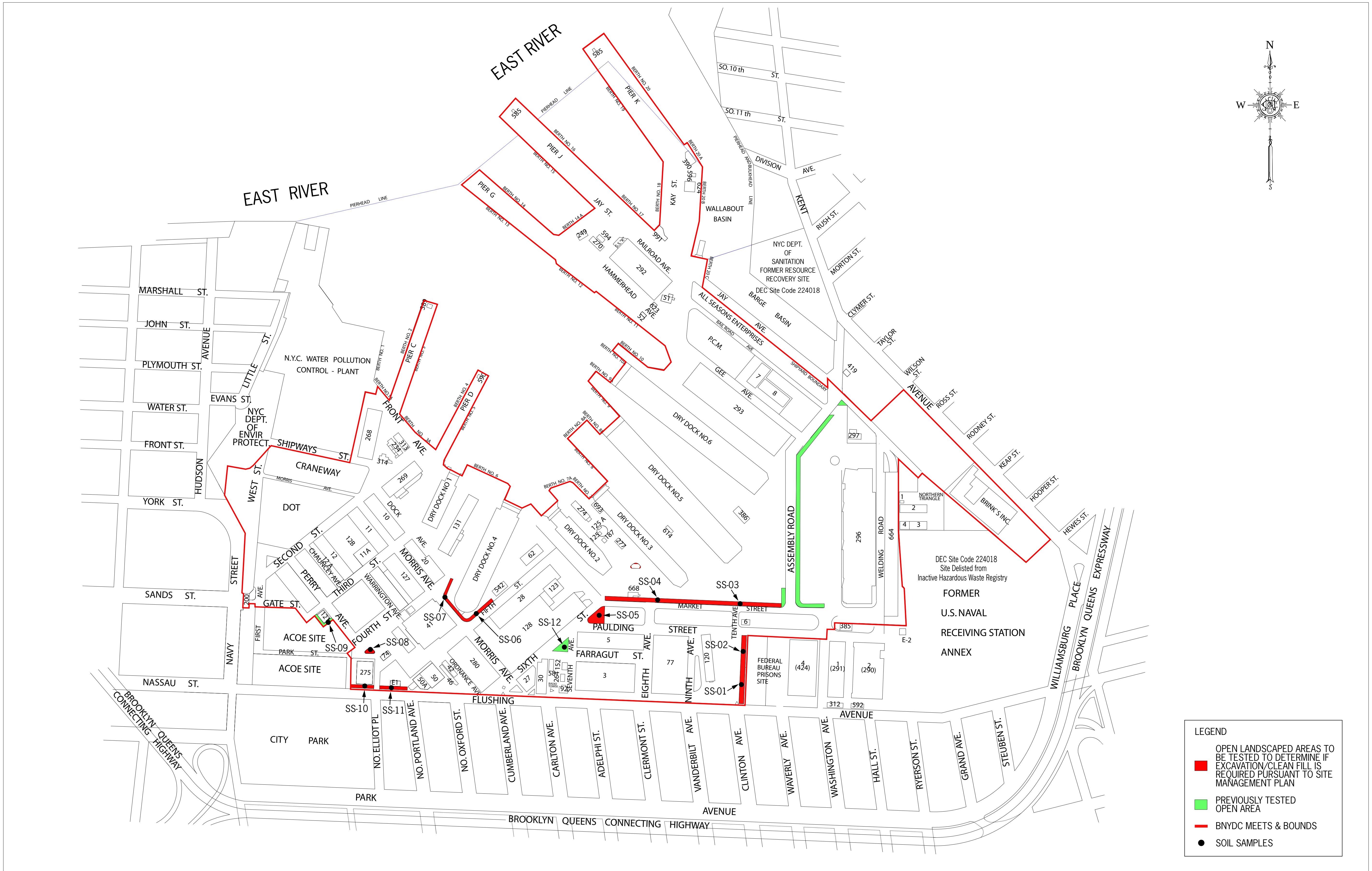
Above State RSCO's

Above State Resticted Commercial Use

FIGURES



PROJECT: REMEDIAL ACTION WORK PLAN	SCALE 1:24 000	Site Location BROOKLYN NAVY YARD DEVELOPMENT CORP. Brooklyn Navy Yard, Brooklyn, NY 11205	Quay Consulting LLC	FEB. 07, 2008 FIGURE NO. 1 BROOKLYN NAVY YARD Flushing Avenue Brooklyn, NY



PROJECT: REMEDIAL ACTION WORK PLAN	DWN. BY: RDW	CHK. BY: NM
	SCALE: 1" = 600'	

OPEN "LANDSCAPED" AREA
SOIL SAMPLING AREAS
BROOKLYN NAVY YARD DEVELOPMENT CORP.
Brooklyn Navy Yard, Brooklyn, NY 11205

QUAY CONSULTING, LLC

HYPACK TAG: ANALOG #31210/70710/121811	DATE: DEC. 18, 2011
FIELD BOOK: N/A	LINE FILE: BNY 02
FIGURE NO. 2	
BROOKLYN NAVY YARD DEVELOPMENT CORP	

CORE, 2017
Vegetative Areas Investigation Report

CORE
ENVIRONMENTAL
CONSULTANTS

Table 1
Vegetative Survey Analytical Summary
Brooklyn Navy Yard
Brooklyn, New York

Sample ID and Depth Sample Date	Part 375 Soil Cleanup Objectives* Commercial	Quay 2013								
		SS-01 9/19/2012	SS-02 9/19/2012	SS-03 9/19/2012	SS-04 9/19/2012	SS-05 9/19/2012	SS-06 9/19/2012	SS-07 9/19/2012	SS-08 9/19/2012	SS-09 9/19/2012
Volatile Organic Compounds (mg/kg)										
Acetone	500	ND	**0.0064 J**	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	500	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	300	**0.0013 J**	**0.0015 J**	**0.0022 J**	**0.0018 J**	ND	**0.000088 J**	**0.0013 J**	**0.00093 J**	ND
Trichloroethene	400	ND	ND	**0.073**	ND	**0.076**	**0.034**	**0.051**	ND	**0.025**
Semi-volatile Organic Compounds (mg/kg)										
2-Methylnaphthalene	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	500	**0.077 J**	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	500	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	500	**0.26 J**	ND	ND	ND	ND	**0.042**	ND	**0.420 J**	**0.220 J**
Benzaldehyde	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	5.6	**1.3**	**1.2 J**	**0.920 J**	**1.1 J**	**1.7 J**	**0.720 J**	**0.680 J**	**3.0 J**	**1.0 J**
Benzo(a)pyrene	1	**1.3**	**1.1 J**	**1.0 J**	**1.0 J**	**1.5 J**	**0.760 J**	**0.640 J**	**3.0 J**	**1.1 J**
Benzo(b)fluoranthene	5.6	**2.0**	**1.4 J**	**1.5 J**	**1.90 J**	**2.7 J**	**1.1 J**	**0.870 J**	**4.6**	**1.6 J**
Benzo(g,h,i)perylene	500	**0.490 J**	**0.400 J**	**0.420 J**	**0.450 J**	**0.560 J**	**0.300 J**	ND	**0.920 J**	**0.430 J**
Benzo(k)fluoranthene	56	**0.620 J**	**0.790 J**	**0.830 J**	**0.630 J**	**1.3 J**	**0.630 J**	**0.560 J**	**1.700 J**	**0.730 J**
Benzoic Acid	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
Benzyl butyl phthalate	NA	ND	ND	**2.100 J**	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl)phthalate	NA	**0.570 J**	ND	ND	ND	ND	ND	ND	ND	ND
Carbazole	NA	**0.140 J**	**0.110 J**	ND	ND	ND	ND	ND	ND	ND
Chrysene	56	**1.3**	**1.2 J**	**1.1 J**	**1.2 J**	**2.0 J**	**0.770 J**	**0.620 J**	**3.7 J**	**1.2 J**

NOTES:
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Semi-volatile Organic Compounds (continued)										
Dibenzo(a,h)anthracene	0.56	**0.160 J**	ND	ND	ND	ND	ND	ND	**0.280 J**	ND
Dibenzofuran	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-butyl phthalate	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-octyl phthalate	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	500	**2.800**	**1.400 J**	**1.500 J**	**1.600 J**	**2.200 J**	**1.100 J**	**1.200 J**	**5.300**	**2.200 J**
Fluorene	500	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	5.6	**0.440 J**	**0.380 J**	**0.320 J**	**0.380 J**	**0.460 J**	**0.280 J**	**0.220 J**	**0.970 J**	**0.200 J**
Naphthalene	500	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	500	**1.300**	**0.590 J**	**0.610 J**	ND	**0.590 J**	**0.460 J**	ND	**1.100 J**	**1.100 J**
Pyrene	500	**2.100**	**1.200 J**	**1.100 J**	**1.200 J**	**1.600 J**	**0.840 J**	**0.860 J**	**4.100**	**1.700 J**
Pesticides (mg/kg)										
4,4'-DDD	92	ND	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDE	62	ND	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDT	47	ND	ND	ND	ND	ND	ND	ND	ND	ND
alpha-Chlordane	24	NS	NS	NS	NS	NS	NS	NS	NS	NS
Dieldrin	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND
gamma-Chlordane	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
Polychlorinated Biphenyls (mg/kg)										
Aroclor 1248	1	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	1	ND	ND	**0.00039**	**0.00021 J**	ND	ND	**0.0023 J**	**0.00012 J**	ND
Metals (mg/kg)										
Aluminum	NA	**7810**	**5540**	**3.39**	**2170**	**8650**	**6020**	**9810**	**6950**	**8340**
Antimony	NA	ND	ND	**2.1 J**	**2.7 J**	**0.502**	ND	ND	ND	ND
Arsenic	16	**9.6**	**2.9**	**3.45**	**2.85**	**7.85**	**2.65**	**10.3**	**7.9**	**9.2**
Barium	400	**42.1**	**68.9**	**111**	**88.3**	**171**	**69**	**127**	**85.3**	**96.6**

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Metals (continued)										
Beryllium	590	**0.39**	**0.47**	**0.49**	**0.44**	**0.6**	**0.72**	**0.46**	**0.79**	**0.8**
Cadmium	9.3	**0.37**	**0.69**	**0.79**	**0.88**	**1.5**	**0.45**	**0.48**	**1.1**	**1.4**
Calcium	NA	**2700**	**7720**	**9780**	**8330**	**15400**	**9190**	**8390**	**3880**	**5990**
Chromium	1,500	**14.7**	**46.1**	**49.4**	**38.4**	**126**	**30**	**30.6**	**34.3**	**27.4**
Cobalt	NA	**3.3**	**6.2**	**5.7**	**5.5**	**8.5**	**6.5**	**13**	**10.7**	**8.4**
Copper	270	**35.9**	**106**	**201**	**172**	**227**	**91.2**	**46**	**195**	**161**
Iron	NA	**11,000**	**12,300**	**10,300**	**8930**	**18,600**	**13,500**	**21,170**	**21,200**	**17,100**
Lead	1,000	**52.9**	**131**	**205**	**195**	**471**	**92.9**	**261**	**355**	**627**
Magnesium	NA	**1370**	**2620**	**1990**	**1790**	**4530**	**3500**	**2860**	**2210**	**3200**
Manganese	10,000	**137**	**281**	**205**	**132**	**374**	**351**	**405**	**291**	**264**
Mercury	2.8	**0.13**	**0.21**	**0.32**	**0.15**	**0.61**	**0.36**	**0.15**	**0.73**	**0.79**
Nickel	310	**7.8**	**14.1**	**13**	**9.8**	**23.6**	**12.2**	**69.2**	**59.5**	**34.7**
Potassium	NA	**522**	**759**	**671**	**524**	**1,310**	**987**	**1,350**	**724**	**779**
Selenium	1,500	ND	ND	ND	ND	ND	ND	**0.86 J**	**1.2 J**	**1.4 J**
Silver	6,800	ND	ND	ND	ND	ND	ND	ND	**0.58**	**0.99**
Sodium	NA	**66 J**	**249**	**137**	**187 J**	**277 J**	**165 J**	**476**	**140**	**115 J**
Vanadium	NA	**18**	**22**	**12.9**	**8.8**	**31**	**18.2**	**24.5**	**44.6**	**83.7**
Zinc	10,000	**85.7**	**314**	**466**	**390**	**493**	**289**	**1,500**	**497**	**289**
Cyanide (mg/kg)										
Total Cyanide	27	**0.238**	**1.52**	**0.370**	**1.4**	**0.329**	**2.16**	**0.223**	**0.250**	**0.972**

NOTES:
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Table 1
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Brooklyn Navy Yard
Brooklyn, New York

Sample ID and Depth / Sample Date	Part 375 Soil Cleanup Objectives* Commercial	Quay 2013				CORE 2017					
		SS-10	SS-11	SS-12	SS-12D	B-1	B-2	B-3	B-4	B-5	B-DUP-092317
		9/19/2012	9/19/2012	9/19/2012	9/19/2012	9/23/2017	9/23/2017	9/23/2017	9/23/2017	9/23/2017	
Volatile Organic Compounds (mg/kg)											
Acetone	500	ND	ND	ND	ND	<0.012	<0.014	<0.012	<0.012	<0.011	<0.012
Methylene Chloride	500	ND	ND	ND	ND	<0.012	**0.0072 J**	<0.012	<0.012	<0.011	<0.012
Tetrachloroethene	300	ND	ND	ND	ND	<0.012	<0.0069	<0.012	<0.012	<0.011	<0.012
Trichloroethene	400	**0.030**	**0.0033 J**	**0.0033 J**	**0.0062**	<0.012	<0.0069	<0.012	<0.012	<0.011	<0.012
Semi-volatile Organic Compounds (mg/kg)											
2-Methylnaphthalene	NA	ND	ND	ND	ND	<0.0841	<0.0871	<0.0842	<0.0903	<0.0897	<0.0879
Acenaphthene	500	ND	ND	ND	ND	<0.0841	<0.0871	<0.0842	**0.0549 J**	<0.0897	**0.0450 J**
Acenaphthylene	500	ND	ND	ND	ND	<0.0841	**0.106**	<0.0842	**0.0556 J**	**0.0524 J**	<0.0879
Anthracene	500	ND	ND	ND	**0.013 J**	<0.0841	**0.142**	<0.0842	**0.237**	**0.122**	**0.149**
Benzaldehyde	NA	ND	ND	ND	ND	<0.0841	<0.0871	<0.0842	<0.0903	<0.0897	<0.0879
Benzo(a)anthracene	5.6	**1.0 J**	**0.850 J**	**0.027 J**	**0.060 J**	**0.121**	**0.500**	**0.129**	**0.693**	**0.455**	**0.534**
Benzo(a)pyrene	1	**1.2 J**	**0.850 J**	**0.032 J**	**0.075 J**	**0.130**	**0.509**	**0.120**	**0.601**	**0.450**	**0.498**
Benzo(b)fluoranthene	5.6	**1.4**	**1.3 J**	**0.052**	**0.110 J**	**0.177**	**0.506**	**0.153**	**0.619**	**0.425**	**0.426**
Benzo(g,h,i)perylene	500	**0.610 J**	**0.430 J**	**0.015 J**	**0.035 J**	**0.113**	**0.290**	**0.119**	**0.299**	**0.247**	**0.313**
Benzo(k)fluoranthene	56	**0.970 J**	**0.490 J**	**0.018 J**	**0.051 J**	**0.133**	**0.444**	**0.112**	**0.477**	**0.381**	**0.372**
Benzoic Acid	NA	NS	NS	NS	NS	<0.0841	<0.0871	**0.0592 J**	<0.0903	<0.0897	<0.0879
Benzyl butyl phthalate	NA	ND	ND	ND	ND	<0.0841	<0.0871	**0.0451 J**	<0.0903	<0.0897	<0.0879
Bis(2-ethylhexyl)phthalate	NA	ND	ND	ND	ND	**0.0700 J**	**1.02**	**0.467**	**0.141**	**0.230**	**0.307**
Carbazole	NA	ND	ND	ND	ND	<0.0841	<0.0871	<0.0842	**0.0736 J**	**0.0459 J**	**0.0513 J**
Chrysene	56	**0.980 J**	**0.830 J**	**0.027 J**	**0.073 J**	**0.144**	**0.479**	**0.137**	**0.603**	**0.434**	**0.476**

NOTES:

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		SS-10	SS-11	SS-12	SS-12D	B-1	B-2	B-3	B-4	B-5	B-DUP-092317
		9/19/2012	9/19/2012	9/19/2012	9/19/2012	9/23/2017	9/23/2017	9/23/2017	9/23/2017	9/23/2017	
Semi-volatile Organic Compounds (continued)											
Dibenzo(a,h)anthracene	0.56	ND	ND	ND	**0.011 J**	<0.0841	**0.0967**	<0.0842	**0.106**	**0.0782 J**	**0.0836 J**
Dibenzofuran	NA	ND	ND	ND	ND	<0.0841	<0.0871	<0.0842	<0.0903	<0.0897	<0.0879
Di-n-butyl phthalate	NA	ND	ND	ND	ND	<0.0841	<0.0871	<0.0842	**0.0563 J**	<0.0897	<0.0879
Di-n-octyl phthalate	NA	ND	ND	ND	ND	<0.0841	<0.0871	<0.0842	<0.0903	<0.0897	<0.0879
Fluoranthene	500	**1.700 J**	**1.500 J**	**0.042 J**	**0.130 J**	**0.251**	**0.810**	**0.191**	**1.26**	**0.787**	**0.843**
Fluorene	500	ND	ND	ND	ND	<0.0841	<0.0871	<0.0842	**0.0729 J**	<0.0897	<0.0879
Indeno(1,2,3-cd)pyrene	5.6	**0.450 J**	**0.370 J**	**0.013 J**	**0.028 J**	**0.0935**	**0.293**	**0.0916**	**0.317**	**0.251**	**0.300**
Naphthalene	500	ND	ND	ND	ND	<0.0841	<0.0871	<0.0842	<0.0903	<0.0897	<0.0879
Phenanthrene	500	**0.700 J**	**0.730 J**	**0.018 J**	**0.060 J**	**0.0847**	**0.333**	**0.127**	**0.892**	**0.404**	**0.591**
Pyrene	500	**1.400 J**	**1.200 J**	**0.035 J**	**0.100 J**	**0.217**	**0.795**	**0.202**	**1.13**	**0.771**	**0.886**
Pesticides (mg/kg)											
4,4'-DDD	92	ND	ND	ND	ND	<0.00166	<0.00170	<0.00166	<0.00176	**0.00352**	**0.0216**
4,4'-DDE	62	ND	ND	ND	ND	**0.00505**	<0.00170	<0.00166	<0.00176	<0.00177	**0.00872**
4,4'-DDT	47	ND	ND	ND	ND	**0.00735**	**0.00847**	**0.0150**	**0.0117**	**0.0196**	**0.119**
alpha-Chlordane	24	NS	NS	NS	NS	**0.00426**	**0.0107**	<0.00166	**0.0092**	**0.00258**	**0.00950**
Dieldrin	1.4	ND	ND	ND	ND	<0.00166	**0.00212**	**0.00603**	**0.00236**	<0.00177	<0.00174
gamma-Chlordane	NA	NS	NS	NS	NS	**0.00337**	**0.00617**	<0.00166	**0.00758**	**0.00242**	**0.00499**
Polychlorinated Biphenyls (mg/kg)											
Aroclor 1248	1	ND	ND	ND	ND	<0.0167	<0.0172	<0.0168	<0.0177	<0.0179	<0.0176
Aroclor 1260	1	**0.00016 J**	**0.00013 J**	ND	ND	**0.0261**	<0.0172	**0.104**	<0.0177	<0.0179	<0.0176
Metals (mg/kg)											
Aluminum	NA	**5290**	**5130**	**2020**	**3340**	**3450**	**6300**	**6270**	**10,600**	**4980**	**4880**
Antimony	NA	ND	ND	ND	ND	**0.592**	**1.06**	**15.5**	**2.36**	<0.538	**0.648**
Arsenic	16	**5.3**	**4.1**	**1.1 J**	**1.4 J**	**4.66**	**34.9**	**43.8**	**11.2**	**7.74**	**9.02**
Barium	400	**71.3**	**64.9**	**21.5**	**42.8**	**33.1**	**110**	**141**	**127**	**79.1**	**84.8**

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Metals (continued)											
Beryllium	590	**0.46**	**0.32**	**0.15 J**	**0.25**	<0.101	<0.104	**5.26**	<0.108	<0.108	<0.106
Cadmium	9.3	**0.43**	**0.35**	**0.035 J**	**0.1 J**	<0.303	<0.313	**1.05**	<0.325	<0.323	**0.388**
Calcium	NA	**5420**	**8700**	**3510**	**4590**	**15,400**	**7700**	**14,400**	**14,400**	**17,900**	**19,700**
Chromium	1,500	**24.3**	**13.6**	**1.2**	**4.7**	**16.6**	**64.8**	**123**	**33.1**	**20.8**	**21.7**
Cobalt	NA	**5.6**	**3.80**	**3.2**	**3.7**	**4.35**	**8.52**	**58.1**	**10.2**	**6.20**	**6.06**
Copper	270	**108**	**34**	**3.2**	**10.4**	**30.8**	**98.0**	**1030**	**137**	**98.1**	**94.1**
Iron	NA	**11,500**	**9090**	**7130**	**9840**	**9,850**	**14,600**	**70,000**	**20,600**	**13,400**	**11,800**
Lead	1,000	**254**	**89**	**1.8**	**8.8**	**56.1**	**117**	**632**	**320**	**185**	**239**
Magnesium	NA	**2480**	**2370**	**1240**	**1760**	**8960**	**4020**	**6330**	**7450**	**4000**	**4670**
Manganese	10,000	**209**	**183**	**94.7**	**144**	**161**	**241**	**524**	**380**	**210**	**215**
Mercury	2.8	**0.63**	**0.14**	**ND**	**0.013 J**	**0.0539**	**0.122**	**0.0608**	**0.424**	**0.898**	**0.881**
Nickel	310	**18.3**	**10.9**	**1.1**	**4.4**	**17.6**	**23.1**	**181**	**29.7**	**19.3**	**17.4**
Potassium	NA	**904**	**799**	**96.7**	**1,440**	**357**	**1290**	**778**	**1140**	**628**	**691**
Selenium	1,500	ND	ND	ND	ND	<1.01	**1.36**	**11.6**	**5.33**	**1.31**	**1.68**
Silver	6,800	**0.22 J**	ND	ND	ND	<0.504	<0.522	<0.507	<0.541	<0.538	<0.529
Sodium	NA	**94.4**	**77.2**	**145**	**156**	**86.6**	**329**	**707**	**152**	**234**	**250**
Vanadium	NA	**18.8**	**16.3**	**2.6**	**6.6**	**17.1**	**23.0**	**84.9**	**36.8**	**22.3**	**21.1**
Zinc	10,000	**145**	**111**	**15.7**	**31.5**	**234**	**207**	**3160**	**264**	**204**	**197**
Cyanide (mg/kg)											
Total Cyanide	27	**0.327**	**0.113**	**0.138**	**0.405**	<0.504	**0.522**	<0.507	<0.541	<0.538	<0.529

NOTES:
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Table 1
Vegetative Survey Analytical Summary
Brooklyn Navy Yard
Brooklyn, New York

Sample ID and Depth / Sample Date	Part 375 Soil Cleanup Objectives* Commercial	CORE 2017									
		B-6	B-7	B-8	B-9	B-10	B-11	B-12	B-13	B-14	B-15
		9/23/2017	9/23/2017	9/23/2017	9/23/2017	9/23/2017	9/23/2017	9/23/2017	9/23/2017	9/23/2017	9/23/2017
Volatile Organic Compounds (mg/kg)											
Acetone	500	**0.0066 J**	**0.0075 J**	<0.0098	<0.0060	**0.0071 J**	<0.012	<0.011	<0.011	<0.015	<0.016
Methylene Chloride	500	<0.013	**0.0068 J**	<0.0098	<0.012	**0.0070 J**	<0.012	<0.011	<0.011	<0.015	<0.016
Tetrachloroethene	300	<0.013	<0.0065	<0.0098	<0.012	<0.0065	<0.012	<0.011	<0.011	<0.015	<0.016
Trichloroethene	400	<0.013	<0.0065	<0.0098	<0.012	<0.0065	<0.012	<0.011	<0.011	<0.015	<0.016
Semi-volatile Organic Compounds (mg/kg)											
2-Methylnaphthalene	NA	<0.0967	**0.0591 J**	<0.0870	<0.0882	<0.422	<0.0870	**0.0436 J**	<0.0883	<0.0875	<0.100
Acenaphthene	500	<0.0967	**0.303**	<0.0870	<0.0882	<0.422	<0.0870	**0.0533 J**	**0.0741 J**	<0.0875	<0.100
Acenaphthylene	500	<0.0967	**0.0625 J**	**0.0571 J**	<0.0882	<0.422	<0.0870	**0.0803 J**	**0.0727 J**	**0.0651 J**	**0.0584 J**
Anthracene	500	<0.0967	**0.638**	**0.110**	**0.0712 J**	<0.422	**0.0974**	**0.185**	**0.227**	**0.160**	**0.118**
Benzaldehyde	NA	<0.0967	<0.0859	<0.0870	**0.0712 J**	<0.422	<0.0870	<0.0866	<0.0883	<0.0875	<0.100
Benzo(a)anthracene	5.6	**0.182**	**1.97**	**0.410**	**0.370**	<0.422	**0.396**	**0.695**	**0.796**	**0.938**	**0.465**
Benzo(a)pyrene	1	**0.174**	**1.44**	**0.403**	**0.352**	<0.422	**0.428**	**0.771**	**0.791**	**0.830**	**0.454**
Benzo(b)fluoranthene	5.6	**0.186**	**1.42**	**0.402**	**0.403**	<0.422	**0.417**	**0.703**	**0.728**	**0.858**	**0.449**
Benzo(g,h,i)perylene	500	**0.104**	**0.573**	**0.225**	**0.218**	<0.422	**0.300**	**0.455**	**0.419**	**0.390**	**0.262**
Benzo(k)fluoranthene	56	**0.154**	**1.23**	**0.340**	**0.305**	<0.422	**0.346**	**0.572**	**0.663**	**0.728**	**0.371**
Benzoic Acid	NA	<0.0967	**0.0447 J**	<0.0870	**0.0923**	<0.422	**0.0584 J**	<0.0866	<0.0883	<0.0875	<0.100
Benzyl butyl phthalate	NA	<0.0967	**0.0749 J**	<0.0870	<0.0882	<0.422	**0.0591 J**	<0.0866	**0.130**	<0.0875	<0.100
Bis(2-ethylhexyl)phthalate	NA	**0.0556 J**	**0.218**	**0.171**	**0.400**	<0.422	**0.129**	**0.248**	**0.256**	**0.0448 J**	<0.100
Carbazole	NA	<0.0967	**0.532**	<0.0870	**0.0508 J**	<0.422	<0.0870	**0.0567 J**	**0.0897**	**0.0595 J**	<0.100
Chrysene	56	**0.174**	**1.73**	**0.400**	**0.374**	<0.422	**0.388**	**0.648**	**0.760**	**0.870**	**0.424**

NOTES:
* Soil Cleanup Objectives from New York State Department of Environmental Conservation
Part 375 Table 375-6.8(b), effective December 14, 2006.
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Table 1
Vegetative Survey Analytical Summary
Brooklyn Navy Yard
Brooklyn, New York

Sample ID and Depth / Sample Date	Part 375 Soil Cleanup Objectives* Commercial	CORE 2017									
		B-6 9/23/2017	B-7 9/23/2017	B-8 9/23/2017	B-9 9/23/2017	B-10 9/23/2017	B-11 9/23/2017	B-12 9/23/2017	B-13 9/23/2017	B-14 9/23/2017	B-15 9/23/2017
Semi-volatile Organic Compounds (continued)											
Dibenzo(a,h)anthracene	0.56	<0.0967	**0.232**	**0.0738 J**	**0.0536 J**	<0.422	**0.0702 J**	**0.134**	**0.121**	**0.148**	**0.0848 J**
Dibenzofuran	NA	<0.0967	**0.188**	<0.0870	<0.0882	<0.422	<0.0870	<0.0866	<0.0883	<0.0875	<0.100
Di-n-butyl phthalate	NA	<0.0967	**0.0433 J**	<0.0870	**0.233**	<0.422	<0.0870	<0.0866	<0.0883	<0.0875	<0.100
Di-n-octyl phthalate	NA	<0.0967	<0.0859	<0.0870	<0.0882	<0.422	**0.0515 J**	<0.0866	<0.0883	<0.0875	<0.100
Fluoranthene	500	**0.292**	**4.04**	**0.679**	**0.653**	<0.422	**0.621**	**0.999**	**1.31**	**1.07**	**0.710**
Fluorene	500	<0.0967	**0.303**	<0.0870	<0.0882	<0.422	<0.0870	**0.0644 J**	**0.0656 J**	<0.0875	<0.100
Indeno(1,2,3-cd)pyrene	5.6	**0.0950 J**	**0.681**	**0.215**	**0.204**	<0.422	**0.252**	**0.443**	**0.431**	**0.418**	**0.260**
Naphthalene	500	<0.0967	**0.159**	<0.0870	<0.0882	<0.422	<0.0870	**0.0996**	<0.0883	<0.0875	<0.100
Phenanthrene	500	**0.205**	**3.28**	**0.306**	**0.313**	<0.422	**0.385**	**0.578**	**0.803**	**0.486**	**0.338**
Pyrene	500	**0.272**	**3.65**	**0.676**	**0.622**	**0.226 J**	**0.672**	**1.19**	**1.35**	**1.11**	**0.723**
Pesticides (mg/kg)											
4,4'-DDD	92	<0.00189	**0.00921**	<0.00171	<0.00174	<0.00163	<0.00171	<0.00169	<0.00172	<0.00174	<0.00197
4,4'-DDE	62	<0.00189	<0.00169	**0.00702**	<0.00174	<0.00163	<0.00171	<0.00169	<0.00172	<0.00174	<0.00197
4,4'-DDT	47	<0.00189	**0.00393**	**0.00733**	<0.00174	**0.00478**	**0.00621**	**0.00948**	**0.0141**	**0.0137**	<0.00197
alpha-Chlordane	24	**0.00635**	**0.0129**	**0.00809**	**0.0107**	<0.00163	**0.0101**	<0.00169	<0.00172	**0.00612**	**0.00684**
Dieldrin	1.4	<0.00189	<0.00169	<0.00171	**0.00740**	**0.00302**	**0.00213**	<0.00169	<0.00172	<0.00174	<0.00197
gamma-Chlordane	NA	**0.00294**	**0.00317**	**0.00355**	**0.00729**	<0.00163	**0.00462**	<0.00169	<0.00172	**0.00332**	**0.00387**
Polychlorinated Biphenyls (mg/kg)											
Aroclor 1248	1	<0.0191	<0.0170	<0.0173	<0.0176	<0.0165	<0.0172	**0.818**	<0.0174	<0.0175	<0.0199
Aroclor 1260	1	<0.0191	**0.0215**	**0.0410**	**0.0491**	**0.0320**	**0.0260**	<0.0171	**0.113**	**0.131**	<0.0199
Metals (mg/kg)											
Aluminum	NA	**5690**	**4920**	**7740**	**6230**	**4060**	**4720**	**4700**	**5,130**	**6020**	**7170**
Antimony	NA	<0.580	**1.80**	**0.57**	**3.79**	<0.506	**1.23**	**0.896**	**1.88**	**2.13**	<0.600
Arsenic	16	**3.69**	**15.9**	**11.20**	**31.0**	**13.4**	**11.0**	**7.14**	**5.00**	**9.25**	**2.6**
Barium	400	**60.5**	**52.5**	**61.2**	**484**	**50.7**	**110**	**165**	**89.8**	**72.4**	**72.6**

NOTES:
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CORE ENVIRONMENTAL CONSULTANTS

Table 1
Vegetative Survey Analytical Summary
Brooklyn Navy Yard
Brooklyn, New York

Sample ID and Depth Sample Date	Part 375 Soil Cleanup Objectives* Commercial	CORE 2017									
		B-6 9/23/2017	B-7 9/23/2017	B-8 9/23/2017	B-9 9/23/2017	B-10 9/23/2017	B-11 9/23/2017	B-12 9/23/2017	B-13 9/23/2017	B-14 9/23/2017	B-15 9/23/2017
Metals (continued)											
Beryllium	590	<0.116	<0.103	<0.104	<0.106	**0.363**	<0.105	<0.104	<0.106	**0.946**	<0.120
Cadmium	9.3	<0.348	<0.310	<0.313	**1.05**	<0.304	<0.314	**0.625**	**0.762**	**0.666**	<0.360
Calcium	NA	**6550**	**7920**	**5770**	**10,700**	**28,100**	**8910**	**18,100**	**11,900**	**27,000**	**5380**
Chromium	1,500	**17.1**	**22.4**	**19.8**	**50.1**	**15.0**	**21.2**	**20.3**	**27.7**	**34.5**	**16.4**
Cobalt	NA	**5.63**	**11.1**	**7.20**	**24.6**	**11.8**	**9.71**	**6.69**	**7.38**	**16.9**	**7.01**
Copper	270	**46.3**	**209**	**57.2**	**680**	**170**	**174**	**99.6**	**130**	**384**	**37.1**
Iron	NA	**10,900**	**19,300**	**14,900**	**31,500**	**14,400**	**18,100**	**14,400**	**12,500**	**24,100**	**12,400**
Lead	1,000	**57.2**	**88.1**	**98.5**	**238**	**155**	**342**	**268**	**226**	**278**	**39.1**
Magnesium	NA	**1860**	**3410**	**2480**	**5380**	**12,200**	**3820**	**5740**	**3550**	**11,600**	**2880**
Manganese	10,000	**266**	**224**	**238**	**318**	**164**	**235**	**248**	**231**	**336**	**378**
Mercury	2.8	**0.344**	**0.0801**	**1.12**	**0.0634**	**0.0481**	**0.0545**	**1.03**	**0.306**	**0.956**	**0.0769**
Nickel	310	**15.0**	**21.1**	**14.7**	**45.3**	**34.2**	**22.5**	**25.3**	**36.2**	**81.5**	**20.8**
Potassium	NA	**734**	**506**	**778**	**725**	**883**	**553**	**600**	**609**	**979**	**887**
Selenium	1,500	<1.16	**2.66**	**1.35**	**5.30**	**1.77**	**2.22**	**1.56**	**1.31**	**3.72**	<1.20
Silver	6,800	<0.580	<0.517	<0.522	<0.529	<0.506	<0.523	<0.521	<0.529	<0.527	<0.600
Sodium	NA	**46.4**	**195**	**150**	**950**	**325**	**342**	**682**	**221**	**285**	**217**
Vanadium	NA	**16.4**	**15.1**	**22.3**	**26.9**	**27.0**	**19.4**	**18.6**	**20.5**	**24.1**	**19.1**
Zinc	10,000	**96.6**	**536**	**172**	**1480**	**448**	**506**	**310**	**445**	**673**	**69.2**
Cyanide (mg/kg)											
Total Cyanide	27	<0.580	<0.517	<0.522	**1.43**	<0.506	<0.523	<0.521	<0.529	<0.527	<0.600

NOTES:

* Soil Cleanup Objectives from New York State Department of Environmental Conservation
Part 375 Table 375-6.8(b), effective December 14, 2006.

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Table 2
Summary of Soil Exceedences
Brooklyn Navy Yard Industrial Park
Brooklyn, New York

Vegetative Investigation	Sample ID	General Location
Quay Consulting June 2013 Vegetative Area Investigation	SS-01	Vegetation/landscaping along eastern edge of Clinton Ave
	SS-02	
	SS-05	Vegetated/landscaped area at intersection of 6th and Market Sts
	SS-08	Vegetated/landscaped area at intersection of 4th St and Chauncey Ave
	SS-09	Vegetated/landscaped area along southern edge of Chauncey Ave
	SS-10	Vegetation/landscaping along Flushing Ave
CORE October 2017 Vegetative Area Investigation	B-2	Flower beds in front parking area of Duggal Greenhouse (Building 268)
	B-3	Pier D
	B-7	Exposed soil near bike rack near Flushing Ave main entrance
	B-9	Assembly Rd border landscaping
	B-14	Pier G

LEGEND

ACTIVE CONSTRUCTION/EXCAVATION (NOT SURVEYED)

BNY 13-ACRE PARCEL

FORMER MGP SITE

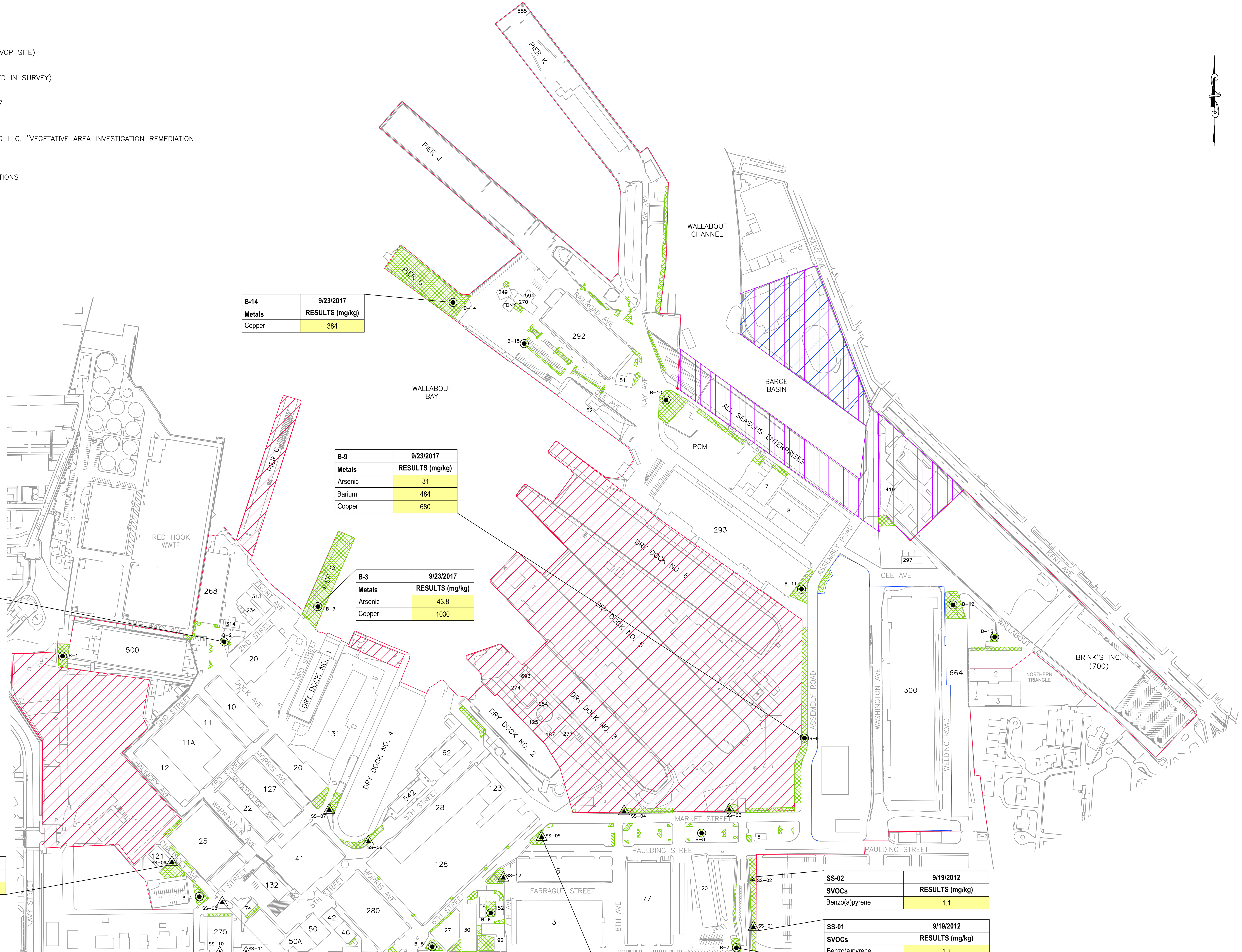
APPROXIMATE SITE BOUNDARY (VCP SITE)

STEINER STUDIOS (NOT INCLUDED IN SURVEY)

VEGETATION AS OF MARCH 2017

SS-01 QUAY CONSULTING JUNE 2013
(TAKEN FROM QUAY CONSULTING LLC, "VEGETATIVE AREA INVESTIGATION REMEDIATION WORK PLAN" JUNE 2013)

B-1 CORE 2017 SOIL SAMPLE LOCATIONS



B-14	9/23/2017
Metals	RESULTS (mg/kg)
Copper	384

B-9	9/23/2017
Metals	RESULTS (mg/kg)
Arsenic	31
Barium	484
Copper	680

B-2	9/23/2017
Metals	RESULTS (mg/kg)
Arsenic	34.9

B-3	9/23/2017
Metals	RESULTS (mg/kg)
Arsenic	43.8
Copper	1030

SS-09	9/19/2012
SVOCs	RESULTS (mg/kg)
Benzo(a)pyrene	1.1

SS-02	9/19/2012
SVOCs	RESULTS (mg/kg)
Benzo(a)pyrene	1.1

SS-01	9/19/2012
SVOCs	RESULTS (mg/kg)
Benzo(a)pyrene	1.3

SS-10	9/19/2012
SVOCs	RESULTS (mg/kg)
Benzo(a)pyrene	1.2

SS-08	9/19/2012
SVOCs	RESULTS (mg/kg)
Benzo(a)pyrene	3

SS-05	9/19/2012
SVOCs	RESULTS (mg/kg)
Benzo(a)pyrene	1.5

B-7	9/23/2017
SVOCs	RESULTS (mg/kg)
Benzo(a)pyrene	1.44

Analytes listed exceed applicable Part 375 Soil Cleanup Objectives

= exceeds Part 375 Soil Cleanup Objectives, Commercial Use

CLIENT NAME

BROOKLYN NAVY YARD DEVELOPMENT CORPORATION
63 FLUSHING AVENUE
BROOKLYN, NY, 11205

SEAL & SIGNATURE

NO.	REVISIONS	DATE

CORE ENVIRONMENTAL CONSULTANTS
22-48 119TH STREET
COLLEGE POINT, N.Y. 11356
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F: 718-786-4764
2312 WEHRLE DRIVE
BUFFALO, N.Y. 14221
T: 716-204-8054
F: 716-204-8557
www.COREenv.com

PROJECT TITLE:

BROOKLYN NAVY YARD
63 Flushing Avenue
Brooklyn, NY

DESCRIPTION:

VEGETATIVE SURVEY
VCP SITE NO. V00120

DRAWING TITLE:

SOIL SAMPLE LOCATIONS

SEAL & SIGNATURE

DATE:	10/20/2017
PROJECT No.:	–
DRAWN BY:	EMT
DESIGNED BY:	AC
CHECKED BY:	SAR
APPROVED BY:	RPT
FIGURE No.:	1
SCALE:	1"=200'
SHEET No.:	OF:
REVISED BY:	–

APPENDIX D

Remediation Reports

ERM, 1999
Substation C Final Closure Report

CORE
ENVIRONMENTAL
CONSULTANTS

ELECTRICAL TRANSFORMER SUBSTATION C FINAL REMEDIAL ACTION CLOSURE REPORT

Supplemental Site Assessment
Brooklyn Navy Yard Industrial Park
Brooklyn, NY
(NYSDEC Site Code # 224019)

October 1999

Prepared for:

Brooklyn Navy Yard Development Corporation
Flushing Avenue - Cumberland Street
Building # 292, 3rd Floor
Brooklyn, New York 11205

Prepared by:

ENVIRONMENTAL RESOURCES MANAGEMENT
175 Froehlich Farm Boulevard
Woodbury, NY 11797

ELECTRICAL TRANSFORMER SUBSTATION C FINAL REMEDIAL ACTION CLOSURE REPORT

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Woodbury, NY 11797

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LIST OF ACRONYMS

ASP	Analytical Services Protocol
ASTM	American Society for Testing and Materials
BNYDC	Brooklyn Navy Yard Development Corporation
BNYIP	Brooklyn Navy Yard Industrial Park
BRAQ	Federal Base Closure and Realignment Act
CHASP	Community Health and Safety Plan
CLP	Contract Laboratory Program
DERP	Defense Environmental Restoration Program
ELAP	Environmental Laboratory Accreditation Program
ERM	Environmental Resources Management
HEAST	Health Effects Assessment Summary Table
MS/MSD	Matrix spike/matrix spike duplicate
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
PAHs	polycyclic aromatic hydrocarbon
PCBs	Polychlorinated biphenyls
QA/QC	Quality assurance/quality control
QAPP	Quality Assurance Project Plan
RSCOs	Recommended Soil Cleanup Objectives
SAP	Sampling and Analysis Plan
SOPs	Standard operating procedures
TAGM	Technical Assistance Guidance Memorandum
TAL	Target Analyte List
TCL	Target Compound List
TSCA	Toxic Substance Control Act
USEPA	United States Environmental Protection Agency
VOCs	Volatile organic compounds

1.0 *INTRODUCTION*

Environmental Resources Management (ERM) was retained by the Brooklyn Navy Yard Development Corporation (BNYDC) to conduct a Phase II investigation and remediation at all current, and former electrical substations within the Brooklyn Navy Yard Industrial Park (BNYIP). This Remedial Action Closure Report documents the investigative and remedial activities at the BNYIP - Substation C. The investigation and limited remedial action occurred over the course of 12 months, commencing September 1998 to September 1999. This Remedial Action Closure Report has been prepared to satisfy the requirements of the Remedial Action Contract No. 99-006.

All investigative and remedial actions described herein were conducted in accordance to the New York State Department of Environmental Conservation (NYSDEC)-approved Work Plan documents pursuant to the Voluntary Cleanup Agreement dated 5 May 1998. Remedial actions undertaken at the site were source removals (Interim Remedial Actions) meeting the requirements of the United States Environmental Protection Agency (USEPA) Toxic Substance Control Act (TSCA) Spill Policy for "limited Access" at industrial settings as defined in 40 CFR 761.120 Subpart G: PCB Spill Cleanup Policy.

The Remedial Action Closure Report for the BNYIP presents only the information generated during the investigation and remedial actions conducted at former Substation C. This report is organized into the following sections, site description, purpose & objectives, background, previous investigations, remedial scope of work, findings, conclusions and recommendations.

1.1 SITE DESCRIPTION

A site location map for the BNYIP is presented in Figure 1-1. The BNYIP is owned by the City of New York, is listed in the Borough of Kings, as Block 1, Lot 2023 on the New York City tax records. The two hundred thirteen (213) acre site is bounded on the East River to the north, Flushing Avenue to the south, Kent Avenue to the east, and Navy Street to the west. Within the BNYIP there are forty six buildings, nine open spaces, six dry docks and five piers which are zoned for heavy and light manufacturing (M3-1), and are leased to approximately two hundred small and mid-sized businesses. Currently, forty-seven acres are under the jurisdiction of the U.S. Navy. Other facilities located adjacent to the BNYIP are the New York City Department of Environmental Protection's Red Hook Water Pollution Control Plant site (18 acres), the Federal Bureau of Prisons site (5 acres), and the U.S. Army Corps of Engineers site (6 acres).

A Transformer Location Plan is presented in Figure 1-2. Former Substation C is located on the southeast corner of Dry Dock No. 4 as depicted on the Transformer Location Plan (Figure 1-2). At the time of the Phase II investigative sampling (September 1998), transformer decommissioning and previous building demolition activities had reduced former Substation C to above-grade concrete floor slabs and a subsurface concrete vault located on the south end of the remaining structure. All transformers and electrical wiring had been removed, and all above-grade concrete surfaces appeared to be in fair to good condition in most areas, with some limited areas of staining.

A plan view map showing the footprint of former Substation C and associated sampling locations is presented in Figure 1 of the attached

Foundation Plan – Sheet 1 (Rear Pocket). Photographs documenting the condition of former Substation C at the time of sampling, and associated sampling locations were appended to ERM's document entitled ***"Electrical Transformer Substation C Investigation, November, 1998".***

The subsurface vault appeared to be the final collection point of a spill containment system, comprised of three shallow troughs located beneath the former transformers located on the southern end of former Substation C. Each of the three shallow troughs were connected to the subsurface vault by a 4-inch drain and conduit located in the southern end of each trough. The drain conduits discharged to the subsurface vault through openings at the northern wall of the vault.

The subsurface vault was accessible through a man-way located at the eastern end of the vault. The vault was rectangular in shape, approximately 5 feet wide, 10 feet long, and 6 feet deep having a hard, confirmed concrete bottom. The concrete surfaces of the vault walls, ceiling and bottom had an epoxy coating and were covered with brown to tan gritty sediment. In addition, there was an approximately 18-inch thick layer of black organic sediment in the bottom.

1.2 PURPOSE & OBJECTIVES

The purpose of the Remedial Action Closure Report is to document the investigative and remedial actions activities undertaken at former Substation C of the BNYIP. The initial objectives of this project were to:

1. Identify areas where Polychlorinated Biphenyl (PCB) levels warrant remediation, and
2. Implement an Interim Remedial Measure (source removal) based on a soil clean-up level of 10 mg/kg for surficial soils, 25 mg/kg for subsurface soils, and concrete/pavement clean-up level 10-ug/100 cm^2 (or > l0 ug/100cm^2 with encapsulation).

The clean-up levels were determined by the NYSDEC, and are more conservative than those established for outdoor electrical substations with limited access (50 mg/kg for soil and 10 mg/100cm^2 for concrete). PCB-containing soil and debris removed from the site were disposed of in accordance with the provisions of 40 CFR Part 761, 261 and 6 NYCRR Part 361.

1.3 BACKGROUND INFORMATION

On 31 August 1998, BNYDC requested approval from the NYSDEC to implement the Phase II investigative and subsequent remedial actions at Substation C. This request was made to allow for the reconstruction of Substation C into the major electrical distribution plant. Reconstruction of Substation C was the first phase of the overall facility electrical upgrade project. NYSDEC approved the request made by BNYDC, with the addition of further soil sampling around the new building footprint, to take into account the larger project.

On 23 September 1998, ERM implemented the Phase II investigative activities for Substation C. The results of the Phase II investigation at Substation C were summarized in ERM's document entitled ***"Electrical Transformer Substation C Investigation, November, 1998".*** This report was submitted to NYSDEC on 18 November 1998, and copy of the cover letter for this submission to NYSDEC is provided in Appendix A. Information generated from the investigation used to identify and implement the Interim Remedial Measures (IRM) Scope of Work described in this report such that the electrical system construction project could progress at this location.

The NYSDEC provided comment on the aforementioned investigation report and requested an addendum the IRM Work Plan in a letter dated 3

December 1998 (a copy is provided in Appendix A). BNYDC responded to the 3 December 1998 NYSDEC Comment Letter in a letter dated 4 December 1998 which informed NYSDEC that IRM activities were scheduled to be performed during the week of 7 December 1998. The December 1998 Addendum No. 2 to the IRM Work Plan was enclosed with the letter. Copies of the 4 December 1998 BNYDC Response Letter and Addendum No. 2 are also provided in Appendix A. Section 2.0 of this report presents a summary of the previous investigation and remedial action recommended in the November 1998 Investigation Report.

2.0 SUBSTATION C INVESTIGATION

2.1 OBJECTIVES AND OVERVIEW

The primary objective of the Electrical Transformer Substation C Investigation was to assess whether past spills or leaks have impacted surrounding concrete containment structures and/or soil quality at this former electrical transformer area where regulated PCB oil containing electrical transformers were historically located.

The investigative Scope of Work employed the use of both quantitative field analytical technology in combination with off-site confirmatory laboratory analysis. In particular, the transformer area component of the investigation used quantitative immunoassay field screening test kits approved by NYSDEC, and are accepted by the USEPA (SW-846 Method 4020). The investigation included the collection of:

- 29 Wipe samples from the above-grade concrete slab surfaces;
- 4 Wipe samples from within the subsurface vault;
- 2 Sediment samples from within the subsurface concrete vault; and
- 4 Surficial soil samples surrounding the former building footprint.

The sample locations, analytical results and corresponding recommended remedial action are summarized in the following sections.

2.2 CONCRETE SURFACE WIPE SAMPLING

2.2.1 *Analytical Methods and Comparative Standards*

During the investigation of former Substation C, two types of concrete surface wipe samples were collected:

1. Initial concrete wipe samples for quantitative immunoassay field analysis to be performed on-site; and

2. Confirmatory or characterization concrete wipe samples for analysis by an off-site laboratory.

The majority of the PCB concrete wipe sample analyses were performed using an on-site quantitative field immunoassay analysis technique (Ohmicron RaPID Assay) by USEPA Method 4020. Based on the results of the immunoassay field analysis, confirmatory wipe samples were collected at a rate of approximately 30% for PCB analysis at an off-site analytical laboratory to allow for statistical analysis of the quantitative field method, and to ensure precision and accuracy.

All concrete surface wipe samples from the subsurface vault and the confirmatory wipe samples from the above-grade concrete surfaces were submitted to an off-site laboratory for PCB analysis by using NYSDEC Analytical Services Protocol (ASP) Contract Laboratory Program (CLP) Method 95-3 (Modified-PCBs only).

In accordance with the NYSDEC-approved January 1997 Final Work Plan, the comparative cleanup objective used in the evaluation of concrete surface wipe sample analytical results is 10-ug/100 cm^2. This standard is consistent with the USEPA TSCA Spill Policy Guidelines for "limited access" industrial settings which stipulate a cleanup objective for concrete/pavement surfaces of 10-ug/100 cm^2 in accordance with the requirements of 40 *CFR 761.120 Subpart G-PCB Spill Cleanup Policy.*

2.2.2 *Above-grade Concrete Wipe Samples*

A total of 23 initial above-grade concrete surface wipe samples (WPs 1 – 23) were collected from the former Substation C transformer concrete pad surfaces at sample locations depicted in previously presented Figure 1 of Sheet 1 to determine the presence, or verify the absence of PCBs on these surfaces. In addition, one blank wipe sample (Blank) was collected for quality assurance/quality control (QA/QC) purposes. All 23 initial wipe samples (WPs 1 – 23) and the one blank wipe sample were analyzed on-site by an experienced ERM chemist specifically trained by the immunoassay test kit manufacturer.

A total of six initial wipe sample locations (30%) were selected for collection of confirmatory wipe samples based on the results of the immunoassay field screening test kit analysis. Confirmatory wipe sample locations WPs 02A, 09A, 16A, 17A, 18A, 22A, and one blank wipe sample were selected for off-site analysis at a rate of approximately 30%.

Initial and confirmatory wipe samples WP-09 and WP-09A contained detected concentrations of PCBs of 20.8 ug/100 cm^2 and 73 ug/100 cm^2, respectively. In addition, PCBs were detected in initial wipe sample WP-16 at a concentration of 5.4 ug/100 cm^2; however, the detected concentration of PCBs in confirmatory sample WP-16A was 28 ug/100 cm^2.

The detected PCB concentrations in concrete surface wipe samples WP-09/09A and WP-16 A indicated the presence of PCBs on these concrete surfaces in excess of the 10-ug/100 cm^2 cleanup objective. Therefore, the investigation report recommended cleaning of the concrete surfaces in the vicinity of these sample locations. All other initial and confirmatory transformer concrete surface wipe samples were either undetected or below the site-specific PCB cleanup objective of 10-ug/100 cm^2, and no further action was required.

2.2.3 *Subsurface Concrete Vault Concrete Wipe Samples*

Concrete wipe samples WPs 24 – 27 were collected from the north, east, south and west walls of the subsurface vault. Each of the four concrete wall wipe samples was collected at locations approximately one-third the way up the wall from the bottom of the vault.

Detected concentrations of PCBs in all four samples exceeded the 10-ug/100 cm^2 cleanup objective ranging from 160 (WP-24) to 1,600 ug/100 cm^2 (WP-25). The analytical results of the concrete surface wipe samples indicated the presence of PCBs within the subsurface vault at concentrations warranting remedial action. Therefore, the investigation report recommended cleaning of all concrete surfaces within the subsurface concrete vault.

2.3 SUBSURFACE VAULT SEDIMENT SAMPLING

During the Substation C investigation, sediment samples were collected from within the subsurface concrete vault for PCB analysis. Analytical results for PCBs in the sediment samples were evaluated using the site-specific industrial cleanup objectives as set forth in the NYSDEC-approved January 1997 Final Work Plan. These objectives were maximum concentrations of PCBs of:

- 10 mg/kg PCBs in the first 12 inches of soil; and
- 25 mg/kg PCBs for soil depths greater than 12 inches.

These cleanup objectives are consistent with the recommendations of the New York State Department of Health, and in accordance with EPA 540/G-90/007. The sediment sample analytical results and corresponding recommended remedial action are discussed below.

A total of two sediment samples (SS-01 and SD-01) were collected from the subsurface vault located at the southern end of former Substation C. Sediment sample SS-01 was collected from the layer of black organic sediment in the bottom of the subsurface vault. Sediment sample SD-1 was collected from the brown to tan sediment and grit adhered to the south wall of the subsurface vault. Both samples were submitted to an off-site laboratory for PCB analysis by NYSDEC ASP CLP Method 95-3 (Modified-PCBs only).

Analytical results of subsurface vault sediment samples SS-01, SS-02 (a blind duplicate of SS-01), and SD-01 indicated detected concentrations of PCBs in all three samples at concentrations ranging between 2,100 and 5,300 mg/kg. The analytical results of the concrete surface wipe samples (Section 2.2.3), the bottom and wall sediment samples indicated the presence of PCBs within the subsurface vault at concentrations warranting remedial action. Therefore, the investigation report recommended that all sediments adhered to the walls and in the bottom of the subsurface concrete vault be removed and disposed of in accordance with all federal, state, and local regulations. All concrete surfaces within the subsurface concrete vault would then be cleaned using an appropriate remedial technology such as power washing with appropriate cleaning agent and/or scarification.

2.4 SURFICIAL SOIL SAMPLES

During the Substation C investigation, surficial soil samples were collected from each of the four sides of former Substation C to be analyzed for Target Compound List (TCL) organics and Target Analyte List (TAL) inorganics.

Analytical results for PCBs in the soil samples were evaluated using the site-specific industrial cleanup objectives as set forth in the NYSDEC-approved January 1997 Final Work Plan (10 mg/kg PCBs in the first 12 inches; and

25 mg/kg PCBs for soil depths greater than 12 inches).

Analytical results for all other detected compounds in the surficial soil samples were evaluated using the NYSDEC's compound-specific Recommended Soil Cleanup Objectives (RSCOs) which are numerical guidance values established in NYSDEC Technical Assistance Guidance Memorandum (TAGM) No. HWR-94-4046. In addition to the contaminant-specific numerical RSCOs, the NYSDEC also applies a maximum value for the following classes of compounds:

- Total Volatile Organic Compounds (TVOCs) less than or equal to 10 mg/kg;
- Total Semi-VOCs less than or equal to 500 mg/kg;
- Individual Semi-VOCs less than or equal to 50 mg/kg; and
- Total Pesticides less than or equal to 10 mg/kg.

The surficial soil sample locations, analytical results and recommended actions are discussed below.

2.4.1 *Initial Surficial Soil Characterization Sampling*

Surficial soil samples SS-03, SS-04, SS-05, SS-06 were collected from the top 6-inches of soil on the north, east, south and west sides of former Substation C, respectively. All four soil samples were submitted to an off-site laboratory for Target Compound List (TCL) organics and Target Analyte List (TAL) inorganics (TCL/TAL) analysis by NYSDEC ASP CLP methods.

Analytical results of surficial soil samples SS-03, 04, 05, 06 indicated the presence of some semi-VOC CPAHs and metals (Arsenic, Beryllium, Cadmium, Chromium, Lead, Mercury, Nickel and Zinc) in exceedence of NYSDEC RSCOs and/or published eastern United States background values.

The NYSDEC RSCOs cleanup levels were used in the absence of any other applicable, or relevant and appropriate soil cleanup requirements. However, the investigation report stated that the use of RSCOs is considered highly conservative, and not necessarily appropriate for a comparative basis at the BNYIP since:

1) The RSCOs were derived to be applicable to remediation at residential sites where the identified sensitive receptors are children between the ages of one and six;
2) Most of the BNYIP is constructed on historic fill and will remain as an industrial property;
3) The identified receptors are adults;
4) The nature and extent of these compounds are comparable to other areas studied at the BNYIP representing general quality of historic fill at this site, and not hot spot occurrences, and;
5) The former Substation C site is scheduled for construction of a new electrical substation, the new foundation of which, shall act as a "cap" mitigating future exposure to soils in the area.

Consequently, the investigation report concluded that no further action was warranted for the surficial soils surrounding former electrical transformer Substation C.

2.4.2 *Additional Surficial Soil Sampling*

The 3 December 1998 NYSDEC Comment Letter regarding the investigation report directed BNYDC to conduct additional surficial soil sampling due to the elevated metal concentrations in the initial characterization samples. Specifically, NYSDEC requested that BNYDC collect additional surficial soil samples at the locations of soil samples SS-06 (north), SS-04 (south), and SS-05 (west) for Toxicity Characteristic Leaching Procedure (TCLP) metal analysis. In response to the 3 December 1998 NYSDEC Comment Letter, BNYDC directed the ERM to collect additional surficial soil samples on north (SS-06A), south (SS-04A), and west-side (SS-05A) of the substation for TCLP metal analysis. The additional surficial soil samples were collected by ERM on 9 December 1998 for TCLP metal analysis.

2.4.3 *Additional Surficial Soil Sample Analytical Results*

The results of the TCLP metal analysis were presented in Addendum No. 2 (December 1998) to the IRM Work Plan that was requested in 3 December 1998 NYSDEC Comment Letter. The TCLP metal analytical results are presented in Table 2-1 alongside the TAL analytical results for the three corresponding samples for comparative purposes.

The additional surficial soil sampling TCLP metal analyses results (soil samples SS-04A, SS-05A, and SS-06A) indicate that the soil is characterized as non-hazardous. A comparison of the metal concentration results between TAL and TCLP demonstrate that the metals identified are relatively insoluble, dependent upon the metal species, thus limiting the potential for ground water impact. Furthermore, TCLP chemical extraction methods are generally designed to recover the total, rather than the bioavailable (bio-accessible), contaminants making the TCLP a conservative characterization technique. Based on the aforementioned, no remedial action is warranted. Furthermore, as part of the construction scope of work for this area, the site will be capped by construction of the concrete foundation and paving around the substation (see Sheet 1, Figure 3 - Proposed Ground floor and Foundation in the Rear Pocket). Capping of the Substation C will consist of 2.5 ft. compacted sand or gravel with an additional 1.0 ft concrete foundation. The capping (fill and foundation) will act as cap to mitigate human exposure to soils in this area (see Sheet 1, Figure 4 - Proposed Foundation Section)

3.0 REMEDIAL SCOPE OF WORK

3.1 OBJECTIVES

The objectives of the Interim Remedial Measures (IRM) performed at a former Substation C were to:

1) Remove all sediments within the subsurface concrete vault containing PCB concentrations in excess of the site-specific industrial cleanup objective of 10 ppm for PCBs in soil and sediment as established in the NYSDEC-approved Final Work Plan;
2) Mitigate PCB contaminant concentrations on the above ground concrete slab surfaces, and on the subsurface concrete vault surfaces in excess of the cleanup objective of 10-ug/100 cm^2 for concrete/pavement surfaces. This cleanup objective was set forth in the NYSDEC-approved Final Work Plan, and is consistent with the USEPA TSCA Spill Policy Guidelines for "limited access" industrial settings as defined in the requirements of 40 *CFR 761.120 Subpart G-PCB Spill Cleanup Policy*.

In the event that the IRM activities were unsuccessful in reducing concrete surface PCB concentrations to < 10ug/100 cm^2, the provisions of 40 *CFR 761.30 (p) – Authorizations (29 June 1998)* allow for the continued use of such surfaces for the remainder of their useful life provided that certain conditions defined therein are met. Accordingly, the IRM Scope of Work was adjusted to provide contingency such that these conditions were met in the event that concrete surface PCB concentrations > 10ug/100 cm^2 were still present after two cleaning events.

3.2 IRM SCOPE OF WORK OVERVIEW

The IRM activities were identified in the December 1998 Addendum No. 2 to the IRM Work Plan prepared and submitted in response to the 3

December 1998 NYSDEC Comment Letter. These activities were approved by the NYSDEC and the IRMs are depicted in Figure 2 of attached Sheet 1: Foundation Plan (Rear Pocket). Remediation activities commenced on 10 December 1998, and were concluded on 22 March 1999. The IRM activities included:

- Removal of all sediments from the subsurface vault;
- Surficial surface cleaning of concrete surfaces using the double wash/rinse procedure referenced above;
- Post-remedial sampling to determine if the remedial objectives had been attained;
- Encapsulation and marking of any concrete surfaces not meeting the remedial objectives after the double wash/rinse procedure and scarification as referenced above;
- Collection, characterization and disposal of all sediments, rinseate/washing solutions, scarified material, and remediation residuals (e.g. spill pads, personal protective equipment, etc.) in accordance with Federal and State regulations.

On 10 & 11 December 1998, EnviroClean-Northeast (ERM's remedial construction division) initiated IRM activities at former Substation C. During this initial phase, Enviroclean cleaned out the former Substation C subsurface vault, and performed concrete surface cleaning of the vault interior and associated drain/conduits, and the above-grade existing foundation concrete surfaces. Photographs of the IRM activities are presented in Appendix B.

The following sections describe the implementation of the IRM activities, the findings, and if required, any final measures employed to achieve the remedial objectives.

3.3 ABOVE-GRADE CONCRETE SURFACE CLEANING

The Electrical Transformer Substation C Investigation identified two areas of the existing above-grade foundation concrete surfaces where concrete wipe samples (WP-09/09A and WP-16A) exceeded the 10-ug/100 cm^2 cleanup objective. Accordingly, cleaning of the concrete surfaces in the vicinity of these samples was required. These areas were conservatively estimated to be a total of 130 square feet area, located at former Transformer No.'s 6410021 and 6410020.

On 10 & 11 December 1998, above-grade existing foundation areas of previous concrete surface wipe samples WP-09/09A and WP-16A were cleaned by EnviroClean-Northeast. In the subject areas requiring remediation, all loose sediment was removed from concrete surfaces and contained for proper disposal. All concrete surfaces were cleaned twice by power washing and scrubbing (double wash/rinse procedure) with a water-based degreasing agent (Simple Green ®). All rinseate/washing solutions and sediments were collected in drums, segregated, and staged temporarily for characterization and waste classification, prior to disposal.

On 11 December 1998, ERM collected post-remediation concrete wipe samples to evaluate the effectiveness of the cleaning procedures. The samples were immediately analyzed for PCBs using the immunoassay test kits because ERM was already on-site performing concrete wipe sampling and analyses for PCBs at other electrical substations within the BNYIP. The analytical results of the post-remediation wipe samples are discussed in Section 3.6.1.

3.4 SUBSURFACE VAULT SEDIMENT REMOVAL

The subsurface concrete vault (approximately 10' long x 5' wide x 6' high) associated with the former Substation C contained PCB contaminated sediment requiring removal and disposal. Analytical results of sediment samples (SS-01, SS-02 and SD-01) collected from the walls, and within the bottom of the vault indicated that PCB concentrations exceeded both the site-specific cleanup objective of 10 ppm, and hazardous waste characteristic regulatory level of 50 ppm for PCB's. Accordingly, removal of all sediments from the vault was required due to the PCB levels in excess of both the federal and state standards for hazardous wastes and/or established cleanup objectives for PCB's.

On 10 & 11 December 1998, EnviroClean-Northeast cleaned all sediments out the former Substation C subsurface vault and associated drain/conduits using following procedures. All loose sediment was removed by from the walls of the vault and the 4-inch drains/conduits running between the vault and the collection troughs by scraping and power washing with a water-based degreasing agent (Simple Green ®). All rinseate/washing solutions and the bottom sediments were subsequently removed from the vault using a vactor truck and power drum equipment configuration to mitigate dust emissions. These materials were collected in DOT-approved 55-gallon drums, segregated, and staged temporarily for characterization and waste classification, prior to disposal.

3.5 SUBSURFACE VAULT CONCRETE SURFACE CLEANING

During the Electrical Transformer Substation C Investigation, characterization concrete wipe samples WPs 24 - 27 were collected from the north, east, south and west walls of the subsurface vault, respectively. All four samples indicated concrete surface PCB contamination on the vault walls at concentrations in excess of the 10-ug/100 cm^2 cleanup objective. Accordingly, cleaning of the subsurface vault interior surfaces and 4-inch drain/conduits was required subsequent to sediment removal activities. The interior of the vault represented an approximate area of 250 square feet.

On 10 & 11 December 1998, EnviroClean-Northeast performed concrete surface cleaning of the vault interior and associated drain/conduits (after sediment removal) using the double wash/rinse procedure on the subject concrete surfaces. All loose sediment was removed from concrete surfaces and contained for proper disposal during the previous sediment removal activities. All concrete surfaces were cleaned twice by power washing and scrubbing with appropriate cleaning agent (Simple Green ®). All rinseate/washing solutions and sediments were collected in drums, segregated, and staged temporarily for characterization and waste classification, prior to disposal.

On 11 December 1998, ERM collected post-remediation concrete surface wipe samples from the subsurface concrete vault after sediment removal and double wash/rinse activities were completed by EnviroClean-Northeast to evaluate the effectiveness of the cleaning procedures. The post-remediation concrete wipe samples were collected from the locations of characterization concrete wipe samples WPs 24 - 27 (collected from the north, east, south and west walls of the subsurface vault approximately one-third the way up the wall from the bottom of the vault).

The post-remediation concrete surface wipe samples were immediately analyzed for PCBs using the immunoassay test kits because ERM was already on-site performing concrete wipe sampling and analyses for PCBs at other electrical substations within the BNYIP. The analytical results of the post-remediation wipe samples are discussed in Section 3.6.1.

In summary, the post-remediation wipe samples indicated that the double wash/rinse activities had significantly reduced concrete surface PCB concentrations, but not less than the 10-ug/100 cm^2 cleanup objective.

Therefore, BNYDC directed EnviroClean-Northeast to scarify all concrete surfaces within the subsurface concrete vault in an attempt to further reduce PCB concentrations on the remaining concrete surfaces.

On 29 December 1998, EnviroClean-Northeast re-mobilized to the BNYIP and scarified the ceiling, walls, and floor of the subsurface concrete vault associated with former Substation C using a pneumatic needle gun. ERM subsequently collected two post-scarification concrete wipe samples from each of the four walls of the subsurface vault and one sample from the floor. The post-scarification wall wipe samples were collected from approximately one-third and two-thirds the way up the wall from the bottom of the vault. All post-scarification concrete surface wipe samples collected from the subsurface vault were submitted to an off-site laboratory for PCB analysis were analyzed by NYSDEC ASP CLP Method 95-3 (Modified-PCBs only). The analytical results of the post-scarification concrete wipe samples are discussed in Section 3.6.2.

3.6 VERIFICATION SAMPLE ANALYSIS & RESULTS

Following the completion of IRM sediment removal and concrete surface cleaning activities, verification concrete wipe samples were collected using standard wipe sample procedures. The verification wipe sampling was conducted to determine whether concrete surface PCB concentrations had been reduced to the <10-ug/100 cm^2 cleanup objective.

If the analytical results of a verification sample for any area indicated that contaminants were >10-ug/100 cm^2, then the area represented by that sample was scarified (Section 3.5) and sampled a second time using standard wipe sample collection procedures.

If the samples indicated that PCB concentrations were still >10-ug/100 cm^2 after scarification of the concrete surfaces, then the concrete surface was encapsulated and marked as described in Section 2.2.6.

3.6.1 Immunoassay Analysis & Results

All concrete surface verification wipe samples collected after the first concrete cleaning event were analyzed using an on-site quantitative immunoassay analysis technique (Ohmicron RaPID Assay) by USEPA Method 4020. The methods employed for the collection and analyses concrete surface wipe verification samples were identical to those procedures used for the characterization sampling described in the Electrical Transformer Substation C Investigation Report.

Analytical results of the post-remediation concrete wipe samples associated with the above-grade concrete surfaces, and from the walls of the subsurface vault are presented in Table 3-1 along with the pre-remediation concrete wipe samples collected from the same corresponding locations for on-site immunoassay and/or off-site laboratory analyses.

The analytical results of the post-remediation samples collected from previous concrete surface wipe samples WP-09/09A and WP-16A indicated that the concrete surface cleaning successfully reduced surface PCB concentration to less than the 10-ug/100 cm^2 cleanup objective. Therefore, no further remediation of the existing above-grade concrete surfaces was required.

The analytical results of the post-remediation samples collected from previous concrete surface wipe samples WPs 24 - 27 indicated that the concrete surface cleaning procedures had successfully reduced surface PCB concentrations by one or two orders of magnitude depending on sample location. However, the concrete surface cleaning procedures had not reduced concrete surface PCB concentrations to less than the 10-ug/100 cm^2 cleanup objective. Therefore, BNYDC directed EnviroClean-Northeast to scarify all concrete surfaces within the subsurface concrete vault in an attempt to further reduce PCB concentrations on the remaining concrete surfaces.

3.6.2 *Off-Site Laboratory Analysis & Results*

All concrete surface verification wipe samples collected from the subsurface vault and submitted to an off-site laboratory for PCB analysis were analyzed by NYSDEC ASP CLP Method 95-3 (Modified-PCBs only).

Analytical results of the post-scarification concrete wipe samples collected from within the subsurface vault are presented in Table 3-1 along with the pre-remediation and post-remediation concrete wipe samples. The analytical results of the post-scarification samples indicated that scarification of the concrete surface had reduced surface PCB concentrations in some areas but not to less than the 10-ug/100 cm^2 cleanup objective. Therefore, BNYDC directed EnviroClean-Northeast to encapsulate all concrete surfaces within the subsurface concrete vault in accordance with requirements of 40 *CFR 761. 30 (p) – Authorizations (29 June 1998).*

3.7 *ENCAPSULATION & MARKING OF CONCRETE SURFACES*

The provisions of 40 *CFR 761.30 (p) – Authorizations (29 June 1998)* permit the continued use of surfaces having PCB concentrations >10ug/100 cm^2 for the remainder of their useful life provided that certain conditions defined therein are met. The requirements of 40 *CFR 761.30 (p) – Authorizations (29 June 1998)* include the following conditions:

a) The source of PCB contamination is removed;
b) The surface is given a superficial surface cleaning whereby the double wash/rinse procedure as defined in 40 *CFR 761.360 –*

Subpart S-Double Wash/Rinse Method for Decontaminating Non-Porous Surfaces (29 June 1998);

c) The treated surface is allowed to dry for 24 hours;

d) The surfaces are completely encapsulated with two solvent resistant and water repellent coatings of contrasting colors to allow for a visual indication of wear through or loss of outer coating integrity; and

e) The encapsulated surface is marked with the M_L Mark (40 *CFR 761.45 – Marking Formats)* in a location easily visible to individuals present in the area; and the M_L Mark shall be replaced when worn or illegible.

On 5 & 8 February 1999, EnviroClean-Northeast re-mobilized to the BNYIP to apply two coatings of solvent resistant and water repellent encapsulant compound (epoxy resin barrier compound) in contrasting colors to the scarified concrete surfaces of the subsurface vault. The colors were white and gray to allow for a visual indication of wear through or loss of outer coating integrity.

Once the encapsulant coatings had dried, the subsurface vault was backfilled with clean fill, and the access man-way was sealed with a steel plate which was permanently bolted to the existing concrete foundation. A M_L Mark (*40 CFR 761.45 – Marking Formats)* was then permanently affixed to the steel plate sealing the access man-way to the former subsurface vault. The steel plate sealing the access way is now located beneath a 1-foot thick cap compacted sands or gravel with an additional 6-inch thick new reinforced concrete foundation. The fill and foundation will act as cap to mitigate the potential for human exposure to former subsurface vault. (See Sheet 1, Figure 4 - Proposed Foundation Section in the Rear Pocket).

3.8 COLLECTION, CHARACTERIZATION, TRANSPORTATION & DISPOSAL OF PCB REMEDIAL WASTES

All waste materials, including sediment/soil, washing/rinseate solutions, and scarified material were contained in drums, sampled for waste characterization purposes, and disposed of in accordance with Federal and State regulations 40 CFR 761 & 261, and NYCRR Title 6 Part 361, respectively.

The IRM activities generated a total of 20 drums of waste materials. These included:

- 17 Drums of Sediments/Liquids removed from within the subsurface vault;
- 1 Drum of Decontamination fluids generated as a result of cleaning the subsurface vault concrete surfaces;
- 2 Drums of Decontamination fluids generated as a result of cleaning the above-grade concrete surfaces.

Waste materials including sediment/soil, washing/rinseate solutions, and scarified material were classified as hazardous or non-hazardous based upon full TCLP analysis for hazardous waste characteristics.

Transportation procedures for the hazardous waste complied with the hazardous waste manifest system (6 NYCRR 372), the transport requirements of the Hazardous Material Transportation Uniform Safety Act (49 CFR 171 through 179), and the waste transporter permit requirements. The waste materials were disposed of by via incineration in a permitted TSCA incinerator, or disposal within a permitted hazardous waste landfill, dependant upon the percent solids content of the sediment/soil. Copies of waste manifests and Certificates of Destruction are provided in Appendix C.

4.0 CONCLUSIONS AND RECOMMENDATIONS

All investigative and remedial actions (IRMs) were conducted in accordance with the New York State Department of Environmental Conservation approved Work Plan documents and addenda pursuant to the Voluntary Cleanup Agreement, 5 May 5 1998. Remedial actions undertaken at the site were source removals (Interim Remedial Measures) and were implemented meet the requirements of both the Voluntary Cleanup Agreement Work Plans and the USEPA TSCA Spill Policy as defined in 40 CFR 761.120 Subpart G - PCB Spill Cleanup Policy, 29 June 1998. Based on the aforementioned, no further investigatory or remedial actions are warranted at this site.

4.1 SURFICIAL SOIL SAMPLES

Analytical results of surficial soil samples SS-03, 04, 05, 06 indicate the presence of some semi-VOC CPAHs and metals (Arsenic, Beryllium, Cadmium, Chromium, Lead, Mercury, Nickel and Zinc) in exceedence of NYSDEC RSCOs and/or published eastern United States background values.

The NYSDEC RSCOs cleanup levels were used in the absence of any other applicable, or relevant and appropriate soil cleanup requirements. However, the RSCOs are highly conservative and not necessarily appropriate for a comparative basis at the BNYIP since:

1) The RSCOs were derived to be applicable to remediation at residential sites where the identified sensitive receptors are children between the ages of one and six;
2) Most of the BNYIP is constructed on historic fill and will remain as an industrial property;
3) The identified receptors are adults; and

4) The nature and extent of these compounds are comparable to other areas studied at the BNYIP representing general quality of historic fill at this site, and not hot spot occurrences.

The surficial soils at former Substation C do not pose a threat to human health and/or the environment. Therefore, no further action is proposed or warranted for the surficial soils surrounding former electrical transformer Substation C. This is based on the following facts:

1) The use of RSCOs is considered highly conservative and not necessarily appropriate for a comparative basis at the BNYIP;
2) TCLP analytical results reported that the soil is characterized as non-hazardous, and is therefore, not a hazardous waste;
3) TCLP results provide the total extractable concentration of contaminants, which are considered conservative to the bioavailable (bio-accessible) concentration of those contaminants. Furthermore, a comparison of the metal concentration results between TAL and TCLP demonstrate that the metals identified are relatively insoluble, dependent upon the metal species, thus limiting the potential for ground water impact;
4) Ground water from beneath the BNYIP may be characterized as saline to brackish and is not used for potable purposes; and
5) The construction of the new concrete foundation with fill and paving around the substation is complete and caps the area.

4.2 TRANSFORMER CONCRETE SURFACES

Analytical results of the post-remediation concrete wipe collected from the areas of previous concrete surface wipe samples WP-09/09A and WP-16A indicated that the concrete surface cleaning successfully reduced surface PCB concentration to less than the 10-ug/100 cm^2 cleanup objective. All IRM activities were performed in a manner consisted with the substantive requirements of 40 *CFR 761.120 Subpart G-PCB Spill Cleanup Policy,* the NYSDEC-approved January 1997 Final Work Plan, and the December 1998 Addendum No. 2 to the IRM Work Plan. Furthermore, the remediated concrete surfaces are now located beneath a 1-foot thick cap compacted sand or gravel with an additional 6-inch thick new reinforced concrete foundation. The fill and foundation will act as cap to mitigate the potential for human exposure to subsurface soils, and former concrete surfaces. Therefore, no further remediation of the existing above-grade concrete surfaces is warranted.

4.3 SUBSURFACE VAULT

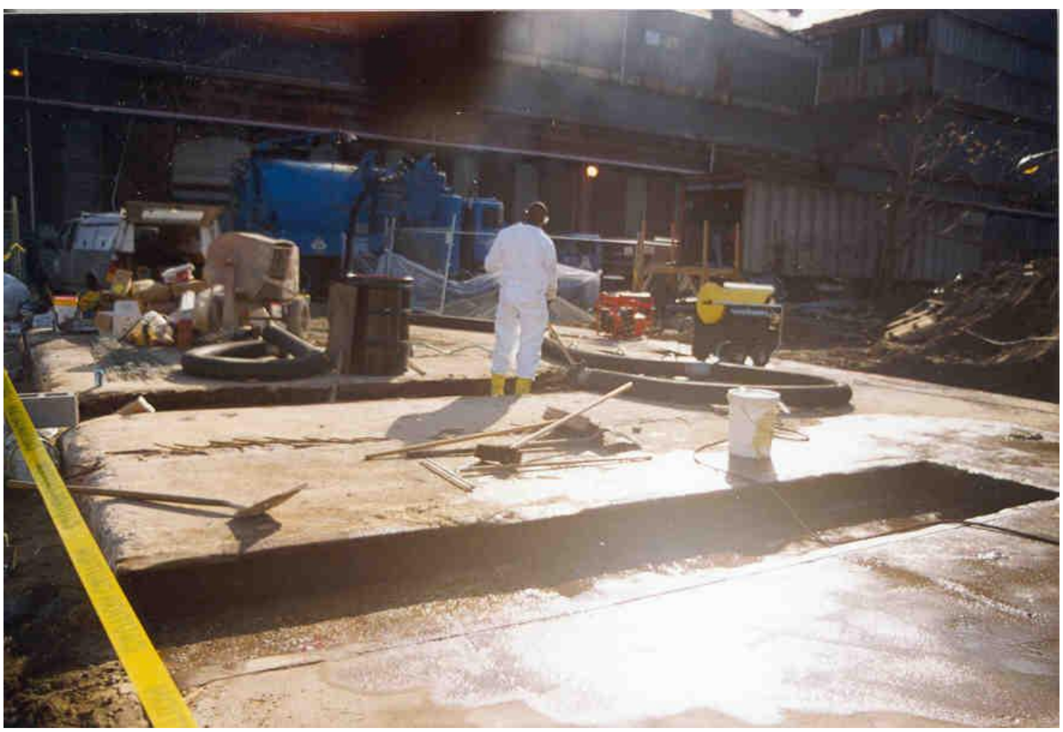
Reported analytical results for post-surficial cleaning concrete wipe samples within the vault demonstrated that surficial PCB concentrations had been significantly reduced by double washing and scarification of the concrete (IRMs). Areas within the vault with reported PCB levels in excess of the 10-ug/100 cm^2 cleanup objective were encapsulated with two coats of contrasting epoxy paint and marked in accordance with the requirements of 40 *CFR 761. 30 (p) – Authorizations (29 June 1998)* prior to back-filling the vault (capping).

The subsurface vault was backfilled with clean fill and the access man-way to was sealed with a steel plate which was permanently bolted to the existing concrete foundation. A M_L Mark (*40 CFR 761.45 – Marking Formats)* was then permanently affixed to the steel plate sealing the access man-way to the former subsurface vault. The steel plate sealing the access way is now located beneath a 1-foot thick cap of compacted sands or gravel with an additional 6-inch thick new reinforced concrete foundation. The fill and foundation will act as cap to mitigate the potential for human exposure to former subsurface vault. Therefore, no further remediation of the former subsurface vault concrete surfaces is warranted.

APPENDIX A

Photographs


CAUTION



APPENDIX B

Relevant Correspondence

APPENDIX C

Certificates of Destruction

Quay, 2012
Substation 9, Building 128 Remedial Report

Environmental & Marine Group

June 23, 2012

Mr. James Corley, Jr.
Vice President of Construction Management
Brooklyn Navy Yard Development Corporation
63 Flushing Avenue
Brooklyn, NY 11205

Re: Substation 9, Building 128 Complex Remedial Cleanup

Dear Mr. Corley Jr.:

This letter report documents the Remedial Actions undertaken at Susbtation 9, Building 128 Complex to cleanup Polychlorinated Biphenyls (PCB) contaminatants as part of the Remedial Action Work Plan (RAWP) requirements of the Brooklyn Navy Yard Development Corporation (BNYDC) Voluntary Cleanup Agreement (VCA Index No. 02-0001-97-08). Currently the building is scheduled for rehabilitation to develop a "Green Manufacturing" facility.

The specific scope of work of the rehabilitation has been provided to the New York State Department of Enviornmental Conservation (NYSDEC) Division of Remediation on May 20, 2012 to comply with the Notification requirements of the state-approved RAWP. Existing and recent soil sampling data were generated as part of this project are were used to assess potential impacts during limited subsurface work, which include repairing a failed grade beam along Morris Avenue, instalation of new piles interior of the building to support existing structural walls and the installation of new water mains entering the specific points around the building. In addition, removal and disposal of three (3) existing PCB transformers and cleanup of PCB impacted concrete was required as part of the RAWP.

On September 15, 2010, TCI Inc of New York the remedial contractor for this project drained PCB fluid from the three existing transformers located within the Substation 9 at Building 128 (see Figure 1). The fluids were transported to their permitted facility in Pell City, Alabama for incineration and metal recycling of the drums used to store and transport the oil. Copies of the Hazardous Waste manifests and Certificates of Disposal are proivded in Appendix A. Subsequently on March 3, 2012 TCI remobilized to the site to remove the three (3) transformers and remove the concrete containment pads on which these transformers and an additional 5 transformers were once located (See Figure 2). Copies of the Hazardous Waste manifests and Certificates of Disposal are proivded in Appendix B.

Previous sampling and analysis of the concrete containment pads indicated that PCB's had impacted the concrete pads with concentrations ranging from 28.4-4,600 ug/wipe-PCB (ERM Phase II, July 2002). To facilitate an expeditious cleanup the existing concrete containment structures were removed to grade, removing the impacted concrete down to existing soil grade. The impacted concrete was transported to Waste Management Inc at Model City, NY. A copy of the Certificate of Destruction is provided in Appendix C.

Confirmatory soil samples from beneath the concrete containment pads were collected to determine whether the PCB-impacts exist below the removed concrete containment pads. Nine (9) soil samples were collected from beneath the transformer concrete containment pads throughout the area. Soil samples were collected from surface depths of 0-1 feet below grade . Soil samples were transferred to laboratory clean sample jars and delivered to the NYSDOH ELAP certified laboratory (American Analytical Laboratory, NYSDOH 11418), under strigent Chain-of-Custody procedures. The laboratory analysed samples for NYSDEC Total Compound List PCB's, Semivolatile Organic Compounds and Target Analyte List (TAL Metals as requested by NYSDEC, using Analytical Service Protocols (ASP):

- Polychlorinated compounds using NYSDEC ASP CLP Method 95-3
- Target Analyte List (TAL) inorganics (23 Metals) using Contract Laboratory Protocol (CLP) Analytical Methods for Inorganics, Exhibit D, Part V (10/95), and
- Total Compound List for Semivolatile Organic Compounds using CLP Methodology 95-2.

To evaluate the nature and extent of potential contaminants the soil analytical results were compared to applicable New York State standards, criteria and guidance values. Specifically, the soil data results were compared to Restricted Residential and Commercial Use guidance of DEC 6NYCRR Part 375-3.8(b). In addition, regional published background ranges for soil quality were used to establish a baseline concentration and for comparative purposes. The standards, cleanup objectives, and background concentrations are provided in the summary tables.Metals detected in soil samples were also compared to natural background levels found in regional soils (Skacklette & Boerngensen, 1984).

Summary of Data:

Confirmatory soil sample data identified that the state Standards, Criteria, and Guidance criteria were achieved for the PCB cleannup of Substation 9, Building 128 complex.

Metal Analytes attained both Restricted Residential and Commercial Use Cleanup Objectives in the majority of the samples. Arsenic was elevated in three soil samples (SS01-SS03) marginally above the Commercial Cleanup Objectives Use but were within background ranges of Eastern United States survey and consistent with Urban Fill concentrations identified through the Brooklyn Navy Yard.

Semivolatile Organic Compounds identified several Polyaromatic Hydrocarbons that exceeded both Restricted Residnential and Commercial Use Cleanup objectives in three (3) samples (SS02, SS03 and SS05). These results reflect background concentrations of "Urban Fill" in soils at the Brooklyn Navy Yard. Specifically the use of cinder, ash and coal were used in the Urban Fill and have been identified throughout the facility which typically elevate PAH concentrations.

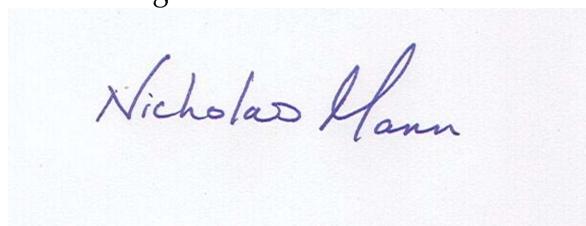
Polychlorinated Biphenyls were not detected in surface soils at Substation 9, Building 128 complex. The results were below 1 ppm-PCB for both Restricted Residential and Commercial Cleanup Objectives of the NYSDEC.

Conclusions & Recommendations:

Based upon the analytical results from Confirmatory Sampling (post remedy) indicates that there are no impacts from PCB's in underlying soils at Substation 9, Building 128 complex. Soil quaility is representative of established background levels "Urban Fill" at the the Brooklyn Navy Yard. Confirmatory soil sample data identified that the state Standards, Criteria, and Guidance criteria were achieved for the PCB cleannup of Substation 9, Building 128 complex. No further remedial actions are warranted.

Should you have any questions, please feel free to contact me at your earliest convenience.

Regards



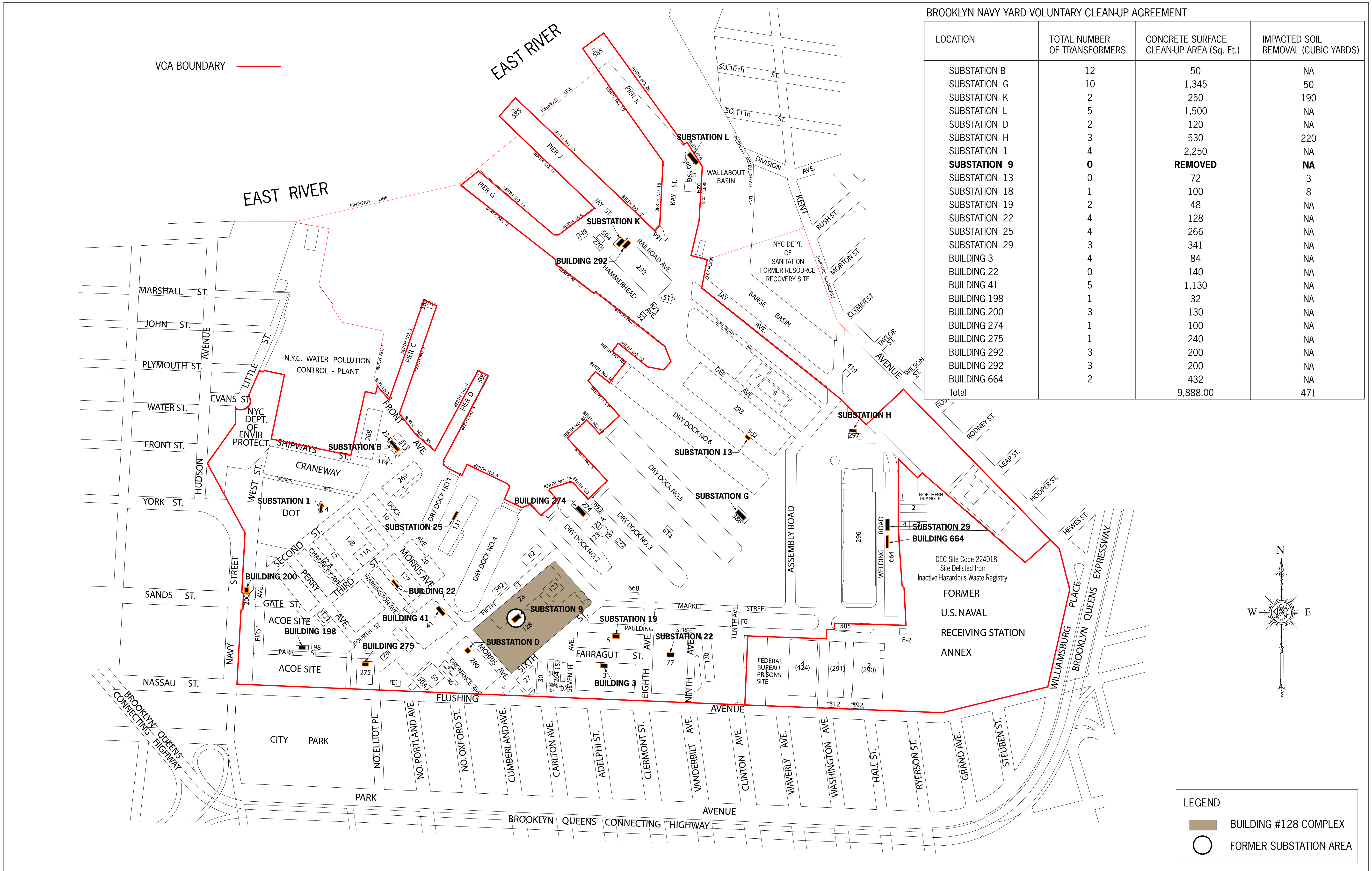
Nicholas Mann
Principal

Attachment(s)

Figures

BROOKLYN NAVY YARD VOLUNTARY CLEAN-UP AGREEMENT

LOCATION	TOTAL NUMBER OF TRANSFORMERS	CONCRETE SURFACE CLEAN-UP AREA (Sq. Ft.)	IMPACTED SOIL REMOVAL (CUBIC YARDS)
SUBSTATION B	12	50	NA
SUBSTATION G	10	1,345	50
SUBSTATION K	2	250	190
SUBSTATION L	5	1,500	NA
SUBSTATION D	2	120	NA
SUBSTATION H	3	530	220
SUBSTATION 1	4	2,250	NA
SUBSTATION 9	**0**	**REMOVED**	**NA**
SUBSTATION 13	0	72	3
SUBSTATION 18	1	100	8
SUBSTATION 19	2	48	NA
SUBSTATION 22	4	128	NA
SUBSTATION 25	4	266	NA
SUBSTATION 29	3	341	NA
BUILDING 3	4	84	NA
BUILDING 22	0	140	NA
BUILDING 41	5	1,130	NA
BUILDING 198	1	32	NA
BUILDING 200	3	130	NA
BUILDING 274	1	100	NA
BUILDING 275	1	240	NA
BUILDING 292	3	200	NA
BUILDING 292	3	200	NA
BUILDING 664	2	432	NA
Total		9,888.00	471



PROJECT:

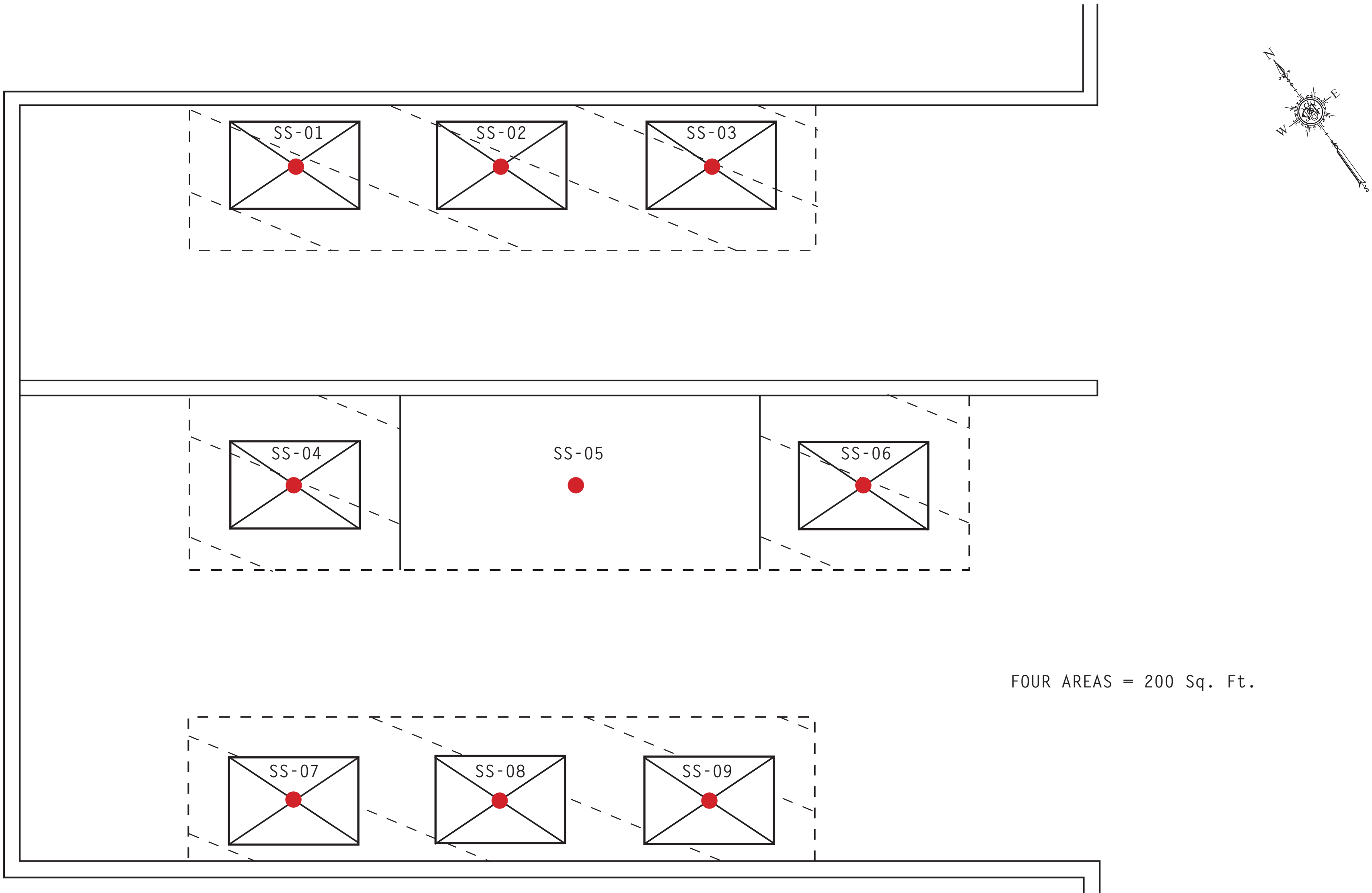
SUBSTATION #9
BUILDING #128 COMPLEX

DWN. BY RDW
CHK. BY NM
SCALE: 1" = 600'

Substation Plan- Building #128 Complex
BROOKLYN NAVY YARD DEVELOPMENT CORP.
Brooklyn Navy Yard, Brooklyn, NY 11205

QUAY CONSULTING, LLC

HYPACK TAG:
ANALOG # 062712
FIELD BOOK: N/A
DATE JUN. 27, 2012
LINE FILE: BNY 01
FIGURE NO. 1
BROOKLYN NAVY YARD DEVELOPMENT CORP.



LEGEND

SOIL SAMPLES LESS THAN 1 PPM- SURFACE SOIL CLEANUP OBJECTIVE

CONCRETE TRANSFORMER CONTAINMENT PADS REMOVED

TRANSFORMER REMOVED

LOCATION:
SUBSTATION #9
BUILDING #128 COMPLEX

DWN. BY RDW
CHK. BY NM
SCALE: N/A

Confirmatory Soil Sample Results - Building #128
BROOKLYN NAVY YARD DEVELOPMENT CORP.
Brooklyn Navy Yard, Brooklyn, NY 11205

QUAY CONSULTING, LLC

HYPACK TAG:
ANALOG # 062712002
FIELD BOOK: N/A
DATE JUN. 27, 2012
LINE FILE: BNY002
FIGURE NO. 2
BROOKLYN NAVY YARD

Analytical Summary Tables

Table 1.0. Summary of Metals in Soil Samples
Transformer Remediation, Building 128

Metal Analytes (Concentration in mg/kg)	Unrestricted Use Soil Cleanup Objectives (mg/kg)	Restricted Commercial Soil Cleanup Objectives (mg/kg)	Eastern US Element Conc. in Soils (Shacklette) (mg/kg)	SS-01 0809050-01 4/10/12 (mg/kg)	SS-02 0809050-02 4/10/12 (mg/kg)	SS-03 0809050-03 4/10/12 (mg/kg)	SS-04 0809050-04 4/10/12 (mg/kg)	SS-05 0809050-05 4/10/12 (mg/kg)	SS-06 0809050-06 4/10/12 (mg/kg)	SS-07 0809050-07 4/10/12 (mg/kg)	SS-08 0809050-08 4/10/12 (mg/kg)	SS-09 0809050-09 4/10/12 (mg/kg)
Aluminum	SB	SB	7,000 -100,000	721	2640	5330	3990	3430	3300	389	2070	3600
Antimony	SB	SB	<1 - 8.8	0.528 U	0.577 U	0.531 U	0.529 U	2.40	0.559 U	0.541 U	0.501 U	0.498 U
Arsenic	13	16	<0.1 - 73	23.8	51.0	19.4	9.00	4.30	5.49	13.7	5.73	12.8
Barium	350	400	10 - 1,500	29.3	259	56.2	43.2	44.4	43.2	23.8	15.9	23.4
Beryllium	7.2	590	<1 - 7	0.423 U	0.462 U	0.425 U	0.423 U	0.481 U	0.447 U	0.433 U	0.401 U	0.399 U
Cadmium	2.5	9.3	NA	0.334	0.501	0.319 U	0.317 U	0.361 U	0.414	0.324 U	0.301 U	0.320
Calcium	SB	SB	100 - 280,000	1180	611	5620	27300	41600	44100	224	75200	46900
Chromium	30	1,500	1 - 1,000	5.08	10.6	16.8	12.7	11.3	15.3	3.62	5.00	17.7
Cobalt	30 or SB	SB	<0.3 - 70	0.423 U	0.462 U	0.425 U	0.423 U	0.481 U	0.447 U	0.433 U	0.401 U	0.399 U
Copper	50	270	<1 - 700	3.95	21.5	57.0	38.4	44.5	68.6	1.84	36.9	28.6
Iron	2,000 or SB	SB	100 - 100,000	13000	24200	23400	12800	8730	15100	11700	8420	12400
Lead	63	1,000	<10 - 300	36.2	139	88.7	65.2	83.9	107	20.3	27.1	37.9
Magnesium	SB	SB	50 - 50,000	381	785	1570	8980	2660	3690	108	28900	17600
Manganese	1,600	10,000	<2 - 7,000	50.8	75.6	142	210	103	132	39.9	108	168
Mercury	0.18	2.8	0.01 - 3.4	0.0694	0.251	0.214	0.256	0.0382	0.0746	0.0532	0.0772	0.167
Nickel	30	310	<5 - 700	3.34	7.19	15.8	12.7	19.4	21.2	2.70	6.20	31.3
Potassium	SB	SB	50 - 37,000	473	908	1130	978	735	769	459	890	986
Selenium	3.9	1,500	<0.1 - 3.9	3.97	2.84	1.48	0.529 U	0.601 U	0.601	2.60	0.501 U	0.498 U
Silver	2	1,500	NA	0.423 U	0.149 J	0.425 U	0.423 U	0.481 U	0.447 U	0.433 U	0.401 U	0.399 U
Sodium	SB	SB	<500 - 50,000	138	259	148	179	322	347	148	129	158
Thallium	SB	SB	2.2 - 23	0.528 U	0.577 U	0.531 U	0.529 U	0.601 U	0.559 U	0.541 U	0.501 U	0.498 U
Vanadium	SB	SB	<7 - 300	10.4	23.7	22.7	15.6	11.3	15.3	7.47	12.0	11.8
Zinc	109	10,000	<5 - 2,900	8.65	53.4	88.3	90.6	265	239	5.56	79.0	74.2
% Total Solids	% Solids			8.67	14.4	11.2	6.92	18.4	11.9	7.90	5.52	6.41

Qualifiers:
mg/kg - Milligram per kilogram
U - Not detected; instrument detection limit shown
B - Analyte Found in associated blank as well as sample
SB - Site Background
*- Background levels of lead vary widely. Average background levels in metropolitan and suburban areas average 200 - 500 ppm
** - Site specific condition should be taken into consideration when establishing clean up levels
Scacklette, HT and JG Boerngen, 1984. *"Element Concentration in Soils and other Surficial Materials of the Conterminus United States, USGS Professional Paper 1270."*

Exceeding Unrestricted Use Soil Cleanup Objectives (375-6.8)

Exceeding Restricted Commercial Use Soil Cleanup Objectives

Table 1.2. Summary of Semivolatile Organic Compounds in Soil Samples
Transformer Remediation, Building 128

Semivolatile Compounds (Concentration in ug/kg)	Unrestricted Use Soil Cleanup Objectives (ug/kg)	Restricted Commercial Soil Cleanup Objectives (ug/kg)	SS-01 0809050-01 4/10/12 (ug/kg)	SS-02 0809050-02 4/10/12 (ug/kg)	SS-03 0809050-03 4/10/12 (ug/kg)	SS-04 0809050-04 4/10/12 (ug/kg)	SS-05 0809050-05 4/10/12 (ug/kg)	SS-06 0809050-06 4/10/12 (ug/kg)	SS-07 0809050-07 4/10/12 (ug/kg)	SS-08 0809050-08 4/10/12 (ug/kg)	SS-09 0809050-09 4/10/12 (ug/kg)
Phenol	330	500,000	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
bis(2-Chloroethyl)ether	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
2-Chlorophenol	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
1,3-Dichlorobenzene	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
1,4-Dichlorobenzene	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
1,2-Dichlorobenzene	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
2-Methylphenol	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
bis(2-Chloroisopropyl)ether	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
3,4-Methylphenol	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
N-Nitrosodi-n-propylamine	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
Hexachloroethane	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
Nitrobenzene	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
Isophorone	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
2-Nitrophenol	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
2,4-Dimethylphenol	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
bis(2-Chloroethoxy)methane	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
2,4-Dichlorophenol	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
1,2,4-Trichlorobenzene	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
Naphthalene	12,000	500,000	130 U	890	130 U	410	1900	260	130	100 J	150
4-Chloroaniline	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
Hexachlorobutadiene	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
4-Chloro-3-methylphenol	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
2-Methylnaphthalene	-	-	130 U	340	120 J	660	1600	420	420	110 J	110 J
Hexachlorocyclopentadiene	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
2,4,6-Trichlorophenol	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
2,4,5-Trichlorophenol	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
2-Chloronaphthalene	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
2-Nitroaniline	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
Dimethylphthalate	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
Acenaphthylene	100,000	500,000	130 U	220	130 U	120 U	150 U	130 U	130 U	120 U	120 U
2,6-Dinitrotoluene	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
3-Nitroaniline	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
Acenaphthene	20,000	500,000	130 U	700	130 U	120 U	5800	130 U	130 U	120 U	120 U
2,4-Dinitrophenol	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
4-Nitrophenol	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
Dibenzofuran	-	-	130 U	960	92 J	190	2100	210	210	120 U	120 U
2,4-Dinitrotoluene	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
Diethylphthalate	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
4-Chlorophenyl phenylether	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
Fluorene	30,000	500,000	130 U	930	130 U	120 U	6500	130 U	130 U	120 U	120 U
4-Nitroaniline	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
4,6-Dinitro-2-methylphenol	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
N-Nitrosodiphenylamine	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
4-Bromophenyl phenyl ether	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
Hexachlorobenzene	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
Pentachlorophenol	800	6,700	130 U	140 U	1200	120 U	150 U	130 U	130 U	120 U	120 U
Phenanthrene	100,000	500,000	91 J	2900	390	600	34000	650	440	240	240
Anthracene	100,000	500,000	130 U	860	130 U	110 J	8900	130 U	130 U	88 J	120 U
Carbazole	-	-	130 U	270	130 U	120 U	2700	130 U	130 U	120 U	120 U
Di-n-butylphthalate	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
Fluoranthene	100,000	500,000	130	3200	2800	750	33000	570	210	360	400
Pyrene	100,000	500,000	110 J	4000	2800	820	23000 C	480	490	350	430
Butylbenzylphthalate	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
3,3'-Dichlorobenzidine	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
Benzo(a)anthracene	1,000	5,600	130 U	1500	1500	400	13000 C	420	420	170	250
Chrysene	1,000	56,000	130 U	1700	130 U	510	11000	210	210	200	310
bis(2-Ethylhexyl)phthalate	-	-	130 U	140 U	130 U	210	150 U	130 U	130 U	120 U	99 J
Di-n-octylphthalate	-	-	130 U	140 U	130 U	120 U	150 U	130 U	130 U	120 U	120 U
Benzo(b)fluoranthene	1,000	5,600	130 U	1200	130 U	630	9200	110 J	110 J	240	350
Benzo(k)fluoranthene	800	56,000	130 U	990	990	340	6600	130 U	130 U	130	280
Benzo(a)pyrene	1,000	1,000	130 U	1200	1500	540	10000	110 J	110 J	170	320
Indeno(1,2,3-cd)pyrene	500	5,600	130 U	940	1300	460	6400	130 U	230	180	310
Dibenz(a,h)anthracene	330	560	130 U	290	350	130	2100	130 U	130 U	120 U	120 U
Benzo(g,h,i)perylene	100,000	500,000	130 U	1000	1500	580	6200	150	150	200	390

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; instrument detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
B - Analyte Found in associated blank as well as sample

Exceeding Unrestricted Use Soil Cleanup Objectives (375-6.8)

Exceeding Restricted Commercial Use Soil Cleanup Objectives

Table 1.3. Summary of PCB Compounds in Soil Samples
Transformer Remediation, Building 128

TCL PCB Compounds (Concentration in ug/kg)	Unrestricted Use Soil Cleanup Objectives (ug/kg)	Restricted Commercial Soil Cleanup Objectives (ug/kg)	SS-01 0809050-01 4/10/12 (ug/kg)	SS-02 0809050-02 4/10/12 (ug/kg)	SS-03 0809050-03 4/10/12 (ug/kg)	SS-04 0809050-04 4/10/12 (ug/kg)	SS-05 0809050-05 4/10/12 (ug/kg)	SS-06 0809050-06 4/10/12 (ug/kg)	SS-07 0809050-07 4/10/12 (ug/kg)	SS-08 0809050-08 4/10/12 (ug/kg)	SS-09 0809050-09 4/10/12 (ug/kg)
Aroclor-1016	100	1,000	87 U	93 U	88 U	83 U	100 U	87 U	84 U	86 U	81 U
Aroclor-1221	100	1,000	87 U	93 U	88 U	83 U	100 U	87 U	84 U	86 U	81 U
Aroclor-1232	100	1,000	87 U	93 U	88 U	83 U	100 U	87 U	84 U	86 U	81 U
Aroclor-1242	100	1,000	87 U	93 U	88 U	83 U	100 U	87 U	84 U	86 U	81 U
Aroclor-1248	100	1,000	87 U	93 U	88 U	83 U	100 U	87 U	84 U	86 U	81 U
Aroclor-1254	100	1,000	87 U	93 U	88 U	83 U	100 U	87 U	84 U	86 U	81 U
Aroclor-1260	100	1,000	87 U	93 U	88 U	83 U	100 U	87 U	84 U	86 U	81 U
Total PCB											

Qualifiers:
ug/kg - Microgram per kilogram
U - Not detected; instrument detection limit shown
J - Estimated value. The result is less than the qualification limit
D - Compound identified at a secondary dilution
C - Pesticide Compound where the identification has been successfully confirmed
P - Pesticide/Aroclor target analyte when there is a >25% difference detected Conc. between GC columns
Y - Several pesticide peaks "detected" in samples SS-1, 2, 4, 5, 6, 8, and 9 are most likely due to Arochlor conditions

Exceeding Unrestricted Use Soil Cleanup Objectives (375-6.8)

Exceeding Restricted Commercial Use Soil Cleanup Objectives

APPENDIX A

ALABAMA

Dear Valued Customer,

For your records, please find the enclosed Certificate of Disposal (CD) certifying the disposal of your PCB and/or PCB Contaminated item(s) shipped to TCI of Alabama, LLC (reference manifest information on CD). This document reflects only the 50 ppm or greater item(s) disposed at the TCI facility through our Metals Cleaning and Recycling (MCR) disposal process.

All remaining PCB, PCB Contaminated and/or Non-PCB items are still awaiting final disposal confirmation. Once all items have been completed and confirmation of disposal has been received by TCI, a final disposal package will be issued and mailed accordingly.

The final disposal package referencing ***all*** items shipped to TCI will consist of the following documents: Disposal Summary, Disposal Detail and, if applicable, a copy of each associated outbound manifest and coordinating CD.

Sincerely,

Tracy Helms
Quality Director

/kmp

Certificate of Disposal Number 102894

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

TCI EPA ID # ALD983167891
Manifest ID: 100052518CTN
TCI Load # 102894
of: 09/18/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

PHONE (845) 721-0284

We hereby certify that the following PCB items were disposed of as the date(s) shown below:

Item Number	Qty	Description	Disposed	Disposal Method
7082164/OIL	1	EMPTY DRUM	11/15/10	METALS CLEANING AND RECYCLING
7082164/IN BOXES	11	POWER TRANSFORM	11/15/10	METALS CLEANING AND RECYCLING

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.

Tracy Helms
Quality Director

11/15/10
Date

Certificate of Disposal Number 102896

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

TCI EPA ID # ALD983167891
Manifest ID: 100052729CTN
TCI Load # 102896
of: 09/18/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

PHONE (845) 721-0284

We hereby certify that the following PCB items were disposed of as the date(s) shown below:

Item Number	Qty	Description	Disposed	Disposal Method
03783 OIL DM-1	1	EMPTY DRUM	11/15/10	METALS CLEANING AND RECYCLING
03783 OIL DM-2	1	EMPTY DRUM	11/15/10	METALS CLEANING AND RECYCLING
03783 OIL DM-3	1	EMPTY DRUM	11/15/10	METALS CLEANING AND RECYCLING

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.

11/15/10

Tracy Helms
Quality Director

Date

APPENDIX B

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) CCN222702 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD981078058
2. Page 1 of: 1
3. Emergency Response Phone: 800-424-9300
4. Manifest Tracking Number: 001649362 GBF

5. Generator's Name and Mailing Address
Brooklyn Navy Yard
63 Flushing Ave., Bldg. 292, 3rd Fl.
Brooklyn, NY 11205

Generator's Site Address (if different than mailing address)
Building 128

Generator's Phone: Nicholas Mann 845-721-0284

6. Transporter 1 Company Name: TCI of NY, LLC — U.S. EPA ID Number: NYD986899912

7. Transporter 2 Company Name: SJ Transportation Co. Inc. — U.S. EPA ID Number: NJD071629976

8. Designated Facility Name and Site Address
TCI of Alabama, LLC
101 Parkway East
Pell City, AL 35125
U.S. EPA ID Number: ALD983167891
Facility's Phone: 205-338-9997

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. RQ Polychlorinated Biphenlys, SOLID UN3432, 9, PGIII drained PCB TRANS	3	CM	3409	K	B006
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Dike and contain in case of spill. ERG-171
Emergency Contact: CHEMTREC 24hr.
QUOTE#: 1002004N Serial#: 49783, 105462, 49788
TIME IN: 7:30
TIME OUT: 2

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: N. MANN — Signature: [signature] — Month: 3 Day: 2 Year: 2

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Michael Shutts — Signature: Michael Shutts — Month: 3 Day: 27 Year: 12
Transporter 2 Printed/Typed Name: David N Wilson, Jr. — Signature: David N Wilson Jr — Month: 03 Day: 30 Year: 12

18. Discrepancy
18a. Discrepancy Indication Space ☑ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
1.) REC'D 3 CM 8640 LB = 3927K
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number:
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H010			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: MICHAEL [illegible] — Signature: [signature] — Month: 04 Day: 03 Year: 12

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

TCI OF ALABAMA, LLC

Receiving Report for Shipment **121131**

Generator: BROOKLYN NAVY YARD-DEVELOP.CO **Pickup Date:** 3/27/12

EPA ID#: NYD981078058 **Manifest Doc#:** 001649362GBF

ITEM #	GEN REF#	SERIAL #	TYPE	SIZE	PCB	RFS DATE	GALS	LBS	KG'S
001		1	TRANSFRM	0	500	3/27/12	0.0	2,880	1,309
002		2	TRANSFRM	0	500	3/27/12	0.0	2,886	1,312
003		3	TRANSFRM	0	500	3/27/12	0.0	2,874	1,306
QUANTITY = (3)									
DRAINED PCB ELECTRICAL EQUIPMENT						Totals	0.0	8,640	3,927

MAILED
5/18/12

121131

TCI of Alabama, LLC
101 Parkway East
Pell City, AL 35125
Phone: (205) 338-9997
Fax: (205) 338-9979
EPA ID #: ALD983167891

Certificate Number: 121131
Date Issued: 5/8/2012
Manifest Id Number: 001649362GBF
Total Items: 3
Pickup Date: 3/27/2012

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN , NY 11205

Disposal Summary

In accordance with our agreement to provide disposal services, we hereby certify the completion of all items picked up on the above listed manifest. A summary of the disposition is as follows:

			Size /			Item(s)			Liquid(s)		
TCI Barcode	Serial #	Gen Ref #	KVA	Description	PCB (ppm)	Disposed	Method	Outbound	Disposed	Method	Outbound
AA490809	1		0	POWER TRANSFORMER	PCB	5/8/2012	MCR				
AA490810	2		0	POWER TRANSFORMER	PCB	5/8/2012	MCR				
AA490811	3		0	POWER TRANSFORMER	PCB	5/8/2012	MCR				

Quantity: 3

Disposal Method Key:
CWL: PCB Chemical Waste Landfill - Waste Management, Emelle, AL
DRN: Complete Draining - TCI of Alabama, LLC, Pell City, AL
IHB: TCI Thermal Destruction - TCI of Alabama, LLC, Pell City, AL
INC: PCB Incineration - Veolia, Pt. Arthur, TX
MCR: Metals Cleaning and Recycling - TCI of Alabama, LLC, Pell City, A
RCY: Recycling - TCI of Alabama, LLC, Pell City, AL
THM: Thermal Destruction - See Attached Outbound
DTX: Dechlorination - See Attached Outbound

Tracy Helms
Quality Director

5/8/2012
Date

MAILED
5/18/12

121131

TCI of Alabama, LLC
101 Parkway East
Pell City, AL 35125
Phone: (205) 338-9997
Fax: (205) 338-9979
EPA ID #: ALD983167891

Certificate of Disposal

Certificate Number: 121131
Date Issued: 5/8/2012
Manifest Id Number: 001649362GBF
Pickup Date: 3/27/2012

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN , NY 11205

We hereby certify that the following PCB items were disposed of by TCI of Alabama, LLC metals cleaning and recycling process as of the date(s) shown below:

Barcode	Description	Serial #	Date
AA490809	POWER TRANSFORMER	1	5/8/2012
AA490810	POWER TRANSFORMER	2	5/8/2012
AA490811	POWER TRANSFORMER	3	5/8/2012

Under civil and criminal penalities of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.

Tracy Helms

Tracy Helms
Quality Director

5/8/2012
Date

APPENDIX C

ase type or print. Do not staple.

HAZARDOUS WASTE MANIFEST
P.O. Box 12820, Albany, New York 12212

COAK

(Hazardous Waste Manifest 497)

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. N Y D 9 8 1 0 7 8 0 5 8 — Manifest Doc. No. — 2. Page 1 of 1

Information within heavy bold line is not required by Federal Law.

3. Generator's Name and Mailing Address
BROOKLYN NAVY YARD DEV CORP
FLUSHING AVE & CUMBERLAND ST
BROOKLYN NY 11205 SAME

4. Generator's Telephone Number (716 282-4100

A. NYB9072315

B. Generator's ID - same

5. Transporter 1 (Company Name) TRI-STATE MOTOR TRANSIT

6. US EPA ID Number MOD095038998

C. State Transporter's ID CA 97535

D. Transporter's Telephone (417) 624-3131

7. Transporter 2 (Company Name)

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Telephone ( )

9. Designated Facility Name and Site Address
CWM CHEMICAL SERVICES, ~~INC.~~ LLC
1550 BALMER RD.
MODEL CITY NY 14107

10. US EPA ID Number N Y D 0 4 9 8 3 6 6 7 9

G. State Facility ID

H. Facility Telephone ( ) 716 754-8231

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers Number	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ, POLYCHLORINATED BIPHENYL MIXTURE, 9, UN2315, III	001	DM	00350	P	EPA / STATE B007
b. RQ, POLYCHLORINATED BIPHENYL SOLUTION, 9, UN2315, III	001	DM	00550	P	EPA / STATE B002
c. RQ, POLYCHLORINATED BIPHENYL SOLUTION, 9, UN2315, III	002	DM	01100	P	EPA / STATE B002
d.					EPA / STATE

J. Additional Descriptions for Materials listed Above

a CL3806 -02 c CL3808 -04

b CL3807 -03 d

K. Handling Codes for Wastes Listed Above

a L c T

b B d

15. Special Handling Instructions and Additional Information SR# 490498

a. PCB Out of Service Date: 12-11-99, Weight:
b. PCB Out of Service Date: ~~-~~-~~, Weight:
c. PCB Out of Service Date: ~~-~~-~~, Weight:
AETS Emergency Response Number (888)353-2387

81502091

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and state laws and regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR if I am a small generator, I have made a good faith effort to minimize my waste and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name N.A. MANN — Signature N. Mann — Mo. Day Year 03 15 12

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name TRISAL PEDRO E. AVILA — Signature — Mo. Day Year 03 15 12

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name — Signature — Mo. Day Year

19. Discrepancy Indication Space

~~497~~ 2993

13A= ~~424~~ 14A=K ~~13B~~ ~~2245~~ ~~250~~ 14B=K A04 ~~2495~~ ~~13C=~~ 14C=K 12A=6DM 12B=12DM ~~12C 5DM~~ 03/16/12

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. manifest DOC NO MIS

Printed/Typed Name Andrew Argona — Signature — Mo. Day Year 03 16 12

COPY 1—Disposer State—Mailed by TSD Facility

WASTE MANAGEMENT, INC.
CWM Chemical Services, L.L.C.
1550 Balmer Rd.
P.O. Box 200
Model City, N.Y. 14107
716/754-8231

Federal EPA ID: NYD049836679

BROOKLYN NAVY YARD DEV CORP
ATTN: ENVIRONMENTAL COMPLIANCE DEPT
NYD981078058
BLDG 5 FLUSHING AVE & CUMBERLAND ST
BROOKLYN NY 11205

CONFIRMATION OF DESTRUCTION

CWM CHEMICAL SERVICES, L.L.C. has received waste material from BROOKLYN NAVY YARD DEV CORP on 03/16/12 as described on Hazardous Waste Manifest number NYB9072315 Sequence number 03. CWM CHEMICAL SERVICES, L.L.C. hereby certifies that the above described material was trans-shipped to a CWM approved facility for final disposition. CWM CHEMICAL SERVICES, L.L.C. also certifies that it has received confirmation that said material was disposed/destroyed in accordance with both state and federal regulations.

Profile Number: CL3808
CWM Tracking ID: 8150209104
CWM Unit #: 1*0 thru 2*0
Disposal Date: 03/29/12

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C 1001 and 15 U.S.C. 2615) I certify that the information contained in or accompanying this document is true accurate and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true accurate and complete.

Donna Ames-Cusick

CORE, 2018
PCB Transformer Substation Closure Report

CORE ENVIRONMENTAL CONSULTANTS
22-48 119th Street, College Point, NY 11356 ◆ Phone: 718.786.4730 ◆ Fax: 718.786.4764

June 12, 2018

Mr. Jonathan Greco
NYSDEC
Division of Environmental Remediation
625 Broadway
Albany, New York 12233

RE: **PCB Transformer Substation Closure Report**
Building 3 (First Floor)
Brooklyn Navy Yard
63 Flushing Avenue, Brooklyn, New York
VCP Site No. V00120

Dear Mr. Greco:

CORE Environmental Consultants, Inc. (CORE) has prepared this PCB Transformer Substation Closure Report to summarize activities performed during closure of the former polychlorinated biphenyl (PCB) transformer substation located on the first floor of Building 3 at the at the Brooklyn Navy Yard Industrial Park (BNYIP).

PCB impacts to concrete in the area of the former substation were identified during a 2002 Phase Investigation performed by Environmental Resources Management (ERM). Wipe samples collected in the area of the former transformers contained between 27 micrograms (µg) per 100 square centimeters (cm^2) and greater than 300 µg/100 cm^2. All wipe samples collected in were exceedence of the Site-specific clean-up goal of 10 µg/100 cm^2. The transformers originally contained PCB concentrations ranging from approximately 51 parts per million (ppm) to 169 ppm. Historical wipe sample results are summarized on Figure 1.

All four PCB-contaminated transformers were removed from Site in 2010 and transported as hazardous waste to TCI of Alabama, LLC. Associated hazardous waste manifests and disposal documentation is included as Attachment 1. After removal of the transformers, the room was vacant, and more recently, was utilized as a storage area for building materials (e.g. paints, bags of concrete, etc.).

Building 3 was excluded from the Voluntary Cleanup Agreement (VCA) parcel (Site No. V00120) in early 2018 as a result of change of use of the transformer room without appropriate remedial measures, increasing the potential for contact with elevated concentrations of PCBs in the concrete. As a result, remedial actions were performed in order to allow Building 3 to remain part of the VCA parcel and receive close-out with the program conclusion on June 29, 2018.

22-48 119th Street, College Point, NY 11356 ◆ Phone: 718.786.4730 ◆ Fax: 718.786.4764

FIELD METHODS

CORE was on Site on May 16, 17, and 18, 2018 to oversee Triumvirate Environmental, Inc. (TEI) during remedial activities. Remedial activities were performed in accordance with the New York State Department of Environmental Conservation (NYSDEC)-approved Remedial Design dated April 18, 2018.

Triumvirate performed a double wash/rinse on the concrete in accordance with Title 40 of the Code of Federal Regulations Part 761 (40 CFR 761) Subpart S. Simple Green® was utilized as the solvent during the wash. The area between the two former transformer berms was also washed.

The concrete was allowed to dry for 24 hours and two layers of solvent-resistant, water-repellant coatings of contrasting colors were applied to the concrete in accordance with 40 CR 761.30(p). The initial coat of blue-colored epoxy was applied to the historical transformer area on May 17, 2018 and allowed to cure for 24 hours. A second gray coat of epoxy was applied on May 18, 2018. The area between the two former transformer berms was also coated.

Two M_L Marks were placed at approximately eye level on the wall located immediately adjacent to the encapsulated area within the former transformer room. A Brooklyn Navy Yard Development Corporation (BNYDC) contact was identified on both labels.

Photographic documentation for the wash and encapsulations procedures, as well as placement of M_L Marks is included in Attachment 2.

REMEDIATION WASTE

All wash and rinse water was contained within the work area and drummed for off-Site disposal as Toxic Substances Control Act (TSCA)-source waste (hazardous). The initial transport manifest is located in Attachment 3. The final manifest and evidence of disposal/destruction is pending transport to the final disposal facility.

RECOMMENDATIONS

CORE recommends that this exclusion area be incorporated back into the VCA parcel prior to close-out of the program on June 29, 2018.

ATTACHMENTS

Figure 1	Building 3 Remedial Area
Attachment 1	PCB Transformer Disposal Manifests
Attachment 2	Photographic Log
Attachment 3	Remediation Waste Hazardous Waste Manifest

Please feel free to contact me or Ronald Tramposch at (716) 204-8054 if you have any questions or concerns.

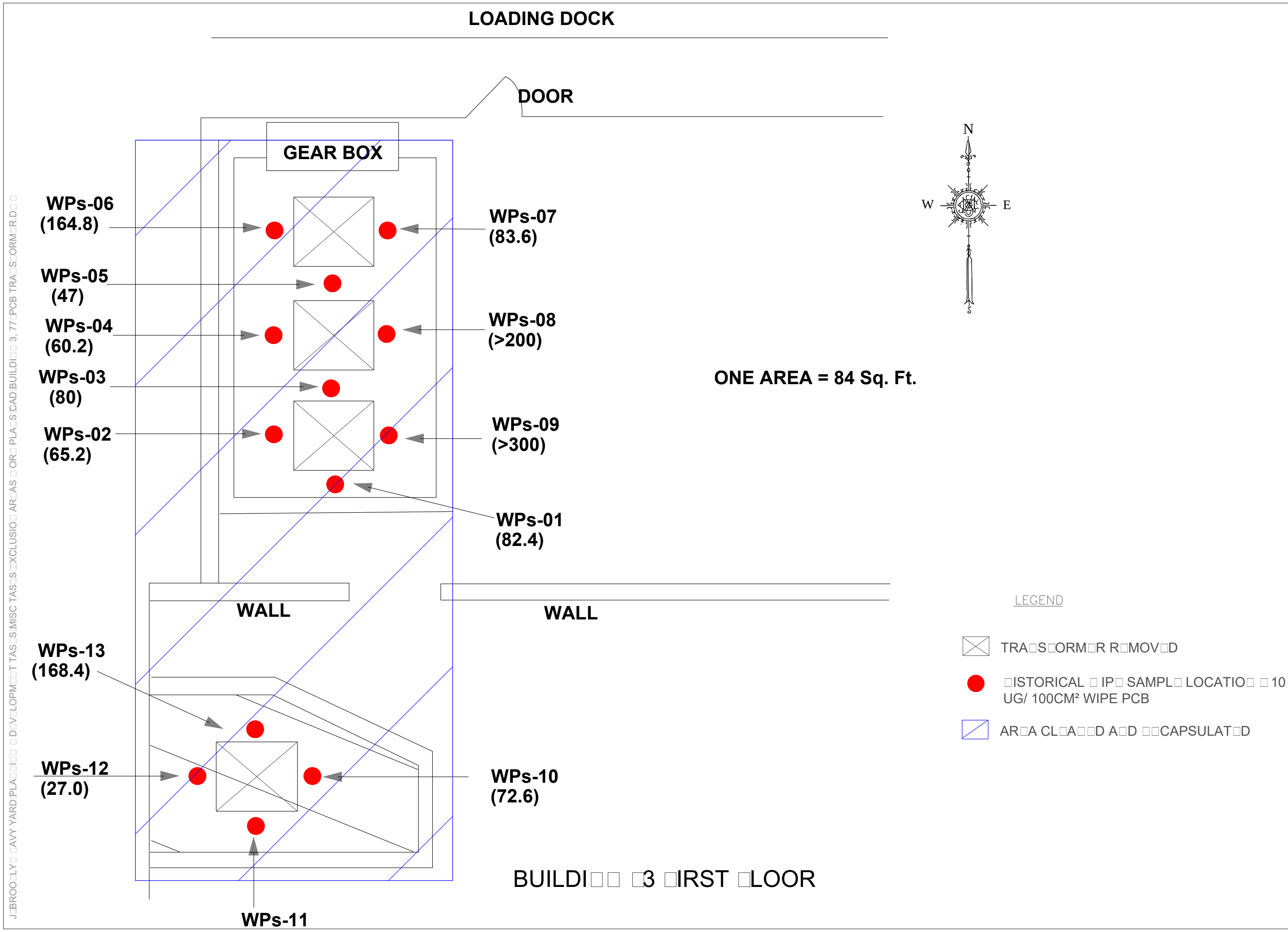
Sincerely,
CORE Environmental Consultants, Inc.

A. Cruikshank

Alyssa Cruikshank, PG
Senior Geologist

cc: Shani Leibowitz, BNY

FIGURE



BUILDI□□ □3 □IRST □LOOR

CLIENT NAME

BROOKLYN NAVY YARD

BROOKLYN NAVY YARD DEVELOPMENT CORPORATION
63 FLUSHING AVENUE
BROOKLYN, NY, 11205

SEAL & SIGNATURE

NO.	REVISIONS	DATE

CORE ENVIRONMENTAL CONSULTANTS
22-48 119TH STREET
COLLEGE POINT, N.Y. 11356
T: 718-786-4730
F: 718-786-4764
2312 WEHRLE DRIVE
BUFFALO, N.Y. 14221
T: 716-204-8054
F: 716-204-8557
www.COREenv.com

PROJECT TITLE:
BROOKLYN NAVY YARD
63 Flushing Avenue
Brooklyn, NY

DESCRIPTION:
BUILDING 3 PCB TRANSFORMER SUBSTATION CLOSURE REPORT

DRAWING TITLE:
BUILDING 3 REMEDIAL AREA

SEAL & SIGNATURE		
	DATE:	6/8/2018
	PROJECT No.:	–
	DRAWN BY:	SH
	DESIGNED BY:	SH
	CHECKED BY:	AC
	APPROVED BY:	AC
	FIGURE No.:	1
SCALE: 1=200	SHEET No.:	OF:
	REVISED BY:	–

ATTACHMENTS

CORE
ENVIRONMENTAL
CONSULTANTS

ATTACHMENT 1

PCB Transformer Disposal Manifests

CORE ENVIRONMENTAL CONSULTANTS

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: N Y D 9 8 1 0 7 8 0 5 8
2. Page 1 of: 1
3. Emergency Response Phone: 800-424-9300
4. Manifest Tracking Number: 100052726 CTN

5. Generator's Name and Mailing Address
Brooklyn Navy Yard
63 Flushing Ave, Bldg 292, 3rd Fl
Brooklyn NY 11205

Generator's Site Address (if different than mailing address)
BLDG 3 UNITS

Generator's Phone: Nicholas Mann 845-721-0284

6. Transporter 1 Company Name: SOT Transportation Co Inc.
U.S. EPA ID Number: NJD071629826

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
TCI of Alabama, LLC
101 Parkway East
Pell City AL 35125
Facility's Phone: 205-338-9997
U.S. EPA ID Number: A L D 9 8 3 1 6 7 8 9 1

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. RQ Polychlorinated Biphenyls (SOLID) 9, UN3432, PGIII >500ppm PCB Transfrmers	4	CM	4795	K	B006
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Dike and contain in case of spill. ERG-171 QUOTE #: 1002004N
Emergency Contact: CHEMTREC 24 hr
Bldg 3, Serial 544317 (T2651), 1793448 (T2648), 1793450 (T2648), 1793449 (T2650).
ASK

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: N Mann
Signature: N.M.
Month Day Year: 09 20 10

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Scott Brunell
Signature: Scott Brunell
Month Day Year: 09 20 10
Transporter 2 Printed/Typed Name
Signature
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☒ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Rec
1) 4cm 7059 Kg
Manifest Reference Number:
18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H010			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Michael Strickland
Signature
Month Day Year: 09 24 10

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

TCI OF ALABAMA, LLC

Receiving Report for Shipment **102859**

Generator: BROOKLYN NAVY YARD-DEVELOP.CO **Pickup Date:** 9/19/10

EPA ID#: NYD981078058 **Manifest Doc#:** 100052726CTN

ITEM #	*GEN REF#*	*SERIAL #*	*TYPE*	*SIZE*	*PCB*	*RFS DATE*	*GALS*	*LBS*	*KG'S*
001	T2651	544317	TRANSFRM	0	600,000	8/30/10	0.0	7,310	3,323
002	T2652	1793448	TRANSFRM	0	600,000	8/30/10	0.0	2,740	1,245
003	T2653	1793450	TRANSFRM	0	600,000	8/30/10	0.0	2,730	1,241
004	T2654	1793449	TRANSFRM	0	600,000	8/30/10	0.0	2,750	1,250

QUANTITY = (4)

DRAINED PCB ELECTRICAL EQUIPMENT

Totals	*0.0*	*15,530*	*7,059*

RECEIVED
OCT - 7 2010
FINANCE

REGISTER
OF
ELECTRICAL EQUIPMENT

BLDG 3
DRAINED UNITS

TCI
NEW YORK

Generator Name:
Brooklyn Navy Yard

US EPA ID No: NYD981078058

Addendum to
Manifest No. 100052726 CTN

Page 1 of 1

Item	Serial #	Type	PCB	Gal.	Weight	Date Out Of Service
T2651	544317	Trans	ASK	0	7310	8/30/2010
T2652	1793448	Trans	ASK	0	2740	8/30/2010
T2653	1793450	Trans	ASK	0	2730	8/30/2010
T2654	1793449	Trans	ASK	0	2750	8/30/2010
	BLDG 3					

Stays with manifest

Form: 55

Disposal Summary #102859

Page: 1

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

TCI EPA ID # ALD983167891
Manifest ID: 100052726CTN
TCI Load # 102859
of: 09/19/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

NICHOLAS MANN
PHONE (845) 721-0284

In accordance with our agreement to provide disposal services, we hereby certify the completion of all items picked up on the above listed manifest. A summary of the disposition is as follows:

Qty	Item Description	Disposal Method	Completed
4	TP's of PCB ELECTRICAL EQUIPMENT	METALS CLEANING AND RECYCLING	11/15/10

Certification:

Tracy Helms
Quality Director

11/15/10
Date

Disposal Detail #102859

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

Shipped: 09/19/10
Manifest ID: 100052726CTN
Received: 09/24/10
Disposed: 11/15/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

PHONE (845) 721-0284

We hereby certify that the following items were disposed of in accordance with 40 CFR 761 as of the date(s) shown below:

Carcass or Container				Contents				
Item Number	Item Type	Method	Disp	Comp	Method	Disp	Facility	EPA ID #
544317	TRANSFRM	MCR	11/15/10					
1793448	TRANSFRM	MCR	11/15/10					
1793450	TRANSFRM	MCR	11/15/10					
1793449	TRANSFRM	MCR	11/15/10					

MCR = METALS CLEANING AND RECYCLING

Tracy Helms
Quality Director

11/15/10
Date

Certificate of Disposal Number 102859

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

TCI EPA ID # ALD983167891
Manifest ID: 100052726CTN
TCI Load # 102859
of: 09/19/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

PHONE (845) 721-0284

We hereby certify that the following PCB items were disposed of as the date(s) shown below:

Item Number	Qty	Description	Disposed	Disposal Method
544317	1	POWER TRANSFORM	11/15/10	METALS CLEANING AND RECYCLING
1793448	1	POWER TRANSFORM	11/15/10	METALS CLEANING AND RECYCLING
1793450	1	POWER TRANSFORM	11/15/10	METALS CLEANING AND RECYCLING
1793449	1	POWER TRANSFORM	11/15/10	METALS CLEANING AND RECYCLING

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.

Tracy Helms
Quality Director

11/15/10
Date

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: N Y D 9 8 1 0 7 8 0 5 8
2. Page 1 of: 1
3. Emergency Response Phone: 800-424-9300
4. Manifest Tracking Number: 100052727 CTN

5. Generator's Name and Mailing Address:
Brooklyn Navy Yard
63 Flushing Ave, Bldg 292, 3rd Fl
Brooklyn NY 11205

Generator's Site Address (if different than mailing address): BLDG 3 OIL

Generator's Phone: Nicholas Mann 845-721-0284

6. Transporter 1 Company Name: TCI of NY — U.S. EPA ID Number: NYD986099112

7. Transporter 2 Company Name: SJ Transportation Co — U.S. EPA ID Number: NJD071629976

8. Designated Facility Name and Site Address:
TCI of Alabama, LLC
101 Parkway East
Pell City AL 35125

Facility's Phone: 205-338-9997

U.S. EPA ID Number: ALD983167891

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
	1. RQ Polychlorinated Biphenyls (LIQUID) 9, UN2315, PGIII 50-499ppm PCB Oil	~~12~~	TT ~~DM~~	1700 ~~2182~~	K	B002		
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
Dike and contain in case of spill. ERG-171 QUOTE #: 1002004N
Emergency Contact: CHEMTREC 24 hr.
Bldg 3, Serial # 544317 (T2651), 1793448 (T2648), 1793450 (T2649), 1793449 (T2650)
500 g/c

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Carlos Sempertegui — Signature: Carlos Sempertegui ON BEHALF. BNY — Month Day Year: 09 18 10

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: ______
Transporter signature (for exports only): ______ Date leaving U.S.: ______

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Dean Berry — Signature: Dean B — Month Day Year: 09 18 10
Transporter 2 Printed/Typed Name: George Meadows Jr — Signature: George Meadows — Month Day Year: 09 24 10

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H141			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Tracy Holms — Signature — Month Day Year: 09 27 10

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

TCI OF ALABAMA, LLC

Receiving Report for Shipment **102885**

Generator: BROOKLYN NAVY YARD-DEVELOP.CO **Pickup Date:** 9/18/10

EPA ID#: NYD981078058 **Manifest Doc#:** 100052727CTN

ITEM #	GEN REF#	SERIAL #	TYPE	SIZE	PCB	RFS DATE	GALS	LBS	KG'S
001		TANKER	LIQUID	0	499	8/30/10	522.0	3,740	1,700
QUANTITY = (1)									
BULK TANKER OF PCB-CONTAMINATED FLUID 50-499 PPM PCBS						Totals	522.0	3,740	1,700

OCT

BLDG 3
OIL

REGISTER OF ELECTRICAL EQUIPMENT

Generator Name:
Brooklyn Navy Yard

US EPA ID No: NYD981078058

Addendum to
Manifest No. 100052727 CTN

Page 1 of 1

Item	Serial #	Type	PCB	Gal.	Weight	Date Out Of Service
~~T2648~~	~~1793448~~	~~DM~~	~~88~~	~~50~~		~~8/30/2010~~
~~T2648~~	~~1793448~~	~~DM~~	~~88~~	~~38~~		8/30/2010
~~T2649~~	~~1793450~~	~~DM~~	~~79~~	~~50~~		8/30/2010
~~T2649~~	~~1793450~~	~~DM~~	~~79~~	~~38~~		8/30/2010
~~T2650~~	~~T1793449~~	DM	~~50-499~~	~~50~~		8/30/2010
~~T2650~~	~~T1793449~~	~~DM~~	~~50-499~~	~~38~~		8/30/2010
~~T2651~~	~~544317~~	~~DM~~	~~142~~	~~50~~		8/30/2010
T2651	~~544317~~	~~DM~~	~~142~~	~~50~~		8/30/2010
~~T2651~~	~~544317~~	DM	~~142~~	~~50~~		8/30/2010
~~T2651~~	~~544317~~	~~DM~~	~~142~~	~~50~~		8/30/2010
~~T2651~~	~~544317~~	~~DM~~	~~142~~	~~50~~		8/30/2010
~~T2651~~	~~544317~~	~~DM~~	~~142~~	~~8~~		8/30/2010
T2648		TANKER				
T2649		TANKER				
T2650		TANKER				
T2651	BLDG 3	TANKER				
	OIL					

Customer Copy

Form: 55

Disposal Summary #102885

Page: 1

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

TCI EPA ID # ALD983167891
Manifest ID: 100052727CTN
TCI Load # 102885
of: 09/18/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

NICHOLAS MANN
PHONE (845) 721-0284

In accordance with our agreement to provide disposal services, we hereby certify the completion of all items picked up on the above listed manifest. A summary of the disposition is as follows:

Qty	Item Description	Disposal Method	Completed
1	TT of PCB-CONT LIQUID	COMPLETE DRAINING	09/27/10
	FLUID FROM ABOVE	PCB INCINERATION Shipped on Manifest #10378, 09/27/10 To VEOLIA ES TECHNICAL SOLUTIONS	10/11/10

Certification:

Tracy Helms
Quality Director

11/15/10
Date

Disposal Detail #102885

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

Shipped: 09/18/10
Manifest ID: 100052727CTN
Received: 09/27/10
Disposed: 10/11/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

PHONE (845) 721-0284

We hereby certify that the following items were disposed of in accordance with 40 CFR 761 as of the date(s) shown below:

Carcass or Container				Contents				
Item Number	Item Type	Method	Disp	Comp	Method	Disp	Facility	EPA ID #
TANKER	LIQUID	DRN	09/27/10	OIL	INC	10/11/10	VEOLIA	TXD000838896

DRN = COMPLETE DRAINING INC = PCB INCINERATION

Tracy Helms
Quality Director

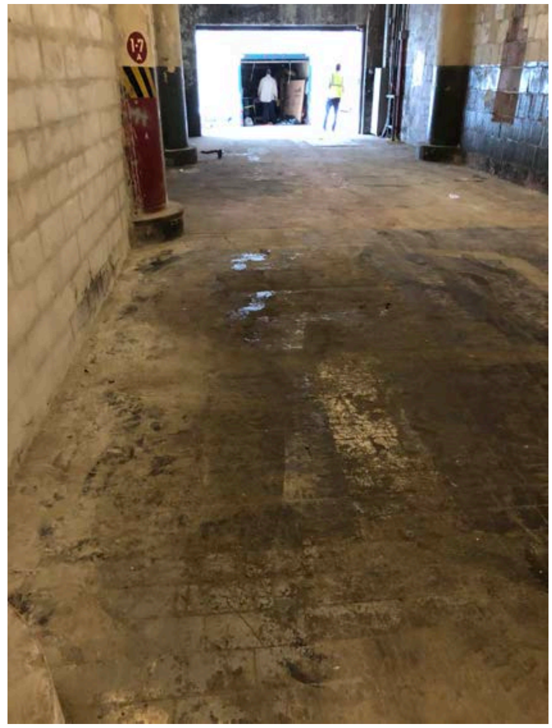
11/15/10
Date

ATTACHMENT 2

Photographic Log

CORE ENVIRONMENTAL CONSULTANTS

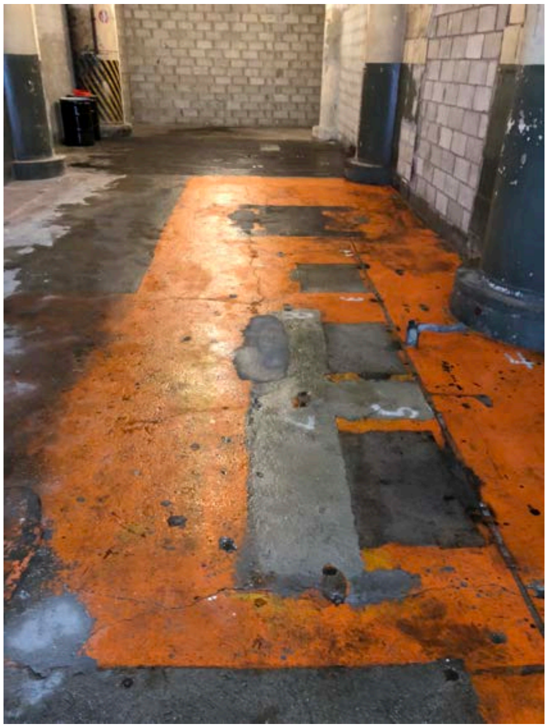
Building 3 area to be encapuslated



Building 3 area to be encapuslated

Initial concrete wash

Initial concrete rinse



After second wash and rinse

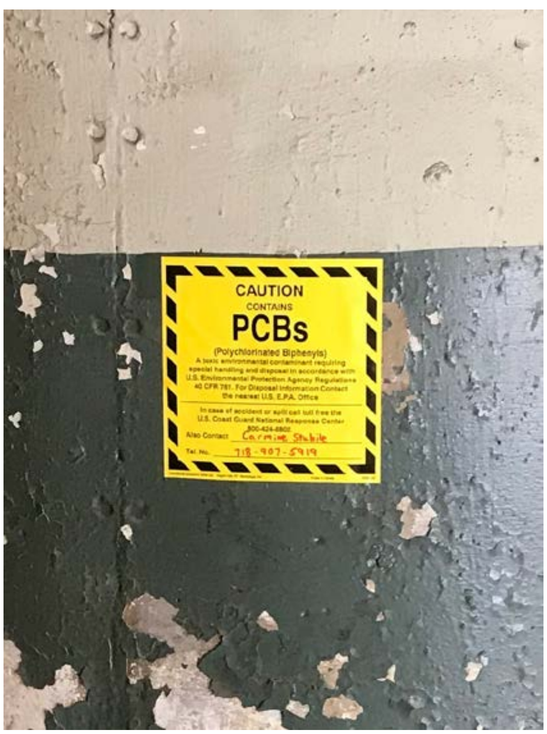
Applying first epoxy coat

First coat of epoxy

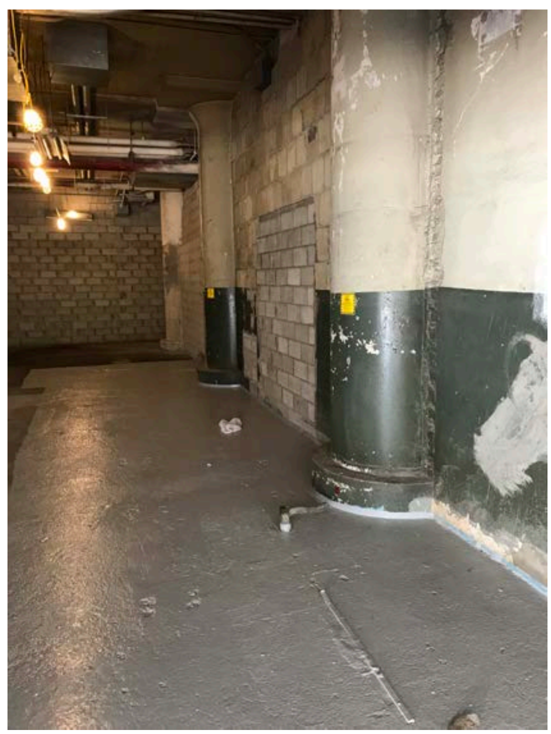
Applying second coat of epoxy

Second coat of epoxy

Final – two layers of epoxy



M_L Mark



M_L Marks in Building 3

ATTACHMENT 3

Remediation Waste Hazardous Waste Manifest

3011

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD981078058	1	(800) 966-9282	011672124 FLE

5. Generator's Name and Mailing Address
Core Environmental
2312 Wehrle Drive
Buffalo, NY 14221
Generator's Phone: (716) 204-8054

Generator's Site Address (if different than mailing address)
63 Flushing Avenue
Brooklyn, NY 11205

6. Transporter 1 Company Name
Triumvirate Environmental, Inc.
U.S. EPA ID Number: MAC300016672

7. Transporter 2 Company Name
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Triumvirate Environmental (NYC), LLC
42-14 19th Avenue
Astoria, NY 11105
Facility's Phone: (718)274-3339
U.S. EPA ID Number: NYD077444263

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN3288, Waste Toxic solid, inorganic, n.o.s. 6.1, II (Concrete, Lead) (RQ: D007,D008)	002	CF	2250	P	D007 D008 T
X	2. UN3287, Waste Toxic liquid, inorganic, n.o.s. 6.1, II (Lead, Water) (RQ: D008)	002	DM	0600	P	D008 B
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1- (2 x [redacted]) NYC132675 ~~2- (x)NYC132675A 3- 4-~~
Yd3
2. (2x55) NYC132675A
TEI Job #: 132675

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: X Jacob Thomann | Signature: X | Month 06 Day 05 Year 18

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: James Harold | Signature: | Month 06 Day 05 Year 18
Transporter 2 Printed/Typed Name: | Signature: | Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name | Signature | Month Day Year

CORE, 2018
Exception Area Building 249/Substation 13 Investigation Report

CORE ENVIRONMENTAL CONSULTANTS
22-48 119th Street, College Point, NY 11356 ◆ Phone: 718.786.4730 ◆ Fax: 718.786.4764

June 12, 2018

Mr. Jonathan Greco
NYSDEC
Division of Environmental Remediation
625 Broadway
Albany, New York 12233

RE: **Exception Area Building 249/Substation 13 Investigation Report**
Brooklyn Navy Yard
63 Flushing Avenue, Brooklyn, New York
VCP Site No. V00120

Dear Mr. Greco:

CORE Environmental Consultants, Inc. (CORE) has prepared this Exception Area Building 249/Substation 13 Investigation Report to summarize activities performed during investigation at the former transformer substation at the at the Brooklyn Navy Yard Industrial Park (BNYIP).

Polychlorinated biphenyl (PCB) impacts to concrete in the area of the former substation were identified during a 2002 Phase Investigation performed by Environmental Resources Management (ERM). Wipe samples collected in the area of the former transformers contained between non-detect and 21.2 micrograms (µg) per 100 square centimeters (cm^2). Four wipe samples collected were in exceedence of the Site-specific clean-up goal of 10 µg/100 cm^2. In addition, two surface soil samples collected near the former concrete pad contained concentrations of PCBs greater than the Site-specific Soil Cleanup Objective (SCO) of 1 part per million (ppm) in surface soil, but less than the 10 ppm required for subsurface soils. The transformers originally contained PCB concentrations ranging non-detect to 15.6 ppm. Historical concrete wipe and surface soil sample results are summarized on Figure 1.

All five non-PCB transformers were removed from Site prior to the ERM Phase II investigation. Walls enclosing the former substation were demolished and open soil was paved over with asphalt. The area is currently utilized by BNYDC as miscellaneous outdoor storage.

Building 249/Substation 13 was excluded from the Voluntary Cleanup Agreement (VCA) parcel (Site No. V00120) in early 2018 as a result of change of use of the transformer area without appropriate notifications or remedial measures. In later discussions with the New York State Department of Conservation (NYSDEC), it was determined that re-sampling the former transformer area to determine current Site conditions and potential remedial requirements would result in potential re-inclusion into the VCA parcel for close-out with the program conclusion on June 29, 2018. An Exclusion Areas Investigation Work Plan was submitted to NYSDEC on April 13, 2018.

22-48 119th Street, College Point, NY 11356 • Phone: 718.786.4730 • Fax: 718.786.4764

Soil in the area previously sampled during the 2002 Phase II is currently under a Site Management Plan (SMP)-compliant cover. The NYSDEC-approved Work Plan initially included sampling and analysis of the soils immediately beneath the cover. It was determined that because the source of PCBs is non-Toxic Substances Control Act (TSCA)-controlled transformers, and because the soil concentrations were less than the 10 ppm of PCBs required by the Site-specific Decision Document for subsurface soils, no further investigation was required in that area. Concrete samples were still required to be collected for compliance.

FIELD METHODS

CORE was on Site on June 5, 2018 to collect three concrete dust samples in compliance with the NYSDEC-approved Work Plan. Concrete samples were collected in compliance with United States Environmental Protection Agency (USEPA) guidelines. A drill was utilized to generate a fine powder from the surface (top 0.5 to 2 centimeters) of the concrete. A minimum of 30 grams of concrete dust was collected and submitted to York Analytical Laboratories of Stratford, Connecticut (York) under Chain-of-Custody procedures for analysis of PCBs. Concrete sample locations are shown on Figure 1.

RESULTS

All concrete samples contained concentrations of PCBs well below the USEPA standard of 1 ppm for high-occupancy areas. Analytical data is summarized in Table 1. The summary analytical laboratory report is included as Attachment 1.

RECOMMENDATIONS

CORE recommends that this exclusion area be incorporated back into the VCA parcel prior to close-out of the program on June 29, 2018.

ATTACHMENTS

Table 1	Building 249/Substation 13 Analytical Summary
Figure 1	Building 249/Substation 13 Sample Location Map
Attachment 1	Laboratory Analytical Report

Please feel free to contact me or Ronald Tramposch at (716) 204-8054 if you have any questions or concerns.

Sincerely,
CORE Environmental Consultants, Inc.

A. Cruikshank

Alyssa Cruikshank, PG
Senior Geologist

cc: Shani Leibowitz, BNY

TABLE

Table 1
Building 249/Substation 13 Analytical Summary
Brooklyn Navy Yard Industrial Park
VCA Site No. V00120

Sample ID	249-C-1	249-C-2	249-C-3
Sample Date	6/5/2018	6/5/2018	6/5/2018
Polychlorinated Biphenyls (mg/kg)			
Aroclor 1016	<0.0252	<0.0249	<0.0250
Aroclor 1221	<0.0252	<0.0249	<0.0250
Arcolor 1232	<0.0252	<0.0249	<0.0250
Aroclor 1242	<0.0252	<0.0249	<0.0250
Aroclor 1248	<0.0252	<0.0249	<0.0250
Aroclor 1254	<0.0252	<0.0249	**0.0404**
Aroclor 1260	**0.128**	**0.0296**	<0.0250
Aroclor 1262	<0.0252	<0.0249	<0.0250
Aroclor 1268	<0.0252	<0.0249	<0.0250

NOTES:

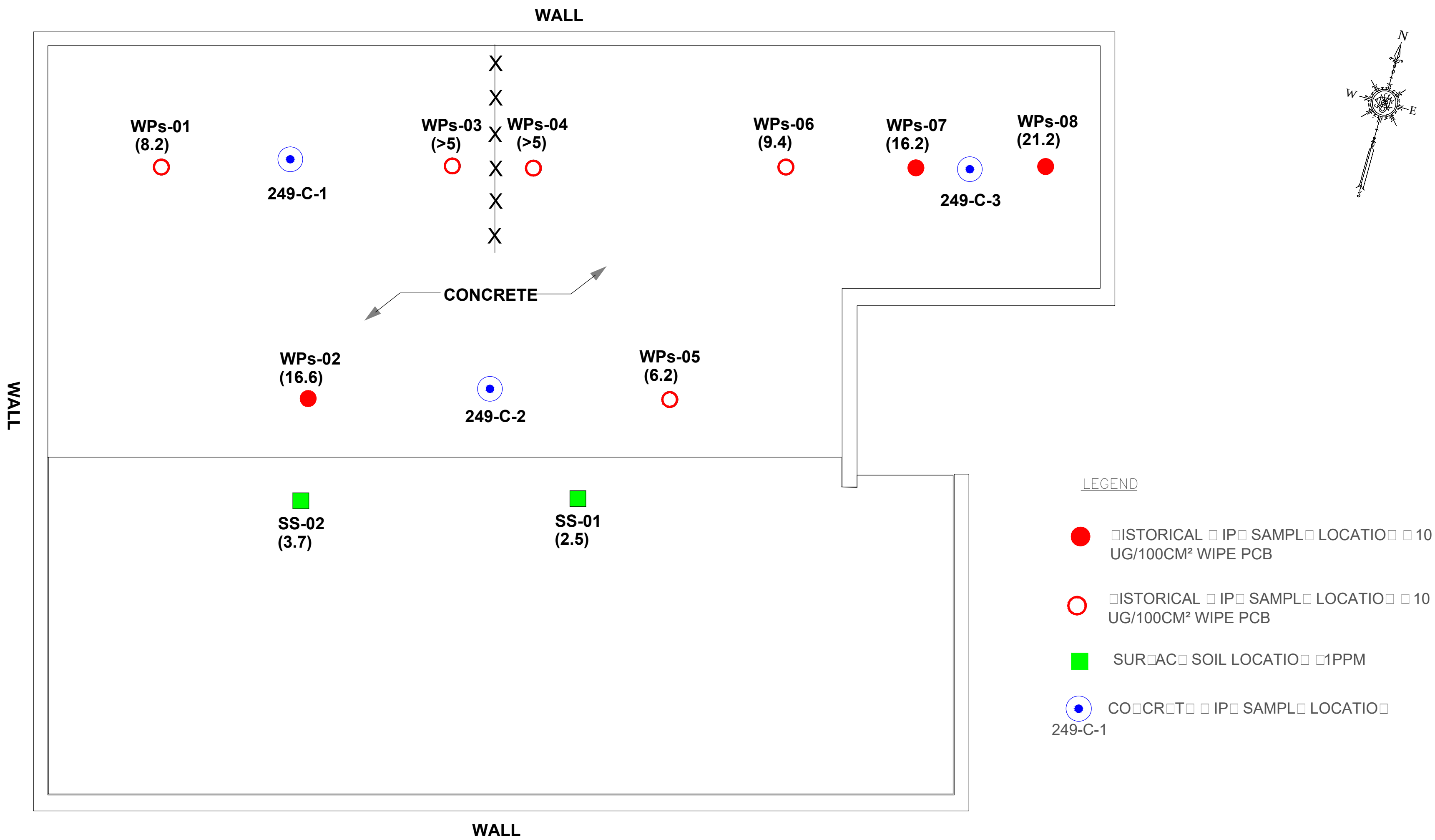
mg/kg = milligrams per kilogram

Bold value indicates analyte detected above laboratory method detection limit

<# = analyte not detected at concentrations greater than the Reporting Limit shown

FIGURE

CORE
ENVIRONMENTAL
CONSULTANTS



CLIENT NAME

BROOKLYN NAVY YARD

BROOKLYN NAVY YARD
DEVELOPMENT CORPORATION
63 FLUSHING AVENUE
BROOKLYN, NY, 11205

SEAL & SIGNATURE

NO.	REVISIONS	DATE

CORE ENVIRONMENTAL CONSULTANTS

22-48 119TH STREET
COLLEGE POINT, N.Y. 11356
T: 718-786-4730
F: 718-786-4764

2312 WEHRLE DRIVE
BUFFALO, N.Y. 14221
T: 716-204-8054
F: 716-204-8557

www.COREenv.com

PROJECT TITLE:

BROOKLYN NAVY YARD
63 Flushing Avenue
Brooklyn, NY

DESCRIPTION:

EXCEPTION AREA BUILDING 249/ SUBSTATION 13 INVESTIGATION REPORT

DRAWING TITLE:

BUILDING 249/ SUBSTATION 13
SAMPLE LOCATION MAP

SEAL & SIGNATURE		
	DATE:	6/8/2018
	PROJECT No.:	–
	DRAWN BY:	SH
	DESIGNED BY:	SH
	CHECKED BY:	AC
	APPROVED BY:	AC
	FIGURE No.:	1
SCALE: 1=200	SHEET No.:	OF:
	REVISED BY:	–

ATTACHMENT 1

Laboratory Analytical Data

Technical Report

prepared for:

Core Environmental
2312 Wehrle Drive
Williamsville NY, 14221
Attention: Ron Tramposch

Report Date: 06/06/2018
Client Project ID: Brooklyn Navy Yard Building 249
York Project (SDG) No.: 18F0126

CT Cert. No. PH-0723 New Jersey Cert. No. CT005 and NY037 New York Cert. Nos. 10854 and 12058 PA Cert. No. 68-04440

120 RESEARCH DRIVE STRATFORD, CT 06615 ■ 132-02 89th AVENUE RICHMOND HILL, NY 11418
www.YORKLAB.com (203) 325-1371 FAX (203) 357-0166 ClientServices@yorklab.com

Report Date: 06/06/2018
Client Project ID: Brooklyn Navy Yard Building 249
York Project (SDG) No.: 18F0126

Core Environmental
2312 Wehrle Drive
Williamsville NY, 14221
Attention: Ron Tramposch

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on June 05, 2018 and listed below. The project was identified as your project: **Brooklyn Navy Yard Building 249**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Sample and Analysis Qualifiers section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the Sample and Data Qualifiers Relating to This Work Order section of this report and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

York Sample ID	Client Sample ID	Matrix	Date Collected	Date Received
18F0126-01	**249-C-1**	**Other**	**06/05/2018**	**06/05/2018**
18F0126-02	**249-C-2**	**Other**	**06/05/2018**	**06/05/2018**
18F0126-03	**249-C-3**	**Other**	**06/05/2018**	**06/05/2018**

General Notes for York Project (SDG) No.: 18F0126

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

Approved By: **Date:** 06/06/2018

Benjamin Gulizia
Laboratory Director

Sample Information

Client Sample ID: 249-C-1 **York Sample ID:** 18F0126-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F0126	Brooklyn Navy Yard Building 249	Other	June 5, 2018 9:32 am	06/05/2018

Polychlorinated Biphenyls (PCB)

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3545A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.0252	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	06/06/2018 04:52	06/06/2018 10:13	SA
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0252	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	06/06/2018 04:52	06/06/2018 10:13	SA
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0252	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	06/06/2018 04:52	06/06/2018 10:13	SA
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0252	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	06/06/2018 04:52	06/06/2018 10:13	SA
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0252	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	06/06/2018 04:52	06/06/2018 10:13	SA
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.0252	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	06/06/2018 04:52	06/06/2018 10:13	SA
11096-82-5	**Aroclor 1260**	**0.128**		mg/kg dry	0.0252	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	06/06/2018 04:52	06/06/2018 10:13	SA
37324-23-5	Aroclor 1262	ND		mg/kg dry	0.0252	1	EPA 8082A Certifications: NELAC-NY10854,NJDEP,PADEP	06/06/2018 04:52	06/06/2018 10:13	SA
11100-14-4	Aroclor 1268	ND		mg/kg dry	0.0252	1	EPA 8082A Certifications: NELAC-NY10854,NJDEP,PADEP	06/06/2018 04:52	06/06/2018 10:13	SA
1336-36-3	*** Total PCBs**	**0.128**		mg/kg dry	0.0252	1	EPA 8082A Certifications:	06/06/2018 04:52	06/06/2018 10:13	SA

	Surrogate Recoveries	Result	Acceptance Range
877-09-8	*Surrogate: Tetrachloro-m-xylene*	*111 %*	*30-140*
2051-24-3	*Surrogate: Decachlorobiphenyl*	*91.4 %*	*30-140*

Total Solids

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**98.1**		%	0.100	1	SM 2540G Certifications: CTDOH	06/06/2018 09:12	06/06/2018 15:38	TAJ

Sample Information

Client Sample ID: 249-C-2 **York Sample ID:** 18F0126-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F0126	Brooklyn Navy Yard Building 249	Other	June 5, 2018 9:52 am	06/05/2018

Polychlorinated Biphenyls (PCB)

Log-in Notes: **Sample Notes:**

Sample Information

Client Sample ID: 249-C-2 **York Sample ID:** 18F0126-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F0126	Brooklyn Navy Yard Building 249	Other	June 5, 2018 9:52 am	06/05/2018

Sample Prepared by Method: EPA 3545A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.0249	1	EPA 8082A	06/06/2018 04:52	06/06/2018 10:37	SA
							Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP			
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0249	1	EPA 8082A	06/06/2018 04:52	06/06/2018 10:37	SA
							Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP			
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0249	1	EPA 8082A	06/06/2018 04:52	06/06/2018 10:37	SA
							Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP			
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0249	1	EPA 8082A	06/06/2018 04:52	06/06/2018 10:37	SA
							Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP			
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0249	1	EPA 8082A	06/06/2018 04:52	06/06/2018 10:37	SA
							Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP			
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.0249	1	EPA 8082A	06/06/2018 04:52	06/06/2018 10:37	SA
							Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP			
11096-82-5	**Aroclor 1260**	**0.0296**		mg/kg dry	0.0249	1	EPA 8082A	06/06/2018 04:52	06/06/2018 10:37	SA
							Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP			
37324-23-5	Aroclor 1262	ND		mg/kg dry	0.0249	1	EPA 8082A	06/06/2018 04:52	06/06/2018 10:37	SA
							Certifications: NELAC-NY10854,NJDEP,PADEP			
11100-14-4	Aroclor 1268	ND		mg/kg dry	0.0249	1	EPA 8082A	06/06/2018 04:52	06/06/2018 10:37	SA
							Certifications: NELAC-NY10854,NJDEP,PADEP			
1336-36-3	*** Total PCBs**	**0.0296**		mg/kg dry	0.0249	1	EPA 8082A	06/06/2018 04:52	06/06/2018 10:37	SA
							Certifications:			

	Surrogate Recoveries	Result	Acceptance Range
877-09-8	*Surrogate: Tetrachloro-m-xylene*	*99.0 %*	*30-140*
2051-24-3	*Surrogate: Decachlorobiphenyl*	*83.3 %*	*30-140*

Total Solids **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**97.5**		%	0.100	1	SM 2540G	06/06/2018 09:12	06/06/2018 15:38	TAJ
							Certifications: CTDOH			

Sample Information

Client Sample ID: 249-C-3 **York Sample ID:** 18F0126-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F0126	Brooklyn Navy Yard Building 249	Other	June 5, 2018 10:11 am	06/05/2018

Polychlorinated Biphenyls (PCB) **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 3545A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst

Sample Information

Client Sample ID: 249-C-3 **York Sample ID:** 18F0126-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F0126	Brooklyn Navy Yard Building 249	Other	June 5, 2018 10:11 am	06/05/2018

Polychlorinated Biphenyls (PCB)

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3545A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.0250	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	06/06/2018 04:52	06/06/2018 11:01	SA
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0250	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	06/06/2018 04:52	06/06/2018 11:01	SA
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0250	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	06/06/2018 04:52	06/06/2018 11:01	SA
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0250	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	06/06/2018 04:52	06/06/2018 11:01	SA
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0250	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	06/06/2018 04:52	06/06/2018 11:01	SA
11097-69-1	**Aroclor 1254**	**0.0404**		mg/kg dry	0.0250	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	06/06/2018 04:52	06/06/2018 11:01	SA
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.0250	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	06/06/2018 04:52	06/06/2018 11:01	SA
37324-23-5	Aroclor 1262	ND		mg/kg dry	0.0250	1	EPA 8082A Certifications: NELAC-NY10854,NJDEP,PADEP	06/06/2018 04:52	06/06/2018 11:01	SA
11100-14-4	Aroclor 1268	ND		mg/kg dry	0.0250	1	EPA 8082A Certifications: NELAC-NY10854,NJDEP,PADEP	06/06/2018 04:52	06/06/2018 11:01	SA
1336-36-3	*** Total PCBs**	**0.0404**		mg/kg dry	0.0250	1	EPA 8082A Certifications:	06/06/2018 04:52	06/06/2018 11:01	SA

	Surrogate Recoveries	Result	Acceptance Range
877-09-8	*Surrogate: Tetrachloro-m-xylene*	*104 %*	*30-140*
2051-24-3	*Surrogate: Decachlorobiphenyl*	*93.8 %*	*30-140*

Total Solids

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**98.4**		%	0.100	1	SM 2540G Certifications: CTDOH	06/06/2018 09:12	06/06/2018 15:38	TAJ

YORK
ANALYTICAL LABORATORIES INC

Analytical Batch Summary

Batch ID: BF80243 **Preparation Method:** % Solids Prep **Prepared By:** TAJ

YORK Sample ID	Client Sample ID	Preparation Date
18F0126-01	249-C-1	06/06/18
18F0126-02	249-C-2	06/06/18
18F0126-03	249-C-3	06/06/18

Batch ID: BF80244 **Preparation Method:** EPA 3545A **Prepared By:** CM

YORK Sample ID	Client Sample ID	Preparation Date
18F0126-01	249-C-1	06/06/18
18F0126-02	249-C-2	06/06/18
18F0126-03	249-C-3	06/06/18
BF80244-BLK2	Blank	06/06/18
BF80244-BS2	LCS	06/06/18

Polychlorinated Biphenyls by GC/ECD - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BF80244 - EPA 3545A											
Blank (BF80244-BLK2)								Prepared & Analyzed: 06/06/2018			
Aroclor 1016	ND	0.0167	mg/kg wet								
Aroclor 1221	ND	0.0167	"								
Aroclor 1232	ND	0.0167	"								
Aroclor 1242	ND	0.0167	"								
Aroclor 1248	ND	0.0167	"								
Aroclor 1254	ND	0.0167	"								
Aroclor 1260	ND	0.0167	"								
Aroclor 1262	ND	0.0167	"								
Aroclor 1268	ND	0.0167	"								
Total PCBs	ND	0.0167	"								
Surrogate: Tetrachloro-m-xylene	*0.0660*		*"*	*0.0673*		*98.0*	*30-140*				
Surrogate: Decachlorobiphenyl	*0.0557*		*"*	*0.0697*		*79.9*	*30-140*				
LCS (BF80244-BS2)								Prepared & Analyzed: 06/06/2018			
Aroclor 1016	0.545	0.0250	mg/kg wet	0.500		109	40-130				
Aroclor 1260	0.471	0.0250	"	0.500		94.2	40-130				
Surrogate: Tetrachloro-m-xylene	*0.0950*		*"*	*0.101*		*94.1*	*30-140*				
Surrogate: Decachlorobiphenyl	*0.0800*		*"*	*0.104*		*76.6*	*30-140*				

Sample and Data Qualifiers Relating to This Work Order

Definitions and Other Explanations

*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
High Bias	High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
Non-Dir.	Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.

York Analytical Laboratories
120 Research Dr.
Stratford, CT 06615
(203) 325-1371
Fax (203) 357-0166

Field Chain-of-Custody Record

Page 1 of 1

NOTE: York's Std. Terms & Conditions are listed on the back side of this document.
This document serves as your written authorization to York to proceed with the analyses requested and your signature binds you to York's Std. Terms & Conditions.

York Project No. 18F0126

YOUR Information	Report to:	Invoice To:	Your Project ID	Turn-Around Time	Report/Deliverable Type
Company: CORE Environmental	SAME [X]	SAME [X]	Brooklyn Navy Yard Building 249	RUSH-Same Day XX	Summary Report
Address: 22-48 119th Street, College Point, NY 11356	Name:	Name:		RUSH-Next Day	QA Report
Phone.: (718) 786-4730	Company:	Company:	Purchase Order #	RUSH-Two Day	CT RCP
Contact: Ron Tramposch	Address:	Address:		RUSH-Three Day	CT RCP DQA/DUE Pkg
E-mail: RPT@COREenv.com	E-mail:	E-mail	Samples from CT__NY__NJ__	RUSH-Four Day	NY ASP A Package
				Standard (5-7day)	NY ASP B Package X
					NJDEP Reduced Deliv

Print Clearly and Legibly. All Information must be complete. Samples will NOT be logged in and the turn-around time clock will not begin until any questions by York are resolved.

Samples Collected/Authorized By (Signature)

Ronald Tramposch
Name (printed)

Matrix Codes
S - soil
Other - specify(oil, etc.)
WW - wastewater
GW - groundwater
DW - drinking water
Air-A - ambient air
Air-SV - soil vapor

Volatiles		Semi-Vols.	Pest/PCB/Herb	Metals	Misc. Org.	Full Lists
8260 full	TICs	8270 or 625	8082PCB	RCRA8	TPH GRO	Pri.Poll.
624	Site Spec.	STARS list	8081Pest	PP13 list	TPH DRO	TCL Organics
STARS list	Nassau Co.	BN Only	8151Herb	TAL	CT ETPH	TAL Met/CN
BTEX	Suffolk Co.	Acids Only	CT RCP	CT15 list	NY 310-13	Full TCLP
MTBE	Ketones	PAH list	App. IX	TAGM list	TPH 1664	Full App. IX
TCL list	Oxygenates	TAGM list	Site Spec.	NJDEP list	Air TO14A	Part360-Routine
TAGM list	TCLP list	CT RCP list	SPLP or TCLP	Total	Air TO15	Part360-Baseline
CT RCP list	524.2	TCL list	TCLP Pest	Dissolved	Air STARS	Part360-Expanded No Dioxins/Furans
Arom. only	502.2	NJDEP list	TCLP Herb	SPLP or TCLP	Air VPH	Part360-Expanded Full List
Halog.only	NJDEP list	App. IX	Chlordane	Indiv. Metals	Air TICs	NYCDEP Sewer
App.IX list	SPLP or TCLP	TCLP BNA	608 Pest	LIST Below	Methane	NYSDEC Sewer
8021B list		SPLP or TCLP	608 PCB		Helium	TAGM

Report/Deliverable Type (cont.)	
Excel	
NYSDEC EQuIS	X
NJDEP SRP HazSite	
EQuIS	
GIS/KEY (std)	
YORK Regulatory Comp Excel compared to:	
OTHER:	

Sample Identification	Date+Time Sampled	Matrix	Analysis Requested (List above includes common analysis)	Container Description
249-C-1	6/5/18 - 9:32	Dust	PCB's	1 - 2 ounce Jar
249-C-2	6/5/18:9:52	Dust	PCB's	1- 2 ounce Jar
249-C-3	6/5/18-10:11	Dust	PCB's	1 - 2 ounce Jar

Comments:

PLEASE RUSH - 24 Hr. Turn if possible

Preservation (check all appliciable): 4°C____ Frozen____ HCl____ MeOH____ HNO_3____ H_2SO_4____ NaOH____ ZnAc Ascorbic Acid Other

Special Instructions
Field Filtered ☐
Lab to Filter ☐

Samples Relinquished By	Date/Time	Samples Received By	Date/Time
[signature]	6/5/18	[signature]	6/5/18 12:16PM
Samples Relinquished By [signature]	6/5/18 1715	**Samples Received in LAB by** TC [signature]	6/5/18 1715

Temperature on Receipt 1.1 °C

Transformer Hazardous Waste Manifests

CORE ENVIRONMENTAL CONSULTANTS

NYG 2863494

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID & HAZARDOUS MATERIALS

HAZARDOUS WASTE MANIFEST

P.O. Box 12820, Albany, New York 12212

Please type or print. Do not staple

(Hazardous Waste Manifest 1/5/99)

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: NYD981078058
Manifest Doc. No.: 63476
2. Page 1 of 1

Information within heavy bold line is not required by Federal Law.

3. Generator's Name and Mailing Address:
Brooklyn Navy Yard
Building 292
63 Flushing Ave.
Brooklyn, NY 11205
C/T. Nicholas Mann

4. Generator's Telephone Number (845) 721-0284

A. NYG 2863494

B. Generator's ID: Bldg. 3, Roof Top

5. Transporter 1 (Company Name): TCI Inc.
6. US EPA ID Number: NYD986899912

C. State Transporter's ID: AD-49842-M
D. Transporter's Telephone (518) 828-9997

7. Transporter 2 (Company Name): SJ Transportation Co., Inc.
8. US EPA ID Number: NJD071629976

E. State Transporter's ID: T84Z2F NJ
F. Transporter's Telephone (856) 769-2741

9. Designated Facility Name and Site Address:
Trans-Cycle Industries, Inc.
101 Parkway East
Pell City, AL 35125

10. US EPA ID Number: ALD983167891

G. State Facility ID

H. Facility Telephone (205) 338-9997

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers Number	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ Polychlorinated Biphenyls LIQUID 9, UN2315, PGIII	002	TP	03068	K	EPA STATE B004
b.					EPA STATE
c.					EPA STATE
d.					EPA STATE

J. Additional Descriptions for Materials Listed Above
a. PCB contaminated fluid in electrical equipment
b.
c.
d.

K. Handling Codes for Wastes Listed Above
a. B
b.
c.
d.

15. Special Handling Instructions and Additional Information
Dike and contain in case of spill. ERG-171
Emergency Contact: Bruce Vetro (800) 626-9997

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and state laws and regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: N. MANN
Signature: N. M
Mo. Day Year: 09 13 05

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Milo Shutts
Signature: Milo Shutts
Mo. Day Year: 09 13 05

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: CHRISTOPHER P. Price
Signature: Christopher P. Price
Mo. Day Year: 09 19 05

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: STANLEY HEAD
Signature: Stanley Head
Mo. Day Year: 09 21 05

GENERATOR
TRANSPORTER
FACILITY

COPY 2—Generator State—Mailed by TSD Facility

BILL OF LADING FOR NON-HAZARDOUS WASTE

TCI INC.

Document No. N 04231

GENERATOR NAME AND MAILING ADDRESS:
Brooklyn Navy Yard
Building 292
63 Flushing Avenue
Brooklyn NY 11205

US EPA ID NUMBER: (OPTIONAL) NYD981107805 8

PICKUP LOCATION (NAME & STREET ADDRESS):
Building 3, Roof Top

Contact: Nicholas Mann

Phone Number: 845 721-0284

DESIGNATED FACILITY NAME & SITE ADDRESS:
TCI Inc.
39 Falls Industrial Park
Hudson, New York 12534

US EPA ID NUMBER: NYD986899912

Contact: Bruce Vetro, Vice-President

Phone Number: **(518) 828-9997**

DESCRIPTION OF SHIPMENT

No. of Units	Type	Full/ Empty	KVA	PCB Content	Total Weight
1	Transformer	Full	200	<5	3100 lbs

Type: P = Pole, PM = Padmount, DM = Drums, S = Switch, R = Regulators, O = OCB, B = Bushings, LB = Light Ballasts, SS = Substation, C = Capacitor

Generator's Certification: I certify the materials described above are not subject to federal regulations for reporting proper disposal of Hazardous Waste and that I am authorized to convey this material by the owner who holds clear title.

N. MANN — PRINTED/TYPED NAME
N. M — SIGNATURE
9/13/05 — DATE

Transporter: TCI Inc.

Mike Shutts — DRIVER NAME PRINTED/TYPED
Mike Shutts — SIGNATURE

Pickup Times: TIME IN: 7:30 a.m. / p.m. TIME OUT: 10:00 a.m. / p.m.

9-13-05 — DATE

Additional Information ______

Designated Facility Owner or Operator — Certification of Receipt of Materials with Discrepancies Noted:

Bruce Vetro, Vice-President — PRINTED TYPED
Bruce Vetro — SIGNATURE
9-19-05 — DATE

ORIGINAL—RETURN TO GENERATOR

REGISTER OF ELECTRICAL EQUIPMENT

Addendum to Manifest No. L-6134176

Page 1 of 1

Generator Name: Brooklyn Navy Yard

US EPA ID Number: NYD981078058

Generator Ref. No.	Serial No.	*Type	Size	PCB	**Gal.	Weight	Date Out Of Service
X	3080925	Trans		141	150	3074	9-12-05
X	3100025	Trans		368	150	3082	9-12-05

6,156 lbs

*Type: P = Pole, PM = Padmount, U = URD, S = Switch, R = Regulators, O = OCB, B = Bushings, R = Recloser, SS = Substation

**Gal: If drained of all free-flowing fluid record: 0

Driver Signature [signature] Date 09/13/05

Generator Signature N. M. Date 09/13/05

WHITE - RETURN TO GENERATOR YELLOW - DESIGNATED FACILITY RETAINS PINK - TRANSPORTER RETAINS GOLD - GENERATOR RETAINS

Certificate of Disposal Number 251394

Issued By: TRANS-CYCLE INDUSTRIES INC.
101 PARKWAY EAST
P.O. BOX 765
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

TCI EPA ID # ALD983167891
Manifest Doc: 63476
TCI Load # 251394
of: 09/13/05

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
FLUSHING AVE & CUMBERLAND ST.
BROOKLYN, NY 11205-

PHONE (718) 852-1441

We hereby certify that the following PCB items were disposed of as of the date(s) shown below:

Serial Number	Qty	Description	Disposed	Disposal Method
3080925	1	POWER TRANSFORM	11/07/05	METALS CLEANING AND RECYCLING
3100025	1	POWER TRANSFORM	11/07/05	METALS CLEANING AND RECYCLING

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.

Tracy Helms
Quality Director

11/08/05
Date

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD981078058
2. Page 1 of: 1
3. Emergency Response Phone: 800-424-9300
4. Manifest Tracking Number: 100052726 CTN

5. Generator's Name and Mailing Address:
Brooklyn Navy Yard
63 Flushing Ave, Bldg 292, 3rd Fl
Brooklyn NY 11205

Generator's Site Address (if different than mailing address): BLDG 3 UNITS

Generator's Phone: Nicholas Mann 845-721-0284

6. Transporter 1 Company Name: SO Transportation Co Inc. — U.S. EPA ID Number: NJD021829826

7. Transporter 2 Company Name: — U.S. EPA ID Number:

8. Designated Facility Name and Site Address:
TCI of Alabama, LLC
101 Parkway East
Pell City AL 35125

Facility's Phone: 205-338-9997 — U.S. EPA ID Number: ALD983167891

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. RQ Polychlorinated Biphenyls (SOLID) 9, UN3432, PGIII >500ppm PCB Transfrmers	4	CM	4795	K	B006
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Dike and contain in case of spill. ERG-171 QUOTE #: 1002004N
Emergency Contact: CHEMTREC 24 hr
Bldg 3, Serial 544317 (T2651), 1793448 (T2648), 1793450 (T2648), 1793449 (T2650).
ASK

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: N Mann — Signature: N.M. — Month Day Year: 09 20 10

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Scott Brunell — Signature: Scott Brunell — Month Day Year: 09 20 10
Transporter 2 Printed/Typed Name: — Signature: — Month Day Year:

18. Discrepancy
18a. Discrepancy Indication Space ☒ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Rec
1) 4cm 7059 Kg

Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number:
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H010 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Michael Strickland — Signature: [signature] — Month Day Year: 09 24 10

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

TCI OF ALABAMA, LLC

Receiving Report for Shipment **102859**

Generator: BROOKLYN NAVY YARD-DEVELOP.CO **Pickup Date:** 9/19/10

EPA ID#: NYD981078058 **Manifest Doc#:** 100052726CTN

ITEM #	*GEN REF#*	*SERIAL #*	*TYPE*	*SIZE*	*PCB*	*RFS DATE*	*GALS*	*LBS*	*KG'S*
001	T2651	544317	TRANSFRM	0	600,000	8/30/10	0.0	7,310	3,323
002	T2652	1793448	TRANSFRM	0	600,000	8/30/10	0.0	2,740	1,245
003	T2653	1793450	TRANSFRM	0	600,000	8/30/10	0.0	2,730	1,241
004	T2654	1793449	TRANSFRM	0	600,000	8/30/10	0.0	2,750	1,250

QUANTITY = (4)

DRAINED PCB ELECTRICAL EQUIPMENT

Totals	*0.0*	*15,530*	*7,059*

RECEIVED
OCT - 7 2010
FINANCE

BLDG 3
DRAINED UNITS

REGISTER OF ELECTRICAL EQUIPMENT

Generator Name:
Brooklyn Navy Yard

US EPA ID No: NYD981078058

TCI NEW YORK

Addendum to
Manifest No. 100052726 CTN

Page 1 of 1

Item	Serial #	Type	PCB	Gal.	Weight	Date Out Of Service
T2651	544317	Trans	ASK	0	7310	8/30/2010
T2652	1793448	Trans	ASK	0	2740	8/30/2010
T2653	1793450	Trans	ASK	0	2730	8/30/2010
T2654	1793449	Trans	ASK	0	2750	8/30/2010
	BLDG 3					

Stays with manifest

Form: 55

Disposal Summary #102859

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

TCI EPA ID # ALD983167891
Manifest ID: 100052726CTN
TCI Load # 102859
of: 09/19/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

NICHOLAS MANN
PHONE (845) 721-0284

In accordance with our agreement to provide disposal services, we hereby certify the completion of all items picked up on the above listed manifest. A summary of the disposition is as follows:

Qty	Item Description	Disposal Method	Completed
4	TP's of PCB ELECTRICAL EQUIPMENT	METALS CLEANING AND RECYCLING	11/15/10

Certification:

Tracy Helms
Quality Director

11/15/10
Date

Disposal Detail #102859

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

Shipped: 09/19/10
Manifest ID: 100052726CTN
Received: 09/24/10
Disposed: 11/15/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

PHONE (845) 721-0284

We hereby certify that the following items were disposed of in accordance with 40 CFR 761 as of the date(s) shown below:

Carcass or Container				Contents				
Item Number	Item Type	Method	Disp	Comp	Method	Disp	Facility	EPA ID #
544317	TRANSFRM	MCR	11/15/10					
1793448	TRANSFRM	MCR	11/15/10					
1793450	TRANSFRM	MCR	11/15/10					
1793449	TRANSFRM	MCR	11/15/10					

MCR = METALS CLEANING AND RECYCLING

Tracy Helms
Quality Director

11/15/10
Date

Certificate of Disposal Number 102859

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

TCI EPA ID # ALD983167891
Manifest ID: 100052726CTN
TCI Load # 102859
of: 09/19/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

PHONE (845) 721-0284

We hereby certify that the following PCB items were disposed of as the date(s) shown below:

Item Number	Qty	Description	Disposed	Disposal Method
544317	1	POWER TRANSFORM	11/15/10	METALS CLEANING AND RECYCLING
1793448	1	POWER TRANSFORM	11/15/10	METALS CLEANING AND RECYCLING
1793450	1	POWER TRANSFORM	11/15/10	METALS CLEANING AND RECYCLING
1793449	1	POWER TRANSFORM	11/15/10	METALS CLEANING AND RECYCLING

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.

Tracy Helms
Quality Director

11/15/10
Date

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: N Y D 9 8 1 0 7 8 0 5 8
2. Page 1 of: 1
3. Emergency Response Phone: 800-424-9300
4. Manifest Tracking Number: 100052727 CTN

5. Generator's Name and Mailing Address:
Brooklyn Navy Yard
63 Flushing Ave, Bldg 292, 3rd Fl
Brooklyn NY 11205

Generator's Site Address (if different than mailing address): BLDG 3 OIL

Generator's Phone: Nicholas Mann 845-721-0284

6. Transporter 1 Company Name: TCI of NY — U.S. EPA ID Number: NYD986099912

7. Transporter 2 Company Name: SJ Transportation Co — U.S. EPA ID Number: NJD071629976

8. Designated Facility Name and Site Address:
TCI of Alabama, LLC
101 Parkway East
Pell City AL 35125

Facility's Phone: 205-338-9997

U.S. EPA ID Number: ALD983167891

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes			
	1. RQ Polychlorinated Biphenyls (LIQUID) 9, UN2315, PGIII 50-499ppm PCB Oil	~~12~~	TT ~~DM~~	1700 ~~2182~~	K	B002			
	2.								
	3.								
	4.								

14. Special Handling Instructions and Additional Information
Dike and contain in case of spill. ERG-171 QUOTE #: 1002004N
Emergency Contact: CHEMTREC 24 hr.
Bldg 3, Serial # 544317 (T2651), 1793448 (T2648), 1793450 (T2649), 1793449 (T2650)
500 g/e

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Carlos Sempertegui — Signature: Carlos Sempertegui ON BEHALF, BNY — Month/Day/Year: 09/18/10

16. International Shipments: Import to U.S. / Export from U.S. — Port of entry/exit: — Transporter signature (for exports only): — Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Dean Berry — Signature: Dean B — Month/Day/Year: 09/18/10
Transporter 2 Printed/Typed Name: George Meadows Jr — Signature: George Meadows — Month/Day/Year: 09/24/10

18. Discrepancy
18a. Discrepancy Indication Space: Quantity / Type / Residue / Partial Rejection / Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number:

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H141			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Irene Holms — Signature: — Month/Day/Year: 09/27/10

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

TCI OF ALABAMA, LLC

Receiving Report for Shipment **102885**

Generator: BROOKLYN NAVY YARD-DEVELOP.CO **Pickup Date:** 9/18/10

EPA ID#: NYD981078058 **Manifest Doc#:** 100052727CTN

ITEM #	*GEN REF#*	*SERIAL #*	*TYPE*	*SIZE*	*PCB*	*RFS DATE*	*GALS*	*LBS*	*KG'S*
001		TANKER	LIQUID	0	499	8/30/10	522.0	3,740	1,700

QUANTITY = (1)

BULK TANKER OF PCB-CONTAMINATED FLUID 50-499 PPM PCBS

Totals *522.0* *3,740* *1,700*

OCT

REGISTER OF ELECTRICAL EQUIPMENT

BLDG 3
OIL

Generator Name: Brooklyn Navy Yard

US EPA ID No: NYD981078058

Addendum to Manifest No. 100052727 CTN

Item	Serial #	Type	PCB	Gal.	Weight	Date Out Of Service
~~T2648~~	~~1793448~~	~~DM~~	~~88~~	~~50~~		~~8/30/2010~~
~~T2648~~	~~1793448~~	~~DM~~	~~88~~	~~38~~		8/30/2010
~~T2649~~	~~1793450~~	~~DM~~	~~79~~	~~50~~		8/30/2010
~~T2649~~	~~1793450~~	~~DM~~	~~79~~	~~38~~		8/30/2010
~~T2650~~	~~T1793449~~	DM	~~50-499~~	~~50~~		8/30/2010
~~T2650~~	~~T1793449~~	~~DM~~	~~50-499~~	~~38~~		8/30/2010
~~T2651~~	~~544317~~	~~DM~~	~~142~~	~~50~~		8/30/2010
T2651	~~544317~~	~~DM~~	~~142~~	~~50~~		8/30/2010
~~T2651~~	~~544317~~	DM	~~142~~	~~50~~		8/30/2010
~~T2651~~	~~544317~~	~~DM~~	~~142~~	~~50~~		8/30/2010
~~T2651~~	~~544317~~	~~DM~~	~~142~~	~~50~~		8/30/2010
~~T2651~~	~~544317~~	~~DM~~	~~142~~	~~8~~		8/30/2010
T2648		Tanker				
T2649		Tanker				
T2650		Tanker				
T2651	BLDG 3	Tanker				
	OIL					

Customer Copy

Form: 55

Disposal Summary #102885

Page: 1

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

TCI EPA ID # ALD983167891
Manifest ID: 100052727CTN
TCI Load # 102885
of: 09/18/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

NICHOLAS MANN
PHONE (845) 721-0284

In accordance with our agreement to provide disposal services, we hereby certify the completion of all items picked up on the above listed manifest. A summary of the disposition is as follows:

Qty	Item Description	Disposal Method	Completed
1	TT of PCB-CONT LIQUID	COMPLETE DRAINING	09/27/10
	FLUID FROM ABOVE	PCB INCINERATION Shipped on Manifest #10378, 09/27/10 To VEOLIA ES TECHNICAL SOLUTIONS	10/11/10

Certification:

Tracy Helms
Quality Director

11/15/10
Date

Disposal Detail #102885

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

Shipped: 09/18/10
Manifest ID: 100052727CTN
Received: 09/27/10
Disposed: 10/11/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

PHONE (845) 721-0284

We hereby certify that the following items were disposed of in accordance with 40 CFR 761 as of the date(s) shown below:

Carcass or Container			Contents			
Item Number	Item Type	Method Disp	Comp	Method Disp	Facility	EPA ID #
TANKER	LIQUID	DRN 09/27/10	OIL	INC 10/11/10	VEOLIA	TXD000838896

DRN = COMPLETE DRAINING INC = PCB INCINERATION

Tracy Helms
Quality Director

11/15/10
Date

BILL OF LADING FOR NON-HAZARDOUS WASTE

TCI NEW YORK

Document No. 5428

GENERATOR NAME AND MAILING ADDRESS:
Brooklyn Navy Yard - 77
63 Flushing Avenue
Brooklyn, NY 11205

US EPA ID NUMBER: (OPTIONAL) NYD981078058

PICKUP LOCATION (NAME & STREET ADDRESS):
BLG 77

Contact: Nicholas Mann

Phone Number: 845-721-0284

DESIGNATED FACILITY NAME & SITE ADDRESS:
G&S Motor Equipment Co. Inc.
1800 Harrison Ave.
Kearny, NJ 07032

US EPA ID NUMBER: (OPTIONAL) NJD011370525

Contact: George Newmark

Phone Number: 201-998-9244

DESCRIPTION OF SHIPMENT

No. of Units	Type	Full/Empty	KVA	PCB Content	Total Weight
2	OCB			<50	

Type: P= Pole, PM = Padmount, DM = Drums, S = Switch, R = Regulators, O = OCB, B = Bushings, LB = Light Ballasts, SS = Substation, C = Capacitor

Generator's Certification: I certify the materials described above are not subject to federal regulations for reporting proper disposal of Hazardous Waste and that I am authorized to convey this material by the owner who dolds clear title.

N. MANN
PRINTED/TYPED NAME

SIGNATURE

12/9/13
DATE

Transporter:
TCI of NY, LLC

Pickup Times: TIME IN: 7:00 a.m. TIME OUT: 11:00 a.m.

WILLIAM SULTAN II
DRIVER NAME PRINTED/TYPED

SIGNATURE

12/9/13
DATE

Additional Information

Designated Facility Owner or Operator — Certification of Receipt of Materials with Discrepancies Noted:

PRINTED/TYPED NAME

SIGNATURE

DATE

GENERATOR RETAINS

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID AND HAZARDOUS WASTE

HAZARDOUS WASTE MANIFEST WO8893

P.O. Box 12820, Albany, New York 12212

Please print or type.

Form Approved. OMB No. 2050-0039. Expires 9-30-88

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No.: NYD 9 0 1 0 7 0 0 0 0 — Manifest Document No.:

2. Page 1 of 1

Information in the shaded areas is not required by Federal Law.

3. Generator's Name and Mailing Address
Brooklyn Navy Yard Development Corporation
Flushing Ave. & Cumberland St.
Brooklyn, NY 11205

4. Generator's Phone (718-852-1441

A. State Manifest Document No. NY A 853894 8

B. Generator's ID SAME

5. Transporter 1 (Company Name) ~~[illegible] ENVIRONMENTAL GROUP~~ — 6. US EPA ID Number ~~N[illegible] 7~~

C. State Transporter's ID 9AH 117

D. Transporter's Phone 716-877-5533

7. Transporter 2 (Company Name) Unison Private Truck Fleet (LSD) — 8. US EPA ID Number OHD 981 093 420 (LSD)

E. State Transporter's ID

F. Transporter's Phone ( )

9. Designated Facility Name and Site Address
G & L RECOVERY SYSTEMS INC.
1302 WEST 38th St. 44004
Ashtabula, Ohio

10. US EPA ID Number OHD 981 093 420

G. State Facility's ID

H. Facility's Phone (216)-992-8665

	11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.	RQ Waste Hazardous Substance Solid N.O.S. ORM-E NA9188 (Polychlorinated Biphenyls)	1	4	26500	P	B006
b.						
c.						
d.						

J. Additional Descriptions for Materials listed Above
a. Transformer Carcass PCB CONTAMINATED
b.
c.
d.

K. Handling Codes for Wastes Listed Above
a. R
b.
c.
d.

15. Special Handling Instructions and Additional Information: All invoices, certificates of disposal and manifest discrepancies are to be referred to: UNISON, PO Box 241085, Charlotte, NC 28224, Attn: Distribution Mgr, Emergency Response 1-800-822-4357
9A7 OH-066

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and state laws and regulations.

If I am a large quantity generator, I certify that I have program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR if I am a small generator, I have made a good faith effort to minimize my waste and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: GEORGE M. LANCO — Signature: George M Lanco — Mo. Day Year: 12 05 88

17. Transporter 1 (Acknowledgement of Receipt of Materials)
Printed/Typed Name: LEWIS G. PATTERSON — Signature: Lewis G Patterson — Mo. Day Year: 12 05 88

18. Transporter 2 (Acknowledgement or Receipt of Materials)
Printed/Typed Name: — Signature: — Mo. Day Year:

19. Discrepancy Indication Space
PROCESS TO DESTROY TRANSFORMERS IS DECONTAMINATE AND RECYCLE METALS AS PER EPA Region V PERMIT / NOT ALL COPIES OF MANIFEST HANDLED CORRECTLY - WILL SEND TO PROPER PLACES

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.
Printed/Typed Name: Donald H Cipollo — Signature: Donald H. Cipollo — Mo. Day Year: 12 06 88

GENERATOR / TRANSPORTER / FACILITY

In case of emergency or spill immediately call the National Response Center (800) 424-8802 and the N.Y. Department of Transportation (518) 457-7362.

NY A 853894 8

EPA Form 8700-22 (Rev. 9-86) Previous edition is obsolete.

COPY 2 – Generator State – mailed by TSD facility

CERTIFICATE OF DESTRUCTION

RECOVERY G&L SYSTEMS INC.

THIS CERTIFICATE OF DESTRUCTION IS

FINAL VERIFICATION OF DISPOSITION

OF YOUR TRANSFORMER BY

G & L Recovery Systems, Inc.

1302 W. 38th Street, Ashtabula, Ohio 44004

EPA No. OHD981093420

DESTRUCTION DATE: 3/29/89

Generator Brooklyn Navy Yard Development

Street Flushing Ave & Cumberland St.

City Brooklyn,

State NY Zip 11205

Trans. Manf. G.E. KVA 500

S/N 6609573 G&L No. 03575/ W08893

CLASSIFICATION x PCB ___ CONT ___ PPM PCB ___

Manifest# YA8538948 Date in Storage 12-3-88

G & L Recovery Systems, Inc. Official Donald H. Cipolla Title Operations Manager

Officials Signature ___

CERTIFICATE OF DESTRUCTION

G&L RECOVERY SYSTEMS INC.

THIS CERTIFICATE OF DESTRUCTION IS

FINAL VERIFICATION OF DISPOSITION

OF YOUR TRANSFORMER BY

G & L Recovery Systems, Inc.

1302 W. 38th Street, Ashtabula, Ohio 44004

EPA No. OHD981093420

DESTRUCTION DATE: 3/24/89

Generator Brooklyn Navy Yard Development

Street Flushing Ave. & Cumberland St.

City Brooklyn.

State NY Zip 11205

G & L Recovery Systems, Inc. Official Donald H. Cipollo

Official Signature

Trans. Manf. G. E. KVA 500

S/N USN105527 G&L No. P3526/WD 8893

CLASSIFICATION x PCB ___ CONT ___ PPM PCB ___

Manifest NYA8538948 Date in Storage 12-3-88

Title Operations Manager

CERTIFICATE OF DESTRUCTION

G&L RECOVERY SYSTEMS INC.

THIS CERTIFICATE OF DESTRUCTION IS

FINAL VERIFICATION OF DISPOSITION

OF YOUR TRANSFORMER BY

G & L Recovery Systems, Inc.

1302 W. 38th Street, Ashtabula, Ohio 44004

EPA No. OHD981093420

DESTRUCTION DATE: 4/4/89

Generator Brooklyn Navy Yard Development

Street Flushing Ave. & Cumberland St.

City Brooklyn,

State NY Zip 11205

G & L Recovery Systems, Inc. Official Donald H. Cipollo

Officials Signature Donald H. Cipollo

Trans. Manf. G. E. KVA 500

S/N N/A (USN105528) G&L No. P3528/W08893

CLASSIFICATION X PCB ___ CONT ___ PPM PCB ___

Manifest NYA8538948 Date in Storage 12/3/88

Title Operations Manager

CERTIFICATE OF DESTRUCTION

G&L RECOVERY SYSTEMS INC.

THIS CERTIFICATE OF DESTRUCTION IS

FINAL VERIFICATION OF DISPOSITION

OF YOUR TRANSFORMER BY

G & L Recovery Systems, Inc.

1302 W. 38th Street, Ashtabula, Ohio 44004

EPA No. OHD981093420

DESTRUCTION DATE: 3/30/89

Generator Brocklyn Navy Yard Development	Trans. Manf. G. E. KVA 500
Street Flushing Ave. & Cumberland St.	S/N 6609572 G&L No. P3527/W08893
City Brocklyn,	CLASSIFICATION X PCB __ CONT __ PPM PCB __
State NY Zip 11205	Manifest NYA8538948 Date in Storage 12/3/88
G & L Recovery Systems, Inc. Official Donald H. Cipollo	Title Operations Manager
Officials Signature Donald H Cipollo	

01/08/16

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) CCN222702 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number: NYD981078058	2. Page 1 of 1	3. Emergency Response Phone: 800-424-9300	4. Manifest Tracking Number: 002851961 GBF

5. Generator's Name and Mailing Address
Brooklyn Navy Yard
63 Flushing Avenue
Brooklyn, NY 11205

Generator's Site Address (if different than mailing address)

Generator's Phone: Edward Arevalo 718-907-5967

6. Transporter 1 Company Name: TCI of NY, LLC — U.S. EPA ID Number: NYR000211540

7. Transporter 2 Company Name: SJ Transportation Co., Inc. — U.S. EPA ID Number: NJD071629976

8. Designated Facility Name and Site Address
TCI of Alabama, LLC
101 Parkway East
Pell City, AL 35125

U.S. EPA ID Number: ALD983167891

Facility's Phone: 205-338-9997

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. RQ UN3432 Polychlorinated Biphenyls SOLID 9, PGIII DRAINED >500PPM PCB TRANS	1	CM	3500	K	~~B006~~ ~~R~~
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information

Dike and contain in case of spill. ERG-171 Emergency Contact: CHEMTREC 24 Hours

QUOTE # 1512004N

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Donald Harrison — Signature: Donald Harrison — Month 12 Day 11 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Mike Shutts — Signature: Michael Shutts — Month 12 Day 11 Year 15
Transporter 2 Printed/Typed Name: Bryan Miller — Signature: Bryan Miller — Month 12 Day 17 Year 15

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H010			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Michael Spraggins — Signature: Michael Spraggins — Month 12 Day 21 Year 15

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR STATE (IF REQUIRED)

GENERATOR / TRANSPORTER / INT'L / DESIGNATED FACILITY

TCI OF ALABAMA, LLC

Receiving Report for Shipment 155527

Generator: BROOKLYN NAVY YARD-DEVELOP.CO **Pickup Date:** 12/11/15

EPA ID#: NYD981078058 **Manifest Doc#:** 002851961GBF

ITEM #	*GEN REF#*	*SERIAL #*	*TYPE*	*SIZE*	*PCB (ppm)*	*RFS DATE*	*GALS*	*LBS*	*KG'S*
001		252641	TRANSFRM	0	500	12/11/15	0.0	7,984	3,629
QUANTITY = (1)									
DRAINED PCB ELECTRICAL EQUIPMENT					*0*	**Totals**	*0.0*	*7,984*	*3,629*

MAILED
DATE 1/5/16

155447

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

CCN222702

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number: N Y D9 8 1 0 7 8 0 5 8	2. Page 1 of 1	3. Emergency Response Phone: 800-424-9300	4. Manifest Tracking Number: 002851962 GBF

5. Generator's Name and Mailing Address
Brooklyn Navy Yard
63 Flushing Avenue
Brooklyn, NY 11205 Edward Acevado 718-907-5967

Generator's Site Address (if different than mailing address)

Generator's Phone:

6. Transporter 1 Company Name
TCI of NY, LLC
U.S. EPA ID Number: N Y R0 0 0 2 1 1 5 4 0

7. Transporter 2 Company Name
SJ Transportation Co., Inc.
U.S. EPA ID Number: N J D 0 7 1 6 2 9 9 7 6

8. Designated Facility Name and Site Address
TCI of Alabama, LLC
101 Parkway East
Pell City , AL 35125
Facility's Phone: 205-338-9997
U.S. EPA ID Number: A L D9 8 3 1 6 7 8 9 1

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. RQ UN2315 Polychlorinated Biphenyls LIQUID 9, PGIII DRUM OF >500PPM PCB OIL	12	DM	2000	K	B006 R
	2. RQ UN3432 Polychlorinated Biphenyls SOLID 9, PGIII PCB DEBRIS IN DRUM	001	DM	45	K	B006 R
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Dike and contain in case of spill. ERG-171 Emergency Contact: CHEMTREC 24 Hours
DEBRIS FOR LANDFILL
QUOTE # 1512004N

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: DONALD HARRISON
Signature: [signature]
Month Day Year: 12 11 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Mike Stutts
Signature: Michael Stutts
Month Day Year: 12 11 15

Transporter 2 Printed/Typed Name: Mike Bergstrom
Signature: M. Bergstrom
Month Day Year: 12 16 15

18. Discrepancy
18a. Discrepancy Indication Space ☑ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
2.) REC'D 1 DM 54 LB. = 25 K.
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
~~E010~~ H141	~~E010~~ H141		

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: MICHAEL SPRAGGINS
Signature: [signature]
Month Day Year: 12 17 15

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

TCI OF ALABAMA, LLC

Receiving Report for Shipment 155447

Generator: BROOKLYN NAVY YARD-DEVELOP.CO **Pickup Date:** 12/11/15

EPA ID#: NYD981078058 **Manifest Doc#:** 002851962GBF

ITEM #	*GEN REF#*	*SERIAL #*	*TYPE*	*SIZE*	*PCB (ppm)*	*RFS DATE*	*GALS*	*LBS*	*KG'S*
001		BNY1	LIQUID	55	500	12/11/15	48.0	392	178
002		BNY2	LIQUID	55	500	12/11/15	46.0	378	172
003		BNY3	LIQUID	55	500	12/11/15	47.0	386	175
004		BNY4	LIQUID	55	500	12/11/15	50.1	408	185
005		BNY5	LIQUID	55	500	12/11/15	48.0	398	181
006		BNY6	LIQUID	55	500	12/11/15	47.0	386	175
007		BNY7	LIQUID	55	500	12/11/15	49.0	400	182
008		BNY8	LIQUID	55	500	12/11/15	50.1	408	185
009		BNY9	LIQUID	55	500	12/11/15	49.0	402	183
010		BNY10	LIQUID	55	500	12/11/15	51.1	418	190
011		BNY11	LIQUID	55	500	12/11/15	29.6	334	152
012		BNY12	LIQUID	55	500	12/11/15	49.0	404	184
QUANTITY = (12)									
DRUM OF PCB FLUID >499 PPM PCBS				*660*		**Totals**	*563.9*	*4,714*	*2,143*
013		BNY13	DEBRIS	55	500	12/11/15	0.0	54	25
QUANTITY = (1)									
DRUM OF PCB SOLIDS >49 PPM PCBS				*55*		**Totals**	*0.0*	*54*	*25*

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) CCN222702 Form Approved. OMB No. 2050-00

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD981078058
2. Page 1 of: 1
3. Emergency Response Phone: 800-424-9300
4. Manifest Tracking Number: 001898271 GBF

5. Generator's Name and Mailing Address:
Brooklyn Naval Yard
63 FLushing Ave Building 292
Broklyn NY 12205

Generator's Site Address (if different than mailing address): Bldg 200

Generator's Phone: Nicholas Mann 845-721-0284

6. Transporter 1 Company Name: TCI of NY, LLC — U.S. EPA ID Number: NYD986899912

7. Transporter 2 Company Name: SJ Transportation Co Inc. — U.S. EPA ID Number: NJD071629976

8. Designated Facility Name and Site Address:
TCI of Alabama, LLC
101 Parkway East
Pell City AL 35125

Facility's Phone: 205-338-9997 — U.S. EPA ID Number: ALD983167891

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. RQ, UN2315, Polychlorinated Biphenyls Liquid 9, PGIII Drum >500ppm PCB oil	~~2~~ 1 MD	DM	~~234~~ 170 MD	K	B003
	2. RQ, UN3432, Polychlorinated Biphenyls Soild 9, PGIII Drained >500ppm PCB Trans	1	CM	318	K	B006
	3. RQ, UN2315, Polychlorinated Biphenyls Liquid 9, PGIII 50-499ppm Oil in Drum	MD 2	DM	~~453~~ 341 MD	K	B002
	4.					

14. Special Handling Instructions and Additional Information:
Dike and contain in case of spill. ERG 171
Emergency Contact: CHEMTREC 24 hours

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: N. MANN — Signature: N. M — Month 1 Day 29 Year 13

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Michael Shutts — Signature: Michael Shutts — Month 01 Day 29 Year 13
Transporter 2 Printed/Typed Name: Mike Bergstrom — Signature: M. Bergstrom — Month 1 Day 30 Year 13

18. Discrepancy 1 30 13
18a. Discrepancy Indication Space ☑ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
1.) REC'D 1 DM 470 LB. = 214 K. 2.) REC'D 1 CM 1390 LB. = 632 K.
Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H141	H010	H141	

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: MICHAEL SPRAGGINS — Signature: Michael Spraggins — Month 01 Day 31 Year 13

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR STATE (IF REQUIRED)

TCI OF ALABAMA, LLC

Receiving Report for Shipment 130377

Generator: BROOKLYN NAVY YARD-DEVELOP.CO **Pickup Date:** 1/29/13

EPA ID#: NYD981078058 **Manifest Doc#:** 001898271GBF

ITEM #	GEN REF#	SERIAL #	TYPE	SIZE	PCB	RFS DATE	GALS	LBS	KG'S
002		7654	TRANSFRM	0	500	8/25/10	0.0	1,390	632
QUANTITY = (1)									
DRAINED PCB ELECTRICAL EQUIPMENT						**Totals**	*0.0*	*1,390*	*632*
001	DM-01	OIL-1	LIQUID	55	500	8/25/10	54.3	470	214
QUANTITY = (1)									
DRUM OF PCB FLUID >499 PPM PCBS						**Totals**	*54.3*	*470*	*214*
003	DM-02	OIL-2	LIQUID	55	499	8/25/10	47.4	390	177
004	DM-03	OIL-3	LIQUID	55	499	8/25/10	49.3	400	182
QUANTITY = (2)									
DRUM OF PCB-CONTAMINATED FLUID 50-499 PPM PCBS						**Totals**	*96.7*	*790*	*359*

Addendum

To Manifest

Generator Name:
BNY

US EPA ID No:
NYD981078058

TCI NEW YORK

Addendum to Manifest No.
001898271 GBF

Page 1 of 1

Item	Serial #	Type	PCB	Gal.	Weight	Date Out Of Service
Dm-01	OIL	DRUM	PCB	50 29		8/25/10
	~~OIL~~	~~DRUM~~	~~PCB~~	~~29~~		~~8/25/10~~
	7654	TRANS	PCB	0		8/25/10
Dm-02	OIL	DRUM	50-499	50 39		8/25/10
Dm-03	OIL	DRUM	50-499	50 38		8/25/10
	~~OIL~~	~~DRUM~~	~~50-499~~	~~38~~		~~8/25/10~~

TCI of Alabama, LLC Disposal Document Package

BROOKLYN NAVY YARD-DEVELOP.COR

63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205
NICHOLAS MANN

Manifest Tracking Information

TCI Manifest #:	130377
Manifest Tracking #:	001898271GBF
Date Picked Up:	1/29/2013
Date Received:	1/31/2013

Enclosed please find the following Certificate of Disposal for the manifest listed above. This document reflects only the 50ppm PCB or greater item(s) disposed at the TCI of Alabama, LLC facility through our EPA permitted Metals Cleaning and Recycling (MCR) decontamination process. If applicable, all remaining PCB, PCB contaminated and /or Non-PCB items are still awaiting final disposal confirmation. Once all items have been completed and confirmation of disposal has been received by TCI, a final disposal package will be issued and mailed accordingly. The final disposal package referencing all items shipped on the above manifest will consist of the following documents: A Disposal Summary and, if applicable, a copy of each associated outbound manifest and coordinating Certificate of Disposal.

☐ ***TCI Certificate of Disposal Issued:*** 3/13/2013

Please reveiw the attached information closely. If any of the information is missing please fax or email this page back to Kristin Piper with the missing item(s) circled.
Fax #: (205) 338-9979 or kpiper@tcialabama.com

TCI of Alabama, LLC
101 Parkway East
Pell City, AL 35125
Phone: (205) 338-9997
Fax: (205) 338-9979
EPA ID #: ALD983167891

Certificate of Disposal

Certificate Number: 130377
Date Issued: 3/13/2013
Manifest Id Number: 001898271GBF
Pickup Date: 1/29/2013

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN , NY 11205

We hereby certify that the following PCB items were disposed of by TCI of Alabama, LLC metals cleaning and recycling process as of the date(s) shown below:

Barcode	Description	Serial #	Date
AA517902	EMPTY DRUM	OIL-1	3/13/2013
AA517903	POWER TRANSFORMER	7654	3/13/2013
AA517904	EMPTY DRUM	OIL-2	3/13/2013
AA517905	EMPTY DRUM	OIL-3	3/13/2013

Under civil and criminal penalities of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.

Tracy Helms

Tracy Helms
Quality Director

3/13/2013
Date

BILL OF LADING FOR NON-HAZARDOUS WASTE

NEW YORK

Document No. 4698

GENERATOR NAME AND MAILING ADDRESS:
Brooklyn Naval Yard
63 Flushing Ave
Brooklyn NY 12205

US EPA ID NUMBER: (OPTIONAL)
N Y D 9 8 1 0 7 8 0 5 8

PICKUP LOCATION (NAME & STREET ADDRESS):

Bldg 200

Contact: Nicholas Mann

Phone Number: 845-721-0284

DESIGNATED FACILITY NAME & SITE ADDRESS:
G&S Motor Equipment Co.
1800 Harrison Ave
Kearny NJ 07032

US EPA ID NUMBER: (OPTIONAL)
N J D 0 1 1 3 7 0 5 2 5

Contact: George Newmark

Phone Number: 201-998-9244

DESCRIPTION OF SHIPMENT

No. of Units	Type	Full/Empty	KVA	PCB Content	Total Weight
1	Drained 50-499ppm trans	0 G.	S/N 7651	304ppm	1395
1	Drained 50-499ppm Trans	0 G.	S/N 7655	141ppm	1370

Type: P= Pole, PM = Padmount, DM = Drums, S = Switch, R = Regulators, O = OCB, B = Bushings, LB = Light Ballasts, SS = Substation, C = Capacitor

Generator's Certification: I certify the materials described above are not subject to federal regulations for reporting proper disposal of Hazardous Waste and that I am authorized to convey this material by the owner who dolds clear title.

N MANN
PRINTED/TYPED NAME

N. Mann
SIGNATURE

1/29/13
DATE

Transporter:

TCI of NY, LLC NYD986899912

Mike Shutts
DRIVER NAME PRINTED/TYPED

Mike Shutts
SIGNATURE

Pickup Times: TIME IN: 7:30 a.m. p.m. TIME OUT: 1:00 a.m. p.m.

1-29-13
DATE

Additional Information

Designated Facility Owner or Operator – Certification of Receipt of Materials with Discrepancies Noted:

On behalf of G&S Patricia Phesay
PRINTED/TYPED NAME

Patricia Phesay
SIGNATURE

1/29/13
DATE

ORIGINAL - RETURN TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: N Y D 9 8 1 0 7 8 0 5 8
2. Page 1 of: 1
3. Emergency Response Phone: 800-424-9300
4. Manifest Tracking Number: 100052728 CTN

5. Generator's Name and Mailing Address:
Brooklyn Navy Yard
63 Flushing Ave, Bldg 292, 3rd Fl
Brooklyn NY 11205

Generator's Site Address (if different than mailing address):
BLDG 280
UNIT 439

Generator's Phone: Nicholas Mann 845-721-0284

6. Transporter 1 Company Name: TCI of NY LLC — U.S. EPA ID Number: NYD 986859912

7. Transporter 2 Company Name: SJ Transportation Co INC — U.S. EPA ID Number: NJD 071625678

8. Designated Facility Name and Site Address:
TCI of Alabama, LLC
101 Parkway East
Pell City AL 35125
U.S. EPA ID Number: A L D 9 8 3 1 6 7 8 9 1

Facility's Phone: 205-338-9997

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. RQ Polychlorinated Biphenyls (SOLID) 9, UN3432, PGIII >500ppm PCB Transformer	2	CM	2014	K	B006
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Dike and contain in case of spill. ERG-171 Quote#: 1002004N
Emergency Contact: CHEMTREC 24hr
Unit 439, Serial 03783, (T2642), ASKAREL,
#1 1 Gaylord Box #1 Pallet

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: N. Mann — Signature: N. M — Month Day Year: 09 18 10

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Dean Berry — Signature: Dean Berry — Month Day Year: 09 18 10
Transporter 2 Printed/Typed Name: Samuel A Brown Sr — Signature: Samuel A Brown — Month Day Year: 09 24 10

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H010			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Tracy Helms — Signature: [signature] — Month Day Year: 09 28 10

GENERATOR — TRANSPORTER — INT'L — DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

TCI OF ALABAMA, LLC

Receiving Report for Shipment **102895**

Generator: BROOKLYN NAVY YARD-DEVELOP.CO **Pickup Date:** 9/18/10

EPA ID#: NYD981078058 **Manifest Doc#:** 100052728CTN

ITEM #	GEN REF#	SERIAL #	TYPE	SIZE	PCB	RFS DATE	GALS	LBS	KG'S
001	#439	03783 - BOX	TRANSFRM	0	500,000	8/30/10	0.0	3,485	1,584
002	#439	03783 - PALLET	TRANSFRM	0	500,000	8/30/10	0.0	920	418

QUANTITY = (2)

CRATE OF DRAINED PCB ELECTRICAL EQUIPMENT **Totals** *0.0* *4,405* *2,002*

BUILDING 280
UNIT 439

REGISTER OF ELECTRICAL EQUIPMENT

Generator Name:
Brooklyn Navy Yard

US EPA ID No: NYD981078058

NEW YORK

Addendum to
Manifest No. 100052728 CTN

Page 1 of 1

Item	Serial #	Type	PCB	Gal.	Weight	Date Out Of Service
T2642	03783	Trans	ASK	0	4405	8/30/2010
	UNIT 439					

Customer Copy

Form: 55

Disposal Summary #102895

Page: 1

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

TCI EPA ID # ALD983167891
Manifest ID: 100052728CTN
TCI Load # 102895
of: 09/18/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

NICHOLAS MANN
PHONE (845) 721-0284

In accordance with our agreement to provide disposal services, we hereby certify the completion of all items picked up on the above listed manifest. A summary of the disposition is as follows:

Qty	Item Description	Disposal Method	Completed
2	CW's of PCB ELECTRICAL EQUIPMENT	METALS CLEANING AND RECYCLING	11/15/10

Certification: [signature] 11/15/10

Tracy Helms
Quality Director

Date

Disposal Detail #102895

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

Shipped: 09/18/10
Manifest ID: 100052728CTN
Received: 09/28/10
Disposed: 11/15/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

PHONE (845) 721-0284

We hereby certify that the following items were disposed of in accordance with 40 CFR 761 as of the date(s) shown below:

Carcass or Container				Contents			
Item Number	Item Type	Method	Disp	Comp	Method Disp	Facility	EPA ID #
03783 - BOX	TRANSFRM	MCR	11/15/10				
03783 - PALLET	TRANSFRM	MCR	11/15/10				

MCR = METALS CLEANING AND RECYCLING

Tracy Helms
Quality Director

11/15/10
Date

Certificate of Disposal Number 102895

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

TCI EPA ID # ALD983167891
Manifest ID: 100052728CTN
TCI Load # 102895
of: 09/18/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

PHONE (845) 721-0284

We hereby certify that the following PCB items were disposed of as the date(s) shown below:

Item Number	Qty	Description	Disposed	Disposal Method
03783 - BOX	1	POWER TRANSFORM	11/15/10	METALS CLEANING AND RECYCLING
03783 - PALLET	1	POWER TRANSFORM	11/15/10	METALS CLEANING AND RECYCLING

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.

Tracy Helms
Quality Director

11/15/10
Date

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD981078058
2. Page 1 of: 1
3. Emergency Response Phone: 800-424-9300
4. Manifest Tracking Number: 100052518 CTN

5. Generator's Name and Mailing Address:
Brooklyn Navy Yard
63 Flushing Ave, Bldg 292, 3rd Fl
Brooklyn NY 11205

Generator's Site Address (if different than mailing address):
BLDG 280
UNIT 438

Generator's Phone: Nicholas Mann 845-721-0284

6. Transporter 1 Company Name: TCI of NY LLC — U.S. EPA ID Number: NYD986899912

7. Transporter 2 Company Name: SJ Transportation Co Inc — U.S. EPA ID Number: NJD071629978

8. Designated Facility Name and Site Address:
TCI of Alabama, LLC
101 Parkway East
Pell City AL 35125

Facility's Phone: 205-338-9997 — U.S. EPA ID Number: ALD983167891

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. RQ Polychlorinated Biphenyls (LIQUID) 9, UN2315, PGIII >500ppm PCB Oil	1	DM	170	K	B003
	2. RQ Polychlorinated Biphenyls (SOLID) 9, UN3432, PGIII >500ppm PCB Transformer	11	CM	12136	K	B006
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Dike and contain in case of spill. ERG-171 Quote #1002004N
Emergency Contact: CHEMTREC 24 hr
Unit 438, Serial 7082164, (T2641) 542ppm PCBs #2 10 Gaylord Boxes + 1 Pallet

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: N. Mann — Signature: N. M — Month Day Year: 09 18 10

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Dean Berry — Signature: Dean Berry — Month Day Year: 09 18 10
Transporter 2 Printed/Typed Name: Samuel A. Brown Sr — Signature: Samuel A Brown — Month Day Year: 09 24 10

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H141	H010		

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Tracy Helms — Signature — Month Day Year: 09 28 10

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

TCI OF ALABAMA, LLC

Receiving Report for Shipment **102894**

Generator: BROOKLYN NAVY YARD-DEVELOP.CO **Pickup Date:** 9/18/10

EPA ID#: NYD981078058 **Manifest Doc#:** 100052518CTN

ITEM #	*GEN REF#*	*SERIAL #*	*TYPE*	*SIZE*	*PCB*	*RFS DATE*	*GALS*	*LBS*	*KG'S*
002	T2641	7082164/IN BOXES	TRANSFRM	0	542	8/30/10	0.0	27,270	12,395
QUANTITY = (1)									
DRAINED PCB ELECTRICAL EQUIPMENT						**Totals**	*0.0*	*27,270*	*12,395*
001	T2641	7082164/OIL	LIQUID	55	542	8/30/10	47.0	400	182
QUANTITY = (1)									
DRUM OF PCB FLUID >499 PPM PCBS						**Totals**	*47.0*	*400*	*182*

REGISTER
OF
ELECTRICAL EQUIPMENT

BUILDING 280
UNIT 438

Generator Name:
Brooklyn Navy Yard

US EPA ID No: NYD981078058

NEW YORK

Addendum to
Manifest No. 100052518 CTN

Page 1 of 1

Item	Serial #	Type	PCB	Gal.	Weight	Date Out Of Service
T2641	7082164/oil	DM	542	50	400	8/30/2010
~~T2641~~	~~7082164/oil~~	~~DM~~	~~542~~			8/30/2010
T2641	7082164/unit	Trans	542		27,270 ~~26700~~	8/30/2010

Stays with manifest

Certificate of Disposal Number 102894

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

TCI EPA ID # ALD983167891
Manifest ID: 100052518CTN
TCI Load # 102894
of: 09/18/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

PHONE (845) 721-0284

We hereby certify that the following PCB items were disposed of as the date(s) shown below:

Item Number	Qty	Description	Disposed	Disposal Method
7082164/OIL	1	EMPTY DRUM	11/15/10	METALS CLEANING AND RECYCLING
7082164/IN BOXES	11	POWER TRANSFORM	11/15/10	METALS CLEANING AND RECYCLING

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.

Tracy Helms
Quality Director

11/15/10
Date

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD981078058
2. Page 1 of: 1
3. Emergency Response Phone: 800-424-9300
4. Manifest Tracking Number: 100052729 CTN

5. Generator's Name and Mailing Address:
Brooklyn Navy Yard
63 Flushing Ave, Bldg 292, 3rd Fl
Brooklyn NY 11205

Generator's Site Address (if different than mailing address):
BLDG 280
UNIT 439 OIL

Generator's Phone: Nicholas Mann 845-721-0284

6. Transporter 1 Company Name: TCI of NY LLC — U.S. EPA ID Number: NYD 98689912

7. Transporter 2 Company Name: SJ Transportation Co. INC — U.S. EPA ID Number: NJD071629978

8. Designated Facility Name and Site Address:
TCI of Alabama, LLC
101 Parkway East
Pell City AL 35125

Facility's Phone: 205-338-9997 — U.S. EPA ID Number: ALD983167891

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes			
	1. RQ Polychlorinated Biphenyls (LIQUID) 9, UN2315, PGIII 50-499ppm PCB Oil	3	DM	510 ~~727~~	K	B002			
	2.								
	3.								
	4.								

14. Special Handling Instructions and Additional Information
Dike and contain in case of spill. ERG-171 QUOTE #: 1002004N
Emergency Contact: CHEMTREC 24HR
Unit 439, Serial 03783, T2642, 100ppm PCBs

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: N. MANN — Signature: N. M — Month/Day/Year: 09/18/10

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Dean Berry — Signature: Dea B — Month/Day/Year: 09/18/10
Transporter 2 Printed/Typed Name: SAMUEL A BROWN Sr — Signature: Samuel A Brown Sr — Month/Day/Year: 09/24/10

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H141 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Tracy Helms — Signature: [signature] — Month/Day/Year: 09/28/10

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

GENERATOR / INT'L / TRANSPORTER / DESIGNATED FACILITY

TCI OF ALABAMA, LLC

Receiving Report for Shipment **102896**

Generator: BROOKLYN NAVY YARD-DEVELOP.CO **Pickup Date:** 9/18/10

EPA ID#: NYD981078058 **Manifest Doc#:** 100052729CTN

ITEM #	*GEN REF#*	*SERIAL #*	*TYPE*	*SIZE*	*PCB*	*RFS DATE*	*GALS*	*LBS*	*KG'S*
001	T2642	03783 OIL DM-1	LIQUID	55	100	8/30/10	53.4	440	200
002	T2642	03783 OIL DM-2	LIQUID	55	100	8/30/10	52.4	430	195
003	T2642	03783 OIL DM-3	LIQUID	55	100	8/30/10	33.2	290	132

QUANTITY = (3)

DRUM OF PCB-CONTAMINATED FLUID 50-499 PPM PCBS **Totals** *139.0* *1,160* *527*

OCT - 7 2010

BUILDING 280
OIL FROM UNIT 439

REGISTER OF ELECTRICAL EQUIPMENT

NEW YORK

Generator Name:
Brooklyn Navy Yard

US EPA ID No: NYD981078058

Addendum to
Manifest No. 100052729 CTN

Item	Serial #	Type	PCB	Gal.	Weight	Date Out Of Service
T2642	OIL	DM	100	50	440	8/30/2010
T2642	OIL	DM	100	50	430	8/30/2010
T2642	OIL	DM	100	50	290	8/30/2010
~~T2642~~	~~OIL~~	~~DM~~	~~100~~			~~8/30/2010~~
	Unit 439					
	Serial # 03783					

Copy stays w/ paperwork

Certificate of Disposal Number 102896

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

TCI EPA ID # ALD983167891
Manifest ID: 100052729CTN
TCI Load # 102896
of: 09/18/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

PHONE (845) 721-0284

We hereby certify that the following PCB items were disposed of as the date(s) shown below:

Item Number	Qty	Description	Disposed	Disposal Method
03783 OIL DM-1	1	EMPTY DRUM	11/15/10	METALS CLEANING AND RECYCLING
03783 OIL DM-2	1	EMPTY DRUM	11/15/10	METALS CLEANING AND RECYCLING
03783 OIL DM-3	1	EMPTY DRUM	11/15/10	METALS CLEANING AND RECYCLING

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.

Tracy Helms
Quality Director

11/15/10
Date

H3070

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

CCN222702

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number NYD981078058	2. Page 1 of 1	3. Emergency Response Phone 800-424-9300	4. Manifest Tracking Number 002248109 GBF

GENERATOR

5. Generator's Name and Mailing Address
Brooklyn Navy Yard - 292
63 Flushing Avenue
Brooklyn, NY 11205

Generator's Site Address (if different than mailing address)
Building 292

Generator's Phone: ~~Nicholas Mann 845-721-0284~~

6. Transporter 1 Company Name
TCI of NY, LLC
U.S. EPA ID Number NYD986899912

7. Transporter 2 Company Name
SJ TRANSPORTATION CO
U.S. EPA ID Number NJD071629976

8. Designated Facility Name and Site Address
TCI of Alabama, LLC
101 Parkway East
Pell City, AL 35125
U.S. EPA ID Number ALD983167891

Facility's Phone: 205-338-9997

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. RQ UN3432 POLYCHLORINATED BIPHENYLS SOLID 9 PGIII ASSUMED 50-499 DRAINED TRANSFORMER	1	CM	227	K	B004
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
DIKE AND CONTAIN IN CASE OF SPILL. ERG - 171 EMERGENCY CONTACT: CHEMTREC 24 HOURS.
QUOTE:1406010N. RENTAL QUOTE 120283785. TIME IN: 7 3: TIME OUT: 830

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: N. MANN | Signature: N. M | Month 7 Day 25 Year 14

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: Date leaving U.S.:
Transporter signature (for exports only):

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Michael Shutts | Signature: Michael Shutts | Month 7 Day 25 Year 14
Transporter 2 Printed/Typed Name: Mike Bergstrom | Signature: M. Bergstrom | Month 7 Day 30 Year 14

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☒ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
1) REC'D 1 CM <50 PPM 730 LB. = 332 K.
Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
~~H141~~ H010			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: MICHAEL SCRUGGINS | Signature: Michael Scruggins | Month 08 Day 01 Year 14

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

ADDENDUM TO MANIFEST

Generator Name: BROOKLYN NAVY

US EPA ID No: NYD981078058

TCI NEW YORK

Addendum to Manifest No. 002248109 GBF

Page 1 of 1

Item	Serial #	Type	PCB	Gal.	KVA	Weight	Date Out Of Service
Trans		TRANS	Assumed 50-499	0	50		7/25/14

TCI of Alabama, LLC Disposal Document Package

BROOKLYN NAVY YARD-DEVELOP.COR

63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205
NICHOLAS MANN

Manifest Tracking Information

TCI Manifest #:	143070
Manifest Tracking #:	002248109GBF
Date Picked Up:	7/25/2014
Date Received:	8/1/2014

Enclosed please find the following disposal documents (if applicable) for the manifest listed above:

- ☐ ***TCI Disposal Summary Issued:*** 11/13/2014
- ☐ ***TCI Certificate of Disposal Issued:*** NO TCI CD WILL BE ISSUED
- ☐ ***List of TCI Outbound Manifest(s) and associated CD***

Please reveiw the attached information closely. If any of the information is missing please fax or email this page back to Kristin Piper with the missing item(s) circled.
Fax #: (205) 338-9979 or kpiper@tcialabama.com

TCI of Alabama, LLC
101 Parkway East
Pell City, AL 35125
Phone: (205) 338-9997
Fax: (205) 338-9979
EPA ID #: ALD983167891

Certificate Number: 143070
Date Issued: 11/13/2014
Manifest Id Number: 002248109GBF
Total Items: 1
Pickup Date: 7/25/2014

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN , NY 11205

Disposal Summary

In accordance with our agreement to provide disposal services, we hereby certify the completion of all items picked up on the above listed manifest. A summary of the disposition is as follows:

						Item(s)			Liquid(s)		
TCI Barcode	Serial #	Gen Ref #	Size / KVA	Description	PCB (ppm)	Disposed	Method	Outbound	Disposed	Method	Outbound
AA568402	TRANSFORMER		50	POWER TRANSFORMER	24	8/5/2014	MCR				

Quantity: 1

Quality Director

11/13/2014
Date

Disposal Method Key:

CWL: PCB Chemical Waste Landfill - Waste Management, Emelle, AL
DRN: Complete Draining - TCI of Alabama, LLC, Pell City, AL
IHB: TCI Thermal Destruction - TCI of Alabama, LLC, Pell City, AL
INC: PCB Incineration - Veolia, Pt. Arthur, TX
MCR: Metals Cleaning and Recycling - TCI of Alabama, LLC, Pell City, AL
RCY: Recycling - TCI of Alabama, LLC, Pell City, AL
THM: Thermal Destruction - See Attached Outbound
DTX: Dechlorination - See Attached Outbound
IHX: Dechlorination - TCI of Alabama, LLC Pell City, AL

DISPOSAL STANDARDS FOR NY STATE REGULATED PCB WASTES

The following NY State regulated wastes and land restricted in the State of New York and are subject to 6 NYCRR Part 376. Refer to 6 NYCRR 376.4(f) for New York land disposal requirements. Check all that apply:

( ) B001 ( ) B002 ( ) B003 (x) B004
( ) B005 ( ) B006 ( ) B007

Certification - Waste Meets Treatment Standards

( ) I am the generator of the waste as identified above, that is restricted under 6 NYCRR Part 376. I have determined that this waste meets all applicable treatment standards set forth in 6 NYCRR 376 and, therefore, it can be land disposed without further treatment.

I certify under penalty of law that I personally have examined and are familiar with the waste through analysis and testing and through knowledge of the waste to support this certification that waste complies with the treatment standards specified in Part 376, section 376.4 and all applicable prohibitions se forth in subdivision 376.3(b) of Part 376 or RCRA section 3004(d). I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting a false certification including the possibility of a fine or imprisonment.

Notification - Waste Does Not Meet Treatment Standards

(X) I am the generator of a waste restricted under 6 NYCRR Part 376 as identified above. I notify that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this notification that the waste does not comply with the treatment standards specified in 6 NYCRR Part 376.4(f). This waste must be treated to the applicable standard set forth in 6 NYCRR 376.4(f) prior to land disposal.

Generator's Name (Print): Brooklyn Navy Yard

EPA ID: NYD981078058

Generator's Signature: N. [signature]

Date: 7/201/14 Manifest #: 002248109GBF

TCI OF ALABAMA, LLC

Receiving Report for Shipment 143070

Generator: BROOKLYN NAVY YARD-DEVELOP.CO **Pickup Date:** 7/25/14

EPA ID#: NYD981078058 **Manifest Doc#:** 002248109GBF

ITEM #	*GEN REF#*	*SERIAL #*	*TYPE*	*SIZE*	*PCB (ppm)*	*RFS DATE*	*GALS*	*LBS*	*KG'S*
001		TRANSFORMER	TRANSFRM	50	24		0.0	730	332
QUANTITY = (1)									
DRAINED NON-PCB ELECTRICAL EQUIPMENT				*50*		**Totals**	*0.0*	*730*	*332*

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD981078058
2. Page 1 of: 1
3. Emergency Response Phone: 800-424-9300
4. Manifest Tracking Number: 100052512 CTN

5. Generator's Name and Mailing Address:
Brooklyn Navy Yard
63 Flushing Ave, Bldg 292, 3rd Fl
Brooklyn NY 11205

Generator's Site Address (if different than mailing address):
BUILDING 292
UNIT 59

Generator's Phone: Nicholas Mann 845-721-0284

6. Transporter 1 Company Name: SJ Transportation Co. Inc.
U.S. EPA ID Number: NJD071629976

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address:
TCI of Alabama, LLC
101 Parkway East
Pell City AL 35125
Facility's Phone: 205-338-9997
U.S. EPA ID Number: ALD983167891

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ Polychlorinated Biphenyls (LIQUID) 9, UN2315, PGIII ~~480ppm PCB Fluid~~	1	TT	5523	K	B002		
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
Dike and contain in case of spill. ERG-171 Quote #: 1002004N
Emergency Contact: CHEMTREC 24hr
Unit 59, 1620/gals, 480ppm PCBs, Serial # 7081466, T2627

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: N. MANN
Signature: N. M
Month Day Year: 08 11 10

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: STEVE PACE
Signature:
Month Day Year: 8 11 10
Transporter 2 Printed/Typed Name:
Signature:
Month Day Year:

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H141			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: MICHAEL SPRAGGINS
Signature:
Month Day Year: 08 16 10

TCI OF ALABAMA, LLC

Receiving Report for Shipment **102405**

Generator: BROOKLYN NAVY YARD-DEVELOP.CO Pickup Date: 8/11/10

EPA ID#: NYD981078058 Manifest Doc#: 100052512CTN

ITEM #	*GEN REF#*	*SERIAL #*	*TYPE*	*SIZE*	*PCB*	*RFS DATE*	*GALS*	*LBS*	*KG'S*
001		7081466	LIQUID	0	480	8/11/10	1,620.0	12,151	5,523

QUANTITY = (1)

BULK TANKER OF PCB-CONTAMINATED FLUID 50-499 PPM PCBS **Totals** *1,620.0* *12,151* *5,523*

DISPOSAL STANDARDS FOR NY STATE REGULATED PCB WASTES

The following NY State regulated wastes and land restricted in the State of New York and are subject to 6 NYCRR Part 376. Refer to 6 NYCRR 376.4(f) for New York land disposal requirements. Check all that apply:

( ) B001	(X) B002	( ) B003	( ) B004
( ) B005	( ) B006	( ) B007	

Certification - Waste Meets Treatment Standards

( ) I am the generator of the waste as identified above, that is restricted under 6 NYCRR Part 376. I have determined that this waste meets all applicable treatment standards set forth in 6 NYCRR 376 and, therefore, it can be land disposed without further treatment.

I certify under penalty of law that I personally have examined and are familiar with the waste through analysis and testing and through knowledge of the waste to support this certification that waste complies with the treatment standards specified in Part 376, section 376.4 and all applicable prohibitions se forth in subdivision 376.3(b) of Part 376 or RCRA section 3004(d). I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting a false certification including the possibility of a fine or imprisonment.

Notification - Waste Does Not Meet Treatment Standards

(X) I am the generator of a waste restricted under 6 NYCRR Part 376 as identified above. I notify that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this notification that the waste does not comply with the treatment standards specified in 6 NYCRR Part 376.4(f). This waste must be treated to the applicable standard set forth in 6 NYCRR 376.4(f) prior to land disposal.

Generator's Name (Print): BROOKLYN NAVY YARD BUILDING 292

EPA ID: NYD981078058

Generator's Signature: N. U

Date: Aug 11, 2010 Manifest #: 100052512 CTN

Shipment 8/13 + date

Form: 55

Disposal Summary #102405

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

TCI EPA ID # ALD983167891
Manifest ID: 100052512CTN
TCI Load # 102405
of: 08/11/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

NICHOLAS MANN
PHONE (845) 721-0284

In accordance with our agreement to provide disposal services, we hereby certify the completion of all items picked up on the above listed manifest. A summary of the disposition is as follows:

Qty	Item Description	Disposal Method	Completed
1	TT of PCB-CONT LIQUID	COMPLETE DRAINING	08/16/10
	FLUID FROM ABOVE	PCB INCINERATION Shipped on Manifest #10308, 08/16/10 To VEOLIA ES TECHNICAL SOLUTIONS	09/16/10

Certification:

11/15/10

Tracy Helms
Quality Director

Date

Disposal Detail #102405

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

Shipped: 08/11/10
Manifest ID: 100052512CTN
Received: 08/16/10
Disposed: 09/16/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

PHONE (845) 721-0284

We hereby certify that the following items were disposed of in accordance with 40 CFR 761 as of the date(s) shown below:

Carcass or Container				Contents				
Item Number	Item Type	Method	Disp	Comp	Method	Disp	Facility	EPA ID #
7081466	LIQUID	DRN	08/16/10	OIL	INC	09/16/10	VEOLIA	TXD000838896

DRN = COMPLETE DRAINING INC = PCB INCINERATION

Tracy Helms
Quality Director

11/15/10
Date

BILL OF LADING FOR NON-HAZARDOUS WASTE

NEW YORK

Document No. 0507

GENERATOR NAME AND MAILING ADDRESS:
Brooklyn Navy Yard
63 Flushing Avenue, Bldg 292, 3rd Fl
Brooklyn NY 11205

US EPA ID NUMBER: (OPTIONAL)
NYD981078058

PICKUP LOCATION (NAME & STREET ADDRESS):
North Court Yard
Building 292

Contact: Nicholas Mann
Phone Number: 845-721-0284

DESIGNATED FACILITY NAME & SITE ADDRESS:
TCI of NY, LLC
39 Falls Industrial Park Road
Hudson, NY 12534

Contact: Bruce Vetro

US EPA ID NUMBER: (OPTIONAL)
NYD986899912

Phone Number: **(518) 828-9997**

DESCRIPTION OF SHIPMENT

No. of Units	Type	Full/Empty	KVA	PCB Content	Total Weight
1	7081466	Empty		480ppm	~~27350 lbs~~
	Unit 59, Sample T2627				27700

Type: P= Pole, PM = Padmount; DM = Drums, S = Switch; R = Regulators, O = OCB; B = Bushings, LB = Light Ballasts; SS = Substation, C = Capacitor

Generator's Certification: I certify the materials described above are not subject to federal regulations for reporting proper disposal of Hazardous Waste and that I am authorized to convey this material by the owner who dolds clear title.

N. MANN — PRINTED/TYPED NAME
N. M — SIGNATURE
8/25/10 — DATE

Transporter:
TCI of NY

Pickup Times: TIME IN: 10:15 a.m. TIME OUT: 4:00 p.m.

Dean Berry — DRIVER NAME PRINTED/TYPED
Dean B — SIGNATURE
8-25-10 — DATE

Additional Information

Designated Facility Owner or Operator – Certification of Receipt of Materials with Discrepancies Noted:

Francis Vecellio — PRINTED/TYPED NAME
Francis Vecellio — SIGNATURE
8-26-10 — DATE

ORIGINAL - RETURN TO GENERATOR

REGISTER
OF
ELECTRICAL EQUIPMENT

NORTH COURT YARD
BUILDING 292

Generator Name:
Brooklyn Navy Yard

US EPA ID No: NYD981078058

Addendum to
BOL No. 0507

Page 1 of 1

Item	Serial #	Type	PCB	Gal.	Weight	Date Out Of Service
59/T2627	7081466	Trans	480	0	27350	8/16/2010

Customer Copy

102419

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD981078058	1	800-424-9300	100052511 CTN

5. Generator's Name and Mailing Address
Brooklyn Navy Yard
63 Flushing Ave, Bldg 292, 3rd Fl
Brooklyn NY 11205

Generator's Site Address (if different than mailing address)
BUILDING 292, Unit 106

Generator's Phone: 845-721-0284 Nicholas Mann

6. Transporter 1 Company Name
SJ Transportation Co. Inc.
U.S. EPA ID Number: NJD071629976

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
TCI of Alabama, LLC
101 Parkway East
Pell City, AL 35125
Facility's Phone: 205-338-9997
U.S. EPA ID Number: ALD983167891

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ POlychlorinated Biphenyls (LIQUID) 9, UN2315, PGIII >500ppm PCB Fluid	1	TT	5523	K	B003
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Dike and contain in case of spill. ERG-171 Quote #: 1002004N
Emergency Contact: CHEMTREC 24 hr
Serial #: 7081467, BLDG 292, UNIT 106, 1620/gals, T2628, 700ppm PCBs

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: N. MANN
Signature: N. M
Month Day Year: 08 13 10

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: BRIAN WADDINGTON
Signature
Month Day Year: 8 13 10
Transporter 2 Printed/Typed Name
Signature
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H141			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Tracy Helms
Signature
Month Day Year: 08 17 10

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

TCI OF ALABAMA, LLC

Receiving Report for Shipment **102419**

Generator: BROOKLYN NAVY YARD-DEVELOP.CO **Pickup Date:** 8/13/10

EPA ID#: NYD981078058 **Manifest Doc#:** 100052511CTN

ITEM #	*GEN REF#*	*SERIAL #*	*TYPE*	*SIZE*	*PCB*	*RFS DATE*	*GALS*	*LBS*	*KG'S*
001		7081467	LIQUID	0	700	8/13/10	1,652.0	12,390	5,632
QUANTITY = (1)									
PCB FLUID >499 PPM PCBS						**Totals**	*1,652.0*	*12,390*	*5,632*

REGISTER
OF
ELECTRICAL EQUIPMENT

Generator Name:
BROOKLYN NAVY YARD

US EPA ID No: NYD 981078058

Addendum to
Manifest No. 100052511

Page 1 of 1

Item	Serial #	Type	PCB	Gal.	Weight	Date Out Of Service
1	7081467	Oil	700	~~1620~~	12390	8/13/2010
				1652		
	PUMPED INTO TANKER					

Customer Copy

DISPOSAL STANDARDS FOR NY STATE REGULATED PCB WASTES

The following NY State regulated wastes and land restricted in the State of New York and are subject to 6 NYCRR Part 376. Refer to 6 NYCRR 376.4(f) for New York land disposal requirements. Check all that apply:

( ) B001	( ) B002	(X) B003	( ) B004
( ) B005	( ) B006	( ) B007	

Certification - Waste Meets Treatment Standards

( ) I am the generator of the waste as identified above, that is restricted under 6 NYCRR Part 376. I have determined that this waste meets all applicable treatment standards set forth in 6 NYCRR 376 and, therefore, it can be land disposed without further treatment.

I certify under penalty of law that I personally have examined and are familiar with the waste through analysis and testing and through knowledge of the waste to support this certification that waste complies with the treatment standards specified in Part 376, section 376.4 and all applicable prohibitions se forth in subdivision 376.3(b) of Part 376 or RCRA section 3004(d). I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting a false certification including the possibility of a fine or imprisonment.

Notification - Waste Does Not Meet Treatment Standards

(X) I am the generator of a waste restricted under 6 NYCRR Part 376 as identified above. I notify that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this notification that the waste does not comply with the treatment standards specified in 6 NYCRR Part 376.4(f). This waste must be treated to the applicable standard set forth in 6 NYCRR 376.4(f) prior to land disposal.

Generator's Name (Print): Brooklyn Navy Yard Development Corporation

EPA ID: NYD981078058

Generator's Signature: X

Date: 8/13/10 Manifest #: 10052511

Customer Copy

Form: 55

Disposal Summary #102419

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

TCI EPA ID # ALD983167891
Manifest ID: 100052511CTN
TCI Load # 102419
of: 08/13/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

NICHOLAS MANN
PHONE (845) 721-0284

In accordance with our agreement to provide disposal services, we hereby certify the completion of all items picked up on the above listed manifest. A summary of the disposition is as follows:

Qty	Item Description	Disposal Method	Completed
1	TT of PCB LIQUID	COMPLETE DRAINING	08/17/10
	FLUID FROM ABOVE	PCB INCINERATION Shipped on Manifest #10310, 08/17/10 To VEOLIA ES TECHNICAL SOLUTIONS	09/19/10

Certification:

Tracy Helms
Quality Director

11/15/10
Date

Disposal Detail #102419

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

Shipped: 08/13/10
Manifest ID: 100052511CTN
Received: 08/17/10
Disposed: 09/19/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

PHONE (845) 721-0284

We hereby certify that the following items were disposed of in accordance with 40 CFR 761 as of the date(s) shown below:

Carcass or Container				Contents				
Item Number	Item Type	Method	Disp	Comp	Method	Disp	Facility	EPA ID #
7081467	LIQUID	DRN	08/17/10	OIL	INC	09/19/10	VEOLIA	TXD000838896

DRN = COMPLETE DRAINING

INC = PCB INCINERATION

Tracy Helms
Quality Director

11/15/10
Date

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-003

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number: NYD981078058	2. Page 1 of 1	3. Emergency Response Phone 800-424-9300	4. Manifest Tracking Number 100052515 CTN

5. Generator's Name and Mailing Address
Brooklyn Navy Yard
63 Flushing Ave, Bldg 292, 3rd Fl
Brooklyn NY 11205

Generator's Site Address (if different than mailing address)
North Court Yard
Building 292

Generator's Phone: Nicholas Mann 845-721-0284

6. Transporter 1 Company Name: SJ Transportation Co Inc — U.S. EPA ID Number: NJD071629976

7. Transporter 2 Company Name: — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
TCI of Alabama, LLC
101 Parkway East
Pell City AL 35125
Facility's Phone: 205/338-9997
U.S. EPA ID Number: ALD983167891

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
	1. RQ Polychlorinated Biphenyls (SOLID) 9, UN3432, PGIII >500ppm PCB Drained Trans	1	CM	12432	K	B006		
	2. ~~RQ Polychlorinated Biphenyls (LIQUID) 9, UN2315, PGIII 700ppm PCB Mineral Oil~~		DM		K	B003		
	3. ~~RQ Polychlorinated Biphenyls (LIQUID) 9, UN2315, PGIII 480ppm PCB Mineral Oil~~		DM		K	B002		
	4.							

14. Special Handling Instructions and Additional Information
Dike and contain in case of spill. ERG-171 Quote 1002004N
Emergency Contact: CHEMTREC 24hr
Unit 106 (T2628) Serial 7081467 700ppm PCBs
Residual oil Unit 59 (T2627) Serial 7081466 480ppm PCBs

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: N. MANN — Signature: N. M — Month 08 Day 25 Year 10

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Jason Wilson — Signature: Jason Wilson — Month 08 Day 25 Year 10
Transporter 2 Printed/Typed Name: — Signature: — Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H010	H141	H141	

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: MICHAEL SPRAGGINS — Signature: Michael Spraggins — Month 08 Day 27 Year 10

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR STATE (IF REQUIRED)

GENERATOR / INT'L / TRANSPORTER / DESIGNATED FACILITY

REGISTER
OF
ELECTRICAL EQUIPMENT

North Court Yard
Bldg 292

Generator Name:
Brooklyn Navy Yard

US EPA ID No: NYD981078058

NEW YORK

Addendum to
Manifest No. 100052515 CTN

Page 1 of 1

Item	Serial #	Type	PCB	Gal.	Weight	Date Out Of Service
106/T12628	7081467	Trans	700	0	27350	8/16/2010
DM1	Oil	DM	700	50		8/16/2010
DM2	Oil	DM	700	50		8/16/2010
DM3	Oil	DM	480	50		8/16/2010
DM4	Oil	DM	480	50		8/16/2010

Customer Copy

Form: 55

Disposal Summary #102538

Page: 1

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

TCI EPA ID # ALD983167891
Manifest ID: 100052515CTN
TCI Load # 102538
of: 08/25/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

NICHOLAS MANN
PHONE (845) 721-0284

In accordance with our agreement to provide disposal services, we hereby certify the completion of all items picked up on the above listed manifest. A summary of the disposition is as follows:

Qty	Item Description	Disposal Method	Completed
1	TP of PCB ELECTRICAL EQUIPMENT	METALS CLEANING AND RECYCLING	11/15/10

Certification:

Tracy Helms
Quality Director

11/15/10
Date

Disposal Detail #102538

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

Shipped: 08/25/10
Manifest ID: 100052515CTN
Received: 08/27/10
Disposed: 11/15/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

PHONE (845) 721-0284

We hereby certify that the following items were disposed of in accordance with 40 CFR 761 as of the date(s) shown below:

Carcass or Container				Contents			
Item Number	Item Type	Method	Disp	Comp	Method	Disp	Facility	EPA ID #
7081467	TRANSFRM	MCR	11/15/10					

MCR = METALS CLEANING AND RECYCLING

Tracy Helms
Quality Director

11/15/10
Date

Certificate of Disposal Number 102538

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

TCI EPA ID # ALD983167891
Manifest ID: 100052515CTN
TCI Load # 102538
of: 08/25/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

PHONE (845) 721-0284

We hereby certify that the following PCB items were disposed of as the date(s) shown below:

Item Number	Qty	Description	Disposed	Disposal Method
7081467	1	POWER TRANSFORM	11/15/10	METALS CLEANING AND RECYCLING

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.

Tracy Helms
Quality Director

11/15/10
Date

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD981078058

2. Page 1 of 1

3. Emergency Response Phone: 800-424-9300

4. Manifest Tracking Number: 100052519 CTN

5. Generator's Name and Mailing Address:
Brooklyn Navy Yard
63 Flushing Ave, Bldg 292, 3rd Fl
Brooklyn NY 11205

Generator's Site Address (if different than mailing address):
BUILDING 292
CENTER BASEMENT

Generator's Phone: Nicholas Mann 845-721-0284

6. Transporter 1 Company Name: SJ TRANSPORTATION LLC — U.S. EPA ID Number: NJD071629976

7. Transporter 2 Company Name: — U.S. EPA ID Number:

8. Designated Facility Name and Site Address:
TCI of Alabama, LLC
101 Parkway East
Pell City AL 35125.

Facility's Phone: 205-338-9997

U.S. EPA ID Number: ALD983167891

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. ~~RQ Polychlorinated Biphenyls (SOLID)~~ ~~9, UN3432, PGIII~~ ~~>500ppm PCB Trans~~	~~3~~	~~CM~~	~~8162~~	~~K~~	~~B006~~
	2. RQ Polychlorinated Biphenyls (LIQUID) 9, UN2315, PGIII 50-499ppm PCB Fluid	13 ~~7~~	DM	3580 ~~3580~~	K	B002
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Dike and contain in case of spill. ERG-171 QUOTE #: 1002004N
Emergency Contact: CHEMTREC 24hr
Units 8010(T2613, 8011(T2617), 8012(T2621). Bldg 292, Center Basement

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: N. MANN — Signature: N.M. — Month 08 Day 31 Year 10

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: JOHN LISGOI — Signature — Month 8 Day 31 Year 10
Transporter 2 Printed/Typed Name — Signature — Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☑ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

2) REC'D 13 DM 5325 LB. = 2420 K.

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
~~H010~~	H141		

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: MICHAEL STRAGGIES — Signature — Month 09 Day 02 Year 10

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR STATE (IF REQUIRED)

TCI OF ALABAMA, LLC

Receiving Report for Shipment **102603**

Generator: BROOKLYN NAVY YARD-DEVELOP.CO **Pickup Date:** 8/31/10

EPA ID#: NYD981078058 **Manifest Doc#:** 100052519CTN

ITEM #	GEN REF#	SERIAL #	TYPE	SIZE	PCB	RFS DATE	GALS	LBS	KG'S
001	DM1	OIL-1	LIQUID	55	499	8/16/10	54.9	450	205
002	DM2	OIL-2	LIQUID	55	499	8/16/10	54.9	450	205
003	DM3	OIL-3	LIQUID	55	499	8/16/10	54.9	450	205
004	DM4	OIL-4	LIQUID	55	499	8/16/10	52.9	430	195
005	DM5	OIL-5	LIQUID	55	499	8/16/10	52.9	430	195
006	DM6	OIL-6	LIQUID	55	499	8/16/10	53.9	435	198
007	DM7	OIL-7	LIQUID	55	499	8/16/10	53.9	435	198
008	DM8	OIL-8	LIQUID	55	499	8/16/10	52.9	430	195
009	DM9	OIL-9	LIQUID	55	499	8/16/10	52.9	430	195
010	DM10	OIL-10	LIQUID	55	499	8/16/10	53.9	435	198
011	DM11	OIL-11	LIQUID	55	499	8/16/10	52.9	430	195
012	DM12	OIL-12	LIQUID	55	499	8/16/10	52.9	430	195
013	DM13	OIL-13	LIQUID	55	499	8/16/10	6.6	90	41

QUANTITY = (13)

DRUM OF PCB-CONTAMINATED FLUID 50-499 PPM PCBS **Totals** *650.4* *5,325* *2,420*

Form: 55

Disposal Summary #102603

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

TCI EPA ID # ALD983167891
Manifest ID: 100052519CTN
TCI Load # 102603
of: 08/31/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

NICHOLAS MANN
PHONE (845) 721-0284

In accordance with our agreement to provide disposal services, we hereby certify the completion of all items picked up on the above listed manifest. A summary of the disposition is as follows:

Qty	Item Description	Disposal Method	Completed
13	DM's of PCB-CONT LIQUID	METALS CLEANING AND RECYCLING	11/15/10
	FLUID FROM ABOVE	PCB INCINERATION Shipped on Manifest #10371, 09/22/10 To VEOLIA ES TECHNICAL SOLUTIONS	10/07/10

Certification:

Tracy Helms
Quality Director

11/15/10
Date

Disposal Detail #102603

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

Shipped: 08/31/10
Manifest ID: 100052519CTN
Received: 09/02/10
Disposed: 11/15/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

PHONE (845) 721-0284

We hereby certify that the following items were disposed of in accordance with 40 CFR 761 as of the date(s) shown below:

Carcass or Container				Contents			
Item Number	Item Type	Method Disp		Comp	Method Disp	Facility	EPA ID #
OIL-1	LIQUID	MCR	11/15/10	OIL	INC 10/07/10	VEOLIA	TXD000838896
OIL-2	LIQUID	MCR	11/15/10	OIL	INC 10/07/10	VEOLIA	TXD000838896
OIL-3	LIQUID	MCR	11/15/10	OIL	INC 10/07/10	VEOLIA	TXD000838896
OIL-4	LIQUID	MCR	11/15/10	OIL	INC 10/07/10	VEOLIA	TXD000838896
OIL-5	LIQUID	MCR	11/15/10	OIL	INC 10/07/10	VEOLIA	TXD000838896
OIL-6	LIQUID	MCR	11/15/10	OIL	INC 10/07/10	VEOLIA	TXD000838896
OIL-7	LIQUID	MCR	11/15/10	OIL	INC 10/07/10	VEOLIA	TXD000838896
OIL-8	LIQUID	MCR	11/15/10	OIL	INC 10/07/10	VEOLIA	TXD000838896
OIL-9	LIQUID	MCR	11/15/10	OIL	INC 10/07/10	VEOLIA	TXD000838896
OIL-10	LIQUID	MCR	11/15/10	OIL	INC 10/07/10	VEOLIA	TXD000838896
OIL-11	LIQUID	MCR	11/15/10	OIL	INC 10/07/10	VEOLIA	TXD000838896
OIL-12	LIQUID	MCR	11/15/10	OIL	INC 10/07/10	VEOLIA	TXD000838896
OIL-13	LIQUID	MCR	11/15/10	OIL	INC 10/07/10	VEOLIA	TXD000838896

MCR = METALS CLEANING AND RECYCLING INC = PCB INCINERATION

Tracy Helms
Quality Director

11/15/10
Date

Certificate of Disposal Number 102603

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

TCI EPA ID # ALD983167891
Manifest ID: 100052519CTN
TCI Load # 102603
of: 08/31/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

PHONE (845) 721-0284

We hereby certify that the following PCB items were disposed of as the date(s) shown below:

Item Number	Qty	Description	Disposed	Disposal Method
OIL-1	1	EMPTY DRUM	11/15/10	METALS CLEANING AND RECYCLING
OIL-2	1	EMPTY DRUM	11/15/10	METALS CLEANING AND RECYCLING
OIL-3	1	EMPTY DRUM	11/15/10	METALS CLEANING AND RECYCLING
OIL-4	1	EMPTY DRUM	11/15/10	METALS CLEANING AND RECYCLING
OIL-5	1	EMPTY DRUM	11/15/10	METALS CLEANING AND RECYCLING
OIL-6	1	EMPTY DRUM	11/15/10	METALS CLEANING AND RECYCLING
OIL-7	1	EMPTY DRUM	11/15/10	METALS CLEANING AND RECYCLING
OIL-8	1	EMPTY DRUM	11/15/10	METALS CLEANING AND RECYCLING
OIL-9	1	EMPTY DRUM	11/15/10	METALS CLEANING AND RECYCLING
OIL-10	1	EMPTY DRUM	11/15/10	METALS CLEANING AND RECYCLING
OIL-11	1	EMPTY DRUM	11/15/10	METALS CLEANING AND RECYCLING
OIL-12	1	EMPTY DRUM	11/15/10	METALS CLEANING AND RECYCLING
OIL-13	1	EMPTY DRUM	11/15/10	METALS CLEANING AND RECYCLING

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.

Tracy Helms
Quality Director

11/15/10
Date

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD981078058
2. Page 1 of 1
3. Emergency Response Phone: 800-424-9300
4. Manifest Tracking Number: 100052516 CTN

5. Generator's Name and Mailing Address:
Brooklyn Navy Yard
63 Flushing Ave, Bldg 292, 3rd Fl
Brooklyn NY 11205

Generator's Site Address (if different than mailing address):
BLDG 292
INSIDE LOADING DOCK

Generator's Phone: Nicholas Mann 845-721-0284

6. Transporter 1 Company Name: SJ TRANSPORTATION INC — U.S. EPA ID Number: NJD071629926

7. Transporter 2 Company Name: — U.S. EPA ID Number:

8. Designated Facility Name and Site Address:
TCI of Alabama, LLC
101 Parkway East
Pell City AL 35125
Facility's Phone: 205-338-9997
U.S. EPA ID Number: ALD983167891

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. RQ Polychlorinated Biphenyls (SOLID) 9, UN3432, PGIII >500ppm PCB drained trans	1	CM	6364	K	B006
	2. ~~RQ Polychlorinated Biphenyls (LIQUID) 9, UN2315, PGIII 85ppm PCB mineral oil~~	~~10~~	DM	~~5114~~	K	B002
	3. ~~RQ Polychlorinated Biphenyls (LIQUID) 9, UN2315, PGIII 160ppm PCB mineral oil~~		DM		K	B002
	4. RQ POLYCHLORINATED BIPHENYLS (LIQUID) 9, UN 2315, PG III >500PPM PCB TRANS W/OIL	1	CM	9045	K	B006

14. Special Handling Instructions and Additional Information:
Dike and contain in case of spill. ERG-171
Emergency Contact: CHEMTREC 24-hr. Proposal#: 1002004N
Unit 431 (T2625) Serial 7085373 (ASK-~~85~~ppm PCBs 160ppm PCBs
Unit 432 (T2626) Serial 7085374 (ASK-~~XX60~~ppm PCBs 85ppm PCBs

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: N. Ma — Signature: N.M — Month Day Year: 08 31 10

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: JOHN LIEGGI — Signature: [signature] — Month Day Year: 8 31 10
Transporter 2 Printed/Typed Name: — Signature: — Month Day Year:

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H010	~~H141~~	~~H141~~	H141

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: MICHAEL SPRAGGINS — Signature: [signature] — Month Day Year: 09 02 10

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

REGISTER
OF
ELECTRICAL EQUIPMENT

INSIDE LOADING DOCK
Bldg 292

Generator Name:
Brooklyn Navy Yard

US EPA ID No: NYD981078058

Addendum to
Manifest No. 100052516 CTN

Page 1 of 1

Item	Serial #	Type	PCB	Gal.	Weight	Date Out Of Service
431/T2625	7085373	Trans	ASK	0	14000	8/16/2010
432/T2626	7085374	Trans	ASK	482 ~~0~~	10,900 ~~14000~~	8/16/2010
~~1~~	~~Oil - 7085374~~	~~DM~~	~~85~~	~~50~~		~~8/16/2010~~
~~2~~	~~Oil - 7085374~~	~~DM~~	~~85~~	~~50~~		~~8/16/2010~~
~~3~~	~~Oil - 7085374~~	~~DM~~	~~85~~	~~50~~		~~8/16/2010~~
~~4~~	~~Oil - 7085374~~	~~DM~~	~~85~~	~~50~~		~~8/16/2010~~
~~5~~	~~Oil - 7085374~~	~~DM~~	~~85~~	~~50~~		~~8/16/2010~~
~~6~~	~~Oil - 7085374~~	~~DM~~	~~85~~	~~50~~		~~8/16/2010~~
~~7~~	~~Oil - 7085374~~	~~DM~~	~~85~~	~~50~~		~~8/16/2010~~
~~8~~	~~Oil - 7085374~~	~~DM~~	~~85~~	~~50~~		~~8/16/2010~~
~~9~~	~~Oil - 7085374~~	DM	~~85~~	~~50~~		~~8/16/2010~~
~~10~~	~~Oil - 7085374~~	~~DM~~	~~85~~	~~50~~		~~8/16/2010~~
1	Oil - 7085373	DM	160			~~8/16/2010~~
2	Oil - 7085373	DM	160			~~8/16/2010~~
3	Oil - 7085373	DM	160			~~8/16/2010~~

Form: 55

Disposal Summary #102602

Page: 1

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

TCI EPA ID # ALD983167891
Manifest ID: 100052516CTN
TCI Load # 102602
of: 08/31/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

NICHOLAS MANN
PHONE (845) 721-0284

In accordance with our agreement to provide disposal services, we hereby certify the completion of all items picked up on the above listed manifest. A summary of the disposition is as follows:

Qty	Item Description	Disposal Method	Completed
1	TP of PCB ELECTRICAL EQUIPMENT	METALS CLEANING AND RECYCLING	11/15/10
	FLUID FROM ABOVE	PCB INCINERATION Shipped on Manifest #10360, 09/16/10 To VEOLIA ES TECHNICAL SOLUTIONS	10/02/10
1	TP of PCB ELECTRICAL EQUIPMENT	METALS CLEANING AND RECYCLING	11/15/10

Certification:

Tracy Helms
Quality Director

11/15/10
Date

Disposal Detail #102602

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

Shipped: 08/31/10
Manifest ID: 100052516CTN
Received: 09/02/10
Disposed: 11/15/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

PHONE (845) 721-0284

We hereby certify that the following items were disposed of in accordance with 40 CFR 761 as of the date(s) shown below:

	Carcass or Container			Contents				
Item Number	Item Type	Method	Disp	Comp	Method	Disp	Facility	EPA ID #
7085373	TRANSFRM	MCR	11/15/10					
7085374	TRANSFRM	MCR	11/15/10	OIL	INC	10/02/10	VEOLIA	TXD000838896

MCR = METALS CLEANING AND RECYCLING INC = PCB INCINERATION

Tracy Helms
Quality Director

11/15/10
Date

Certificate of Disposal Number 102602

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

TCI EPA ID # ALD983167891
Manifest ID: 100052516CTN
TCI Load # 102602
of: 08/31/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

PHONE (845) 721-0284

We hereby certify that the following PCB items were disposed of as the date(s) shown below:

Item Number	Qty	Description	Disposed	Disposal Method
7085373	1	POWER TRANSFORM	11/15/10	METALS CLEANING AND RECYCLING
7085374	1	POWER TRANSFORM	11/15/10	METALS CLEANING AND RECYCLING

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.

Tracy Helms
Quality Director

11/15/10
Date

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: N Y D 9 8 1 0 7 8 0 5 8
2. Page 1 of: 1
3. Emergency Response Phone: 800-424-9300
4. Manifest Tracking Number: 100052557 CTN

5. Generator's Name and Mailing Address:
Brooklyn Navy Yard
63 Flushing Ave, Bldg 292, 3rd Fl
Brooklyn NY 11205

Generator's Site Address (if different than mailing address):
BUILDING 292
CENTER BASEMENT UNIT

Generator's Phone: Nicholas Mann 845-721-0284

6. Transporter 1 Company Name: SJ Transportation Co. Inc. — U.S. EPA ID Number: N J D 0 7 1 6 2 9 9 7 6

7. Transporter 2 Company Name: — U.S. EPA ID Number:

8. Designated Facility Name and Site Address:
TCI of Alabama, LLC
101 Parkway East
Pell City AL 35125

Facility's Phone: 205-338-9997 — U.S. EPA ID Number: A L D 9 8 3 1 6 7 8 9 1

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. RQ Polychlorinated Biphenyls (SOLID) 9, UN3432, PGIII >500ppm PCB Trans	1	CM	2727	K	B006
	2. RQ POLYCHLORINATED BIPHENYLS (SOLID) 9, UN3432, PGIII >500 PPM PCB 1 CM	1	CM	1000	K	B006
	3.					
	4.					

14. Special Handling Instructions and Additional Information:
Dike and contain in case of spill. ERG-171 Quote #: 1002004N
Emergency Contact: CHEMTREC 24 Hr.
ITEM 8020, Serial #: 6910042, PYR, 6000/lbs, Sample T2613

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: CARLOS SEMPERTEGUI
Signature: ON BEHALF BNY. Carlos Sempertegui
Month Day Year: 09 13 2010

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: CLAUD E GRAY JR
Signature: [signature]
Month Day Year: 09 13 10

Transporter 2 Printed/Typed Name: — Signature: — Month Day Year:

18. Discrepancy
18a. Discrepancy Indication Space ☒ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

1) Rec 1CM 3036Kg 2) Rec 1CM 764Kg

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number:

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H010	H010		

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: MICHAEL STRAUGHN — Signature: [signature] — Month Day Year: 09 15 10

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

REGISTER
OF
ELECTRICAL EQUIPMENT

BLDG 292
UNIT 8010

Generator Name:
Brooklyn Navy Yard

US EPA ID No: NYD981078058

NEW YORK

Addendum to
Manifest No. 100052557 CTN

Page 1 of 1

Item	Serial #	Type	PCB	Gal.	Weight	Date Out Of Service
UNIT8010	6910042	TRANS	PYR	0	6680	8/30/2010
UNIT8010	6910042	Trans Parts	PYR	0	1680	8/30/2010

Stays with paperwork

TCI OF ALABAMA, LLC

Receiving Report for Shipment 102713

Generator: BROOKLYN NAVY YARD-DEVELOP.CO **Pickup Date:** 9/13/10.

EPA ID#: NYD981078058 **Manifest Doc#:** 100052557CTN

ITEM #	GEN REF#	SERIAL #	TYPE	SIZE	PCB	RFS DATE	GALS	LBS	KG'S
002	8010	6910042 PARTS	STEEL	0	600,000	8/30/10	0.0	1,680	764
QUANTITY = (1)									
CONTAINER OF DRAINED PCB ELECTRICAL EQUIPMENT						Totals	0.0	1,680	764
001	8010	6910042	TRANSFRM	0	600,000	8/30/10	0.0	6,680	3,036
QUANTITY = (1)									
DRAINED PCB ELECTRICAL EQUIPMENT						Totals	0.0	6,680	3,036

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: N Y D 9 8 1 0 7 8 0 5 8
2. Page 1 of: 1
3. Emergency Response Phone: 800-424-9300
4. Manifest Tracking Number: 100052559 CTN

5. Generator's Name and Mailing Address
Brooklyn Navy Yard
63 Flushing Ave, Bldg 292, 3rd Fl
Brooklyn NY 11205
Generator's Phone: Nicholas Mann 845-721-0284

Generator's Site Address (if different than mailing address)
BUILDING 292
CENTER BASEMENT UNITS

6. Transporter 1 Company Name
SJ Transportation Co., Inc.
U.S. EPA ID Number: N J D 0 7 1 6 2 9 9 7 6

7. Transporter 2 Company Name
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
TCI of Alabama, LLC
101 Parkway East
Pell City AL 35125
Facility's Phone: 205-338-9997
U.S. EPA ID Number: A L D 9 8 3 1 6 7 8 9 1

GENERATOR

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. RQ Polychlorinated Biphenyls (SOLID) 9, UN3432, PGIII >500ppm PCB Trans	1	CM	2727	K	B006
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Dike and contain in case of spill. ERG-171 QUOTE #: 1002004N
Emergency Contact: CHEMTREC 24 HR
UNIT 8011, Serial #: 6910043, PYR, 6000/lbs, T2617

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: N. MANN
Signature: N. M
Month Day Year: 09 14 10

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Scott T Brownell
Signature: Scott T Brownell
Month Day Year: 09 14 10
Transporter 2 Printed/Typed Name:
Signature:
Month Day Year:

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☒ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
1) Rec 1cm 2773Kg
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H010			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: MICHAEL SPRAGGINS
Signature: Michael Spraggins
Month Day Year: 09 16 10

REGISTER
OF
ELECTRICAL EQUIPMENT

BLDG 292
UNIT 8011

Generator Name:
Brooklyn Navy Yard

US EPA ID No: NYD981078058

NEW YORK

Addendum to
Manifest No. 100052559 CTN

Page 1 of 1

Item	Serial #	Type	PCB	Gal.	Weight	Date Out Of Service
UNIT8011	6910043	TRANS	PYR	0	6100	8/30/2010

Stays with paperwork

TCI OF ALABAMA, LLC

Receiving Report for Shipment **102735**

Generator: BROOKLYN NAVY YARD-DEVELOP.CO **Pickup Date:** 9/14/10

EPA ID#: NYD981078058 **Manifest Doc#:** 100052559CTN

ITEM #	*GEN REF#*	*SERIAL #*	*TYPE*	*SIZE*	*PCB*	*RFS DATE*	*GALS*	*LBS*	*KG'S*
001	8011	6910043	TRANSFRM	0	600,000	8/30/10	0.0	6,100	2,773

QUANTITY = (1)

DRAINED PCB ELECTRICAL EQUIPMENT

Totals	*0.0*	*6,100*	*2,773*

Form: 55

Disposal Summary #102735

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

TCI EPA ID # ALD983167891
Manifest ID: 100052559CTN
TCI Load # 102735
of: 09/14/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

NICHOLAS MANN
PHONE (845) 721-0284

In accordance with our agreement to provide disposal services, we hereby certify the completion of all items picked up on the above listed manifest. A summary of the disposition is as follows:

Qty	Item Description	Disposal Method	Completed
1	TP of PCB ELECTRICAL EQUIPMENT	METALS CLEANING AND RECYCLING	11/15/10

Certification: 11/15/10

Tracy Helms
Quality Director

Date

Disposal Detail #102735

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

Shipped: 09/14/10
Manifest ID: 100052559CTN
Received: 09/16/10
Disposed: 11/15/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

PHONE (845) 721-0284

We hereby certify that the following items were disposed of in accordance with 40 CFR 761 as of the date(s) shown below:

Carcass or Container				Contents			
Item Number	Item Type	Method	Disp	Comp Method	Disp	Facility	EPA ID #
6910043	TRANSFRM	MCR	11/15/10				

MCR = METALS CLEANING AND RECYCLING

Tracy Helms
Quality Director

11/15/10
Date

Certificate of Disposal Number 102735

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

TCI EPA ID # ALD983167891
Manifest ID: 100052559CTN
TCI Load # 102735
of: 09/14/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

PHONE (845) 721-0284

We hereby certify that the following PCB items were disposed of as the date(s) shown below:

Item Number	Qty	Description	Disposed	Disposal Method
6910043	1	POWER TRANSFORM	11/15/10	METALS CLEANING AND RECYCLING

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.

11/15/10
Date

Tracy Helms
Quality Director

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: N Y D 9 8 1 0 7 8 0 5 8
2. Page 1 of: 1
3. Emergency Response Phone: 800-424-9300
4. Manifest Tracking Number: 100052560 CTN

5. Generator's Name and Mailing Address:
Brooklyn Navy Yard
63 Flushing Ave, Bldg 292, 3rd Fl
Brooklyn NY 11205

Generator's Site Address (if different than mailing address):
BUILDING 292
CENTER BASEMENT UNIT

Generator's Phone: Nicholas Mann 845-721-0284

6. Transporter 1 Company Name: SJ Transportation Co., Inc. — U.S. EPA ID Number: N J D 0 7 1 6 2 9 9 7 6

7. Transporter 2 Company Name: — U.S. EPA ID Number:

8. Designated Facility Name and Site Address:
TCI of Alabama, LLC
101 Parkway East
Pell City AL 35125

Facility's Phone: 205-338-9997

U.S. EPA ID Number: A L D 9 8 3 1 6 7 8 9 1

GENERATOR

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes			
	1. RQ Polychlorinated Biphenyls (SOLID) 9, UN3432, PGIII >500ppm PCB Trans	1	CM	2727	K	B006			
	2.								
	3.								
	4.								

14. Special Handling Instructions and Additional Information
Dike and contain in case of spill. ERG-171 QUOTE #: 1002004N
Emergency Contact: CHEMTREC 24 hr
UNIT 8012, Serial #: 6910064, PYR, 6000/lbs Sample T2621

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: N. MANN — Signature: N. M — Month Day Year: 09 14 10

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Scott T Brunell — Signature: Scott Brunell — Month Day Year: 09 14 10
Transporter 2 Printed/Typed Name: — Signature: — Month Day Year:

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number:
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H010			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: MICHAEL STRAGGINS — Signature: Michael Straggins — Month Day Year: 09 16 10

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

REGISTER
OF
ELECTRICAL EQUIPMENT

BLDG 292
UNIT 8012

Generator Name:
Brooklyn Navy Yard

US EPA ID No: NYD981078058

NEW YORK

Addendum to
Manifest No. 100052560 CTN

Page 1 of 1

Item	Serial #	Type	PCB	Gal.	Weight	Date Out Of Service
UNIT8012	6910064	TRANS	PYR	0	6080	8/30/2010

Stays with paperwork

TCI OF ALABAMA, LLC

Receiving Report for Shipment **102736**

Generator: BROOKLYN NAVY YARD-DEVELOP.CO **Pickup Date:** 9/14/10

EPA ID#: NYD981078058 **Manifest Doc#:** 100052560CTN

ITEM #	GEN REF#	SERIAL #	TYPE	SIZE	PCB	RFS DATE	GALS	LBS	KG'S
001	8012	6910064	TRANSFRM	0	600,000	8/30/10	0.0	6,080	2,764
QUANTITY = (1)									
DRAINED PCB ELECTRICAL EQUIPMENT						Totals	0.0	6,080	2,764

Form: 55 Disposal Summary #102736 Page: 1

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

TCI EPA ID # ALD983167891
Manifest ID: 100052560CTN
TCI Load # 102736
of: 09/14/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

NICHOLAS MANN
PHONE (845) 721-0284

In accordance with our agreement to provide disposal services, we hereby certify the completion of all items picked up on the above listed manifest. A summary of the disposition is as follows:

Qty	Item Description	Disposal Method	Completed
1	TP of PCB ELECTRICAL EQUIPMENT	METALS CLEANING AND RECYCLING	11/15/10

Certification: 11/15/10

Tracy Helms
Quality Director

Date

Disposal Detail #102736

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

Shipped: 09/14/10
Manifest ID: 100052560CTN
Received: 09/16/10
Disposed: 11/15/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

PHONE (845) 721-0284

We hereby certify that the following items were disposed of in accordance with 40 CFR 761 as of the date(s) shown below:

Carcass or Container				Contents			
Item Number	Item Type	Method	Disp	Comp	Method	Disp	Facility	EPA ID #
6910064	TRANSFRM	MCR	11/15/10					

MCR = METALS CLEANING AND RECYCLING

Tracy Helms
Quality Director

11/15/10
Date

Certificate of Disposal Number 102736

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

TCI EPA ID # ALD983167891
Manifest ID: 100052560CTN
TCI Load # 102736
of: 09/14/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

PHONE (845) 721-0284

We hereby certify that the following PCB items were disposed of as the date(s) shown below:

Item Number	Qty	Description	Disposed	Disposal Method
6910064	1	POWER TRANSFORM	11/15/10	METALS CLEANING AND RECYCLING

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.

11/15/10

Tracy Helms
Quality Director

Date

ease print or type. (Form designed for use on elite (12-pitch) typewriter.) CCN222702 Form Approved. OMB No. 2050-00

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: N Y D9 8 1 0 7 8 0 5 8
2. Page 1 of 1
3. Emergency Response Phone: 800-424-9300
4. Manifest Tracking Number: 002247617 GBF

5. Generator's Name and Mailing Address
Brooklyn Navy Yard - 292
63 Flushing Avenue
Brooklyn, NY 11205

Generator's Site Address (if different than mailing address)
Building 292

Generator's Phone: Nicholas Mann 845-721-0284

6. Transporter 1 Company Name: TCI of NY, LLC — U.S. EPA ID Number: N Y D9 8 6 8 9 9 9 1 2

7. Transporter 2 Company Name: SJ TRANSPORTATION CO — U.S. EPA ID Number: N J D 0 7 1 6 2 9 9 7 6

8. Designated Facility Name and Site Address
TCI of Alabama, LLC
101 Parkway East
Pell City , AL 35125

Facility's Phone: 205-338-9997 — U.S. EPA ID Number: A L D9 8 3 1 6 7 8 9 1

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. RQ UN2315 POLYCHLORINATED BIPHENYLS LIQUID 9 PGIII >500PPM PCB OIL IN TRANS	1	CM	4515	K	B006
	2. RQ UN3432 POLYCHLORINATED BIPHENYLS SOLID 9 PGIII ASSUMED 50-499PPM DRAINED TRANSFORMER (ON SCRAP CONTAINMENT PAN)	1	CM	4545	K	B002
	3.					
	4.					

14. Special Handling Instructions and Additional Information
DIKE AND CONTAIN IN CASE OF SPILL. ERG - 171 EMERGENCY CONTACT: CHEMTREC 24 HOURS.

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: N. Mann — Signature: N. Mann — Month 12 Day 9 Year 13

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: William Suttahth — Signature: William Suttahth — Month 12 Day 09 Year 1-
Transporter 2 Printed/Typed Name: Michael Conley / Joe Clifton — Signature: Michael Conley / Joe Clifton — Month 12 Day 13 Year 13

18. Discrepancy
18a. Discrepancy Indication Space ☒ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
1) REC'D 1 CM 6905 LB. = 3139 K. 2) REC'D 1 CM 12235 LB. = 5561 K.
Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. ~~H141~~ H010 2. ~~H141~~ H010 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: MICHAEL SPRAGGINS — Signature: Michael Spraggins — Month 12 Day 16 Year 13

A Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR STATE (IF REQUIRED

TCI OF ALABAMA, LLC

Receiving Report for Shipment **134899**

Generator: BROOKLYN NAVY YARD-DEVELOP.CO **Pickup Date:** 12/9/13
EPA ID#: NYD981078058 **Manifest Doc#:** 002247617GBF

ITEM #	GEN REF#	SERIAL #	TYPE	SIZE	PCB (ppm)	RFS DATE	GALS	LBS	KG'S
003		CONTAINMENT PAN	STEEL	0	500	11/11/13	0.0	3,000	1,364
QUANTITY = (1)									
CONTAINER OF DRAINED PCB ELECTRICAL EQUIPMENT				*0*		**Totals**	*0.0*	*3,000*	*1,364*
001		PAU2286-08	PADMOUNT	1500	500	11/11/13	0.0	6,905	3,139
002		T8988	PADMOUNT	0	46,000	11/11/13	0.0	9,235	4,198
QUANTITY = (2)									
DRAINED PCB ELECTRICAL EQUIPMENT				*1,500*		**Totals**	*0.0*	*16,140*	*7,336*

ADDENDUM TO MANIFEST

NEW YORK

Generator Name:
BROOKLYN NAVY

US EPA ID No:
NYD981078058

Addendum to Manifest No.
002247617GBF

Page 1 of 1

Item	Serial #	Type	PCB	Gal.	KVA	Weight	Date Out Of Service
PCB	PAU2286-08	PAD	>500	318	1500		11/11/13
T8988	ASSUMED 50-499	PAD	ASSUMED 50-499	0			11/11/13
PAN	CONTAINMENT PAN	PAN	ASSUMED 50-499	0	0		11/11/13

Customer: Brooklyn Navy Yard - 292 **BOL:** NA **Manifest:** 002247617GBF

TCI #	Company	Test Results	Serial	Gallons Oil	Weight	KVA	Type	Comments	Out of Serv Date
PAN	Brooklyn Navy Yard - 292		CONTAINMENT PAN	0		0		GOING AS ONE UNIT	11/11/2013
T8988	Brooklyn Navy Yard - 292	ASSUMED 50-499	NO PLATE	0			PAD		11/11/2013
PCB	Brooklyn Navy Yard - 292	>500	PAU2286-08	318		1500	PAD		11/11/2013

Customer: Brooklyn Navy Yard - 77 **BOL:** 5428 **Manifest:** NA

TCI #	Company	Test Results	Serial	Gallons Oil	Weight	KVA	Type	Comments	Out of Serv Date
T2567	Brooklyn Navy Yard - 77	ND	NO SERIAL	8		0	OCB		11/11/2013
T2568	Brooklyn Navy Yard - 77	ND	NO SERIAL	8		0	OCB		11/11/2013

TCI of Alabama, LLC Disposal Document Package

BROOKLYN NAVY YARD-DEVELOP.COR

63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205
NICHOLAS MANN

Manifest Tracking Information

TCI Manifest #:	134899
Manifest Tracking #:	002247617GBF
Date Picked Up:	12/9/2013
Date Received:	12/16/2013

Enclosed please find the following disposal documents (if applicable) for the manifest listed above:

- ☐ *TCI Disposal Summary Issued:* 1/20/2014
- ☐ *TCI Certificate of Disposal Issued:* 1/20/2014
- ☐ *List of TCI Outbound Manifest(s) and associated CD*

Please reveiw the attached information closely. If any of the information is missing please fax or email this page back to Kristin Piper with the missing item(s) circled.
Fax #: (205) 338-9979 or kpiper@tcialabama.com

TCI of Alabama, LLC
101 Parkway East
Pell City, AL 35125
Phone: (205) 338-9997
Fax: (205) 338-9979
EPA ID #: ALD983167891

Certificate Number: 134899
Date Issued: 1/20/2014
Manifest Id Number: 002247617GBF
Total Items: 3
Pickup Date: 12/9/2013

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN , NY 11205

Disposal Summary

In accordance with our agreement to provide disposal services, we hereby certify the completion of all items picked up on the above listed manifest. A summary of the disposition is as follows:

TCI Barcode	Serial #	Gen Ref #	Size / KVA	Description	PCB (ppm)	Item(s) Disposed	Item(s) Method	Item(s) Outbound	Liquid(s) Disposed	Liquid(s) Method	Liquid(s) Outbound
AA547190	PAU2286-08		1,500	PADMOUNT TRANSFORMER	PCB	1/17/2014	MCR				
AA547191	T8988		0	PADMOUNT TRANSFORMER	46,000	1/17/2014	MCR				
Quantity: 2											
AA547192	CONTAINMENT PAN		0	STEEL OFF TRANSFORMERS	PCB	1/17/2014	MCR				
Quantity: 1											

Disposal Method Key:

CWL: PCB Chemical Waste Landfill - Waste Management, Emelle, AL
DRN: Complete Draining - TCI of Alabama, LLC, Pell City, AL
IHB: TCI Thermal Destruction - TCI of Alabama, LLC, Pell City, AL
INC: PCB Incineration - Veolia, Pt. Arthur, TX
MCR: Metals Cleaning and Recycling - TCI of Alabama, LLC, Pell City, AL
RCY: Recycling - TCI of Alabama, LLC, Pell City, AL
THM: Thermal Destruction - See Attached Outbound
DTX: Dechlorination - See Attached Outbound
IHX: Dechlorination - TCI of Alabama, LLC Pell City, AL

Quality Director

1/20/2014
Date

TCI of Alabama, LLC
101 Parkway East
Pell City, AL 35125
Phone: (205) 338-9997
Fax: (205) 338-9979
EPA ID #: ALD983167891

Certificate of Disposal

Certificate Number: 134899
Date Issued: 1/20/2014
Manifest Id Number: 002247617GBF
Pickup Date: 12/9/2013

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN , NY 11205

We hereby certify that the following PCB items were disposed of by TCI of Alabama, LLC metals cleaning and recycling process as of the date(s) shown below:

Barcode	Description	Serial #	Date
AA547190	PADMOUNT TRANSFORMER	PAU2286-08	1/17/2014
AA547191	PADMOUNT TRANSFORMER	T8988	1/17/2014
AA547192	STEEL OFF TRANSFORMERS	CONTAINMENT PAN	1/17/2014

Under civil and criminal penalities of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.

Tracy Helms

Tracy Helms
Quality Director

1/20/2014
Date

DISPOSAL STANDARDS FOR NY STATE REGULATED PCB WASTES

The following NY State regulated wastes and land restricted in the State of New York and are subject to 6 NYCRR Part 376. Refer to 6 NYCRR 376.4(f) for New York land disposal requirements. Check all that apply:

( ) B001	(X) B002	( ) B003	( ) B004
( ) B005	(X) B006	( ) B007	

Certification - Waste Meets Treatment Standards

( ) I am the generator of the waste as identified above, that is restricted under 6 NYCRR Part 376. I have determined that this waste meets all applicable treatment standards set forth in 6 NYCRR 376 and, therefore, it can be land disposed without further treatment.

I certify under penalty of law that I personally have examined and are familiar with the waste through analysis and testing and through knowledge of the waste to support this certification that waste complies with the treatment standards specified in Part 376, section 376.4 and all applicable prohibitions se forth in subdivision 376.3(b) of Part 376 or RCRA section 3004(d). I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting a false certification including the possibility of a fine or imprisonment.

Notification - Waste Does Not Meet Treatment Standards

(X) I am the generator of a waste restricted under 6 NYCRR Part 376 as identified above. I notify that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this notification that the waste does not comply with the treatment standards specified in 6 NYCRR Part 376.4(f). This waste must be treated to the applicable standard set forth in 6 NYCRR 376.4(f) prior to land disposal.

Generator's Name (Print): Brooklyn Navy Yard

EPA ID: NYD981078058

Generator's Signature: N. U

Date: 12/9/13 Manifest #: 002247617GBF

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: N Y D 9 8 1 0 7 8 0 5 8

2. Page 1 of: 1

3. Emergency Response Phone: 800-424-9300

4. Manifest Tracking Number: 100052725 CTN

5. Generator's Name and Mailing Address:
Brooklyn Navy Yard
63 Flushing Ave, Bldg 292, 3rd Fl
Brooklyn NY 11205

Generator's Site Address (if different than mailing address): BUILDING 293, UNIT 436

Generator's Phone: Nicholas Mann 845-721-0284

6. Transporter 1 Company Name: SS Transportation Co Inc.

U.S. EPA ID Number: NJD071629976

7. Transporter 2 Company Name:

U.S. EPA ID Number:

8. Designated Facility Name and Site Address:
TCI of Alabama, LLC
101 Parkway East
Pell City AL 35125

Facility's Phone: 205-338-9997

U.S. EPA ID Number: A L D 9 8 3 1 6 7 8 9 1

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. RQ Polychlorinated Biphenyls (SOLID) 9, UN3432, PGIII >500ppm PCB Transformer	1	CM	4247	K	B006
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Dike and contain in case of spill. ERG-171 QUOTE #: 1002004N
Emergency Contact: CHEMTREC 24hr.
Unit 436, Bldg 293, serial #: PBV0004-01, (T2636) ASK

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: N. MANN — Signature: [signature] — Month 09 Day 18 Year 10

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Scott Burwell — Signature: [signature] — Month 09 Day 18 Year 10
Transporter 2 Printed/Typed Name: — Signature: — Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H010			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Michael Sturgeons — Signature: [signature] — Month 09 Day 24 Year 10

GENERATOR / INT'L / TRANSPORTER / DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

TCI OF ALABAMA, LLC

Receiving Report for Shipment **102858**

Generator: BROOKLYN NAVY YARD-DEVELOP.CO **Pickup Date:** 9/18/10

EPA ID#: NYD981078058 **Manifest Doc#:** 100052725CTN

ITEM #	GEN REF#	SERIAL #	TYPE	SIZE	PCB	RFS DATE	GALS	LBS	KG'S
001	T2636	PBV0004-01	TRANSFRM	0	600,000	9/18/10	0.0	9,415	4,280

QUANTITY = (1)

DRAINED PCB ELECTRICAL EQUIPMENT

	Totals	*0.0*	*9,415*	*4,280*

REGISTER
OF
ELECTRICAL EQUIPMENT

BLDG 293
UNIT 436

Generator Name:
Brooklyn Navy Yard

US EPA ID No: NYD981078058

Addendum to
Manifest No. 100052725 CTN

Page 1 of 1

Item	Serial #	Type	PCB	Gal.	Weight	Date Out Of Service
T2636	PBV0004-01	Trans	ASK	0		8/30/2010
	UNIT 436					

Customer Copy

BILL OF LADING FOR NON-HAZARDOUS WASTE

TCI NEW YORK

Document No. 0647

GENERATOR NAME AND MAILING ADDRESS:
Brooklyn Navy Yard
63 Flushing Avenue, Bldg 292, 3rd Fl
Brooklyn NY 11205

US EPA ID NUMBER: (OPTIONAL) NYD981078058

PICKUP LOCATION (NAME & STREET ADDRESS):
Building 293, Unit 436

Contact: Nicholas Mann

Phone Number: 845-721-0284

DESIGNATED FACILITY NAME & SITE ADDRESS:
TCI of NY, LLC
39 Falls Industrial Park Road
Hudson, NY 12534

US EPA ID NUMBER: (OPTIONAL) NYD986899912

Contact: Bruce Vetro

Phone Number: (518) 828-9997

DESCRIPTION OF SHIPMENT

No. of Units	Type	Full/Empty	KVA	PCB Content	Total Weight
	TANKER ~~Drums~~	Full		5ppm PCBs	
BLDG 293, SERIAL #: PBV0004-01, T2636, 400/gals					

Type: P= Pole, PM = Padmount, DM = Drums, S = Switch, R = Regulators, O = OCB, B = Bushings, LB = Light Ballasts, SS = Substation, C = Capacitor

Generator's Certification: I certify the materials described above are not subject to federal regulations for reporting proper disposal of Hazardous Waste and that I am authorized to convey this material by the owner who dolds clear title.

N. Mann — PRINTED/TYPED NAME
N. M — SIGNATURE
09/4 — DATE

Transporter: TCI of NY

Pickup Times: TIME IN: 0730 a.m. TIME OUT: 11:00 a.m.

Dean Berry — DRIVER NAME PRINTED/TYPED
Dean Berry — SIGNATURE
9-18-10 — DATE

Additional Information

Designated Facility Owner or Operator – Certification of Receipt of Materials with Discrepancies Noted:

PRINTED/TYPED NAME — SIGNATURE — DATE

Form: 55

Disposal Summary #102858

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

TCI EPA ID # ALD983167891
Manifest ID: 100052725CTN
TCI Load # 102858
of: 09/18/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

NICHOLAS MANN
PHONE (845) 721-0284

In accordance with our agreement to provide disposal services, we hereby certify the completion of all items picked up on the above listed manifest. A summary of the disposition is as follows:

Qty	Item Description	Disposal Method	Completed
1	TP of PCB ELECTRICAL EQUIPMENT	METALS CLEANING AND RECYCLING	11/15/10

Certification:

Tracy Helms
Quality Director

11/15/10
Date

Disposal Detail #102858

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

Shipped: 09/18/10
Manifest ID: 100052725CTN
Received: 09/24/10
Disposed: 11/15/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

PHONE (845) 721-0284

We hereby certify that the following items were disposed of in accordance with 40 CFR 761 as of the date(s) shown below:

Carcass or Container				Contents			
Item Number	Item Type	Method	Disp	Comp	Method Disp	Facility	EPA ID #
PBV0004-01	TRANSFRM	MCR	11/15/10				

MCR = METALS CLEANING AND RECYCLING

Tracy Helms
Quality Director

11/15/10
Date

Certificate of Disposal Number 102858

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

TCI EPA ID # ALD983167891
Manifest ID: 100052725CTN
TCI Load # 102858
of: 09/18/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

PHONE (845) 721-0284

We hereby certify that the following PCB items were disposed of as the date(s) shown below:

Item Number	Qty	Description	Disposed	Disposal Method
PBV0004-01	1	POWER TRANSFORM	11/15/10	METALS CLEANING AND RECYCLING

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.

11/15/10
Date

Tracy Helms
Quality Director

102416

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: N Y D 9 8 1 0 7 8 0 5 8
2. Page 1 of: 1
3. Emergency Response Phone: 800-424-9300
4. Manifest Tracking Number: 100052505 CTN

5. Generator's Name and Mailing Address:
Brooklyn Navy Yard
63 Flushing Ave, Bldg 292, 3rd Fl
Brooklyn NY 11205
Generator's Phone: Nicholas Mann 845-271-0284

Generator's Site Address (if different than mailing address):
BUILDING 390, PIER K
UNIT 410

6. Transporter 1 Company Name: SJ Transportation Co. Inc.
U.S. EPA ID Number: N J D 0 7 1 6 2 9 9 7 6

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address:
TCI of Alabama, LLC
101 Parkway East
Pell City AL 35125
Facility's Phone: 205-338-9997
U.S. EPA ID Number: A L D 9 8 3 1 6 7 8 9 1

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ Polychlorinated Biphenyls (LIQUID) 9, UN2315, PGIII >500ppm PCB Fluid	1	TT	1643	K	B003
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Dike and contain in case of spill. ERG-171 Quote #: 1002004N
Emergency Contact: CHEMTREC
Serial #: 7085380, BLDG 390, UNIT 410, 482/gals, T2629, 540ppm PCBs

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: N. MANN Signature: N. M Month Day Year: 08/13/10

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: BRIAN WADDINGTON Signature: Month Day Year: 8/13/10
Transporter 2 Printed/Typed Name: Signature: Month Day Year:

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H141 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: TRACY HELMS Signature: Month Day Year: 08/17/10

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

TCI OF ALABAMA, LLC

Receiving Report for Shipment **102416**

Generator: BROOKLYN NAVY YARD-DEVELOP.CO   Pickup Date: 8/13/10

EPA ID#: NYD981078058   Manifest Doc#: 100052505CTN

ITEM #	GEN REF#	SERIAL #	TYPE	SIZE	PCB	RFS DATE	GALS	LBS	KG'S
001		7085380	LIQUID	0	540	8/3/10	497.0	3,730	1,695
QUANTITY = (1)									
PCB FLUID >499 PPM PCBS						Totals	*497.0*	*3,730*	*1,695*

BLDG 390

REGISTER
OF
ELECTRICAL EQUIPMENT

Generator Name:
BROOKLYN NAVY YARD

US EPA ID No: NYD 981078058

NEW YORK

Addendum to
Manifest No. 100052505CTN

Page 1 of 1

Item	Serial #	Type	PCB	Gal.	Weight	Date Out Of Service
1	7085380	OIL	540	482		8/3/2010
PUMPED INTO TANKER						
	BLDG 390					

Customer Copy

Form: 55

Disposal Summary #102416

Page: 1

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

TCI EPA ID # ALD983167891
Manifest ID: 100052505CTN
TCI Load # 102416
of: 08/13/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

NICHOLAS MANN
PHONE (845) 721-0284

In accordance with our agreement to provide disposal services, we hereby certify the completion of all items picked up on the above listed manifest. A summary of the disposition is as follows:

Qty	Item Description	Disposal Method	Completed
1	TT of PCB LIQUID	COMPLETE DRAINING	08/17/10
	FLUID FROM ABOVE	PCB INCINERATION Shipped on Manifest #10310, 08/17/10 To VEOLIA ES TECHNICAL SOLUTIONS	09/19/10

Certification:

Tracy Helms
Quality Director

11/15/10
Date

Disposal Detail #102416

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

Shipped: 08/13/10
Manifest ID: 100052505CTN
Received: 08/17/10
Disposed: 09/19/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

PHONE (845) 721-0284

We hereby certify that the following items were disposed of in accordance with 40 CFR 761 as of the date(s) shown below:

Carcass or Container				Contents				
Item Number	Item Type	Method	Disp	Comp	Method	Disp	Facility	EPA ID #
7085380	LIQUID	DRN	08/17/10	OIL	INC	09/19/10	VEOLIA	TXD000838896

DRN = COMPLETE DRAINING

INC = PCB INCINERATION

Tracy Helms
Quality Director

11/15/10
Date

102417

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: N Y D 9 8 1 0 7 8 0 5 8
2. Page 1 of: 1
3. Emergency Response Phone: 800-424-9300
4. Manifest Tracking Number: 100052506 CTN

5. Generator's Name and Mailing Address:
Brooklyn Navy Yard
63 Flushing Ave., Bldg 292, 3rd Fl
Brooklyn, NY 11205

Generator's Site Address (if different than mailing address):
BUILDING 390, PIER K
UNIT 160

Generator's Phone: Nicholas Mann 845-721-0284

6. Transporter 1 Company Name: SJ Transportation Co. Inc.
U.S. EPA ID Number: N J D 0 7 1 6 2 9 9 7 6

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address:
TCI of Alabama, LLC
101 Parkway East
Pell City AL 35125

Facility's Phone: 205-338-9997
U.S. EPA ID Number: A L D 9 8 3 1 6 7 8 9 1

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ Polychlorinated Biphenyls (LIQUID) 9, UN2315, PGIII >500ppm PCB Fluid	1	TT	5523	K	B003		
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
Dike and contain in case of spill. ERG-171 Quote #: 1002004N
Emergency Contact: CHEMTREC
Serial #: 7081459, BLDG 390, UNIT 160, 1620/gals, T2630, 634ppm PCBs

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: N. Mann
Signature: N. M
Month Day Year: 08 13 10

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Brian Waddington
Signature:
Month Day Year: 8 13 10

Transporter 2 Printed/Typed Name:
Signature:
Month Day Year:

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H141			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Tracy Helms
Signature:
Month Day Year: 08 17 10

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

TCI OF ALABAMA, LLC

Receiving Report for Shipment **102417**

Generator: BROOKLYN NAVY YARD-DEVELOP.CO **Pickup Date:** 8/13/10

EPA ID#: NYD981078058 **Manifest Doc#:** 100052506CTN

ITEM #	*GEN REF#*	*SERIAL #*	*TYPE*	*SIZE*	*PCB*	*RFS DATE*	*GALS*	*LBS*	*KG'S*
001		7081459	LIQUID	0	700	8/13/10	1,652.0	12,390	5,632
QUANTITY = (1)									
PCB FLUID >499 PPM PCBS						**Totals**	*1,652.0*	*12,390*	*5,632*

REGISTER
OF
ELECTRICAL EQUIPMENT

Generator Name:
BROOKLYN NAVY YARD

US EPA ID No: NYD 981078058

NEW YORK

Addendum to
Manifest No. 100052506

Page 1 **of** 1

Item	Serial #	Type	PCB	Gal.	Weight	Date Out Of Service
1	7081459	Oil	700	1620		8/13/2010
PUMPED INTO TANKER						

Form: 55

Disposal Summary #102417

Page: 1

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

TCI EPA ID # ALD983167891
Manifest ID: 100052506CTN
TCI Load # 102417
of: 08/13/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

NICHOLAS MANN
PHONE (845) 721-0284

In accordance with our agreement to provide disposal services, we hereby certify the completion of all items picked up on the above listed manifest. A summary of the disposition is as follows:

Qty	Item Description	Disposal Method	Completed
1	TT of PCB LIQUID	COMPLETE DRAINING	08/17/10
	FLUID FROM ABOVE	PCB INCINERATION Shipped on Manifest #10310, 08/17/10 To VEOLIA ES TECHNICAL SOLUTIONS	09/19/10

Certification:

Tracy Helms
Quality Director

11/15/10
Date

Disposal Detail #102417

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

Shipped: 08/13/10
Manifest ID: 100052506CTN
Received: 08/17/10
Disposed: 09/19/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

PHONE (845) 721-0284

We hereby certify that the following items were disposed of in accordance with 40 CFR 761 as of the date(s) shown below:

Carcass or Container				Contents				
Item Number	Item Type	Method	Disp	Comp	Method	Disp	Facility	EPA ID #
7081459	LIQUID	DRN	08/17/10	OIL	INC	09/19/10	VEOLIA	TXD000838896

DRN = COMPLETE DRAINING

INC = PCB INCINERATION

11/15/10

Date

Tracy Helms
Quality Director

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD981078058	1	800-424-9300	100052568 CTN

5. Generator's Name and Mailing Address
Brooklyn Navy Yard
63 Flushing Ave, Bldg 292, 3rd Fl
Brooklyn NY 11205

Generator's Site Address (if different than mailing address)
Bldg 390, Pier K
Unit 409 Oil

Generator's Phone: Nicholas Mann 845-721-0284

6. Transporter 1 Company Name — U.S. EPA ID Number

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
TCI of Alabama, LLC
101 Parkway Easet
Pell City AL 35125

Facility's Phone: 205-338-9997

U.S. EPA ID Number: ALD983167891

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. RQ Polychlorinated Biphenyls (LIQUID) 9, UN2315, PGIII 50-499ppm PCB Mineral Oil	~~10~~ 9	DM	1818	K	B002
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Dike and contain in case of spill. ERG-171 QUOTE 1002004N
Emergency Contact: CHEMTREC 24 hr
UNIT 409 OIL, SERIAL 7085379, 50-499ppm Mineral oil, 482/gals

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: CARLOS SEMPERTEGUI
Signature: ON BEHALF BNY [signature]
Month 09 Day 13 Year 2010

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: CLAUD E GRAY JR
Signature: [signature]
Month 09 Day 13 Year 10

Transporter 2 Printed/Typed Name
Signature
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H141			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: MICHAEL STRAGGINS
Signature: [signature]
Month 09 Day 15 Year 10

GENERATOR / INT'L / TRANSPORTER / DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

TCI OF ALABAMA, LLC

Receiving Report for Shipment **102714**

Generator: BROOKLYN NAVY YARD-DEVELOP.CO **Pickup Date:** 9/13/10

EPA ID#: NYD981078058 **Manifest Doc#:** 100052568CTN

ITEM #	*GEN REF#*	*SERIAL #*	*TYPE*	*SIZE*	*PCB*	*RFS DATE*	*GALS*	*LBS*	*KG'S*
001	DM1	OIL-1	LIQUID	55	499	8/30/10	49.0	465	211
002	DM2	OIL-2	LIQUID	55	499	8/30/10	49.0	465	211
003	DM3	OIL-3	LIQUID	55	499	8/30/10	51.0	470	214
004	DM4	OIL-4	LIQUID	55	499	8/30/10	51.0	470	214
005	DM5	OIL-5	LIQUID	55	499	8/30/10	49.0	460	209
006	DM6	OIL-6	LIQUID	55	499	8/30/10	49.0	460	209
007	DM7	OIL-7	LIQUID	55	499	8/30/10	51.0	475	216
008	DM8	OIL-8	LIQUID	55	499	8/30/10	51.0	475	216
009	DM9	OIL-9	LIQUID	55	499	8/30/10	51.0	475	216

QUANTITY = (9)

DRUM OF PCB-CONTAMINATED FLUID 50-499 PPM PCBS **Totals** *451.0* *4,215* *1,916*

Form: 55

Disposal Summary #102714

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

TCI EPA ID # ALD983167891
Manifest ID: 100052568CTN
TCI Load # 102714
of: 09/13/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

NICHOLAS MANN
PHONE (845) 721-0284

In accordance with our agreement to provide disposal services, we hereby certify the completion of all items picked up on the above listed manifest. A summary of the disposition is as follows:

Qty	Item Description	Disposal Method	Completed
9	DM's of PCB-CONT LIQUID	METALS CLEANING AND RECYCLING	11/15/10
	FLUID FROM ABOVE	PCB INCINERATION Shipped on Manifest #10384, 09/30/10 To VEOLIA ES TECHNICAL SOLUTIONS	10/30/10

Certification:

Tracy Helms
Quality Director

11/15/10
Date

Disposal Detail #102714

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

Shipped: 09/13/10
Manifest ID: 100052568CTN
Received: 09/15/10
Disposed: 11/15/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

PHONE (845) 721-0284

We hereby certify that the following items were disposed of in accordance with 40 CFR 761 as of the date(s) shown below:

Carcass or Container			Contents			
Item Number	Item Type	Method Disp	Comp	Method Disp	Facility	EPA ID #
OIL-1	LIQUID	MCR 11/15/10	OIL	INC 10/30/10	VEOLIA	TXD000838896
OIL-2	LIQUID	MCR 11/15/10	OIL	INC 10/30/10	VEOLIA	TXD000838896
OIL-3	LIQUID	MCR 11/15/10	OIL	INC 10/30/10	VEOLIA	TXD000838896
OIL-4	LIQUID	MCR 11/15/10	OIL	INC 10/30/10	VEOLIA	TXD000838896
OIL-5	LIQUID	MCR 11/15/10	OIL	INC 10/30/10	VEOLIA	TXD000838896
OIL-6	LIQUID	MCR 11/15/10	OIL	INC 10/30/10	VEOLIA	TXD000838896
OIL-7	LIQUID	MCR 11/15/10	OIL	INC 10/30/10	VEOLIA	TXD000838896
OIL-8	LIQUID	MCR 11/15/10	OIL	INC 10/30/10	VEOLIA	TXD000838896
OIL-9	LIQUID	MCR 11/15/10	OIL	INC 10/30/10	VEOLIA	TXD000838896

MCR = METALS CLEANING AND RECYCLING   INC = PCB INCINERATION

Tracy Helms
Quality Director

11/15/10
Date

Certificate of Disposal Number 102714

Issued By: TCI OF ALABAMA, LLC
101 PARKWAY EAST
PELL CITY, AL 35125-0765
PHONE (205) 338-9997
FAX (205) 338-9979

TCI EPA ID # ALD983167891
Manifest ID: 100052568CTN
TCI Load # 102714
of: 09/13/10

Generator: BROOKLYN NAVY YARD-DEVELOP.COR
63 FLUSHING AVE. BLDG. 292
BROOKLYN, NY 11205-

PHONE (845) 721-0284

We hereby certify that the following PCB items were disposed of as the date(s) shown below:

Item Number	Qty	Description	Disposed	Disposal Method
OIL-1	1	EMPTY DRUM	11/15/10	METALS CLEANING AND RECYCLING
OIL-2	1	EMPTY DRUM	11/15/10	METALS CLEANING AND RECYCLING
OIL-3	1	EMPTY DRUM	11/15/10	METALS CLEANING AND RECYCLING
OIL-4	1	EMPTY DRUM	11/15/10	METALS CLEANING AND RECYCLING
OIL-5	1	EMPTY DRUM	11/15/10	METALS CLEANING AND RECYCLING
OIL-6	1	EMPTY DRUM	11/15/10	METALS CLEANING AND RECYCLING
OIL-7	1	EMPTY DRUM	11/15/10	METALS CLEANING AND RECYCLING
OIL-8	1	EMPTY DRUM	11/15/10	METALS CLEANING AND RECYCLING
OIL-9	1	EMPTY DRUM	11/15/10	METALS CLEANING AND RECYCLING

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.

Tracy Helms
Quality Director

11/15/10
Date

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
N Y D 9 8 1 0 7 8 0 5 8	1	800-424-9300	100052719 CTN

5. Generator's Name and Mailing Address
Brooklyn Navy Yard
63 Flushing Ave, Bldg 292, 3rd Fl
Brooklyn NY 11205

Generator's Site Address (if different than mailing address)
BUILDING 390 (PIER K)

Generator's Phone: Nicholas Mann 845-721-0284

6. Transporter 1 Company Name
SJ Transportation Co., Inc.
U.S. EPA ID Number: N J D 0 7 1 6 2 9 9 7 6

7. Transporter 2 Company Name
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
TCI of Alabama, LLC
101 Parkway East
Pell City AL 35125
Facility's Phone: 205-338-9997
U.S. EPA ID Number: A L D 9 8 3 1 6 7 8 9 1

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes			
	1. RQ Polychlorinated Biphenyls (SOLID) 9, UN3432, PGIII >500ppm PCB Trans	1	CM	12432	K	B006			
	2. RQ Polychlorinated Biphenyls (LIQUID) 9, UN2315, PGIII >500ppm PCB Fluid		DM	0	K	B003			
	3.								
	4.								

14. Special Handling Instructions and Additional Information
Dike and contain in case of spill. ERG-171 QUOTE #: 1002004N
EMERGENCY CONTACT: CHEMTREC 24hr
PIER K, Serial #: 7081459, Bldg 390, 634ppm PCBs, T2630

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: CARLOS SEMPERTEGUI
Signature: ON BEHALF BNY. Carlos Sempertegui
Month Day Year: 09 13 2010

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: CLAUD E BRAY JR
Signature: Claud Bray Jr
Month Day Year: 09 13 10

Transporter 2 Printed/Typed Name
Signature
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H010	H141		

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: MICHAEL SPRAGGINS
Signature: Michael Spraggins
Month Day Year: 09 15 10

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

GENERATOR · INT'L · TRANSPORTER · DESIGNATED FACILITY

BLDG 390

REGISTER OF ELECTRICAL EQUIPMENT

NEW YORK

Generator Name: BROOKLYN NAVY YARD

US EPA ID No: NYD 981078058

Addendum to Manifest No. 100052719CTN

Page 1 of 1

Item	Serial #	Type	PCB	Gal.	Weight	Date Out Of Service
T2630	7081459	Trans	634	0	27350	8/27/2010
~~DM1~~	~~Oil~~	~~DM~~	~~634~~	~~50~~		~~8/27/2010~~
~~DM2~~	~~Oil~~	~~DM~~	~~634~~	[illegible]		~~8/27/2010~~
~~DM3~~	~~Oil~~	~~DM~~	~~634~~	[illegible]		~~8/27/2010~~
	BLDG 390					

TCI OF ALABAMA, LLC

Receiving Report for Shipment 102715

Generator: BROOKLYN NAVY YARD-DEVELOP.CO **Pickup Date:** 9/13/10

EPA ID#: NYD981078058 **Manifest Doc#:** 100052719CTN

ITEM #	*GEN REF#*	*SERIAL #*	*TYPE*	*SIZE*	*PCB*	*RFS DATE*	*GALS*	*LBS*	*KG'S*
001	T2630	7081459	TRANSFRM	0	634	8/27/10	0.0	27,350	12,432
QUANTITY = (1)									
DRAINED PCB ELECTRICAL EQUIPMENT									
						Totals	*0.0*	*27,350*	*12,432*

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	NYD981078058	1	800-424-9300	100052566 CTN

GENERATOR

5. Generator's Name and Mailing Address
Brooklyn Navy Yard
63 Flushing Ave, Bldg 292, 3rd Fl
Brooklyn NY 11205

Generator's Site Address (if different than mailing address)
BLDG 390, Pier K
UNIT 409

Generator's Phone: Nicholas Mann 845-721-0284

6. Transporter 1 Company Name: SJ Transportation Co Inc.
U.S. EPA ID Number: NJD071628826

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
TCI of Alabama, LLC
101 Parkway East
Pell City AL 35125
Facility's Phone: 205-338-9997
U.S. EPA ID Number: ALD983167891

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. RQ Polychlorinated Biphenyls (SOLID) 9, UN3432, PGIII >500ppm PCB Trans	1	CM	6204	K	B006
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Dike and contain in case of spill. ERG-171
Emergency Contact: CHEMTREC 24 hr.
UNIT 409, Serial 7085379, PYR, 13650/lbs empty,
Quote #: 1002004N

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: N. MANN
Signature: N. M
Month Day Year: 09 14 10

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S.
Port of entry/exit:
Transporter signature (for exports only):
Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Scott T Brenell
Signature: Scott T Brenell
Month Day Year: 09 14 10

Transporter 2 Printed/Typed Name:
Signature:
Month Day Year:

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H010			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: MICHAEL STRAGGINS
Signature: Michael Straggins
Month Day Year: 09 16 10

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

REGISTER OF ELECTRICAL EQUIPMENT

BLDG 390
PIER K

Generator Name:
Brooklyn Navy Yard

US EPA ID No: NYD981078058

TCI NEW YORK

Addendum to
Manifest No. 100052566 CTN

Page 1 of 1

Item	Serial #	Type	PCB	Gal.	Weight	Date Out Of Service
UNIT 409	7085379	TRANS	PYR	0	~~13650~~ 13920	8/30/2010

Stays with paperwork

TCI OF ALABAMA, LLC

Receiving Report for Shipment **102737**

Generator: BROOKLYN NAVY YARD-DEVELOP.CO **Pickup Date:** 9/14/10

EPA ID#: NYD981078058 **Manifest Doc#:** 100052566CTN

ITEM #	GEN REF#	SERIAL #	TYPE	SIZE	PCB	RFS DATE	GALS	LBS	KG'S
001	409	7085379	TRANSFRM	0	600,000	8/30/10	0.0	13,920	6,327
QUANTITY = (1)									
DRAINED PCB ELECTRICAL EQUIPMENT						Totals	*0.0*	*13,920*	*6,327*

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD981078058
2. Page 1 of: 1
3. Emergency Response Phone: 800-424-9300
4. Manifest Tracking Number: 100052503 CTN

5. Generator's Name and Mailing Address:
Brooklyn Navy Yard
63 Flushing Ave, Bldg 292, 3rd Fl
Brooklyn, NY 11205

Generator's Site Address (if different than mailing address):
BUILDING 390 (PIER K)
(Unit)

Generator's Phone: Nicholas Mann 845-271-0284

6. Transporter 1 Company Name: SJ Transportation Co. Inc.
U.S. EPA ID Number: NJD071629976

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address:
TCI of Alabama, LLC
101 Parkway East
Pell City AL 35125

Facility's Phone: 205-338-9997

U.S. EPA ID Number: ALD983167891

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. RQ Polychlorinated Biphenyls (SOLID) 9, UN3432, PGIII >500ppm PCBs Trans	1	CM	7402	K	B006
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Dike and contain in case of spill. ERG-171 Quote: 1002004N
Emergency Contact: CHEMTREC 24 hr
UNIT 410, BLDG 292, T2629, Serial #: 7085380, 540ppm PCBs

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: N. MANN
Signature: N. Man
Month/Day/Year: 09 14 10

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Scott Brunell
Signature: Scott Brunell
Month/Day/Year: 09 14 10

Transporter 2 Printed/Typed Name:
Signature:
Month/Day/Year:

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H010			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: MICHAEL STAGGINS
Signature: Michael Staggins
Month/Day/Year: 09 16 10

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR STATE (IF REQUIRED)

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

BLDG 390

REGISTER
OF
ELECTRICAL EQUIPMENT

TCI NEW YORK

Generator Name:
BROOKLYN NAVY YARD

US EPA ID No: NYD 981078058

Addendum to
Manifest No. 100052503/CTN

Page 1 **of** 1

Item	Serial #	Type	PCB	Gal.	Weight	Date Out Of Service
T2629	7085380	Trans	540	0	17180	8/27/2010
	BLDG 390					

TCI OF ALABAMA, LLC

Receiving Report for Shipment 102734

Generator: BROOKLYN NAVY YARD-DEVELOP.CO **Pickup Date:** 9/14/10

EPA ID#: NYD981078058 **Manifest Doc#:** 100052503CTN

ITEM #	GEN REF#	SERIAL #	TYPE	SIZE	PCB	RFS DATE	GALS	LBS	KG'S
001	T2629	7085380	TRANSFRM	0	540	8/27/10	0.0	17,180	7,809
QUANTITY = (1)									
DRAINED PCB ELECTRICAL EQUIPMENT						Totals	*0.0*	*17,180*	*7,809*

BILL OF LADING FOR NON-HAZARDOUS WASTE

Document No. N 05318

GENERATOR NAME AND MAILING ADDRESS:
Brooklyn Navy Yard Development Ctr.
Building 292
63 Flushing Avenue
Brooklyn, NY 11205

US EPA ID NUMBER: (OPTIONAL)

PICKUP LOCATION (NAME & STREET ADDRESS):
Building 668
Substation Q

Contact: Nicholas Mann

Phone Number: 845 271-0284

DESIGNATED FACILITY NAME & SITE ADDRESS:
TCI Inc.
39 Falls Industrial Park
Hudson, New York 12534

US EPA ID NUMBER: N Y D 9 8 6 8 9 9 9 1 2

Contact: Bruce Vetro, Vice-President

Phone Number: **(518) 828-9997**

DESCRIPTION OF SHIPMENT

No. of Units	Type	Full/ Empty	KVA	PCB Content	Total Weight
2085 gallons	Non PCB	Transformer	Oil	<4.1	

Type: P = Pole, PM = Padmount, DM = Drums, S = Switch, R = Regulators, O = OCB, B = Bushings, LB = Light Ballasts, SS = Substation, C = Capacitor

Generator's Certification: I certify the materials described above are not subject to federal regulations for reporting proper disposal of Hazardous Waste and that I am authorized to convey this material by the owner who holds clear title.

N. Mann
PRINTED/TYPED NAME

SIGNATURE

6/1/05
DATE

Transporter:
TCI Inc.

Pickup Times: TIME IN: 730 a.m. p.m. TIME OUT: 1100 a.m. p.m.

Mike Shutts
DRIVER NAME PRINTED/TYPED

SIGNATURE

6-1-05
DATE

Additional Information

Designated Facility Owner or Operator — Certification of Receipt of Materials with Discrepancies Noted:

Bruce Vetro, Vice-President
PRINTED TYPED

SIGNATURE

DATE

GENERATOR RETAINS

...DOUS
...STE

Document No. N 04203

...OR NAME AND MAILING ADDRESS:
...ooklyn Navy Yard Development Ctr.
...uilding 292
63 Flushing Avenue
Brooklyn, NY 11205

US EPA ID NUMBER: (OPTIONAL)

PICKUP LOCATION (NAME & STREET ADDRESS):
Building 668
Substation Q

Contact: Nicholas Mann

Phone Number: 845 721-0284

DESIGNATED FACILITY NAME & SITE ADDRESS:

TCI Inc.
39 Falls Industrial Park
Hudson, New York 12534

US EPA ID NUMBER: NYD986899912

Contact: Bruce Vetro, Vice-President

Phone Number: (518) 828-9997

DESCRIPTION OF SHIPMENT

No. of Units	Type	Full/ Empty	KVA	PCB Content	Total Weight
1	S/S TRANSFORMER	Empty	5000	4.1	
SER #	6530116				
5	RADS	Empty	N/A	4.1	
					30740

Type: P = Pole, PM = Padmount, DM = Drums, S = Switch, R = Regulators, O = OCB, B = Bushings, LB = Light Ballasts, SS = Substation, C = Capacitor

Generator's Certification: I certify the materials described above are not subject to federal regulations for reporting proper disposal of Hazardous Waste and that I am authorized to convey this material by the owner who holds clear title.

N MANN
PRINTED/TYPED NAME

SIGNATURE

6/3/05
DATE

Transporter: TCI Inc.

Pickup Times: TIME IN: 7:00 a.m. TIME OUT: 12:00 p.m.

Mike Shutts
DRIVER NAME PRINTED/TYPED

SIGNATURE

6/3/05
DATE

Additional Information

Designated Facility Owner or Operator — Certification of Receipt of Materials with Discrepancies Noted:

Bruce Vetro, Vice-President
PRINTED TYPED

SIGNATURE

6-6-05
DATE

DESIGNATED FACILITY RETAINS

APPENDIX E

Excavation Work Plan

This Excavation Work Plan (EWP) contains procedures for potential future soil disturbances at the Site, including renovation, below-grade utility line repair, and new construction.

E.1 NOTIFICATION

At least 15 days prior to the start of any activity that is anticipated to breach the Site-wide protective cover as defined in Section 2.6 of the Site Management Plan (SMP), the Site owner or their representative will notify the NYSDEC. Currently, this notification will be made to:

Jonathan Greco
NYSDEC Project Manager
625 Broadway
Albany, New York 12233
(518) 402-9694
Jonathan.Greco@dec.ny.gov

This notification will include:

- A detailed description of the work to be performed, including the location and aerial extent of excavation, plans/drawings for Site re-grading, intrusive elements or utilities to be installed below the soil cover, estimated volumes of impacted soil to be excavated, and any work that may impact an engineering control (EC);
- A summary of environmental conditions anticipated to be encountered in the work areas including the nature and concentration levels of constituents of concern, potential presence of grossly impacted media, and plans for any pre-construction sampling;
- A schedule detailing the start and completion of all intrusive work;
- A summary of the applicable components of this EWP;
- A statement that the work will be performed in compliance with this EWP and Title 29 of the Code of Federal Regulations Part 1910.120 (29 CFR 1910.120);
- A copy of the contractor's Health and Safety Plan (HASP), in electronic format, if it differs from the HASP provided in Appendix F of the Site Management Plan (SMP);
- Identification of disposal facilities for potential waste streams; and
- Identification of sources of any anticipated backfill, along with all required chemical testing results.

Tenant Notification Requirements

Tenants who wish to disturb the existing Site-wide cover (as defined in Section 2.6 of the SMP) must notify BNYDC in advance of such activities at least 90 days in advance. A project-specific Work Plan will be provided to BNYDC by the tenant describing soil disturbance activities and will include figures identifying the area(s) to be disturbed. The Change of Use request must include the NYSDEC 60-Day Advance Notification of Site Change of Use, Transfer or Certificate of Completion, and/or Ownership form found at http://www.dec.ny.gov/docs/remediation_hudson_pdf/changeofuse.pdf or in Appendix H of the SMP. BNYDC will review the Change of Use request and submit to NYSDEC.

E.2 SITE SECURITY

Site Security will be utilized to prevent access to the Site and vandalism or destruction of construction equipment, and to minimize health and safety concerns for surrounding properties. Currently the majority of the Site is covered by buildings, concrete, asphalt pavement, and/or millings, with some vegetated areas/landscaping.

In the event of any excavations or building demolitions, the area of excavation will be surrounded with an 8-foot security fence with a minimum of one gate that can be locked at the end of each working day. The fence will encompass the excavation, equipment, and soil storage areas, if any.

E.3 SOIL SCREENING METHODS

Visual, olfactory and instrument-based (e.g. photoionization detector) soil screening will be performed by a qualified environmental professional (QEP) during all excavations into known or potentially impacted material (remaining contamination). Soil screening will be performed when invasive work is done and will include all excavation and invasive work performed during development, such as excavations for foundations and utility work, after issuance of the No Further Action (NFA) letter.

Soils not exhibiting obvious signs of impacts may be reused on Site as backfill beneath a remedy-compliant cover comprised of at least 12 inches of soil meeting the lower of the NYSDEC Title 6 of the New York Codes, Rules and Regulations Part 375 (6 NYCRR 375) Commercial Use and Protection of Groundwater Soil Cleanup Objectives (SCOs), a building, or concrete, asphalt, or millings at least 6 inches in thickness. Soils exhibiting visual or olfactory evidence of impacts will be segregated for characterization and potential off-Site disposal.

Further discussion of off-Site disposal of materials and on-Site reuse is provided in Sections E.7 and E.8 of this Appendix.

E.4 SOIL STAGING METHODS

Any soils disturbed during excavation will be stockpiled in an on-Site staging area. Soil will be segregated into stockpiles based on screening performed as discussed in Section E.3 of this Appendix. Soil stockpiles will be continuously encircled with a berm and/or silt fence. Hay bales will be used as needed near catch basins, surface waters, and other discharge points.

Stockpiles will be kept covered at all times with appropriately anchored tarps. Stockpiles will be routinely inspected and damaged tarp covers will be promptly replaced. Stockpiles will be inspected at a minimum once each week and after every storm event. Results of inspections will be recorded in a logbook maintained at the Site and will be made available for inspection by NYSDEC upon request.

E.5 MATERIALS EXCAVATION AND LOAD-OUT

A QEP or person under their supervision will oversee all invasive work and excavation and load-out of all material not suitable for reuse. The owner or lessee of the property and its contractors are responsible for safe execution of all invasive and other work performed under this EWP.

The presence of utilities and easements on the Site will be investigated by a QEP. It will be determined whether a risk or impediment to the planned work under this SMP is posed by utilities or easements on the Site.

Loaded vehicles leaving the Site will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate federal, state, local, and NYSDOT requirements (and all other applicable transportation requirements).

A truck wash will be operated on-Site, as appropriate. The QEP will be responsible for ensuring that all outbound trucks will be washed at the truck wash before leaving the Site until the activities performed under this section are complete. Truck wash waters will be collected and disposed of off-Site in an appropriate manner.

Locations where vehicles enter or exit the Site shall be inspected daily for evidence of off-Site soil tracking. The QEP will be responsible for ensuring that all egress points for truck and equipment transport from the Site are clean of dirt and other materials derived from the Site during intrusive excavation activities. Adjacent streets will be cleaned as needed in order to maintain a clean condition with respect to Site-derived materials.

E.6 MATERIALS TRANSPORT OFF-SITE

All materials transport will be performed by licensed haulers in accordance with appropriate federal, state, and local regulations, including 6 NYCRR 364. Haulers will be appropriately licensed and trucks properly placarded.

Material will be transported by trucks equipped with tight-fitting covers. Loose-fitting canvas-type truck covers will be prohibited. If loads contain wet material capable of producing free liquid, truck liners will be used.

Truck transport routes will be developed for each project performed at the Site. This will allow the most efficient truck route with the least disturbance to remaining occupants of the Brooklyn Navy

Yard Industrial Park (BNYIP). All trucks loaded with Site materials will exit the vicinity of the Site using only these approved truck routes. The most appropriate route for each project will take into account: (a) limiting transport through residential areas and past sensitive sites; (b) use of New York City-mapped truck routes; (c) prohibiting off-Site queuing of trucks entering the Site; (d) limiting total distance to major highways; (e) promoting safety in access to highways; and (f) overall safety in transport.

Trucks will be prohibited from stopping and idling in the neighborhood outside the project Site. Off-Site queuing will be prohibited.

E.7 MATERIALS DISPOSAL OFF-SITE

All material removed from the Site will be treated as contaminated and regulated material and will be transported and disposed of in accordance with all federal, state (including 6 NYCRR 360), and local regulations. If disposal of material from this Site is proposed for unregulated off-Site disposal (i.e. clean soil removed for development purposes), a formal request, with an associated plan, will be made to NYSDEC. Unregulated off-Site management of materials from this Site will not occur without formal NYSDEC approval.

Off-Site disposal locations for excavated soils will be identified in the pre-excavation notification. This will include estimated quantities and a breakdown of disposal facility by class, if appropriate - i.e., hazardous waste disposal facility, solid waste landfill, petroleum treatment facility, construction/demolition (C/D) recycling facility, etc. Actual disposal quantities and associated documentation will be reported to NYSDEC in the Periodic Review Report (PRR). This documentation will include: waste profiles, test results, facility acceptance letters, manifests, bills of lading, and facility receipts.

Non-hazardous historic fill and impacted soils taken off-Site will be handled, at minimum, as a Municipal Solid Waste per 6 NYCRR 360-1.2. Material that does not meet Part 375 Unrestricted Use SCOs is prohibited from being taken to a New York State recycling facility (6 NYCRR 360-16 Registration Facility).

E.8 MATERIALS REUSE ON-SITE

Excavated soils will be considered appropriate for reuse as on-Site backfill if the soil does not exhibit obvious signs of impacts. Soils not exhibiting obvious signs of impacts may be reused on Site as backfill beneath a remedy-compliant cover comprised of at least 12 inches of soil meeting the lower of NYSDEC Commercial Use and Protection of Groundwater SCOs as set forth in 6 NYCRR 375-6.8(b), a building, or concrete, asphalt, or millings at least 6 inches in thickness. Soils exhibiting obvious signs of impacts must be sampled prior to reuse below the Site-wide cover and must meet the lower of the Commercial Use and Protection of Groundwater SCOs and the Standards, Criteria, and Guidance (SCGs) set forth in Table 5.4(e)4 of *DER Technical Guidance for*

Site Investigation and Remediation (DER-10), included at the end of this Section. Soil will be stockpiled in accordance with Sections E.3 and E.4 of this EWP.

The QEP will ensure that procedures defined for materials reuse in the SMP are followed and that unacceptable material does not remain on-Site. Impacted on-Site material, including historic fill and impacted soil, that is acceptable for reuse on-Site will be placed below the demarcation layer or impervious surface, and will not be reused within a cover soil layer, within landscaping berms, or as backfill for subsurface utility lines.

Any demolition material proposed for reuse on-Site will be sampled for asbestos and the results will be reported to NYSDEC for acceptance. Concrete crushing or processing on-Site will not be performed without prior NYSDEC approval. Organic matter (wood, roots, stumps, etc.) or other solid waste derived from clearing and grubbing generated during Site redevelopment and/or remedial work will not be reused on Site.

Table 5.4(e)4
Reuse of Soil

Soil on the Site Meets:	Reuse on the Site:	Off-site Export & Reuse:
Unrestricted Soil SCGs	Without restrictions	Without restrictions
Meets the Applicable Use-based and Groundwater Protection SCG and where Appropriate Protection of Ecological Resources Soil SCGs for a Site w/ an Institutional Control (IC) & SMP.	In the soil cover/cap or as backfill within the area of the site subject to the IC.	Not Allowed, unless going to a site with IC subject to a 6 NYCRR 360 Beneficial Use Determination (BUD).
Meets Site-Specific Background Soil Levels.	Without restrictions. (Does not apply to sites in the BCP.)	Not Allowed, unless going to a site with IC subject to a 6 NYCRR 360 BUD.
Site-specific cleanup goals for subsurface soil	Placement below the soil cover/cap within the area of the site subject to the IC.	Not Allowed, unless going to a site with IC subject to a 6 NYCRR 360 BUD.

E.9 FLUIDS MANAGEMENT

All liquids to be removed from the Site including, but not limited to, excavation dewatering, decontamination waters, and groundwater monitoring well purge and development waters, will be handled, transported, and disposed of in accordance with applicable federal, state, and local regulations. Dewatering, purge, and development fluids will not be recharged back to the land surface or subsurface of the Site and will be managed off-Site unless prior approval is obtained from NYSDEC.

Impacted water originating from equipment decontamination, excavation dewatering, and monitoring well purging, will be pumped into storage tanks for off-Site disposal. A licensed liquid waste hauler will remove, transport, and dispose of the liquid in compliance with all applicable regulations.

Discharge of water generated during large-scale construction activities to surface waters (i.e. a local pond, stream or river), if any, will be performed under a State Pollutant Discharge Elimination System (SPDES) permit.

E.10 SITE-WIDE COVER RESTORATION

After the completion of soil removal and any other invasive activities the Site-wide cover will be restored in a manner that complies with the Decision Document. The existing Site-wide cover is comprised of buildings, concrete and asphalt pavement, and millings. A demarcation layer will be placed to provide a visual reference to the top of the zone of remaining contamination, the zone that requires adherence to special conditions for disturbance of remaining impacted soils defined in the SMP. If the type of cover system changes from that which exists prior to the excavation (e.g., the building slab is replaced by soil cover), this will constitute a modification of the cover element of the remedy and the upper surface of the remaining contamination. A figure showing the modified surface will be included in the subsequent PRR and in an updated SMP.

E.11 BACKFILL FROM OFF-SITE SOURCES

All materials proposed for import onto the Site will be approved by the QEP and will be in compliance with provisions in the SMP prior to receipt at the Site. A Request to Import/Reuse Fill or Soil form, which can be found at http://www.dec.ny.gov/regulations/67386.html, will be prepared and submitted to the NYSDEC Project Manager, allowing a minimum of five business days for review.

Material from industrial sites, spill sites or other environmental remediation sites, or potentially impacted sites will not be imported to the Site.

All imported soils will meet the backfill and cover soil quality standards established in 6 NYCRR 375-6.7(d). Approval will also be based on an evaluation of the land use, protection of groundwater, and protection of ecological resources criteria. Soils that meet ‘exempt’ fill requirements under 6 NYCRR 360, but do not meet backfill or cover soil objectives for this Site, will not be imported onto the Site without prior approval by NYSDEC. Solid waste will not be imported onto the Site.

Imported materials will be tested at a rate consistent with Table 5.4(e)10 of DER-10, included at the end of this Section. Samples will analyzed for Target Compound List (TCL) volatile organic compounds (VOCs), TCL semi-volatile organic compounds (SVOCs), TCL pesticides, TCL Aroclors, and Target Analyte List (TAL) metals. Sample collection will be performed in accordance with the Quality Assurance Project Plan (QAPP), included as Appendix G of the SMP.

Trucks entering the Site with imported soils will be securely covered with tight fitting covers. Imported soils will be stockpiled separately from excavated materials and covered to prevent dust releases.

Table 5.4(e)10
Recommended Number of Soil Samples for Soil Imported To or Exported From a Site

Contaminant	VOCs	SVOCs, Inorganics & PCBs/Pesticides	
Soil Quantity (cubic yards)	**Discrete Samples**	**Composite**	**Discrete Samples/Composite**
0-50	1	1	3-5 discrete samples from different locations in the fill being provided will comprise a composite sample for analysis
50-100	2	1	
100-200	3	1	
200-300	4	1	
300-400	4	2	
400-500	5	2	
500-800	6	2	
800-1000	7	2	
> 1000	Add an additional 2 VOC and 1 composite for each additional 1000 Cubic yards or consult with DER		

E.12 STORMWATER POLLUTION PREVENTION

Smaller soil disturbances, such as those required for utility maintenance, conducted after issuance of the NFA letter, will likely not require coverage under the SPDES permit system or the preparation of a Stormwater Pollution Prevention Plan (SWPPP) due to the small size of the excavation.

For larger disturbances, such as in the event of a building demolition, a SWPPP and Notice of Intent (NOI) will be required as well as applicable inspections to maintain compliance with the SPDES permit system. Silt fencing or hay bales will be installed around the entire perimeter of the construction area. Barriers and hay bale checks will be installed and inspected once a week and after every storm event. Results of inspections will be recorded in a logbook maintained at the Site and will be made available for inspection by NYSDEC upon request. All necessary repairs shall be made immediately. Accumulated sediments will be removed as required to keep the barriers and hay bale checks functional.

All undercutting or erosion of the silt fence toe anchor shall be repaired immediately with appropriate backfill materials. Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering.

Erosion and sediment control measures identified in the SMP shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters.

E.13 CONTINGENCY PLAN

If underground storage tanks (USTs) or other previously unidentified sources for impacts to subsurface media are found during post-remedial subsurface excavations or development-related construction, excavation activities will be suspended until sufficient equipment is mobilized to address the condition.

Sampling will be performed on product and surrounding soils, etc. as necessary to determine the nature of the material and proper disposal method. Analyses will be performed for TCL VOCs, TCL SVOCs, TCL pesticides, TCL Aroclors, and TAL metals unless the Site history and previous sampling results provide a sufficient justification to limit the list of analytes. In this case, a reduced list of analytical parameters will be proposed to NYSDEC for approval prior to sampling.

The NYSDEC Project Manager will be promptly notified in the event that unknown or unexpected impacted media is identified by screening during invasive Site work. Reportable quantities of petroleum product will also be reported to the NYSDEC Spills Hotline. These findings will be also included in the PRR in compliance with the SMP.

E.14 COMMUNITY AIR MONITORING

A Site-specific Community Air Monitoring Plan (CAMP) is contained in the HASP, included as Appendix F to the SMP. CAMP procedures will be implemented for all excavations on Site, regardless of size.

E.15 ODOR CONTROL PLAN

This odor control plan is capable of controlling emissions of nuisance odors on- and off-Site. Specific odor control methods will be determined for each project to adequately address potential odors specific to that project. If nuisance odors are identified at the Site boundary, or if odor complaints are received, work will be halted and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. NYSDEC and the New York State Department of Health (NYSDOH) will be notified of all odor events and of any other complaints about the project. Implementation of all odor controls, including the halt of work, is the responsibility of the remedial party's Remediation Engineer, and any measures that are implemented will be discussed in the PRR.

All necessary means will be employed to prevent on- and off-Site nuisances. At a minimum, these measures will include: (a) limiting the area of open excavations and size of soil stockpiles; (b) shrouding open excavations with tarps and other covers; and (c) using foams to cover exposed odorous soils. If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include: (d) direct load-out of soils to trucks for off-site disposal; (e) use of chemical odorants in spray or misting systems; and (f) use of staff to monitor odors in surrounding neighborhoods.

If nuisance odors develop during intrusive work that cannot be corrected, or where the control of nuisance odors cannot otherwise be achieved due to on-Site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering the excavation and handling areas in a temporary containment structure equipped with appropriate air venting/filtering systems.

E.16 DUST CONTROL PLAN

A dust suppression plan that addresses dust management during invasive on-site work will include, at a minimum, the items listed below:

- Dust suppression will be achieved through the use of a dedicated on-Site water truck for road wetting. The truck will be equipped with a water cannon capable of spraying water directly onto off-road areas including excavations and stockpiles.
- Clearing and grubbing of larger sites will be done in stages to limit the area of exposed, un-vegetated soils vulnerable to dust production.
- Gravel will be used on roadways to provide a clean and dust-free road surface.
- On-Site roads will be limited in total area to minimize the area required for water truck sprinkling.

E.17 OTHER NUISANCES

A plan for rodent control will be developed and utilized by the contractor for all large excavation work that may be performed.

A plan will be developed and utilized by the contractor for all remedial work to ensure compliance with local noise control ordinances.

APPENDIX F

Health and Safety Plan

HEALTH AND SAFETY PLAN
Brooklyn Navy Yard Industrial Park
63 Flushing Avenue
Brooklyn, New York 11205
Site No. V00120

Prepared for:

Brooklyn Navy Yard Development Corporation
63 Flushing Avenue, Unit 300
Brooklyn, New York 11205

Prepared by:

CORE Environmental Consultants, Inc.
22-48 119th Street
College Point, New York 11356

March 23, 2018

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ATTACHMENTS

1.0 INTRODUCTION

The Brooklyn Navy Yard Development Corporation (BNYD) retained CORE Environmental Consultants, Inc. (CORE) to provide environmental consulting services related to the Brooklyn Navy Yard Industrial Park (BNYIP) Site located at 63 Flushing Avenue, Brooklyn, New York. This Site-specific Health and Safety Plan (HASP) establishes health and safety requirements, responsibilities, and procedures to protect workers during implementation of the final remedy at the Site.

1.1 PROJECT DESCRIPTION

The purpose of this HASP is to set forth appropriate health and safety procedures to be followed by CORE personnel and contractors during on-Site remedial activities, including intrusive activities, and soil, groundwater, and sub-slab vapor sampling, if required.

This document will serve not only to explain the chemical and physical hazards associated with working on Site, but will also outline approved measures for dealing with such hazards. The project Health and Safety Officer (HSO) will be responsible for the development and implementation of project Health and Safety protocols. In addition, the contractor(s) will be required to designate a Site HSO for their personnel and to follow, at a minimum, the requirements of this HASP. All personnel who will be involved with sampling on Site must have completed the appropriate Hazardous Waste Operations (HAZWOPER) Site Worker Training - i.e., 24 hour or 40 hour, as required by the Occupational Safety and Health Administration (OSHA) in Title 29 of the Code of Federal Regulations (29 CFR), Part 1910.120(e)(2), 1910.120(e)(3), and 1910.120(e)(8), as applicable, and the required medical surveillance as required by 29 CFR Part 1910.120(f).

The remedy will include:

Site Walk-throughs

Perform thorough Site-wide walk-throughs to evaluate the presence and condition of the Site-wide cover.

Remedial work may also include:

Soil Boring Program

Soil boring programs will involve evaluation of the nature and extent of impacts to soil through the advancement of borings at various locations on Site.

Excavation

Excavation may be performed during Site redevelopment or Site-wide cover repair. In addition, remediation of polychlorinated biphenyl (PCB)-impacted soil will require excavation.

Sample Analysis

Soil samples collected to classify impacts in PCB-impacted areas will be analyzed for, at a minimum, Target Compound List (TCL) Aroclors. Samples may also be analyzed for TCL volatile organic compounds (VOCs), TCL semi-volatile organic compounds (SVOCs), TCL pesticides, and Target Analyte List (TAL) metals, depending on the needs of each specific investigation.

Community Air Monitoring

Community air monitoring will be performed in accordance with New York State Department of Health (NYSDOH) guidance to guarantee the safety of both workers and Site occupants during any subsurface intrusive activities such as soil boring installation or excavation. The Site-specific community air monitoring requirements are discussed in Section 7.0.

1.2 SITE DESCRIPTION

The Site is located in Brooklyn, Kings County, New York and is identified as Block 2023, Lot 1 by the New York City Department of Finance. The Voluntary Cleanup Agreement (VCA) parcel is an approximately 150-acre portion of the lot that is bound by the East River to the north, Flushing Avenue to the south, Kent Avenue to the east, and Navy Street and the New York City Department of Environmental Protection (NYCDEP) Red Hook Wastewater Treatment Plant (WWTP) to the west. The Site is zoned M3-1 by the New York City Department of City Planning, indicating that it can be used for light and heavy manufacturing purposes. Site occupants are engaged in commercial and light manufacturing activities.

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2.0 KEY PERSONNEL

Personnel responsible for implementation of this Health and Safety Plan are:

Name	Company/Title	Address	Contact Information
Ronald Tramposch	CORE Site HSO	22-48 119th Street College Point, NY 11356	Office: (718) 786-4730 Mobile: (917) 804-8717 Email: RPT@coreenv.com
Shani Leibowitz	BNYDC Sr. Vice President	63 Flushing Avenue Brooklyn, NY 11205	Office: (718) 907-5955 Email: SLeibowitz@bnydc.org

SITE HEALTH AND SAFETY OFFICER

The responsibilities of the Site HSO are as follows:

- Implement this HASP on Site;
- Enforce day-to-day health and safety protocols on Site;
- Require that all personnel entering the Site understand the provisions of this HASP;
- Conduct periodic training sessions on use/maintenance of personal protective equipment (PPE) and safety practices;
- Conduct daily health and safety meetings each morning;
- Direct and advise CORE's Site personnel, visitors, and contractor(s) on the specific hazards associated with the Site as well as any changes related to health and safety requirements at the Site;
- Conduct necessary health and safety monitoring;
- Oversee air monitoring program, including monitoring logs;
- Monitor Site conditions and determine if changes in PPE levels are required;
- Execute work stoppages, if required; and
- Report changes in Site conditions and changes in PPE requirements to the Project HSO.

Daily Health and Safety Meeting Forms are included in Attachment A.

3.0 MEDICAL SURVEILLANCE REQUIREMENTS

All personnel who engage in waste Site activities for 30 days or more per year will participate in a Medical Surveillance Program. All project personnel involved in on-Site activities in impacted areas will be required to undergo annual medical examinations. This examination must take place not more than one year prior to and one year after the completion of Site work and must be conducted by a physician who is board-certified in occupational medicine. The physician should be familiar with the job-related duties of each worker examined. The physician must certify whether the individual is fit to conduct work on hazardous waste Sites using personal protection, or whether he or she must work within certain restrictions.

Any person exposed to high levels of hazardous substances will be required to undergo a repeat medical exam at, or before, the conclusion of the project to determine possible health impacts. Any person suffering a lost-time injury or illness must receive medical approval prior to returning to work. When employment is terminated for any reason, the employee must receive an exit medical examination.

All medical records will be held by the employer for the period of employment plus at least 30 years, in accordance with OSHA regulations on confidentiality and any other applicable regulations and will be made available to OSHA upon request. The components of Medical Surveillance include:

- Medical and occupational history;
- Physical examination, with particular attention to the cardiopulmonary system, general physical fitness, skin, blood-forming, hepatic, renal, and nervous systems;
- Blood and urine analyses;
- Pulmonary function testing; and
- Additional tests as appropriate, such as x-ray, stress tests, etc.

4.0 SITE HAZARD/RISK ANALYSIS

Physical hazards include the dangers of tripping and falling on uneven ground, operation of heavy equipment such as drill rigs, vehicular traffic, and utilities either above-ground or buried. The following are physical hazards which may be encountered during remedial activities

4.1 HAZARD ANALYSIS

PPE is the initial level of protection based on the activity hazards and Site conditions which have been identified. Upgrades to respiratory protection may be required based on the action levels discussed in Section 7.0. General on-Site provisions will include: extra nitrile, leather, and/or Kevlar gloves, extra protective coveralls, drinking water and electrolyte fluids, reflective vest, first aid kit, fire extinguisher, hearing protection, and washing facilities.

If Site conditions suggest the existence of a situation more hazardous than anticipated, the Site personnel will evacuate the immediate area. The hazard, level of precautions, and PPE will then be reevaluated.

4.2 HANDLING DRUMS AND CONTAINERS

Regulations for handling drums and containers are specified by OSHA in 29 CFR 1910.120(j). Potential hazards associated with handling drums include vapor generation, fire, explosions, and possible physical injury. Handling of drums/containers during remedial activities may be necessary. If drum/container handling is necessary, it will be performed in accordance with applicable regulations.

4.3 ELECTRICAL HAZARDS

4.3.1 Utilities

The Site may have shallow, buried utilities and also overhead utilities in certain areas. It will be necessary for parties disturbing the existing ground surface and conducting operations with heavy equipment having high clearances to exercise caution in performing project-related work with respect to the presence of utilities. Utility companies with active, buried lines in the Site area will be asked by the contractor performing intrusive activities to mark their facilities. Employees will use these data to choose work locations.

4.3.2 Underground Utilities

No excavating, drilling, boring, or other intrusive activities will be performed until an underground utility survey, conducted by knowledgeable persons or agencies, has been made. This survey will identify underground and in-workplace utilities such as the following:

- Electrical lines and appliances;
- Telephone lines;

- Cable television lines;
- Gas lines;
- Pipelines;
- Steam lines;
- Water lines;
- Sewer lines; and/or
- Pressurized air lines.

The location of utilities will be discussed with CORE personnel and contractors during a Site safety briefing. Utilities identified during survey should be marked or access otherwise restricted to avoid chance of accidental contact.

Even when a utility search has been completed, drilling, boring, and excavation should commence with caution until advanced beyond the depth at which such utilities are usually located. Utilities will be considered "live" or active until reliable sources demonstrate otherwise. Geophysical surveys, including ground penetrating radar (GPR) and electromagnetic (EM) survey, if necessary, will be completed in the area of all indoor boring locations to further refine the presence and locations of potential subsurface utilities.

4.3.3 Overhead Utilities

CORE does not anticipate performing work in the area of overhead utilities; however, if present, clearances will be adequate for the safe movement of vehicles and for the operation of construction equipment.

Overhead or above-ground electric lines should be considered active until a reliable source has documented them to be otherwise. Elevated work platforms, ladders, scaffolding, man-lifts, and drill or vehicle superstructures will be erected a minimum of 20 feet (the actual distance is dependent upon the voltage of the line) from overhead electrical lines until the line is de-energized, grounded, or shielded so arcing cannot occur between the work location or superstructure.

4.4 PHYSICAL HAZARDS

Drilling and excavation programs pose the greatest potential threat to the safety of Site personnel. The following sections describe specific safety measures to be implemented during specific activities.

4.4.1 Heat Stress

Employees may be exposed to the hazards associated with heat stress when ambient temperatures exceed 70 degrees Fahrenheit (ºF). Employees should increase water intake while working in conditions of high heat. Enough water should be available so that each employee can consume one quart of water per hour. In addition, they should increase number of rest breaks and/or rotate employees in shorter work shifts. Employees should rest in cool, dry, shaded areas for at least five minutes. Employees should not wait until they feel sick to cool down. Watch for signs and symptoms of heat exhaustion and fatigue. In the event of heat stroke, bring the victim to a cool environment, call for help, and initiate first aid procedures.

The following prevention, recognition, and treatment strategies will be implemented to protect personnel from heat stress. Personnel will be trained to recognize the symptoms of heat stress, and to apply the appropriate treatment.

Prevention

- Provide plenty of liquids. A 50 percent solution of fruit punch (or similar) in water, or plain water to be taken with salted foods such as pretzels will be available in the support zone.
- Buddy system. No individual will attempt to undertake any activity alone.
- Provide cooling devices. A spray hose and a source of water will be provided to reduce body temperature, cool protective clothing, and/or act as a quick-drench shower in case of an exposure incident.
- Adjustment of the work schedule. As is practicable, the most labor intensive tasks should be carried out during the coolest part of the day.

Recognition and Treatment

Any person who observes any of the following forms of heat stress, either in himself or in another worker, will report this information to the Site HSO as soon as possible.

1. Heat Rash (or prickly heat)

   Cause: Continuous exposure to hot and humid air, aggravated by chafing clothing.

   Symptoms: Eruption of red pimples around sweat ducts accompanied by intense itching and tingling.

   Treatment: Remove source of irritation and cool skin with water or wet clothes.

2. Heat Cramps (or heat prostration)

   Cause: Profuse perspiration accompanied by inadequate replenishment of body water and electrolytes.

Symptoms: Sudden development of pain and/or muscle spasms in the abdominal region.

Treatment: Remove the worker to the contamination reduction zone. Provide fluids orally. Remove protective clothing. Decrease body temperatures and allow a period of rest in cool location.

3. Heat Exhaustion

Cause: Overexertion in a hot environment and profuse perspiration accompanied by inadequate replenishment of body water and electrolytes.

Symptoms: Muscular weakness, staggering gait, nausea, dizziness, shallow breathing, pale and clammy skin, approximately normal body temperature.

Treatment: Perform the following while simultaneously making arrangements for transport to a medical facility: Remove the worker to the contamination reduction zone. Remove protective clothing. Lie the worker down on his or her back, in a cool place, and raise the feet 6 to 12 inches. Keep warm, but loosen all clothing. If conscious, provide sips of a salt water solution, using one teaspoon of salt in 12 ounces of water. Transport the worker to a medical facility.

4. Heat Stroke

Cause: Same as heat exhaustion.

Symptoms: Dry and hot skin, dry mouth, dizziness, nausea, headache, rapid pulse.

Treatment: Cool worker immediately by immersing or spraying with cool water or sponge bare skin after removing protective clothing. Transport to hospital.

4.4.2 Cold Stress

Exposure to cold weather, wet conditions and extreme wind-chill factors may result in excessive loss of body heat (hypothermia) and/or frost bite. To guard against cold exposure and to prevent cold injuries, appropriate warm clothing should be worn, warm shelter must be readily available, rest periods should be adjusted as needed, and the physical conditions of on Site field personnel should be closely monitored. Personnel and supervisors working on Site will be made aware of the signs and symptoms of frost bite and hypothermia such as shivering, reduced blood pressure, reduced coordination, drowsiness, impaired judgment, fatigue, pupils dilated but reactive to light, and numbing of the toes and fingers. The potential for wetting of protective clothing should be of concern, since wet clothing (from sweat or splashes) will provide poor insulation against the cold.

4.4.3 Noise

Noise is a potential hazard associated with the operation of heavy equipment, power tools, pumps, and generators. Employees who will perform suspected or established high noise tasks and operations for short durations (less than 1 hour) will wear hearing protection. If deemed necessary by the HSO, additional hearing protection may be added and the need to monitor sound levels for Site activities will be determined. Other employees who do not need to be in proximity should distance themselves from the equipment generating the noise.

4.4.4 Hand and Power Tools

In order to complete the various tasks for the project, personnel may use hand and power tools. The use of hand and power tools can present a variety of hazards, including physical harm from being struck by flying objects, being cut or struck by the tool, fire, and electrocution. Work gloves, safety glasses, and hard hats will be worn by the operating personnel when using hand and power tools.

4.4.5 Slips, Trips, and Falls

Working in and around the Site may pose slip, trip, and fall hazards due to slippery and uneven surfaces. Personnel will wear proper foot gear and will employ good work practice and housekeeping procedures to minimize the potential for slips, trips, and falls.

4.4.6 Manual Lifting

Manual lifting of objects and equipment may be required. Failure to follow proper lifting technique can result in back injuries and strains. Employees should use a buddy system and/or power equipment to lift heavy loads whenever possible and should evaluate loads before trying to lift them. Carrying heavy loads with a buddy and proper lifting techniques include: 1) make sure footing is solid; 2) make back straight with no curving or slouching; 3) center body over feet; 4) grasp the object firmly and as close to your body as possible; 5) lift with legs; and 6) turn with your feet, don't twist.

4.4.7 Overhead Dangers

Overhead dangers, including but not limited to falling debris and equipment, can occur while operating drill rigs and excavation equipment. CORE personnel will maintain a minimum distance from large overhead operations and proper communication with heavy equipment operators and their handlers, should work necessitate their presence beyond the minimum safety distance. Proper PPE will be worn during these types of activities including steel-toed/shank boots, safety vests, and hard hats.

4.4.8 Cuts and Lacerations

Field activities that involve drilling and sampling activities usually involve contact with various types of machinery. At least one person on Site must be currently certified in first aid and cardiopulmonary resuscitation (CPR) techniques. Personnel trained and certified in first aid should be prepared to take care of cuts and bruises as well as other minor injuries. CORE will have a first aid kit approved by the American Red Cross available during all field activities.

4.4.9 Traffic Hazards

All traffic, vehicular and pedestrian, shall be maintained and protected at all times consistent with local, state, and federal, and agency regulations regarding such traffic and in accordance with direction of the Owners. Traffic hazards will be limited as the remediation project is to be completed primarily on private land and not in public right of way areas.

4.5 CHEMICAL HAZARDS

Chemicals that may potentially be encountered at the Site include SVOCs, primarily polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs) and metals. The health/safety characteristics and exposure limits of these compounds are listed in Table 1. The risk of exposure can be by dermal, ingestion, or respiratory routes, depending on the type of compound and intrusive activity being performed.

If during subsurface intrusive activities, the potential for workers to be exposed to particulates and compounds, such as dusts, SVOCs, PCBs, and metals, in soil through inhalation/ingestion/dermal contact routes, workers may need to apply water or an amended water solution to the area to help control the generation of airborne dusts, and particulates. Workers may also use respiratory protection including the use of an air-purifying respirator equipped with approved filter/cartridges. An analysis of the work tasks and potential for chemical exposure should be performed to determine the correct PPE, and/or respirator cartridge(s), if needed. The analysis should include a chemical waste profile to help ensure that PPE specified will be appropriate for the respective chemical hazard(s).

4.6 BIOLOGICAL HAZARDS

There are no anticipated biological hazards associated with the Site.

5.0 SITE CONTROL

In order to keep unauthorized personnel from entering the work areas subsurface intrusive activities without proper protective equipment, and for good control of overall Site safety, two work zones will be established. The two work zones are the support zone and the contamination reduction zone/exclusion zone. Actual zone width will be determined by optimal size of work area and by obstructions, if any. A brief description of the Site work zones follows.

5.1 SUPPORT ZONE

The support zone at the Site will be a mobile unit (automobile) including a cellular telephone for communication. The support zone will be located as near as practicable to the active work areas and decontamination areas.

5.2 CONTAMINATION REDUCTION ZONE/EXCLUSION ZONE

The contamination reduction zone and exclusion zone will be incorporated into one zone at each project-specific location. This zone will be mobile and the location will be dependent upon where active work is being performed. The decontamination of personnel, light equipment, and heavy equipment will be performed prior to leaving the contamination reduction zone.

A temporary storage location will be established at the Site for any stockpiles generated during excavation or construction activities. The location will be situated away from vehicular and pedestrian traffic, and will be secured via fencing or other apparatus.

5.3 SITE VISITATION

It is possible that the Owners or officials from regulating bodies and jurisdiction will visit the Site during operations. It is also possible that an OSHA representative will wish to inspect the Site. All such officials must meet the requirements of occasional Site workers (24 hour OSHA-approved training and Site-specific training) before going into any active contamination reduction zone/exclusion zone. Visitors other than the Owners, NYCDEC, or OSHA representatives will be subject to the additional requirements of having to receive written permission from the Owners to conduct a Site visit. Because of the nature of the work, the work zone will be continually supervised. Signs will be used to prevent the entrance of unauthorized visitors.

All visitors must supply their own PPE and will be directed to appropriate disposal areas for soil or used PPE.

6.0 PERSONAL PROTECTIVE EQUIPMENT

Since personnel working on Site may be exposed to unexpected levels of hazardous airborne chemicals or compounds released during subsurface intrusive activities, or may come in contact with SVOCs, PCBs, and/or metals in soil, various levels of protection will be utilized during field activities. Components of all levels of personal protection that will be available are listed in Table 2. Planned levels of protection for various activities are given in Table 3.

In the event that unexpected levels of organic vapors are encountered, any personnel working at Level D protection will don their respirators at once (upgrade to Level C). The Site HSO will consult with the Project HSO to decide if and when Level D protection may be resumed, or if a higher level of PPE is required. Some modification in safety equipment (e.g., switching from polycoated disposable coveralls to standard disposable coveralls) may be implemented in order to balance concerns for full contaminant protection against concerns for the possibility of heat stress resulting from the need to wear more restrictive PPE. Such modifications may be implemented only if approved in advance by the Site HSO, following consultation with the Project HSO. PPE which fully complies with the requirements of all required levels of protection should be immediately available at all times on the Site.

Level C respiratory protection will be provided using The National Institute for Occupational Safety and Health (NIOSH) -approved half-face respirators, with appropriate NIOSH approved cartridge for removal of organic vapors. All team members will be fit-tested for respirators using irritant smoke. Due to difficulties in achieving a proper seal between face and mask, persons with facial hair will not be allowed to work in areas requiring respiratory protection.

For the fullest protection of on-Site personnel, the supervising field engineer/geologist will conduct organic vapor monitoring at closely spaced intervals during subsurface intrusive activities. Monitoring will be accomplished by real-time monitoring equipment, such as a photoionization detector (PID).

The primary purpose of this monitoring will be to assess the adequacy of respiratory protection and to make it possible to stop work quickly if explosive or hazardous gases are encountered, or if an oxygen-deficient atmosphere is detected. The air monitoring to be carried out during all intrusive activities is summarized below.

Site personnel timesheets with employee and Project Manager signatures will serve to document the amount of time spent on Site by each team member.

7.0 COMMUNITY AIR MONITORING PLAN

Air monitoring will be performed throughout subsurface intrusive activities by trained CORE personnel. Air will be monitored for particulates. Monitoring is restricted to particulates as volatile organic compounds (VOCs) were not identified as constituents of potential concern (COPCs) during previous Site investigations. If VOCs are encountered during excavation activities, monitoring for volatiles utilizing a photoionization detector (PID) should be reevaluated and this Community Air Monitoring Plan (CAMP) updated accordingly. All air monitoring results and meteorological data (e.g., temperature range, wind speed, wind direction, etc.), if applicable, will be recorded on monitoring logs. Air quality monitoring will not be performed during precipitation events.

Community air monitoring will be performed in accordance with NYSDOH guidance to guarantee the safety of both workers and Site occupants. The NYSDOH Generic CAMP is included as Attachment B. Attachment B also includes the New York State Department of Environmental Conservation (NYSDEC) Technical and Administrative Guidance Memorandum (TAGM) #4031 for Fugitive Dust Suppression and Particulate Monitoring at Inactive Hazardous Waste Sites.

The purpose of the CAMP is to protect air quality outside of the project area from any dust or particulates generated during subsurface intrusive activities. This CAMP is applicable during the following activities:

- Drilling activities
- Test pit excavation and/or excavation for Site redevelopment

7.1 METEOROLOGICAL MONITORING

Wind is the primary mechanism for dust and particulate transport outside of the project area. Primary wind direction will be determined prior to the start of each workday, and may be reestablished at any time if a change in wind direction is observed.

7.2 TOTAL VOLATILES

During intrusive activities air monitoring for VOCs will be performed within the work/breathing zone utilizing a PID equipped with a 10.2 eV lamp. When readings up to 1 part per million (ppm) above background in the breathing zone are observed, work activity will continue. Monitoring will be continuous, and recorded at 15-minute intervals.

Levels less than 1 ppm of total volatiles are permissible. If the concentrations of VOCs in ambient air in the work zone area exceed 1 ppm for the 15-minute average, work activity must be temporarily halted. Air monitoring is to remain continuous while work is halted. If vapor levels decrease below 1 ppm, work can resume with continued monitoring. If vapor levels between 1 and 25 ppm are detected, work must be halted, the vapor source identified, abatement actions taken, and air monitoring continued. If sustained readings from 1 to 25 ppm above background in the breathing zone are observed, work will only be allowed to continue after an upgrade to Level C PPE. Intrusive activities will be shut down if vapor in the work area exceed 25 ppm.

7.3 PARTICULATE MONITORING

For intrusive activities, particulate concentrations will be monitored continuously at the upwind and downwind perimeter boundaries of the work zone. Tri-pod mounted real-time monitoring equipment capable of detecting particulate matter less than 10 micrometers (PM-10) in size will be utilized. Monitoring will be continuous and recorded every minute with 15-minute running averages. Potential fugitive dust migration off Site should also be visually assessed during intrusive activities.

- If the downwind PM-10 level is 100 micrograms per cubic meter (µg/m^3) greater than upwind/background concentrations over any 15-minute average period, dust suppression procedures will occur.
- If downwind PM-10 concentrations reach levels of 150 µg/m^3 (or more) greater than upwind/background concentrations, work must be halted while additional dust suppression measures are implemented.

7.4 AIR MONITORING EQUIPMENT CALIBRATION

The particulate monitor will be calibrated to 0 µg/m^3 daily (prior to field activities) and the results will be recorded. Intrusive activities will not begin until all instruments are calibrated and ambient air conditions are recorded. The particulate monitor will be recalibrated throughout the day as necessary.

CAMP monitoring forms are included as Attachment C.

7.5 WORK STOPPAGE RESPONSES

The following responses will be initiated whenever one or more of the action levels necessitating a work stoppage is exceeded:

- The Site HSO will be consulted immediately;
- All personnel will be cleared from the work area until appropriate mitigation techniques have been implemented;
- Monitoring will be continued until the end of the work day; and
- NYSDEC and NYSDOH will be notified as soon as possible.

Any chemical release to air, water, or soil must be reported to the Site HSO at once. Any exposure resulting from protective equipment failure must be immediately reported to the Site HSO and to the Project HSO in writing within 24 hours.

8.0 DECONTAMINATION PROCEDURES

8.1 DECONTAMINATION OF PERSONNEL

Decontamination of personnel will be performed at each contamination reduction zone/exclusion zone. This can be accomplished by washing and rinsing the outer gloves and outer boots over the decontamination trough. Disposable clothing can then be removed and discarded into a 30-gallon trash can with a vinyl liner. If personnel are in Level C protection, the above procedures will be followed and the respirator will be removed, sanitized, and placed in a plastic bag.

8.2 DECONTAMINATION OF EQUIPMENT

Heavy Equipment

Decontamination of heavy equipment (such as excavators) will be accomplished by steam cleaning on a decontamination pad constructed of wood and covered with water retaining polyethylene sheeting with a minimum thickness of 6 mil. Washing of heavy equipment will be completed with attention to minimize any overspray of water, debris and/or soil. All wash water and debris will be collected and containerized in Department of Transportation (DOT)-approved 55-gallon drums for later off-Site disposal. The polyethylene sheeting will be examined frequently for any tears or punctures that may cause a leak. The sheeting will be discarded in a municipal trash dumpster.

Mid-Weight Equipment

Decontamination of mid-weight equipment (such as shovels, augers, etc.) will be accomplished by scrubbing the equipment with a heavy duty bristle brush in a 5-gallon bucket containing water and Alconox® detergent. After washing and scrubbing, the equipment will be rinsed by placing it in a separate bucket of water to remove soap and debris. The wash and rinse water will be containerized in DOT-approved 55-gallon drums for later off-Site disposal.

Light Equipment

Decontamination of light equipment (such as tools, containers, monitoring instruments, radios, clipboards, etc.) will be accomplished by wiping equipment off with clean, damp cloths. The cloths can be discarded in the trash can with disposable clothing.

9.0 EMERGENCY PROCEDURES

The most likely incidents for which emergency measures might be required are:

- A sudden release of hazardous gases/vapors during drilling or excavating;
- An explosion or fire occurring during drilling or excavating; and/or
- A heavy equipment-related accident, or other accident resulting in personal injury.

Emergency procedures established to respond to these incidents are covered under the sections that follow.

9.1 COMMUNICATIONS

A portable telephone will be maintained by the Site HSO during the entire project. The phone will be frequently checked to ensure an appropriate signal is available for the phone to work properly.

9.2 FIRE/EXPLOSION

It will be the responsibility of the contractors to have a fire extinguisher available at the drill rig and/or excavation locations. The operator will have further responsibility of taking fire prevention measures such as the continuous removal from the rig of accumulated oil, grease, or other combustible materials.

In the event of a fire that cannot be controlled with available equipment, or in the event of an explosion, the local fire department will be summoned immediately by the Site HSO, who shall apprise them of the situation upon their arrival. The Owners/occupants will also be notified.

9.3 FIRST AID

First aid for personal injuries will be administered by the Site HSO. All accidents, however insignificant, will be reported to the Site HSO. Personnel designated to administer first aid will have received a minimum of eight hours training in first aid and CPR, and be certified by the American Red Cross. If a Site worker should require further treatment, he/she will be transported to the hospital. The on-Site vehicle will carry a copy of the HASP which includes written directions to the hospital, as well as a map showing the route.

The following sections are intended as a “quick guide” to basic first aid only. Effective CPR and first aid require hands-on training that is best accomplished by attending a class in person.

One common formula for performing first aid:

Do a primary scene and patient survey, followed by checking airway, breathing, and circulation (ABCs).

Survey the scene and approach the victim. Determine whether the scene is safe. Look for dangers, such as downed power lines, traffic, unstable vehicles, or accidents. Determine what may have happened, how many victims are involved, and if any bystanders can help. If several persons appear to be injured, perform triage.

Survey the patient and perform an initial assessment. Get consent from a conscious victim (parent/guardian if the victim is a minor) before providing care. If the victim is unconscious, consent is implied. Use infection control precautions and check for signs and symptoms of any life-threatening conditions and care for them. To perform an initial assessment:

- Check the victim for consciousness and obtain consent if the victim is conscious;
- Check the ABCs (airway, breathing and circulation); and
- Check for severe bleeding.

Provide brief care for the conditions. If the patient lacks air or circulation, they may begin to suffer brain damage after approximately four minutes. After ten minutes, they most likely will have some permanent brain damage. To care for breathing and circulation means first clearing the airway, and briefly attempting to restart their breathing or circulation with rescue breathing or CPR (and use of a portable defibrillator, where available). This step is crucial, because an unconscious person's airway can be blocked by a normal, comfortable-looking head position (e.g., on their back with a pillowed head). Often, simply tilting the head back will open the airway and restart their breathing. Likewise, many people recovering from a blocked airway vomit, and if they are unconscious, they can drown in the vomit. The standard prevention for both these issues is to turn a breathing, unconscious patient on their side, turning their head and spine in the same movement to avoid spinal injury, pillowing their head on one of their arms. Do not move casualties unless it is necessary to remove them from danger, or to make treatment possible (such as onto a hard surface for CPR).

1. Call for emergency services

Calling for emergency medical services must take priority over extended care such as long term rescue breathing or extended CPR, since these techniques are intended to gain time for emergency services to arrive as part of the chain of survival. However, if bystanders are available, both can be pursued at the same time. If you ask others to call an ambulance for you, make sure they report back to you once released by the emergency operator to confirm that the call has been made.

2. Do a secondary patient survey, and provide appropriate emergency first aid

The secondary survey is to gather information about conditions or injuries that may not be life threatening, but may become so if not cared for. Perform a secondary survey only if you are sure that the victim has no life-threatening conditions. A properly trained and certified person performs three stages in the secondary survey:

1. Interview the victim and include bystanders to supplement info from the patient:
   - Signs and Symptoms - Visible indications of injury and patient reported sensations (e.g. pain)
   - Allergies - especially those relevant to injury (i.e. allergy to latex, penicillin, etc.)
   - Medications - what current or recent medications the patient is taking
   - Past Medical History - any related history, or medical conditions that could complicate treatment (e.g. heart condition)
   - Last meal - last food and/or drink
   - Events - confirm how injury most likely occurred
2. Vitals
   - LOC - Level of Consciousness description (e.g. - alert, aware, disoriented, confused, unresponsive) or AVPU (Alert, Voice, Pain, Unresponsive)
   - Breathing Rate - Number of breaths per minute. Calculate by counting breaths for ten seconds and multiplying by six, or 15 seconds and multiplying by four.
   - Pulse Rate - Number of heart beats per minute. Calculate by counting pulse for ten seconds and multiplying by six, or 15 seconds and multiplying by four. Pulse for an unconscious person is taken on the neck (carotid pulse) and on the wrist (radial pulse) for a conscious person.
   - Skin Condition - Pale vs. normal, cool/cold vs. hot, clammy/sweaty vs. dry
3. Head-to-toe examination
   - Perform a head-to-toe examination
   - Look for medical alert bracelets or medallions.
   - Compare one side of the patient against the other
   - Look for pain or deformity

9.4 EMERGENCY ASSISTANCE

The following table list telephone numbers of police, fire, hospital, and other agencies whose services might be required, or from whom information might be needed. A hospital route map and directions to The Brooklyn Hospital Center, is included in Attachment D.

Name	Contact Numbers
The Brooklyn Hospital Center 121 DeKalb Avenue Brooklyn, New York 11201	Main Number: (718) 250-8000
NYCDEP	311
Fire Department	911
Police Department	911
Poison Information Center	1-800-222-1222
NYSDEC Emergency Hotline	1-800-457-7362
BNYDC	(718) 852-1441

10.0 SAFETY CONCERNS AND CONTINGENCY MEASURES

Normally, it is subsurface intrusive activities that pose the greatest potential threat to the safety of Site personnel. Subsurface intrusive activities at the Site will be conducted under the OSHA Safety and Health Standards (29 CFR Part 1926/191) relative to heavy equipment operation. The following sections describe specific safety measures to be implemented during specific activities.

10.1 Buddy System

The buddy system is an arrangement in which persons are paired, as for mutual safety or assistance. All field work will be completed by at least a two person team.

10.2 Excavation

An active excavation exclusion sub-zone is established by opening the ground surface. A personal air monitor will be used to monitor in real time in this zone. Action levels will be considered to have been reached when a continuous, steady reading has been observed.

If at any time during subsurface intrusive activities, underground storage tanks (USTs), metal, or concrete are penetrated, excavation activities will cease immediately. After obtaining instrument readings, the project geologist/Site HSO will decide whether to continue or discontinue excavation.

10.3 Decontamination Water

Investigation-derived waste (IDW) will be containerized in DOT-approved 55-gallon steel drums. All containers will be labeled with the contents and date, and will be stored at an on-Site staging area for later off-Site transport and disposal.

A waste management firm capable of handling both hazardous and nonhazardous wastes, such as National Response Corporation (NRC) of Great River, New York, will be employed to perform waste analysis and profiling, transport, and disposal for all IDW.

TABLES

TABLE 1
HAZARD CHARACTERISTICS OF SUSPECTED CONTAMINANTS

Substance	Incompatibles/Reactive	Exposure Routes/Target Organs	Standards
Polycyclic aromatic hydrocarbons (PAHs)	Strong oxidizers	Inhalation, ingestion, skin and/or eye contact Respiratory system, skin bladder; lung, kidney, and skin cancers	NIOSH REL: TWA 0.1 mg/m^3 OSHA PEL: 0.2 mg/m^3 TWA
Polychlorinated biphenyls (PCBs)	Strong oxidizers	Inhalation, ingestion, skin and/or eye contact Eyes, skin, liver, reproductive system	NIOSH REL: TWA 0.001 mg/m^3 OSHA PEL: 0.05 mg/m^3 TWA (skin)
Arsenic	Strong oxidizers, bromine azide, hydrogen gas	Inhalation, skin absorption, ingestion, skin and/or eye contact Liver, kidneys, skin, lungs, lymphatic system; lung and lymphatic cancers	NIOSH: 15-min 0.002 mg/m^3 OSHA PEL: 0.010 mg/m^3 TWA
Copper	Oxidizers, alkalis, sodium azide, acetylene	Inhalation, ingestion, skin and/or eye contact Eyes, skin, respiratory system, liver, kidneys	NIOSH REL: TWA 1 mg/m^3 OSHA PEL: 1 mg/m^3 TWA

NIOSH = National Institute for Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

REL = NIOSH recommended exposure limits, up to 10 hour work day exposure limit, 40 hours/week.

PEL = OSHA permissible exposure limit, 8 hour exposure limit, 40 hours/week, 29 CFR 1910.1000.

REL, PEL in mg/m^3 = (PEL in ppm x molecular weight) / 24.45.

CORE ENVIRONMENTAL CONSULTANTS

TABLE 2
COMPONENTS OF PERSONAL PROTECTION LEVELS

Level D Protection	Level C Protection
• Safety glasses with side shields (or goggles)	• Hard Hat
• Hard Hat	• Ploy-coated disposable (or standard disposable) overalls
• Face Shield (optional)	• Inner gloves of tight-fitting latex or vinyl
• Ordinary coveralls	• Outer gloves of neoprene or nitrile
• Ordinary work gloves	• Steel-toe, steel-shank work shoes or boots (chemical resistant)
• Steel-toe, steel-shank works shoes or boots (chemical resistant)	• Outer boots of neoprene or butyl rubber
• Ordinary work gloves	• Disposable outer "booties" (optional work shoes or boots)
	• Full-face air-purifying respirator (to be worn)**
	• Taping of gloves and boots to disposable coveralls

** Respirator to be fitted with NIOSH/MSHA - approved high-efficiency filter (HEPA) combination respirator cartridges approved for organic vapors, particulates, gases, and fumes. Half-face respirator, face shield, and safety glasses with side shields (or goggles) may be substituted with approval of the Site HSO.

TABLE 3
ANTICIPATED LEVELS OF PERSONAL PROTECTION FOR PLANNED ACTIVITIES

Task	PPE Level	Site-Specific Requirements	Respirator
Mobilization/Demobilization			
Reconnaissance	D	Safety glasses, steel toe/shank safety boot, reflective vest, leather work gloves, hearing protection as needed	D - None
Mobilization/Demobilization of Equipment and Supplies	D	Hard hat, safety glasses, steel toe/shank safety boot, reflective vest, leather work gloves, hearing protection as needed	D – None
Establishment of Site Security, Work Zones, and Staging Area	D	Hard hat, safety glasses, steel toe/shank safety boot, reflective vest, leather work gloves, hearing protection as needed	D - None
Groundwater/Soil Sampling			
Soil Borings, Excavation, Digging Test Pits, Backfilling, Grading Observation, Sampling	D	Hard hat, safety glasses, steel toe/shank safety boot with overboot as needed, reflective vest, leather work gloves as needed, nitrile gloves, hearing protection as needed, Tyvek as needed	Level D – None Level C – If action levels exceeded

CORE ENVIRONMENTAL CONSULTANTS

TABLE 4
ACTION LEVELS DURING INTRUSIVE ACTIVITIES

Particulates ($\mu g/m^3$)	Responses
100 $\mu g/m^3$ or more above Background (15 minute average)	Implement dust suppression measures Continued monitoring every 15 minutes
150 $\mu g/m^3$ Sustained reading	If action level of 150 $\mu g/m^3$ is continuously exceeded, work stoppage to implement additional dust suppression measures Continued monitoring every 15 minutes

ATTACHMENTS

ATTACHMENT A

Health and Safety Field Meeting Forms

HEALTH AND SAFETY FIELD MEETING FORM

Date:________________________ Time:________________________

Project Name:____

Location:____

Meeting Conducted by:____

Topics Discussed:

Physical Hazards:____

Chemical Hazards:____

Personal Protection____

Decontamination:____

Special Site Considerations:____

____

____

Emergency Information:____

Hospital Location:____

Attendees

Name (printed)	Company	Signature

Meeting Conducted by:___________________________________

Signature

HEALTH AND SAFETY FIELD MEETING FORM
(cont.)

Attendees

Name (printed)	Company	Signature

Meeting Conducted by:___________________________________

Signature

ATTACHMENT B

NYSDOH Generic Community Air Monitoring Plan

Appendix 1A
New York State Department of Health
Generic Community Air Monitoring Plan

Overview

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical- specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate DEC/NYSDOH staff.

Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. “Periodic” monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

1. If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

2. If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

3. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

4. All 15-minute readings must be recorded and be available for State (DEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.

2. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m^3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m^3 of the upwind level and in preventing visible dust migration.

3. All readings must be recorded and be available for State (DEC and NYSDOH) and County Health personnel to review.

December 2009

Appendix 1B
Fugitive Dust and Particulate Monitoring

A program for suppressing fugitive dust and particulate matter monitoring at hazardous waste sites is a responsibility on the remedial party performing the work. These procedures must be incorporated into appropriate intrusive work plans. The following fugitive dust suppression and particulate monitoring program should be employed at sites during construction and other intrusive activities which warrant its use:

1. Reasonable fugitive dust suppression techniques must be employed during all site activities which may generate fugitive dust.

2. Particulate monitoring must be employed during the handling of waste or contaminated soil or when activities on site may generate fugitive dust from exposed waste or contaminated soil. Remedial activities may also include the excavation, grading, or placement of clean fill. These control measures should not be considered necessary for these activities.

3. Particulate monitoring must be performed using real-time particulate monitors and shall monitor particulate matter less than ten microns (PM10) with the following minimum performance standards:

(a) Objects to be measured: Dust, mists or aerosols;
(b) Measurement Ranges: 0.001 to 400 mg/m3 (1 to 400,000 :ug/m3);
(c) Precision (2-sigma) at constant temperature: +/- 10 :g/m3 for one second averaging; and +/- 1.5 g/m3 for sixty second averaging;
(d) Accuracy: +/- 5% of reading +/- precision (Referred to gravimetric calibration with SAE fine test dust (mmd= 2 to 3 :m, g= 2.5, as aerosolized);
(e) Resolution: 0.1% of reading or 1g/m3, whichever is larger;
(f) Particle Size Range of Maximum Response: 0.1-10;
(g) Total Number of Data Points in Memory: 10,000;
(h) Logged Data: Each data point with average concentration, time/date and data point number
(i) Run Summary: overall average, maximum concentrations, time/date of maximum, total number of logged points, start time/date, total elapsed time (run duration), STEL concentration and time/date occurrence, averaging (logging) period, calibration factor, and tag number;
(j) Alarm Averaging Time (user selectable): real-time (1-60 seconds) or STEL (15 minutes), alarms required;
(k) Operating Time: 48 hours (fully charged NiCd battery); continuously with charger;
(l) Operating Temperature: -10 to 50^{o} C (14 to 122^{o} F);
(m) Particulate levels will be monitored upwind and immediately downwind at the working site and integrated over a period not to exceed 15 minutes.

4. In order to ensure the validity of the fugitive dust measurements performed, there must be appropriate Quality Assurance/Quality Control (QA/QC). It is the responsibility of the remedial party to adequately supplement QA/QC Plans to include the following critical features: periodic instrument calibration, operator training, daily instrument performance (span) checks, and a record keeping plan.

5. The action level will be established at 150 ug/m3 (15 minutes average). While conservative,

this short-term interval will provide a real-time assessment of on-site air quality to assure both health and safety. If particulate levels are detected in excess of 150 ug/m3, the upwind background level must be confirmed immediately. If the working site particulate measurement is greater than 100 ug/m3 above the background level, additional dust suppression techniques must be implemented to reduce the generation of fugitive dust and corrective action taken to protect site personnel and reduce the potential for contaminant migration. Corrective measures may include increasing the level of personal protection for on-site personnel and implementing additional dust suppression techniques (see paragraph 7). Should the action level of 150 ug/m3 continue to be exceeded work must stop and DER must be notified as provided in the site design or remedial work plan. The notification shall include a description of the control measures implemented to prevent further exceedances.

6. It must be recognized that the generation of dust from waste or contaminated soil that migrates off-site, has the potential for transporting contaminants off-site. There may be situations when dust is being generated and leaving the site and the monitoring equipment does not measure PM10 at or above the action level. Since this situation has the potential to allow for the migration of contaminants off-site, it is unacceptable. While it is not practical to quantify total suspended particulates on a real-time basis, it is appropriate to rely on visual observation. If dust is observed leaving the working site, additional dust suppression techniques must be employed. Activities that have a high dusting potential--such as solidification and treatment involving materials like kiln dust and lime--will require the need for special measures to be considered.

7. The following techniques have been shown to be effective for the controlling of the generation and migration of dust during construction activities:

(a) Applying water on haul roads;
(b) Wetting equipment and excavation faces;
(c) Spraying water on buckets during excavation and dumping;
(d) Hauling materials in properly tarped or watertight containers;
(e) Restricting vehicle speeds to 10 mph;
(f) Covering excavated areas and material after excavation activity ceases; and
(g) Reducing the excavation size and/or number of excavations.

Experience has shown that the chance of exceeding the 150ug/m3 action level is remote when the above-mentioned techniques are used. When techniques involving water application are used, care must be taken not to use excess water, which can result in unacceptably wet conditions. Using atomizing sprays will prevent overly wet conditions, conserve water, and provide an effective means of suppressing the fugitive dust.

8. The evaluation of weather conditions is necessary for proper fugitive dust control. When extreme wind conditions make dust control ineffective, as a last resort remedial actions may need to be suspended. There may be situations that require fugitive dust suppression and particulate monitoring requirements with action levels more stringent than those provided above. Under some circumstances, the contaminant concentration and/or toxicity may require additional monitoring to protect site personnel and the public. Additional integrated sampling and chemical analysis of the dust may also be in order. This must be evaluated when a health and safety plan is developed and when appropriate suppression and monitoring requirements are established for protection of health and the environment.

New York State Department of Environmental Conservation

TECHNICAL AND ADMINISTRATIVE GUIDANCE MEMORANDUM #4031

FUGITIVE DUST SUPPRESSION AND PARTICULATE MONITORING PROGRAM AT INACTIVE HAZARDOUS WASTE SITES

TO: Regional Hazardous Waste Remediation Engrs., Bur. Directors & Section Chiefs

FROM: Michael J. O'Toole, Jr., Director, Division of Hazardous Waste Remediation

SUBJECT: DIVISION TECHNICAL AND ADMINISTRATIVE GUIDANCE MEMORANDUM -- FUGITIVE DUST SUPRESSION AND PARTICULATE MONITORING PROGRAM AT INACTIVE HAZARDOUS WASTE SITES

DATE: Oct 27, 1989

Michael J. O'Toole, Jr. (signed)

1. Introduction

Fugitive dust suppression, particulate monitoring, and subsequent action levels for such must be used and applied consistently during remedial activities at hazardous waste sites. This guidance provides a basis for developing and implementing a fugitive dust suppression and particulate monitoring program as an element of a hazardous waste site's health and safety program.

2. Background

Fugitive dust is particulate matter--a generic term for a broad class of chemically and physically diverse substances that exist as discrete particles, liquid droplets or solids, over a wide range of sizes--which becomes airborne and contributes to air quality as a nuisance and threat to human health and the environment.

On July 1, 1987, the United States Environmental Protection Agency (USEPA) revised the ambient air quality standard for particulates so as to reflect direct impact on human health by setting the standard for particulate matter less than ten microns in diameter (PM_{10}); this involves fugitive dust whether contaminated or not. Based upon an examination of air quality composition, respiratory tract deposition, and health effects, PM_{10} is considered conservative for the primary standard--that requisite to protect public health with an adequate margin of safety. The primary standards are 150 ug/m^3 over a 24-hour averaging time and 50 ug/m^3 over an annual averaging time. Both of these standards are to be averaged arithmetically.

There exists real-time monitoring equipment available to measure PM_{10} and capable of integrating over a period of six seconds to ten hours. Combined with an adequate fugitive dust suppression program, such equipment will aid in preventing the off-site migration of contaminated soil. It will also protect both on-site personnel from exposure to high levels of dust and the public around the site from any exposure to any dust. While specifically intended for the protection of on-site personnel as well as the public, this program is not meant to replace long-term monitoring which may be required given the contaminants inherent to the site and its air quality.

3. Guidance

A program for suppressing fugitive dust and monitoring particulate matter at hazardous waste sites can be developed without placing an undue burden on remedial activities while still being protective of health and environment. Since the responsibility for implementing this program ultimately will fall on the party performing the work, these procedures must be incorporated into appropriate work plans. The following fugitive dust suppression and particulate monitoring program will be employed at hazardous waste sites during construction and other activities which warrant its use:

1. Reasonable fugitive dust suppression techniques must be employed during all site activities which may generate fugitive dust.

2. Particulate monitoring must be employed during the handling of waste or contaminated soil or when activities on site may generate fugitive dust from exposed waste or contaminated soil. Such activities shall also include the excavation, grading, or placement of clean fill, and control measures therefore should be considered.

3. Particulate monitoring must be performed using real-time particulate monitors and shall monitor particulate matter less than ten microns (PM_{10}) with the following minimum performance standards:

   Object to be measured: Dust, Mists, Aerosols
   Size range: <0.1 to 10 microns
   Sensitivity: 0.001 mg/m^3
   Range: 0.001 to 10 mg/m^3
   Overall Accuracy: ±10% as compared to gravimetric analysis of stearic acid or reference dust

   Operating Conditions:
   Temperature: 0 to 40°C
   Humidity: 10 to 99% Relative Humidity

   Power: Battery operated with a minimum capacity of eight hours continuous operation

   Automatic alarms are suggested.

   Particulate levels will be monitored immediately downwind at the working site and integrated over a period not to exceed 15 minutes. Consequently, instrumentation shall require necessary averaging hardware to accomplish this task; the P-5 Digital Dust Indicator as manufactured by MDA Scientific, Inc. or similar is appropriate.

4. In order to ensure the validity of the fugitive dust measurements performed, there must be appropriate Quality Assurance/Quality Control (QA/QC). It is the responsibility of the entity operating the equipment to adequately supplement QA/QC Plans to include the following critical features: periodic instrument calibration, operator training, daily instrument performance (span) checks, and a record keeping plan.

5. The action level will be established at 150 ug/m^3 over the integrated period not to exceed 15 minutes. While conservative, this short-term interval will provide a real-time assessment of on-site air quality to assure both health and safety. If particulate levels are detected in excess of 150 ug/m^3, the upwind background level must be measured immediately using the same portable monitor. If the working site particulate measurement is greater than 100 ug/m^3 above the background level, additional dust suppression techniques must be implemented to reduce the generation of fugitive dust and corrective action taken to protect site personnel and reduce the potential for contaminant migration. Corrective measures may include increasing the level of personal protection for on-site personnel and implementing additional dust suppression techniques (see Paragraph 7). Should the action level of 150 ug/m^3 be exceeded, the Division of Air Resources must be notified in writing within five working days; the notification shall include a description of the control measures implemented to prevent further exceedences.

6. It must be recognized that the generation of dust from waste or contaminated soil that migrates off-site, has the potential for transporting contaminants off-site. There may be situations when dust is being generated and leaving the site and the monitoring equipment does not measure PM_{10} at or above the action level. Since this situation has the potential to migrate contaminants off-site, it is unacceptable. While it is not practical to quantify total suspended particulates on a real-time basis, it is appropriate to rely on visual observation. If dust is observed leaving the working site, additional dust suppression techniques must be employed. Activities that have a high dusting potential--such as solidification and treatment involving materials like kiln dust and lime--will require the need for special measures to be considered.

7. The following techniques have been shown to be effective for the controlling of the generation and migration of dust during construction activities:

   1. Applying water on haul roads.
   2. Wetting equipment and excavation faces.
   3. Spraying water on buckets during excavation and dumping.
   4. Hauling materials in properly tarped or watertight containers.
   5. Restricting vehicle speeds to 10 mph.
   6. Covering excavated areas and material after excavation activity ceases.
   7. Reducing the excavation size and/or number of excavations.

   Experience has shown that utilizing the above-mentioned dust suppression techniques, within reason as not to create excess water which would result in unacceptable wet conditions, the chance of exceeding the 150 ug/m^3 action level at hazardous waste site remediations is remote. Using atomizing sprays will prevent overly wet conditions, conserve water, and provide an effective means of suppressing the fugitive dust.

8. If the dust suppression techniques being utilized at the site do not lower particulates to an acceptable level (that is, below 150 ug/m^3 and no visible dust), work must be suspended until appropriate corrective measures are approved to remedy the situation. Also, the evaluation of weather conditions will be necessary for proper fugitive dust control--when extreme wind conditions make dust control ineffective, as a last resort remedial actions may need to be suspended.

There may be situations that require fugitive dust suppression and particulate monitoring requirements with action levels more stringent than those provided above. Under some circumstances, the contaminant concentration and/or toxicity may require appropriate toxics monitoring to protect site personnel and the public. Additional integrated sampling and chemical analysis of the dust may also be in order. This must be evaluated when a health and safety plan is developed and when appropriate suppression and monitoring requirements are established for protection of health and the environment.

ATTACHMENT C

CAMP Monitoring Forms

FIELD INSTRUMENT CALIBRATION

CORE ENVIRONMENTAL CONSULTANTS

Page __1___ of _____

Project Name:	**Date:**
Project Address:	
Site Inspector:	

Calibration #1

Instrument Make and Model No:_________________________________ Time: _____________

Calibration standard:____

Instrument reading: ____

Calibration #2

Instrument Make and Model No:_________________________________ Time: _____________

Calibration standard:____

Instrument reading: ____

Calibration #3

Instrument Make and Model No:_________________________________ Time: _____________

Calibration standard:____

Instrument reading: ____

Calibration #4

Instrument Make and Model No:_________________________________ Time: _____________

Calibration standard:____

Instrument reading: ____

Calibration #5

Instrument Make and Model No:_________________________________ Time: _____________

Calibration standard:____

Instrument reading: ____

Calibration #6

Instrument Make and Model No:_________________________________ Time: _____________

Calibration standard:____

Instrument reading: ____

PARTICULATE MONITORING

CORE ENVIRONMENTAL CONSULTANTS

Page 1 of _____

Project Name:	**Date:**
Project Address:	**Weather:**
Site Inspector:	**Wind Speed/Direction:**

All concentrations in $\mu g/m^3$

Time	Upwind	Time	Downwind

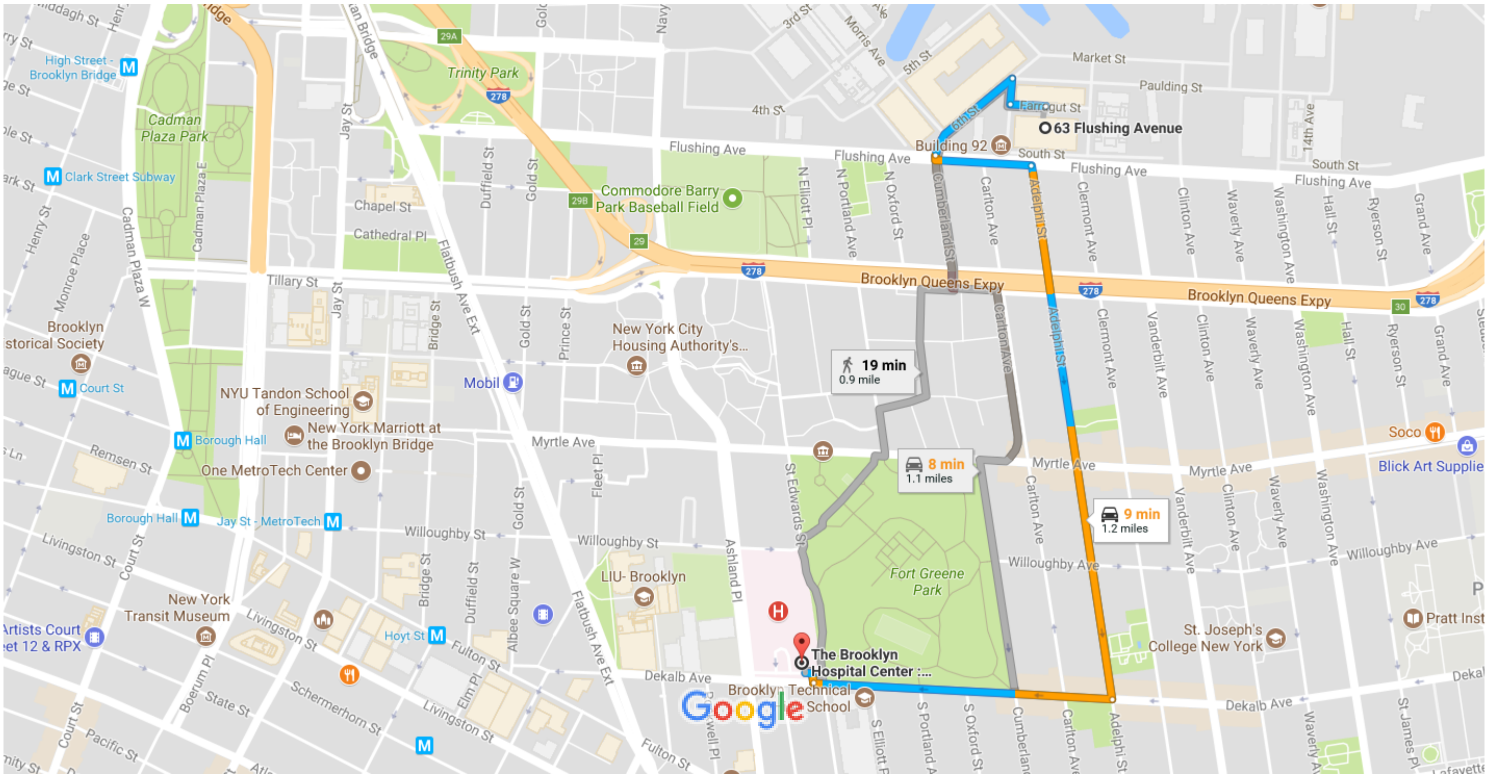
ATTACHMENT D

Hospital Route Map/Directions

Google Maps

63 Flushing Avenue, Brooklyn, NY to The Brooklyn Hospital Center : Emergency Room

Drive 1.2 miles, 9 min



Map data ©2017 Google 500 ft

63 Flushing Ave

Brooklyn, NY 11205

1. Head west on Farragut St toward 7th Ave
   ⚠ Restricted usage road

   203 ft

2. Turn right onto 7th Ave
   ⚠ Restricted usage road

   148 ft

3. Turn left onto 6th St
   ⚠ Restricted usage road

   0.1 mi

4. Turn left onto Flushing Ave

   0.1 mi

5. Turn right onto Adelphi St

   0.6 mi

6. Turn right onto Dekalb Ave

   0.3 mi

7. Turn right
   ⓘ Destination will be on the right

   95 ft

APPENDIX G

Quality Assurance Project Plan

QUALITY ASSURANCE PROJECT PLAN
Brooklyn Navy Yard Industrial Park

63 Flushing Avenue
Brooklyn, New York 11205
Site No. V00120

Prepared for:

Brooklyn Navy Yard Development Corporation
63 Flushing Avenue, Unit 300
Brooklyn, New York 11205

Prepared by:

CORE Environmental Consultants, Inc.
22-48 119th Street
College Point, New York 11356

January 30, 2018

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FORMS

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1.0 INTRODUCTION

CORE has prepared this Quality Assurance Project Plan (QAPP) to accompany the Site Management Plan (SMP) for the Brooklyn Navy Yard Industrial Park (BNYIP) Voluntary Cleanup Agreement (VCA) parcel. This QAPP presents the policies, organization, objectives, functional activities, and specific quality assurance and quality control activities to ensure the validity of data generated during the remedial action at the Site. The purpose of this QAPP is to ensure that all technical data generated are accurate and representative. The objectives for meeting these requirements include:

- Identification of qualifications and responsibilities for key project staff;
- Proper sample management in field and laboratory environments; and
- Assurance that data are complete, accurate, and acceptable.

Quality assurance (QA) is a management system for ensuring that all information, data, and decisions resulting from investigation and environmental monitoring programs are technically sound and properly documented. Quality control (QC) is the functional mechanism through which quality assurance is achieved. Quality control programs, for example, define the frequency and methods of checks, audits, and reviews necessary to identify problems and dictate corrective actions to resolve these problems, ensuring high quality data. As such, a quality assurance and quality control (QA/QC) program pertains to all data collection, evaluation, and review activities that are part of the remedial program.

All QA/QC procedures will be in accordance with applicable professional technical standards, government regulations and guidelines, and specific project goals and requirements. This QAPP has been prepared in accordance with New York State Department of Environmental Conservation (NYSDEC) and United States Environmental Protection Agency (USEPA) Region II guidance documents.

Laboratory analysis of all project samples will be performed by an independent laboratory with the experience and certifications appropriate for the analyses performed. All analyses will be performed by laboratories accredited pursuant to the New York State Department of Health (NYSDOH) Environmental Laboratory Accreditation Program (ELAP) for the category of parameters to be analyzed. The specific environmental laboratory or laboratories to be used will be determined as the project proceeds and monitoring activities are scheduled.

Duplicates, replicates, and matrix spike/matrix spike duplicate (MS/MSD) samples will be used to identify the quality of the analytical data. Field audits may be conducted to verify that proper sampling techniques and Chain-of Custody procedures are followed. Field data compilation, tabulation, and analysis will be checked for accuracy. Calculations and other post-field tasks will be reviewed by senior project personnel. Equipment used to take field measurements will be maintained and calibrated in accordance with established procedures. Records of calibration and maintenance will be kept by assigned personnel. Field testing and data acquisition will be performed following strict guidelines as described herein.

Document control procedures will be used to coordinate the distribution, coding, storage, retrieval, and review of all data collected during each task.

A Data Usability Summary Report (DUSR) will be prepared for analytical results from each investigation activity. The DUSR will be prepared by an independent consultant in accordance with NYSDEC's "*Guidance for the Development of Data Usability Summary Reports*," revised 1997 and NYSDEC's DER-10 "*Technical Guidance for Site Investigation and Remediation*," May 2010 (DER-10).

2.0 PROJECT DESCRIPTION

Although not currently required as part of the remedy for the Site, this QAPP pertains to the completion of field activities and subsequent laboratory and data analysis associated with the BNYIP Site located at 63 Flushing Avenue, Brooklyn, New York.

The primary objective of the remedial action is to protect Site occupants and the public from direct contact with impacted soil and groundwater.

2.1 SITE DESCRIPTION

The Site is located in Brooklyn, Kings County, New York and is identified as Block 2023, Lot 1 by the New York City Department of Finance. The Voluntary Cleanup Agreement (VCA) parcel is an approximately 213-acre portion of the lot that is bound by the East River to the north, Flushing Avenue to the south, Kent Avenue to the east, and Navy Street and the New York City Department of Environmental Protection (NYCDEP) Red Hook Wastewater Treatment Plant (WWTP) to the west. The Site is zoned M3-1 by the New York City Department of City Planning, indicating that it can be used for light and heavy manufacturing purposes. Site occupants are engaged in commercial and light manufacturing activities.

2.2 REMEDIAL SCOPE

The scope of the project includes maintenance of the existing Site-wide cover. Future events may require additional remedial actions. As such, this QAPP will provide guidance on field collection of samples, analysis procedures, and QA/QC tasks to be performed as part of the project.

2.3 REMEDIAL OBJECTIVES

The primary objectives of the remedial action are:

- Installation and/or maintenance of a Site-wide cover to protect the public from direct contact with impacted media; and
- Institutional controls (ICs), including:
    - Existing New York City statute that prevents the installation of a groundwater drinking well where potable water is supplied, and
    - A NYSDEC Environmental Easement to ensure that Site ICs and engineering controls (ECs) remain in place.

2.4 QUALITY ASSURANCE OBJECTIVES

The goals of the QAPP are to document the framework needed to ensure that:

- The measurements performed will adequately support the project objectives regarding data collection and hypothesis testing;
- Data collected are of the highest quality that can be reasonably expected;
- The quality of the data is known;
- The data and its quality are adequately documented; and
- The data are adequately preserved and rendered in available form.

2.5 DATA QUALITY OBJECTIVES

Data quality objective (DQO) criteria define the uncertainty in a data set and are expressed in terms of accuracy, comparability, completeness, precision, and representativeness.

- **Accuracy** - Accuracy is the degree of agreement of a measurement (or average of measurements) with an accepted reference or "true" value and is a measure of bias in the system.
- **Completeness** - Completeness is a measure of the amount of valid data obtained from a measurement system compared to the amount expected to be obtained under correct normal conditions.
- **Comparability** - Comparability expresses the confidence with which one data set can be compared to another
- **Precision** - Precision is the degree of mutual agreement among individual measurements of a given parameter.
- **Representativeness** - Representativeness expresses the degree to which data accurately and precisely represents a characteristic of a population, parameter variations at a sampling point, a process condition, or an environmental condition.

3.0 DATA COLLECTION AND QUALITY ASSURANCE ROLES

This QAPP provides for designated qualified personnel to review products and provide guidance on QA matters. The document also outlines the approach that will be followed in order to ensure that data of sufficient quality are obtained. The various QA functions of the project positions are explained in the following subsections.

Senior Project Manager

The Senior Project Manager will have responsibility for ensuring that the project meets the objectives and quality standards as presented in this QAPP. He/she will be responsible for implementing the project, and will have the authority to commit the resources necessary to meet project objectives and requirements. The project manager's primary function is to ensure that technical, financial, and scheduling objectives are achieved successfully. He/she will act as the major point of contact and control for matters related to the project. In addition, he/she will be responsible for technical quality control and project oversight.

Team Leaders

The Senior Project Manager will be supported by team leaders who will be responsible for leading and coordinating the day-to-day activities of the various resources under their supervision. The team leaders will be highly experienced environmental professionals who will report directly to the Senior Project Manager.

Technical Staff

The technical staff (field support members) for this project will be drawn from CORE’s workforce. The technical team staff will be used to gather and analyze data, and to prepare various task reports and support materials. All of the designated technical team members will be experienced professionals who possess the degree of specialization and technical competence required to effectively and efficiently perform the required work.

QA Officer

The Project QA Officer will be responsible for maintaining QA for the project.

4.0 QUALITY CONTROL ACTIVITIES

All measurements will be made to ensure that analytical results are representative of the media and conditions measured. Unless otherwise specified, all data will be calculated and reported in units consistent with other organizations who report similar data to maintain comparability.

4.1 GOALS

The QA/QC goal will focus on controlling measurement error within the limits established and will ultimately provide a database for estimating the actual uncertainty in the data collected.

Target values for detection limit, percent spike recovery and percent "true" value of known check standards, and relative percent difference (RPD) of duplicates/replicates are provided in the referenced analytical procedures. It should be noted that target values are not always attainable. Instances may arise where high sample concentrations, non-homogeneity of samples, or matrix interferences preclude achievement of target detection limits or other quality control criteria. In such instances, the laboratory will report reasons for deviations from these detection limits or noncompliance with quality control criteria.

4.2 FIELD QUALITY CONTROL SAMPLES

Field quality control samples will consist of trip blanks, field blanks, field duplicates, matrix spikes, and matrix spike duplicates, as shown in Table 1.

4.2.1 Field Duplicates

Field quality control samples will be collected to verify reproducibility of the sampling and analytical methods. Field duplicates will be obtained at a rate of 1 per 20 original field samples, as outlined in Table 1.

4.2.2 Trip Blanks

Trip blanks will be used to assess whether groundwater has been exposed to volatile constituents during sample storage and transport. Trip blanks will consist of a volatile organics analysis (VOA) vial pre-filled by the laboratory with analyte-free water. The trip blanks will remain unopened throughout the sampling event and will be analyzed for VOCs. Trip blanks will be collected as outlined in Table 1.

4.2.3 Matrix Spike/Matrix Spike Duplicates

MS/MSD samples will be obtained to determine if the matrix is interfering with sample analysis. MS/MSDs will be collected at a rate of 1 per 20 original field samples, or as required to meet DQOs, as outlined in Table 1.

4.2.4 Rinseate/Equipment Blanks

Rinseate blanks will be used to assess decontamination procedures for non-dedicated equipment. Rinse blanks will be collected as outlined in Table 1.

4.3 LABORATORY QUALITY CONTROL CHECKS

Internal laboratory quality control checks will be used to monitor data integrity. These checks include method (equipment) blanks, spike blanks, internal standards, surrogate samples, calibration standards, and reference standards.

5.0 CALIBRATION PROCEDURES AND FREQUENCY

All instruments and equipment used during sampling and analysis will be operated, calibrated, and maintained according to the manufacturer's guidelines and recommendations as well as criteria set forth in the applicable analytical methodology references.

5.1 FIELD INSTRUMENTS

A calibration program will be implemented to ensure that routine calibration is performed on all field instruments. Field team members familiar with field calibration and operation of the equipment will maintain proficiency and perform the prescribed calibration procedures outlined in the Operation and Field Manuals accompanying the respective instruments. Calibration records for each field instrument used on the project will be maintained on-Site during field activities and a copy will be kept in the project files.

5.1.1 Portable Total Organic Vapor Monitor

Any vapor monitor used will undergo routine maintenance and calibration prior to shipment to the project site. Daily calibration and instrument checks will be performed by a trained team member at the start of each day. Daily calibrations will be performed according to the manufacturer's specifications and are to include the following:

- Battery check: If the equipment fails the battery check, recharge the battery.
- Gas standard: The gauge should display an accurate reading when a standard gas is used.
- Cleaning: If proper calibration cannot be achieved, the instrument ports must be cleaned.

5.1.2 pH and Specific Conductance

The following steps should be observed by personnel engaged in groundwater sampling for pH and specific conductance:

- The operation of instrumentation should be checked prior to each day's sampling and calibrated if necessary. Fresh standard buffer solution (pH 4, pH 7 and pH 10) will be used if it is determined that calibration is required.
- The specific conductance meter should be calibrated prior to each sampling event using a standard solution of known specific conductance.

More frequent calibrations may be performed as necessary to maintain analytical integrity. Calibration records for each field instrument used on the project should be maintained and a copy kept in project files.

6.0 SAMPLING PROCEDURES

Sampling of various environmental media may be required in the future as part of the remedial action. Sample type and data use are presented in Table 2.

6.1 SAMPLING PROTOCOL

Contained within this section are various guidelines related to the sample collection activities which may be performed at the site. These guidelines will be used by the field personnel to ensure the samples are collected and field activities are performed in a consistent manner. Each guideline will allow the field teams to customize the Work Plan to meet the specific sampling requirements of each site. Guidelines contained in this section are:

- Soil Sampling
- Boring Using a Geoprobe®
- Boring With a Standard Drilling Rig
- Groundwater Sampling

Ssample containers to be used are identified in Table 3. The sample containers will be labeled in accordance with Section 7.1.1. Sample handling, packaging, and shipping procedures are presented in Section 7.3.

6.1.1 Soil Sampling

This section provides the guidelines and requirements for soil sampling. The objective of the guideline is to ensure a representative soil sample is collected at each designated sampling location to accurately define the concentration and determine whether the site soils have been impacted by Site activities.

Soil samples may be collected using a hand auger. Listed below is the process for collecting soil samples:

1. A new pair of clean disposable nitrile gloves will be donned at each sampling location.
2. Prepare the sampling location by removing all concrete, stone sub-base, asphalt, vegetation, roots, etc., from the sampling point.
3. Advance a decontaminated hand auger to the desired sampling depth below ground surface.
4. Remove the hand auger from the boring and use a decontaminated stainless steel spoon to remove the sample from the auger bucket.

5. Carefully place the soil samples for volatile organic analysis directly in to the sample bottles ensuring that no head space exists.
6. Place the remaining sample into a decontaminated bowl (stainless steel or Pyrex). The borehole may need to be further advanced to obtain enough samples to fill all the sample containers.
7. Once enough samples are collected, homogenize the sample using the quartering method (see below). When the sample has been completely mixed, fill the remaining sample containers.
8. After the sample bottle is filled, the cap will be placed on the bottle and the bottle will be packaged for shipment as specified in Section 7.3.
9. QA/QC samples will be collected as specified in Section 4.2.
10. Backfill the boring with the soil removed from the hole and return the Site to its natural state.

The following should be considered when collecting a soil sample using a hand auger:

- When a vertical sampling interval has been established, one auger-bucket is used to advance the auger hole to the first desired sampling depth.
- If discrete grab samples are to be collected to characterize each depth, a new bucket must be placed on the end of the auger extension immediately prior to collecting the next sample.
- The top few inches of soil should be removed from the bucket to minimize the chances of cross-contamination of the sample from fall-in of material from the upper portions of the hole.

The cut and quartering technique is as follows:

- The sample will be thoroughly mixed in a bowl, and divided into quarters.
- A portion of the soil will be gathered from two of the quartered sections. This process will be repeated until the amount of soil needed to completely fill the sample containers has been obtained.
- It is pertinent that soil samples be mixed as thoroughly as possible to ensure the sample is representative of the interval sampled.

Soil sampling records will be kept in the field log book. The information recorded will include the general requirements presented in Section. 7.2. The following records will also be reported:

1. Name and location (including sample interval) of the soil sample and boring.
2. Depth to top of sample and soil description when applicable.
3. Type of equipment used during the soil sampling/boring.
4. Sample location.

Field quality control samples will be collected to verify reproducibility of the sampling and analytical methods. Field duplicates will be obtained at a rate of 1 per 20 original field samples, as outlined in Table 1.

6.1.2 Geoprobe® Borings

This section provides the guidelines and requirements for advancing soil borings using a Geoprobe® for the purpose of collecting soil samples and extracting groundwater samples.

The following procedure will be used to advance borings with a Geoprobe® rig and Macrocore® sampler to collect subsurface soil samples.

1. Determine and clear (for utilities) the boring locations through site personnel and the local underground facilities locating service. Surface materials such as concrete, asphalt, or vegetation may be removed from boring locations.
2. Geoprobe® rods will be advanced in 4-foot intervals. Each new 4-foot interval will be sampled using a single-use acetate Macrocore® sleeve liner.
3. Once the desired sampling depth has been reached, rods will be retraced and the Macrocore® sample liner will be retrieved from the sampling rod sleeve.
4. The acetate liner will be cut open by the drill rig operator or his/her assistant.
5. Small portions of soil will be collected along the length of the acetate liner and placed in VOC sample bottles. Sample bottles will be filled in such a manner as to minimize head space and ensure that a representative sample from the designated sampling depth is collected.
6. After the VOC sample is collected, the remaining sample will be placed in a decontaminated stainless steel bowl, homogenized using the quartering method (see Soil Sampling Section 5.1.1), and used to fill remaining sample containers.
7. Once the samples have been collected they will be packaged as specified in Section 7.3.
8. QA/QC samples will be collected as specified in Section 4.2.

9. Backfill the boring with the soil removed from the hole and return the site to its natural state. If the hole is not completely backfilled to ground surface with the soil removed from the hole, bentonite chips will be used to backfill the remaining space.

The following guidelines are to be used when advancing Geoprobe® borings and extracting groundwater samples in areas immediately surrounding the locations where site activities may have impacted groundwater resources:

1. Sampling locations are determined prior to site activities; however minor adjustments in the field may be needed. Prior to advancing the Geoprobe®, underground utilities in the area will be identified.
2. The Geoprobe® borings will be advanced to just below the water table, a predetermined maximum depth, or to refusal.
3. The outer sleeve will be retracted exposing the inner stainless steel screen.
4. Sample will be obtained using a peristaltic pump, tubing and check ball system or a mini bailer.
5. In areas with low groundwater yield, a temporary piezometer constructed out of pre-cleaned schedule 40 PVC (1-inch diameter) will be placed in the Geoprobe® borehole after down-hole tools have been removed.
6. If the boring yields sufficient water to allow for sample collection completion within one hour, a peristaltic pump, tubing and check ball system, or a bailer will be used for sample collection per section 6.1.4.
7. Groundwater will be removed under very low-flow conditions to minimize turbidity when filling pre-cleaned, pre-preserved, pre-labeled sample bottles, starting with the collection of the samples for VOC analyses.
8. There should be no bubbles in VOC samples.
9. Continue to fill remaining bottles.
10. If samples for metals analysis contain excessive silt, the samples may be allowed to settle. The less turbid sample will be decanted and sent to the laboratory for analysis.
11. After the sample bottle is filled, the cap will be placed on the bottle and the bottle will be packaged for shipment as specified in Section 7.3.
12. QA/QC samples will be collected as specified in Section 4.2.
13. Conductivity, pH, and temperature will be measured after sample collection. The measurements will be recorded in the field log book.

14. Once the sample collection process has been completed, the temporary casing will be removed and the borehole will be backfilled with soil removed from the hole. If the hole is not completely backfilled to ground surface with the soil removed from the hole, bentonite chips will be used to backfill the remaining space.

Geoprobe® records will be recorded in the field log book. The information recorded will include the general requirements presented in Section. 7.2. The following records will also be reported:

1. Name and location of the Geoprobe® sample and boring.
2. Date and time that the Geoprobe® boring/sampling was advanced.
3. Depth range across with sample was collected.
4. Name of the persons overseeing and company conducting the Geoprobe® borings.
5. Type of equipment used during the Geoprobe® boring and during construction of the temporary piezometers. Soil descriptions should be included when applicable.
6. Type of equipment used during sampling, number and type of containers used for sampling purposes, and analyses to be conducted.
7. Sample location.

Field quality control samples will be collected to verify reproducibility of the sampling and analytical methods. Field duplicates will be obtained at a rate of 1 per 20 original field samples, as outlined in Table 1.

6.1.3 Hollow Stem Auger Rig Borings

This section provides the guidelines and requirements for advancing soil borings with a standard hollow-stem auger (HSA) drilling rig for the purpose of extracting soil samples and installing groundwater monitoring wells.

The following procedure will be used to advance borings with an HSA rig and split spoon sampler to collect subsurface soil samples. Listed below is the procedure for collecting subsurface soil samples:

1. Determine and clear (for utilities) the boring locations through site personnel and the local underground facilities locating service. Surface materials such as concrete, asphalt, or vegetation may be removed from boring locations.
2. A minimum 2 ½ -inch diameter hollow stem auger will be used to advance the borehole to the desired subsurface depth.

3. Once the desired sampling depth has been reached, a decontaminated split spoon sampler will be used to retrieve the subsurface soil sample.

4. The split spoon sampler will be brought to the surface and opened for sample collection and lithological description.

5. Small portions of soil will be collected along the length of the split spoon and placed in VOC sample bottles. Sample bottles will be filled in such a manner as to minimize head space and ensure that a representative sample from the designated sampling depth is collected.

6. After the VOC sample is collected, the remaining sample will be placed in a decontaminated stainless steel bowl, homogenized using the quartering method (see Soil Sampling Section 6.1.1), and used to fill remaining sample containers.

7. Once the samples have been collected they will be packaged as specified in Section 7.3.

8. QA/QC samples will be collected as specified in Section 4.2.

9. Backfill the boring with the soil removed from the hole and return the site to its natural state. If the hole is not completely backfilled to ground surface with the soil removed from the hole, bentonite chips will be used to backfill the remaining space.

Standard drilling rig records and soil sampling records will be kept in the field log book. The information recorded will include the general requirements presented in Section 7.2. The following records will also be reported:

1. Name and location of the boring.

2. Date and time that the boring was advanced and sampling occurred.

3. Depth range across which sample was collected.

4. Names of on-site personnel and company conducting the borings.

5. Lithological description of subsurface soils for each boring location.

6. Length of split spoon sampler and amount of recovered sample.

7. Sample location.

Field quality control samples will be collected to verify reproducibility of the sampling and analytical methods. Field duplicates will be obtained at a rate of 1 per 20 original field samples, as outlined in Table 1.

6.1.4 Groundwater Sampling

This section provides the guidelines and requirements for collecting groundwater samples from monitoring wells. The purpose of the guideline is to ensure that the groundwater samples are collected in such a manner to ensure that a representative sample is collected at each designated sampling location.

Prior to collection of groundwater samples, monitoring wells and water supply wells will be purged to remove stagnant water that is not considered indicative of aquifer conditions. Purge water disposal will be addressed on a site-specific basis. A new pair of clean disposable gloves will be donned at each sample location.

Procedures for monitoring well purging:

1. Place plastic around well head.
2. Unlock protective casing and remove well cap.
3. Immediately (after well cap removal) take an organic vapor reading down the well casing using a photoionization detector (PID) and record reading in the field logbook.
4. Measure water level distance from top of casing and sound the total depth as detailed below. Record in logbook. Check tip of water level indicator for silt or product residue. If either is observed, note in logbook.
   a. Lower decontaminated water level indicator into monitoring well until indicator sounds and light is illuminated.
   b. Confirm that the water surface has been contacted by repeatedly raising and lowering the indicator at least three times to ensure a consistent sounding level has been reached.
   c. Measure and record depth (nearest 0.01 feet) to the water surface from the top of casing in field logbook.
   d. Lower the indicator to the well bottom and record the total depth.
   e. Retrieve and decontaminate water level indicator.
5. Calculate volume to remove for purging.
6. Lower decontaminated purging device into well.
7. Begin to purge water from the well near the bottom.

8. Observe and record: odor, color, clarity, siltiness, and general water condition in logbook. Also record changes in the physical condition of the monitoring wells that could affect well integrity.

9. Temperature, pH, and specific conductivity of groundwater will be measured and recorded periodically during well purging. The sample may be collected after the water has cleared sufficiently and temperature, pH, and conductivity have stabilized. Stabilization is defined as follows:

   - Temperature ±1°C
   - pH ±0.1
   - Redox potential ±3% for 10 mv
   - Turbidity/dissolved oxygen ±10 %
   - Conductivity ±10 µmhos/cm^2

10. A total of at least three to five volumes of well water should be removed for purging to be considered complete. Wells with little or no recharge will be purged to near dryness. If a pump is used for well purging, it will be brought to the water surface prior to completion of purging activities to ensure complete removal of stagnant water.

Water supply wells which need to be sampled for constituents of concern and are equipped with an operable pump will also be purged of stagnant water. To do so, the total depth and diameter of the well should be known or accurately estimated, and it must be determined whether or not a storage tank exits. If a storage tank is present and is located before the sample port location, it must also be purged of stagnant water.

Listed below are the guidelines used for water supply well purging:

1. Locate a sample port or discharge location.
2. Determine volume to be removed based on total depth and diameter of the well and the storage capacity of the storage tank if it exists.
3. Activate the submersible pump in the well.
4. Begin to remove water from the well, and continue until it has been determined that the stagnant water has been removed based on discharge rate and well construction.
5. Observe and record: odor, color, clarity, siltiness and general water condition in logbook. Also record observed construction of the water supply well.

6. Temperature, pH, and, specific conductivity of the groundwater will be measured and recorded periodically during water supply well purging. The sample may be collected after the water has cleared sufficiently and the temperature, pH, and conductivity have stabilized. Stabilization is defined as follows:

    - Temperature ±1°C
    - pH ±0.1
    - Redox potential ±3% for 10 mv
    - Turbidity/dissolved oxygen ±10 %
    - Conductivity ±10 µmhos/cm^2

7. If well construction information is not available, then the recommended purge time is 15 minutes for a high volume pump.

Monitoring wells which contain excess silt and have a low yield will be purged using low flow methodology. This method of purging and well sampling will be used to minimize the volume of purge water removed from the well and to reduce turbidity in the groundwater samples collected. The pumping device selected should operate at variable speeds to reduce aquifer stress and agitation.

Listed below are the guidelines used for purging a well using the low flow method:

1. Place plastic around well head.
2. Unlock protective casing and remove well cap.
3. Immediately (after well cap removal) take an organic vapor reading down the well casing using a photoionization detector and record reading in the field logbook.
4. Measure water level distance from top of casing and sound the total depth as detailed below. Record in logbook. Check tip of water level indicator for silt or product residue (if either are observed note in logbook).
    a. Lower decontaminated water level indicator into monitoring well until indicator sounds and light is illuminated.
    b. Confirm that the water surface has been contacted by repeatedly raising and lowering the indicator at least three times to ensure a consistent sounding level has been reached.
    c. Measure and record depth (nearest 0.01 feet) to the water surface from the top of casing in field logbook.

   d. Lower the indicator to the well bottom and record the total depth.

   e. Retrieve and decontaminate water level indicator.

5. Calculate volume to remove for purging.

6. Lower decontaminated low flow purging device into well within the screened area of the well producing the highest flow rate.

7. Begin pumping and measure the groundwater elevation to ensure that the aquifer is not being stressed. If significant drawdown occurs, reduce the pumping rate. Flow rates should range between 100 mL/ min and 1,000 mL/min.

8. Observe and record: odor, color, clarity, siltiness, and general water condition in logbook. Also record changes in the physical condition of the monitoring wells that could affect well integrity.

9. Temperature, pH, turbidity, dissolved oxygen, redox potential, and specific conductivity of the groundwater will be measured and recorded periodically during well purging. The sample may be collected after the water has cleared sufficiently, water quality indicators have stabilized after 3 successive measurements, and at least one well volume has been removed. Stabilization is defined as follows:

   - Temperature ±1°C
   - pH ±0.1
   - Redox potential ±3% for 10 mv
   - Turbidity/dissolved oxygen ±10 %
   - Conductivity ±10 µmhos/cm2

10. After the monitoring well is purged, do not turn off the pump or remove it from the well.

Groundwater sample collection from a monitoring well:

1. Purge the monitoring well as described earlier in section.

2. Establish that the well has properly recharged (80% of static water level has recovered). No more than 16 hours should lapse between purge completion and sample collection.

3. Carefully lower a decontaminated bailer (with a fresh nylon line attached for each well) down the monitoring well. Disposable bailers may also be used.

4. Continue to lower the sample collection device to the desired sampling depth.

5. Raise the bailer and carefully fill pre-cleaned, pre-preserved, pre-labeled sample bottles, VOC analysis first.
6. Make sure there are no bubbles in VOC samples.
7. Continue to fill remaining bottles.
8. After the sample bottle is filled, the cap will be placed on the bottle and the bottle will be packaged for shipment as specified in Section 7.3.
9. QA/QC samples will be collected as specified in Section 4.2.
10. Conductivity, pH, and temperature, will be measured after sample collection. The measurements will be recorded in the field log book.

Groundwater sample collection using the low flow method:

1. Purge the monitoring well as described earlier in section.
2. Use the pumping device already in place to collect the samples where turbidity can influence the analytical results (such as metals).
3. If a peristaltic pump/ vacuum jug assembly or stainless steel and Teflon bladder pump were used for purging, continue to collect the remaining samples using these devices.
4. If neither of the devices listed above were used, carefully remove the pump from the well and use a Teflon bailer to collect the remaining groundwater samples.
5. After the sample bottle is filled, the cap will be placed on the bottle and the bottle will be packaged for shipment as specified in Section 7.3.
6. QA/QC samples will be collected as specified in Section 4.2.
7. Conductivity, pH, and temperature will be measured after sample collection. The measurements will be recorded in the field log book.

Records

Sample collection records will be kept on the appropriate forms, including the purge logs and sampling log forms. The information recorded is described on the forms. In addition, the following information will also be reported in the log book:

1. Observations of groundwater condition;
2. Field measurements;
3. Sample identification, date, and time; and
4. Sample analytical parameters

6.3 SAMPLE CONTAINERS

The volumes and containers required for the sampling activities are included in Table 3. Pre-washed sample containers will be provided by the laboratory. All bottles are to be prepared in accordance with USEPA bottle washing procedures.

6.4 DECONTAMINATION

Dedicated and/or disposable sampling equipment will be used to the extent possible to minimize decontamination requirements and the possibility of cross-contamination.

When the use of new/dedicated equipment at each sampling location is not feasible, such as the use of augers and a split spoon sampler, equipment will be decontaminated between sampling locations. The water level indicator will be decontaminated between locations by using the following decontamination procedures:

- Initial cleaning of any foreign matter with paper towels, if needed;
- Low phosphate detergent wash;
- De-ionized water rinse; and
- Air dry.

If a Geoprobe® is used to install monitoring wells, the Geoprobe®, Geoprobe® rods, and Macrocore® samplers utilized to install borings will be decontaminated with a bucket wash consisting of a low phosphate detergent wash followed by water rinse. The backhoe bucket, drill rig, augers, rods, split spoon samplers, and/or other related downhole equipment will be decontaminated using high pressure steam prior to initiating the excavation and well installation programs prior to the initiation of subsurface intrusive activities and between each boring location. Steam cleaning will be performed in a pre-designated on-site decontamination area. Throughout and after the cleaning processes, direct contact between the equipment and the ground surface will not be permitted. Decontamination waste water will be collected in 55-gallon drums. The drill rig and associated equipment will also be cleaned upon completion of the investigation and prior to departure from the Site using the following methods:

- Initial cleaning of all foreign matter; and
- Wash down with high pressure, high temperature sprays to remove and/or volatilize organic contamination.

6.5 LEVELS OF PROTECTION/SITE SAFETY

All sampling will be conducted under a documented Health and Safety Plan. On the basis of air monitoring, the level of protection may be downgraded or upgraded at the discretion of the Site

Safety Officer. Crew members will stand upwind of open boreholes or wellheads during the collection of samples, when possible. All work will initially be conducted in Level D (refer to Site Health and Safety Plan). Air purifying respirators (APRs) will be available if monitoring indicates an upgrade to Level C is appropriate.

7.0 SAMPLE CUSTODY

This section describes standard operating procedures for sample identification and chain-of custody to be used for all field activities. These procedures are in place to ensure that the quality of the samples is maintained during collection, transportation, storage, and analysis. All Chain-of-Custody requirements comply with standard operating procedures indicated in USEPA and NYSDEC sample-handling protocol.

Sample identification documents must be carefully prepared so that sample identification and Chain-of-Custody can be maintained and sample disposition controlled. Sample identification documents include:

- Field records;
- Sample labels;
- Custody seals; and
- Chain-of-Custody records.

7.1 CHAIN-OF-CUSTODY

The primary objective of the Chain-of-Custody procedures is to provide an accurate written or computerized record that can be used to trace the possession and handling of a sample from collection to completion of all required analyses.

7.1.1 Sample Labels

Sample labels attached to, or affixed around, the sample container must be used to properly identify all samples collected in the field. To the extent possible, the sample labels are to be placed on the bottles so as not to obscure QA/QC lot numbers on bottles. Sample information must be printed in a legible manner using waterproof ink. Field identification must be sufficient to enable cross reference with the field sampling records or sample logbook. For Chain-of-Custody purposes, all QC samples are subject to the same custodial procedures and documentation as original samples.

7.1.2 Custody Seals

Custody seals are pre-printed adhesive-backed seals, often with security slots, designed to break if the seals are disturbed. Sample shipping containers (coolers, cardboard boxes, etc.) are sealed to ensure security. Seals must be signed and dated before use. Upon receipt at the laboratory, the custodian must check (and certify by completing logbook entries) that seals on shipping containers are intact. Strapping tape should be placed over the seals to ensure the Chain-of-Custody remains intact and seals are not inadvertently destroyed during sample shipment.

7.1.3 Chain-Of-Custody Record

The Chain-of-Custody record must be fully completed, on duplicate, at a minimum, by the field technician who has been designated responsible for sample shipment. In addition, if samples are known to require rapid analysis turnaround time because of project time constraints or analytical concerns (e.g., extraction time or sample retention period limitations), the person completing the Chain-of-Custody record should note these constraints in the "Remarks" section of the Custody record.

7.1.4 Field Custody Procedures

- As few persons as possible should handle samples.
- Sample bottles will be obtained pre-cleaned by the laboratory and shipped to sampling personnel in charge of the field activities.
- Coolers or boxes containing cleaned bottles will be sealed with a custody tape seal during transport to the field or while in storage prior to use.
- The sample collector is personally responsible for the care and custody of samples collected until they are transferred to another person or dispatched properly under Chain-of-Custody procedures.
- The sample collector will record sample data in a controlled field notebook and/or on appropriate field sampling records.
- The Site team leader will determine whether proper custody procedures were followed during fieldwork, and decide if additional samples are required.

7.2 DOCUMENTATION

7.2.1 Sample Identification

All containers of samples collected from the project will be identified using the following format on a label or tag fixed to the sample container Each sample will be labeled, chemically preserved (where required), and sealed immediately following collection. To minimize handling of sample containers, labels will be filled out prior to sample collection to the extent possible. The sample label will be filled out using waterproof ink and will be firmly affixed to the appropriate sample container. The following information will be contained on the sample label:

- Name or initials of sampler;
- Date and time of collection;
- Sample identification;
- Intended analysis; and

- Preservation method (if any).

7.3 Sample Handling, Packaging, and Shipping

The transportation and handling of samples must be accomplished in a manner that not only protects the integrity of the sample, but also prevents any detrimental effects due to the potential hazardous nature of the samples. Regulations for packaging, marking, labeling, and shipping hazardous materials are promulgated by the United States Department of Transportation (DOT) in the Title 49 of the Code of Federal Regulations, (49 CFR) Parts 171 through 177.

All Chain-of-Custody requirements must comply with standard operating procedures in the NYSDEC and USEPA sample handling protocols. Field personnel will make arrangements for samples to be transported to the laboratory. When custody is relinquished to a shipper, field personnel will ensure that the laboratory custodian or Project Manager is aware of the expected arrival time of the sample shipment and of any time constraints on sample analysis. All samples will be delivered to the laboratory in a timely manner to help ensure sample analysis holding times are met.

8.0 LABORATORY ANALYTICAL PROCEDURES

Specific analytical methods for constituents of interest in soil and groundwater are listed in Table 3. The laboratory will maintain, and have available for the appropriate operators, standard operating procedures relating to sample preparation and analysis according to the methods stipulated in Table 3.

9.0 DATA REDUCTION AND REPORTING

QA/QC requirements will be strictly adhered to during sampling and analytical work. All data generated will be reviewed by comparing and interpreting results from chromatograms (responses, stability of retention times), accuracy (mean percent recovery of spiked samples), and precision (reproducibility of results). Refer to Section 10 for a discussion of QA/QC protocol.

Data storage and documentation will be maintained using logbooks and data sheets that will be kept on file. Analytical QC will be documented and included in the analytical testing report. A central file will be maintained for the sampling and analytical effort after the final laboratory report is issued.

All calculations and data manipulations are included in the appropriate methodology references. Control charts and calibration curves will be used to review the data and identify outlying results. Prior to the submission of the report to the client, all data will be evaluated for precision, accuracy, and completeness.

Laboratory reports will be reviewed by the laboratory supervisor, the QA Officer, Laboratory Manager and/or Director, and the project manager. Analytical reports will contain a data tabulation including results and supporting QC information will be provided. Raw data will be available for later inspection, if required, and maintained in the project file.

All data will be reported to NYSDEC in electronic format in accordance with DER-10 and the NYSDEC's Environmental Data Submission requirements.

9.1 DATA USABILITY SUMMARY REPORTS

Upon completion of a project sampling effort, analytical and QC data will be included in a Data Usability Summary Report (DUSR) that summarizes the work and provides a data evaluation. A discussion of the usability of the results in the context of QA/QC procedures will be made, as well as a summation of the QA/QC activity. The DUSR will be performed in accordance with the DEC's "Guidance for the Development of Data Usability Summary Reports," revised 1997 and DER-10.

Serious analytical problems will be reported. Time and type of corrective action, if needed, will depend on the severity of the problem and relative overall project importance. Corrective actions may include altering procedures in the field, conducting an audit, or modifying laboratory protocol. All corrective action will be implemented after notification of the project representatives.

9.2 INTERNAL QUALITY CONTROL CHECKS

QC data are necessary to determine precision and accuracy and to demonstrate the absence of interferences and/or contamination of glassware and reagents. The procedures for internal quality control checks will be consistent with NYSDEC Analytical Services Protocols (ASP).

10.0 PERFORMANCE AND SYSTEM AUDITS

10.1 FIELD AUDITS

The Project QA Director may conduct episodic audits of the operations at the Site to ensure that work is being performed in accordance with the Work Plan and associated Standard Operating Practice (SOP). The audit will cover, but not necessarily be limited to, such areas as:

- Conformance to standard operating procedures;
- Completeness and accuracy of documentation;
- Chain-of-Custody procedures; and
- Construction specifications.

10.2 LABORATORY AUDITS

In addition to any audits required by the NYSDEC, the Project QA Director may choose to audit the laboratory. These additional audits may take the form of performance evaluation samples or on-site laboratory inspections. Performance evaluation samples may be either blind samples or samples of known origin to the laboratory. Reasonable notice will be provided if the audit is to include an on-site inspection.

11.0 PREVENTIVE MAINTENANCE

11.1 FIELD

Field personnel assigned to complete the work will be responsible for preventative maintenance of all field instruments. The field sampling personnel will protect the portable total organic vapor monitors, water quality meter, etc. by placing them in portable boxes and/or protective cases.

All field equipment will be subject to a routine maintenance program, prior to and after each use. The routine maintenance program for each piece of equipment will be in accordance with the manufacturer's operations and maintenance manual. All equipment will be cleaned and checked for integrity after each use. Necessary repairs will be performed immediately after any defects are observed, and before the equipment is used again. Equipment parts with a limited life (such as batteries, membranes, and some electronic components) will be periodically checked and replaced/recharged as necessary according to the manufacturer's specifications.

11.2 LABORATORY

The laboratory's preventative maintenance procedures can be provided as outlined in their Laboratory Quality Assurance Manual.

12.0 CORRECTIVE ACTIONS

Corrective actions can be initiated as a result of performance and system audits, laboratory and interfiled comparison studies, data validation, and/or a QA program audit. They may also be required as a result of a request from project representatives. All corrective action necessary to resolve analytical problems will be taken. Success or failure of corrective actions will be reported with an estimate of effect on data quality, if any.

Corrective actions may include altering procedures in the field, conducting subsequent audits, or modifying project protocol. Time and type of corrective action, if needed, will depend on the severity of the problem and relative overall project importance. The project manager is responsible for initiating corrective action and the team leader is responsible for its implementation in the correction of field non-conformance corrective actions.

13.0 REFERENCES

New York State Department of Environmental Conservation (NYSDEC), 2010. *DEC Program Policy. DER-10/Technical Guidance for Site Investigation and Remediation.*

NYSDEC, 2013. *Analytical Services Protocol.*

United States Environmental Protection Agency (USEPA), 2005. *Standard Methods for the Examination of Water and Wastewater.*

USEPA, 2008. *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods/SW-846.*

TABLES

TABLE 1
SUMMARY OF QUALITY CONTROL CHECKS

Sample Type	Frequency	Justification
Field Duplicate	1 per 20 samples collected	Data shows precision of analytical scheme from sampling through analysis when compared with results of sample. This represents a blind QC sample to the laboratory. Collect an additional amount of sample.
Laboratory Duplicate	1 per 20 samples collected	Data shows precision of the analytical scheme within the laboratory. The difference between this precision and that of the field duplicate represents the precision of the analytical method.
LS/LSD(1)	1 per 20 samples collected	Data shows how well the analysis of interest can be performed, and recovered from the sample matrix. Such information is useful when reported value is near an action level, but the sample exhibits poor recovery.
MS/MSD(2)	1 per 20 samples collected	Data shows precision of analysis when compared with matrix spike duplicate and matrix effects from recovery of spiked analysis. Collect an additional amount for each analysis. Analyzed as a spike.
MS/MSD (inorganic)	1 per 20 samples collected	Data shows precision of laboratory analysis when compared with results of sample. Collect an additional amount of sample for each analysis. Analyzed as unspiked sample.
Field Blank/ Equipment Blank	As required by DQOs(3)	Data demonstrates that sampling equipment was clean prior to use. Pass a sample of reagent water through collection device. Submit for analysis of analytes of concern.
Trip Blank	One per cooler containing samples for VOC(4) analysis	Data demonstrates that sample was not contaminated with volatile organics by other samples in shipping container, laboratory or outside influences.
Background or Reference Sample	As required by DQOs	Data provides baseline information to evaluate environmental impact.
Split Samples	When required to meet DQOs	Compare the quality of laboratory procedures of the permittee with State contracted laboratory procedures. Collect an additional amount of sample for each analysis.

Notes:

(1) Laboratory Spike/Laboratory Spike Duplicate
(2) Matrix Spike/Matrix Spike Duplicate
(3) Data Quality Objectives
(4) Volatile Organic Compounds

TABLE 2
SAMPLE SUMMARY

Media	Type	Matrix	Data Use
Soil	Pneumatic Soil Boring	Soil	Comparison to Part 375[2]
	HSA[1] Split Spoon		
	Pneumatic Soil Vapor Boring		
Vapor	VOCs[3]	Vapor	NYSDOH[4] Vapor Intrusion Guidelines
Groundwater	Monitoring Wells	Water	Comparison to TOGS 1.1.1[5]
	Pneumatic Boring Grab Sample		

Notes:

(1) Hollow-stem auger
(2) Title 6 of the New York Codes, Rules, and Regulations Part 375 (6 NYCRR 375) Soil Cleanup Objectives
(3) Volatile organic compounds
(4) New York State Department of Health
(5) Technical and Operational Guidance Series 1.1.1 (TOGS 1.1.1), *Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations*

TABLE 3
SAMPLE CONTAINERS AND PRESERVATION

Parameter	Method	Matrix	Container	Preservation[1]
TCL[3] VOCs[4]	SW-846[2] 8260B	Groundwater	Glass, 2 x 40 mL	HCl to pH<2
		Soil	Glass, 4 x 40 mL (Terracore)	USEPA 5030/5035
	USEPA[5] TO-15	Vapor	SUMMA Canister (6 L)	None
TCL SVOCs[6]	SW-846 8270C	Groundwater	Amber Glass, 1 x 1000 mL	None
		Soil	Glass Soil Jar, 1 x 8 oz	None
TCL Pesticides	SW-846 8081B	Groundwater	Amber Glass, 1 x 1000 mL	None
		Soil[7]	Glass Soil Jar, 1 x 8 oz	None
TCL Aroclors	SW-846 8082A	Groundwater	Amber Glass, 1 x 1000 mL	None
		Soil[7]	Glass Soil Jar, 1 x 8 oz	None
TAL[8] Metals	SW-846 6010C	Groundwater	Plastic, 1 x 250 mL	HNO_3
		Soil[7]	Glass Soil Jar, 1 x 8 oz	None
Cyanide	SW-846 9012B	Groundwater	Plastic, 1 x 250 mL	NaOH
		Soil[7]	Glass Soil Jar, 1 x 8 oz	None

Notes:

(1) All soil and groundwater samples will be maintained at 4ºC following collection
(2) USEPA *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*
(3) Target Compound List
(4) Volatile organic compounds
(5) United States Environmental Protection Agency
(6) Semi-volatile organic compounds
(7) Sample can be analyzed from same jar containing soil for SVOC analysis
(8) Target Analyte List

FORMS

Daily Observation Log

CORE ENVIRONMENTAL

Project Name:	Date:
Project Address:	Weather:
Field Activity:	

PERSONNEL: Name	COMPANY	TIME IN	TIME OUT

TIME	DESCRIPTION OF WORK PERFORMED

Daily Observation Log (continuted)

CORE ENVIRONMENTAL

Page _____ of _____

Project Name:	Date:

TIME	DESCRIPTION OF WORK PERFORMED

CORE ENVIRONMENTAL CONSULTANTS
2312 Wehrle Drive
Williamsville, NY
14221
(716) 204-8054

TEST BORING LOG

BORING NO.

Project:
Client:
Contractor:

Project No.
GS Elev
WS Ref Elev
N-S Coord
E-W Coord
Start Date
Finish Date
Driller
Geologist

Groundwater Data (feet)			
Date	Time	Depth	Elev

Equipment Data			
	Casing	Sampler	Core
Type	HSA	SS	HQ
Diameter	4.25"	2.0"	3.5"
Weight		140 #	
Fall		30"	

Well Construction	Depth (feet)	Sample No.	Blows per 6"	N' Value	Recovery (%)	Graphic Log	Field Description	Remarks PID Reading (ppm) Direct Screen	Head Space
	5								
	10								
	15								
	20								
	25								
	30								

CORE ENVIRONMENTAL

WELL SAMPLING/DEVELOPMENT RECORD

Well ID: ____________________ Initial Depth to Water: ____________________

Sample ID: __________ Duplicate ID: __________ Depth to Water After Sampling: ____________________

Sample Depth: ____________________ Total Depth to Well: ____________________

Project Name: ____________________ Well Diameter (in.) ____________________

Project Address: ____________________ 1 Casing Volume (Gallons) ____________________

Date: ____________________

Sampled By: __________ Sample Time: __________ 4 Casing Volumes (Gallons) ____________________

Purge Method: ____________________

Sample Method: ____________________ Total Casing Volumes Removed: ____________________

Time	Rate (gal/min)	Cum. Vol. (gal)	Temp (°C)	pH (units)	Specific Electrical Conductivity (mS/cm)	Redox Potential mV	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Depth to Water (ft btoc)	Remarks (color and sediment)

pH CALIBRATION (choose two)			
Buffer Solution	pH 4.0	oH 7.0	pH 10.0
Field Temperature (°C)			
Instrument Reading			

Model or Unit No:

SPECIFIC ELECTRICAL CONDUCTANCE - CALIBRATION			
KCL Solution (mS/cm)	4.49 at 25°C		
Field Temperature (°C)			
Instrument Reading			

Model or Unit No:

Well Diameter	Volume (gal/ft)
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

REDOX CALIBRATION	DISSOLVED OXYGEN CALIBRATION
Standard Solution	Salinity %
Field Temperature (°C)	Altitude
Instrument Reading	Instrument Readin
Model or Unit No.	Model or Unit No.

Notes:

CORE ENVIRONMENTAL

WELL SAMPLING/DEVELOPMENT RECORD
(continued)

Well ID: ______________________ **Date:** ____________ **Project Name:** ______________________________ Page _____ of _____

Time	Rate (gal/min)	Cum. Vol. (gal)	Temp (°C)	pH (units)	Specific Electrical Conductivity (mS/cm)	Redox Potential mV	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Depth to Water (ft btoc)	Remarks (color and sediment)

SAMPLE CONTROL LOG

CORE ENVIRONMENTAL

Project Name: ______________________ **Laboratory:** ______________________

Project Address: ______________________

Page _____ of _____

Sampling Date	Sampling Time	Sample ID	C.O.C. Number	Analyses Requested	Remarks (Duplicate, Blank info, etc.)	Date Sent to Lab
				See C.O.C.		

ATTACHMENT

ATTACHMENT A

Resumes

Ron Tramposch

Senior Project Manager

CORE ENVIRONMENTAL CONSULTANTS

Summary of Experience

34th Street Heliport Aviation Fuel System Upgrade – Atlantic Aviation:

Project Manager for the site evaluation and design of new aviation gas fuel tanks for the 34th Street Heliport. Atlantic Aviation under lease with the New York City Economic Development Corporation operated 2 – 4,000 gall aviation gas tanks. When the tanks failed testing, CORE was tasked to provide design services for replacing the tanks. Based on the site evaluation, it was determined that new tanks could not be located on-site because of the east river tunnels were below the excavation. CORE developed a design approach which involved utilizing the existing tank shell to be used as the foundation for 2 new 2,500 gallon aviation gas tanks. Mr. Tramposch prepared the required variance required by FDNY which was subsequently approved. Removal and replacement of the existing tanks was determined. Mr. Tramposch supervised the preparation of design documents and provided construction support services.

Fuel System Installation, Port Authority of NY-NJ – Franklin Company Contractors:

Senior Project Manager responsible for the oversight of site plans and details development for the installation of two Petroleum Bulk Storage (PBS) dispensing systems at the Red Hook Container Terminal in Bronx, NY. Designs included placement of tanks, fuel dispensers, and related monitoring equipment as per the relevant New York City Codes and regulations (NEPA 30). An adequate fire-suppression system was included as part of the design.

Fuel System Upgrades, FDNY Engine Company 63, Brooklyn, NY – Galante Architecture:

Project Manager responsible for oversight during development of site plans and details for the relocation of Petroleum Bulk Storage (PBS) service lines for Galante Architecture at Engine Company 63 in Brooklyn, NY. Designs included the relocation of fill and suction lines, fuel dispenser, and utilities as per relevant New York City Codes and regulations (NEPA 30).

Health & Safety Plan, Syosset, NY – The LIRO Group:

Project Manager responsible for oversight during development of a General Health & Safety Plan (HASP) for The LIRO Group. The plan provided guidelines for safety of LIRO employees and contractors and covered topics such as safety training, emergency action plans, job hazard analysis, means of egress, hazard communication, materials handling, and protective equipment. Examples of safety inspection checklists, noise and dust mitigation plans, a protection of traffic plan, a lockout/tagout program, and a confined space program were also incorporated into the HASP.

Excavated Materials Disposal Plan Review, New York City – NYC School Construction Authority:

Project Manager responsible for oversight during review of excavated materials disposal plans for accuracy with New York City School Construction Authority (NYCSCA) design specifications for numerous New York City public schools. The project includes confirming analytical results, waste transporter permits, disposal facility permits, and contractor sampling plans for conformance to local NYC codes and regulations.

Asbestos, Lead, and PCB Survey and Report, PS 95, Buffalo, NY –

Education

M.S., Environmental Science, University of New Haven, 1988

B.S., Geology, State University of New York at Buffalo, 1982

Experience

30 years

Certifications

USEPA Environmental Impact Assessment Training

OSHA Confined Space Safety Training

40 Hour OSHA Waste Site Worker Protection Training

8 Hour OSHA Supervisory Training

NYSDOL Asbestos Supervisor

NYSDOL Asbestos Inspector

NYCDEP Asbestos Investigator

NYSDOL Mold Contractor

NYCT Track Safety Certification

Areas of Expertise

- Project Management
- Large Task Order Management
- Site Remediation
- Hazardous Materials Specialist
- Petroleum Bulk Storage
- Well drilling
- Site Investigations

Buffalo Public Schools:

Project Manager in charge of planning, coordinating, and managing the resources necessary to perform an asbestos and lead inspection of several areas within Buffalo Public School 95 for renovation work to replace several air handling units. The work included collection and analysis of numerous bulk samples of suspected asbestos-containing materials (ACMs) as well as the investigation of potential lead-based paint (LBP) surfaces. The asbestos and lead survey report prepared for this work included a summary of the materials sampled and analyzed as well as estimates of construction costs for suspect material abatement.

Asbestos, Lead, and Comprehensive Environmental Consultant Services Contract, NY – NYCT MTA:

Program Manager responsible for two consecutive indefinite quantity contracts. Responsible for overall management of the project ensuring all required resources are provided to meet project schedules and budgets. Additional responsibilities include development and implementation of project quality control and assurance measures. Services included asbestos investigations and reports, development of abatement work plans, cost estimating, project coordination, interfacing with site representatives, and project management with oversight of the abatement contractors. Project sites include operating substations, subway stations, office buildings, mechanical rooms, rail yards, bus depots, tunnels, bridges, and various other structures throughout many of New York City Transit's (NYCT) over 300 facilities throughout New York City.

Asbestos Services, Five Boroughs, NY - NYC School Construction Authority:

Project Manager responsible for oversight of air sampling and project monitoring. Mr. Tramposch manages the surveys that include bulk sample collection through campuses including office buildings, mechanical rooms, and various other structures.

Asbestos Abatement Project Monitoring, Beebe Road Waterline, Wilson, NY – Wendel Companies:

Project Manager responsible for removal and disposal of ACM waterline pipe in association with the reconstruction of Beebe Road in Wilson, NY. Mr. Tramposch was responsible for overseeing project monitors during project monitoring and air sampling in accordance with New York State Department of Transportation (NYSDOT) Standard Specification Section 210 – Removal and Disposal of Asbestos Containing Material. Mr. Tramposch oversaw the completion of a Closure Report, which included copies of daily project records, sample analytical results, and waste manifests.

Asbestos Abatement Monitoring and Testing, Emery Park, South Wales, NY - Erie County Department of Public Works:

As Program Manager for our Hazardous Materials Term Agreement with Erie County for Asbestos Abatement Monitoring and Testing, Mr. Tramposch performed sample collection for suspect materials in Richardson Lodge and Shelter and Stohres Lodge at Emery Park. Suspect materials were analyzed for asbestos using a New York State Department of Health (NYSDOH) Environmental Laboratory Accreditation Program (ELAP)-certified laboratory. Mr. Tramposch prepared an Asbestos Abatement monitoring and testing report summarizing results of the sample collection.

Remedial Investigation/Feasibility Study Work Plan for the Former National Rubber Adhesives Site, Long Island City, NY – Hamil Stratten Properties, LLC:

Project Manager responsible for oversight of a Remedial Investigation/ Feasibility Study (RIFS) Work Plan for the former National Rubber Adhesives Site in Long Island City, New York. Remedial Investigation activities are being performed to delineate the nature and extent of subsurface impacts associated with historic site activities. In addition to determining the proper field and office activities necessary for the successful completion of the investigation, the Work Plan also included the preparation of Site-specific Quality Assurance Project Plan (QAPP), HASP, and Community Air Monitoring Plan (CAMP).

Phase I Limited Subsurface Investigation Report, Remedial Investigation Work Plan, and Interim Remedial Measure Work Plan, Wills Building, Long Island City, NY – Rockrose Development Corporation:

Mr. Trampsoch oversaw completion of a Phase I Environmental Site Assessment (ESA) for a property transaction. He was the Project Manager responsible for oversight of a Phase I Limited Subsurface Investigation (LSI), including the installation of soil boring and groundwater monitoring wells to delineate the nature and extent of subsurface impacts. Oversaw the preparation of the Phase I LSI Report summarizing Site investigation activities, investigation results, and an analysis and interpretation of results. Assisted client with subsequent application paperwork for admission to the New York State Brownfield Cleanup Program (BCP). Mr. Tramposch oversaw preparation of a Citizen Participation Plan (CPP) and Remedial Investigation Work Plan (RIWP) for additional Site investigation activities under BCP requirements, and an Interim Remedial Measure (IRM) Work Plan to address sub-slab vapor and indoor air quality issues in the on-Site building as part of the RI. Oversaw preparation of a Remedial Investigation Report (RIR) and Remedial Work Plan (RWP) detailing aspects of a preferred final remedy for the Site, which consists of an air sparge and soil vapor extraction system as well as in-situ groundwater treatment at the downgradient property boundary.

Phase I Environmental Site Assessment, Buffalo, NY – Eberl Ironworks:
Oversaw the completion of a Phase I Environmental Site Assessment (ESA) for Eberl Iron Works for a building located on Sycamore Street in Buffalo, New York. The Phase I ESA included historical records reviews including, but not limited to, environmental records, proprietary records, topographical maps, Sanborn maps, aerial photography, and City Directories to assess the current and past environmental conditions at the site.

SEQR Determination and Documentation Services, Tonawanda, NY - NOCO Energy Corp:
Senior Project Manager responsible for completion of the State Environmental Quality Review (SEQR) component for a proposed Emergency Power System at the NOCO Terminal located in Tonawanda, New York. The property was classified as a major oil storage facility (MOSF) with a capacity of over 400,000 gallons. Mr. Tramposch was responsible for preparing the SEQR evaluation, determination, documentation, and municipal permitting, as well as the materials included as part of grant evaluations for NY State Dormitory Authority and Federal Emergency Management Agency (FEMA) funds.

Asbestos Survey and Design Services, O'Brian Hall, Buffalo, NY – SUNY Buffalo:
Project Manager responsible for the completion of a suspected ACM inspection at O'Brian Hall, located on the State University of New York (SUNY) Buffalo's North Campus. The inspection included all accessible interior spaces, building envelopes, and roof areas. Mr. Tramposch collected bulk samples for laboratory analysis at suspect locations and completed an asbestos survey report and asbestos abatement design specifications for ACM removal.

Asbestos Project and Air Monitoring Services, Cary Hall, Buffalo, NY - SUNY Buffalo:
Project Manager responsible for oversight during project monitoring services at Cary Hall, located on SUNY Buffalo's North Campus. Mr. Tramposch supervised CORE's project monitors during oversight of asbestos abatement that included floor tile and mastic, cove base, sinks, and a fume hood containing transite panels. He oversaw the completion of an Asbestos Final Project report that detailed the asbestos abatement.

Mayor's Office of Environmental Remediation E-Designation Program Phase II Site Investigation, Hostos Community College, Bronx, NY – Flad Architects:
Oversaw preparation of a Phase II Work Plan for the Site as required by the New York City Mayor's Office of Environmental Remediation under E-Designation protocols. The Site was assigned an E-Designation for hazardous materials by the New York City Department of Planning as part of a rezoning action in the area of the Site. The purpose of the Phase II is to evaluate whether the Site has been impacted by historical uses as a carpet factory, among other activities. Phase II activities include soil, groundwater, and soil gas sample collection and analysis.

Phase II Environmental Site Investigation, 91 Sawyer Avenue, Tonawanda, NY - Niagara Blower Company:
Project Manager responsible for completion of a Phase II Environmental Site Investigation (ESI) to investigate Recognized Environmental Conditions (RECs) identified in a Draft Phase I ESA. The Phase II ESI consisted of fourteen soil borings, and soil and groundwater sample collection for laboratory analysis.

Lead Based Paint Inspection Services Contract, Five Boroughs, NY - NYC Housing Authority:
Project Manager responsible for project oversight of all LBP inspections. Inspections were completed on housing units, common areas, and storage units in accordance with United States Housing and Urban Development (HUD) protocols. Inspections included the use of X-ray Fluorescence (XRF) analysis in each unit, and often paint chip samples were collected for laboratory analysis of lead content. The XRF analysis is conducted on site, using a portable LPA-1 Lead Paint Inspection System manufactured by Radiation Monitoring Devices, Inc. (RMD).

Mother Clara Hale Bus Depot Replacement, New York City, NY - Franklin Company Contractors / NYCT MTA:
Project Manager responsible for oversight of an experienced scientist who directed the contractor to segregate excavated soils according to total organic vapor (TOV) content as measured with a photoionization detector (PID). The work was completed in 20-foot by 20-foot cells. The soil was stabilized by open-pit mixing with a fly ash and grout mix that had previously been pilot tested. The stabilization was verified by wet sampling from specific intervals. Mr. Tramposch was also responsible for the review of all project deliverables.

Petroleum Monitoring Reporting Services Contract, New York City, NY - NYC Housing Authority:
Project Manager responsible for project oversight of Quarterly Petroleum Remediation Monitoring Reports at 27 Housing Development Sites that have groundwater contamination resulting from petroleum releases from fuel oil tanks. The purpose of the report is to summarize petroleum remediation activities performed on site, describe the current status, and provide an analysis of current remediation system effectiveness with further recommendations.

SENY Reporting for Poletti, 500MW, and Flynn Plants, Astoria, NY – New York Power Authority (NYPA):

Mr. Tramposch is the Project Manager for the current contract (4600002580) overseeing all staff performing environmental sampling and analysis services. CORE provides State Pollution Discharge Elimination System (SPDES), Major Oil Storage Facility (MOSF), and Resource Conservation and Recovery Act (RCRA) Metals sampling services at the facilities as part of on-going environmental compliance programs.

Site Investigation and Remediation, Lewiston, NY - New York Power Authority (NYPA):

Mr. Tramposch was Project Manager for a site remediation and investigation project at a vacant site impacted with No. 2 fuel oil (4500126507). The site had formerly contained a building and operated as a construction staging area for the Niagara Power Project under the New York Power Authority (NYPA). The project included in-house completion of manual product recovery from monitoring wells, a geophysical survey to locate anomalies utilizing a Global Positioning System (GPS), a drilling investigation that included rock coring and monitoring well installation, and soil and groundwater sampling. All waste streams were characterized for treatment and/or disposal and a comprehensive report was submitted summarizing field activities, results, and conclusions.

Asbestos and Lead Planning Services, Five Boroughs, NY – New York Power Authority (NYPA):

Mr. Tramposch is the Project Manager for the current contract (4600002720) overseeing all staff performing Asbestos and Lead Planning Services. NYPA is entering into agreements with its customers to promote energy efficiency in their buildings. As part of this contract, CORE completes asbestos and lead inspections to accurately quantify, assess, and sample suspect ACMs and LBP that may be impacted by renovation work at several facilities, including hospitals, schools, and airports.

UST Management Program, NY – NY City Transit, Metropolitan Transportation Agency:

Project Manager responsible for this program involving site assessments, remedial investigations, feasibility studies, remedial design, and remedial action oversight services for the NYCT Underground Storage Tank (UST) Management Program. Activities included tank tightness testing, remedial investigations and remediation recommendations, and design overview and technical inspection for tank replacement and installations. The USTs were located in all five boroughs of New York City, encompassing 350 tanks at 27 facilities. They ranged in size from 200 gallons to 35,000 gallons, were generally single-walled, and were up to 52 years in age. The tanks contained petroleum products such as gasoline, diesel fuel, lube oil, fuel oil, and waste oil. A comprehensive database and GIS system was developed for UST management.

Remediation System Services, New York City, NY - Franklin Company Contractors:

Project Manager responsible for remediation system operation and maintenance, monitoring, and reporting services at 14 sites in the five boroughs of New York City. Developed and implemented site-specific investigations to evaluate the extent and migration of contamination in soil and groundwater. Mr. Tramposch oversaw the completion of in-depth evaluations of soil and groundwater contamination and pilot studies, and provided site-specific recommendations for remediation. CORE personnel prepared the design drawings and specifications for each selected remedial approach. Project Manager responsible for construction monitoring and inspection services during system installation, startup, and initial troubleshooting.

Facility Reports, Plans, and Drawings, New York City, NY - Franklin Company Contractors, NYC Department of Environmental Protection:

Project Manager responsible for overseeing the preparation of Petroleum Bulk Storage (PBS) Facility Reports, As-Built Drawings of tanks, and Spill Prevention, Control, and Countermeasures (SPCC) Plans at 24 New York City Department of Environmental Protection (NYCDEP) Water Pollution Control Plants and Pumping Stations under Contracts 1198-PBS and 1320-PBS. The purpose of the PBS Facility Report is to identify PBS deficiencies at the site, if any, and provide recommendations for corrective actions. The program is part of NYCDEP's on-going effort to inspect, test, maintain and determine the regulatory health of their PBS tanks, and ancillary equipment through testing, inspection, review, and modifications. As-Built drawings were produced from record drawings and field inspections in order to satisfy the requirements of New York State PBS regulations. The drawings and plans were reviewed and approved by the Project Manager prior to submission to NYCDEP.

Waste Auditor:

Performed compliance auditing of eight hazardous waste management facilities and Waste Accumulation Areas (WAAs) for compliance with United States Environmental Protection Agency (USEPA) and New York State Department of Environmental Conservation (NYSDEC) policies. Waste included: hazardous, radioactive (high and low level), and mixed.

JFK International Airport Terminal 5 Redevelopment, Queens, NY - Turner Construction Corporation:

Project Manager for field monitoring and oversight of the JFK International Airport Terminal 5 Redevelopment Project. The project area, approximately 67 acres, required work area air monitoring throughout the duration of the hydrant fueling line excavation program. As the project air monitoring consultant, CORE was responsible for conducting New York State Department of Labor (NYSDOL) and Occupational Safety and Health Administration (OSHA) compliance monitoring. A PID and explosimeter were used to document site conditions for worker Health and Safety monitoring. Air monitoring equipment was calibrated daily and all data, including meteorological data (e.g., temperature range, wind speed, wind direction, etc.), was recorded. Mr. Tramposch supervised the Asbestos Project Air Monitoring consultant during abatement and completed quality assurance/quality control (QA/QC) of daily reports.

Warehouse Demolition/Remediation, JFK International Airport, Queens, NY - JetBlue Airways:
Principal in Charge for site investigation and design for demolition of four large warehouse and maintenance facilities at JFK International Airport. Mr. Tramposch provided field support and prepared site investigation reports for remediation of hazardous materials and asbestos. He supervised drawing and specification preparation for asbestos, UST, and drummed waste removal..

Spill Prevention, Controls and Countermeasures Plan, JFK International Airport, Queens, NY – JetBlue Airways:
Project Manager responsible of completion for completing of a SPCC Plan at John J. Kennedy International Airport Building 74 Ground Service Equipment (GSE) Maintenance Building. For JetBlue, Mr. Tramposch managed the preparation of the SPCC Plan in accordance with Title 40 of the Code of Federal Regulations Part 112.7 (40 CFR 112.7), and any other applicable sections of Part 112 – Oil Pollution Prevention (40 CFR 112.8).

Stormwater Pollution Prevention Plan, Logan International Airport, Boston, MA - JetBlue Airways:
Project Manager for completing a Stormwater Pollution Prevention Plan (SWPPP) at the Logan Station after Massachusetts regulations changed to a Multi-Sector General Permit. Tasks included confirmation of site drainage, outfalls, permits, and airport Best Management Practices (BMPs), as well as overall review of all report submittals including reports, inspection forms, drawings, figures, BMPs, flow charts, and spill report procedures.

Stormwater Pollution Prevention Plans, Multiple Cites, U.S. and U.S. Territories - JetBlue Airways:
Project Manager for SWPPP preparation for 48 locations in the United States and United States Territories. Mr. Tramposch also completed project QA/QC review for site-specific SWPPPs for the airline as it expanded to international airports. Tasks included confirmation of site drainage, outfalls, permits, and airport BMPs as well as the overall review of all report submittals, which included reports, inspection forms, drawings, figures, BMPs, flow charts, and spill report procedures.

Habitat Restoration Project at Calvert Vaux Park, Brooklyn, NY – Galvin Brothers:
This project included construction of aquatic and coastal upland habitats, wetland restoration, and trail construction, and the removal of 3.2 acres of contaminated soil. Mr. Tramposch was the Program Manager responsible for air monitoring services for soil removal. CORE personnel monitored areas located upwind and downwind of excavation work to ensure that dust concentrations did not exceed NYSDEC regulations. Mr. Tramposch also completed the Site-Specific HASP for environmental monitoring and weekly State Pollution Discharge Elimination System (SPDES) inspections.

Phase II Environmental Site Investigations, Queens, NY - Countrywide Commercial Real Estate:
Project Manager responsible for Phase II ESIs for multiple properties in Queens, NY to investigate concerns determined during previous Phase I ESA activities. CORE completed soil borings and temporary monitoring well installations and collected soil and groundwater samples to evaluate site soils and groundwater. Phase II ESI reports were prepared presenting the approach, methods, results, and interpretations of the data as well as recommendations, conclusions, and opinions on further action.

Incinerator/Garage Demolition, New York City, NY – New York City Department of Sanitation:
Project Director for this project that included a detailed site investigation for asbestos/hazardous materials and a structural evaluation in preparation of demolition design documents and specifications. Mr. Tramposch was responsible for coordinating field work and preparing drawings and specifications for the removal of ACMs, LBP, mercury-containing equipment, PCB-bearing equipment, residual ash, USTs, contaminated soil and groundwater, and metals-contaminated building components.

Varick Avenue Redevelopment, New York City, NY - New York City Department of Sanitation:
Principal in Charge for a subsurface environmental investigation for a large property being redeveloped for use by the New York State Department of Sanitation (NYCDOS). The investigation included over 80 soil borings for vertical and horizontal delineation of contamination. The work Mr. Tramposch performed on this investigation saved the owner from extensive costs and the RI/Site Remediation Plan submitted as part of the investigation was cited for excellence by the Chief of NYSDEC's Regional Hazardous Waste Program.

Remediation System Design, New York City, NY – New York Bus Service:

Project Manager responsible for the design of a 1,000 cubic foot per minute (cfm) multi-phase extraction system for the removal and treatment of free product, soil vapor, and groundwater contamination. Mr. Tramposch negotiated a Stipulation Agreement with NYSDEC to allow treated water to be discharged to the Hutchinson River.

Underground Storage Tank Program, Five Boroughs, NY – Dormitory Authority of the State of New York:
Project Manager for the Dormitory Authority' of the State of New York's (DASNY) Program to upgrade, replace, add, or close 28 underground storage tanks at various City of New York campuses in order to comply with federal, state, and local regulations regarding storage of petroleum products. The project included heating oil and emergency generator USTs ranging in size from 280 to 48,000 gallons.

Underground Storage Tank Program, Five Boroughs, NY – New York City Department of Design and Construction:
Project Manager for this program, which included the design, construction inspection, and environmental investigation of 225 facilities for the New York City Department of Design and Construction (NYCDDC). Mr. Tramposch was responsible for preparation of construction plans and specifications for the installations of 250 tanks.

Underground Storage Tank Program, New Jersey – New Jersey Department of Treasury:
Project Manager responsible for the statewide UST program consisting of 281 facilities with approximately 1,369 tanks. Project included pre-design investigations, site assessments, tank tightness testing, and soil borings. Mr. Tramposch was responsible for preparation of conceptual design documents and construction staging plans for the upgrade, replacement, and closure of USTs at each facility. The project also consisted of a motor fuel consolidation study for 229 sites and 458 fuel tanks.

Asbestos and Lead Paint Consulting Services, New York and New Jersey – Port Authority of New York and New Jersey
Principal for asbestos air and project monitoring services at various Port Authority facilities. Project included surveying, bulk sampling, reporting, tracking of materials/quantities, compliance monitoring, daily record-keeping for contractor activities, and reporting.

Remediation System Design and Installation, NY - Mendon Truck Leasing:
Project Manager responsible for subsurface investigation following a petroleum release at the site. Mr. Tramposch also conducted a pilot test for a 600 cfm multi-phase extraction system for the removal and treatment of free product, soil vapor, and groundwater contamination. The system designed utilized a medium vacuum liquid ring pump manifolded to 14 recovery wells to recover the free product, groundwater, and soil vapor. Mr. Tramposch performed additional duties such as system operation, maintenance, and compliance monitoring/reporting.

Brownfield Site Remediation, Stuyvesant Cove Park, NY:
Principal responsible for the investigation, remediation, and redevelopment of a 20-acre brownfield site in Manhattan. This former industrial site was contaminated with petroleum products, PCBs, and metals. Mr. Tramposch provided an accelerated site investigation and remedial design within six months of the work assignment. Under Mr. Tramposch's direction, the client was provided with design-build services and remedial system construction and system operation and maintenance.

Remediation System Study and Design, Loring Air Force Base, ME - United States Air Force:
Mr. Tramposch was the Design Task Manager for a $1.4 million study for free-product recovery at the base fire training area. Remedial design elements included a 300 gallons per minute groundwater treatment facility, blast fractured trench for product recovery, programmable logic controller (PLC) remote monitoring, and groundwater and plume modeling.

Asbestos Consulting Services, Bronx, Brooklyn, Queens and Staten Island, NY - Restored Homes HDFC:
Project Manager responsible for assigning personnel, quality assurance, and project deliverables. CORE reviewed third-party LBP inspection reports and dust wipe analysis and determined the existence and presence of ACMs through surveys specific to areas scheduled for renovation. CORE also identified ACMs, LBP, and lead dust to determine what actions were necessary to treat, remediate, abate, enclose, encapsulate, remove, or otherwise control such contaminants. In addition, CORE provided all design services necessary for the treatment, removal, or abatement of ACMs and LBP.

Asbestos and Lead Monitoring and Design Services Contract, New York City, NY – NYCT MTA:
Senior Project Manager responsible for the indefinite quantity contract (CM-1320). Responsible for the general day to day management of the project ensuring resources are available to meet project demands, schedules and budgets. Responsibilities include the implementation of project quality control and assurance measures including corrective actions. Services provided include

lead inspections, lead based paint removal project oversight, waste determination and manifest tracking. Asbestos services include surveys, abatement designs and work plans, cost estimating, project coordination, project and air monitoring, project reporting and oversight of the abatement contractors.

Lead and Asbestos Services, Five Boroughs, NY - Mendon Truck Leasing:

Project Manager for lead and asbestos inspection services at 26 buildings throughout the five boroughs of New York City in support of facility design and future abatement, encapsulation, and construction activities. CORE completed lead and asbestos investigative surveys, inspections, sampling, and abatement design. The project also included project reporting with Chains-of-Custody documentation and site photograph documentation. CORE also completed data management with a project information database.

Manufacture Gas Plant Site Investigation, Kirkman Boulevard Site, NJ:

Task Manager for the investigation of the ACIA hazardous waste site in Atlantic City, New Jersey. The property had a long history of manufactured gas plant (MGP) use, and subsurface investigations were conducted in support of property redevelopment for use as a rail terminal and convention center. Mr. Tramposch was responsible for soil boring and monitoring well installation, sample collection, data interpretation, and final report preparation. The final report included plans for managing contaminated soil and groundwater and a long-term site monitoring plan.

Site Investigation and Property Evaluations, Various Sites, New York City, NY - Karlsberger Architecture, P.C.:

Principal-in-Charge for site investigations and property evaluations for building design and construction specifications at various development sites in New York City. The investigations included reviews of site historical information from Sanborn maps and state/federal database searches as well as subsurface investigations to characterize soil and groundwater quality. Mr. Tramposch identified one of the properties as the former Brooklyn Union Gas Flatbush Works manufactured gas plant (MGP) and MGP contaminants were identified.

GM Plant Decommissioning, Clark, NJ:

Task Manager for a site previously used as an automobile assembly plant in Clark, New Jersey. Mr. Tramposch was responsible for the oversight of shallow and deep groundwater well installation to delineate site contamination, and interpretation of hydrogeologic, geologic, and geotechnical data. As part of the project, 25 USTs were evaluated for compliance with New Jersey Department of Environmental Protection (NJDEP) and USEPA requirements. In addition, Mr. Tramposch evaluated soil remediation and reuse options and developed site remedial plans in accordance with NJDEP requirements.

GM Plant Decommissioning Study, Trenton, NJ

Project Manager for a NJDEP Industrial Site Recovery Act (ISRA) plant closure investigation that included a complete facility assessment with environmental sampling to identify potential environmental concerns. The project scope involved investigations of PCB transformers, wastewater treatment equipment, Resource Conservation and Recovery Act (RCRA) storage areas, waste treatment tanks, USTs, ASTs, process equipment, and potential ACMs throughout the plant. Soil and groundwater contaminant levels were compared to NJDEP standards to determine cleanup requirements for site soil and groundwater.

Environmental Site Assessments, MA - Federal Deposit Insurance Corporation:

Project Engineer responsible for performing ESAs of several properties to identify environmental concerns prior to property transfer. The assessments involved site walkover inspections and file reviews to identify potential ACMs and LBP at the properties.

Site Investigation, Plattsburgh Air Force Base, NY – United States Air Force:

Task Leader responsible field work oversight, including groundwater, soil, and sediments sampling. Mr. Tramposch also developed geologic interpretations and assisted with report preparation for several assignments during this indefinite delivery type contract.

Sheila Ransbottom, PE
Vice President of Engineering Services

CORE ENVIRONMENTAL CONSULTANTS

Summary of Experience

Erie County Department of Public Works (DPW) Safety Improvement Project at Sibley Road/Genesee Road/NY Route 240 Intersection, East Concord, NY:

Environmental Project Manager as subconsultant on this locally-administered, federally-funded project to improve the high-accident intersection of Sibley Rd/Genesee Rd/NY Route 240 in Concord, NY. CORE's responsibilities include SHPO coordination, preparation of the SEQR short Environmental Assessment form and a NEPA checklist, assistance with permitting, and various environmental screenings (wetlands, endangered species, coastal zone areas, floodplains, wild/scenic rivers and groundwater). CORE will also prepare supporting documentation for programmatic Section 4(f) evaluation due to the presence of a cemetery at the intersection and a Phase I Environmental Assessment to determine potential presence of hazardous materials in the project area.

Village of Springville DPW, Franklin/Mechanic/Main Street Crosswalk Replacement Project, Springville, NY:

Project Manager for this Village funded project to replace several crosswalks within the Village that were previously installed under a separate streetscape project. Ms. Ransbottom oversaw the completion of Maintenance and Protection of Traffic (MPT) plans for the replacement of five crosswalks and various lengths of sidewalk in the Franklin/Mechanic/Main Street area. The plans were prepared to Village and NYSDOT standards and included recommended phasing to keep road closures and impacts to Village businesses to a minimum. CORE also provided part-time construction inspection during demolition of the old crosswalks/sidewalk and installation of the new. Ms. Ransbottom ensured the inspector kept daily logs and photographic documentation of the contractors work. CORE also provided concrete testing services.

City of Buffalo Department of Public Works, Northland Avenue Rehabilitation/Streetscape Project, Buffalo, NY:

Environmental Project Manager as subconsultant on this City funded streetscape project along Northland Avenue between Grider Street and Fillmore Avenue in the City of Buffalo. The City, in conjunction with the Buffalo Urban Development Corporation (BUDC), rehabilitated Northland Avenue as part of the Northland Corridor Redevelopment Project. This streetscape project includes mill and overlay of the pavement, re-striping the pavement to include bicycle lanes, ADA compliant crosswalks and ramps, new landscaping, street lighting and sidewalks, and utility replacements. CORE's responsibilities include permitting assistance, SEQR review and Hazardous Materials Assessment/Soil Sampling. CORE also worked with the client regarding underground storage tank removal within the project area.

Niagara Power Project License Compliance and Implementation, Construction Inspection, Niagara County, NY (2006-12):

Ms. Ransbottom was the Project Manager for a sub-consultant to a Prime consultant in charge of Program Management for Phase 1 of the FERC Compliance and Implementation Services for the New York Power Authority's (NYPA) Niagara Power Project. Ms. Ransbottom oversaw Construction Inspection activities and supervised the Construction Manager who was responsible for the inspection of construction activities, coordination between Owner, Engineer and Contractor, and chairing project progress meetings including preparing meeting minutes and all field office duties. Inspection projects included the Upper Niagara

Education

B.S. Civil Engineering, University of Pittsburgh, 1993

Experience

22 years

Professional Registration

New York State Licensed Professional Engineer

Certifications

NYSDOL Asbestos Project Designer

Areas of Expertise

- Transportation Engineering and Planning
- Management of multi-disciplined projects
- Environmental Site Assessments
- Hazardous Materials Assessments and Designs
- Tank Removals and Design
- Roadway and Trail Design
- Utility coordination
- Public Participation
- Traffic Analysis
- Storm water Management

Intakes Site Improvements, Robert Moses Fishing Pier Site Improvements, Upper Mountain Road Access Improvements, Osprey Poles, Common Tern Habitat, and Little Beaver Island Wetlands Restoration. Elements inspected include paving, subbase installation, excavation, drainage systems, landscaping, lighting, guide rail, pier foundations, structural steel, slope erosion and SWPPP inspections.

Stormwater Pollution Prevention Plan, Buffalo, NY – Archer Daniels Milling Company:
Professional Engineer responsible for oversight of updates to the Stormwater Pollution Prevention Plan (SWPPP) for Archer Daniels Milling (ADM) Company milling facility located at 250 Ganson Street in Downtown Buffalo, NY. A New York State Department of Environmental Conservation (NYSDEC) audit found that the facility had exceedances of nitrogen in stormwater drainage and that the facility SWPPP was missing information required by the its NYSDEC State Pollution Discharge Eliminations System (SPDES) Multi-Sector General Permit (MSGP) for Stormwater Discharges Associated with Industrial Activity. CORE was contracted to update the SWPPP and assure conformity to the current NYSDEC MSGP permit. CORE was also tasked with determining the outfall of an unknown drain on the property. Ms. Ransbottom oversaw development of potential Best Management Practices to help reduce nitrogen exceedances in site discharges.

Phase I Environmental Site Assessment and Geophysical Assessment, 201 Ellicott Street, Buffalo, NY – Buffalo Civic Auto Ramps:
Project Manager responsible for oversight of preparation a Phase I Environmental Site Assessment (ESA) for the property at 201 Ellicott Street in Downtown Buffalo. Ms. Ransbottom also oversaw preparation and implementation of a sampling plan for a geophysical investigation at the property to determine soil properties and depth to bedrock for future site redevelopment.

Phase I Environmental Site Assessment and Limited Subsurface Investigation, Mechanic Street and Franklin Street Parking Area, Village of Springville, NY – Village of Springville, Department of Public Works:
Project Manager responsible for oversight of preparation a Phase I Environmental Site Assessment (ESA) for the parking area at Mechanic and Franklin Streets in the Village of Springville. The Phase I ESA was performed prior to Village acquisition of the property for conversion to a public parking area. Ms. Ransbottom also oversaw implementation of a Limited Subsurface Investigation (LSI) at the site to determine subsurface conditions.

Asbestos Survey and Report, PS 94, Buffalo, NY – Cannon Design:
Professional Engineer responsible for completing Hazardous Materials Abatement drawings and specifications following an asbestos inspection at Buffalo Public School 94. The inspection was performed for renovation work related to HVAC system upgrades at the school. The location of all suspect ACM at the project site was mapped. Suspected ACM material was collected for laboratory analysis. Results were summarized in a survey report detailing location and results of sample point, locations of all hazardous materials identified, and an estimate of the quantity of ACMs identified. CORE prepared design drawings and specifications that were provided to abatement contractors for use in bid preparation and removal variances.

Underground Storage Tank Investigation, Buffalo Public School 94, Buffalo, NY – Popli Design Group:
Professional Engineer responsible for oversight of a subsurface investigation for an underground storage tank (UST) prior to removal. Three borings were advanced in the area of the UST to evaluate subsurface conditions and determine soil disposal requirements. Oversaw preparation of a letter report summarizing field activities, findings, and conclusions of the investigation. Ms. Ransbottom also performed a peer review of drawings and specifications prepared by Popli.

Stormwater Pollution Prevention Plan, Portageville Bridge, Portageville, NY – Bergmann Associates:
Professional Engineer responsible for oversight of monthly Stormwater Water Pollution Prevention Plan (SWPPP) inspections for construction activities related to replacement of the Portageville Bridge (a federally funded project). The project is administered by Norfolk Southern railroad and the New York State Department of Transportation (NYSDOT). Inspections are performed to ensure compliance with the applicable New York State Department of Environmental Conservation (NYSDEC) State Pollution Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activities (GP-0-15-002) and the Site-specific SWPPP.

Phase II Environmental Site Investigation, Walden Park, Buffalo, NY – Buffalo Urban Renewal Agency:
Professional Engineer responsible for oversight of a Phase II Environmental Site Investigation (ESI) Work Plan, including a Site-specific Health and Safety Plan (HASP) and Quality Assurance Project Plan (QAPP). Ms. Ransbottom oversaw completion of a Phase II ESI Report that included a summary of field activities, observations and findings, data table summaries, boring and test pit logs, and recommendations for future steps for the Site. The primary recommendation of the Phase II ESI was to complete a Supplemental ESI to delineate urban fill that was encountered during soil boring and test pit installation and determine potential exposure risks associated with shallow impacts identified on Site.

Supplemental Phase II Environmental Site Investigation, Walden Park, Buffalo, NY – Buffalo Urban Renewal Agency:

Professional Engineer responsible for oversight of a Supplemental Phase II Environmental Site Investigation (ESI) Work Plan. Ms. Ransbottom oversaw completion of the Supplemental Phase II ESI Report that included a quantitative Human Health Risk Assessment (HHRA), and conclusions and recommendations for future steps for the Site. CORE concluded that no further investigation was necessary at the park as the HHRA determined that there was no additional risk associated with shallow impacts; however, that a Soil Management Plan should be implemented in the event that soil excavation were to occur.

Hazardous Materials Inspection, Testing, and Design Services, Bishop Hall, Buffalo State College, Buffalo, NY – Mach Architecture:

Professional Engineer responsible for oversight of pre-renovation inspection, testing, and design services for hazardous materials (asbestos, lead-based paint, and PCBs) in Bishop Hall, Buffalo State College. Ms. Ransbottom prepared abatement design specifications in compliance with Dormitory Authority of the State of New York (DASNY) requirements following the inspections.

Hazardous Materials Inspection, Testing, and Design Services, Briggs, Bramley, and Perry Halls, SUNY Brockport, Brockport, NY – Greenman Pedersen, Inc.:

Professional Engineer responsible for oversight of pre-renovation inspection, testing, and design services for hazardous materials (asbestos, lead-based paint, and PCBs) in, Briggs, Bramley, and Perry Halls, SUNY Brockport. Ms. Ransbottom prepared abatement design specifications in compliance with Dormitory Authority of the State of New York (DASNY) requirements following the inspections.

Asbestos and Lead Planning Services, Five Boroughs, NY – New York Power Authority (NYPA):

CORE is performing Asbestos and Lead Planning Services for the current contract (4600002720). NYPA is entering into agreements with its customers to promote energy efficiency in their buildings. As part of this contract, Ms. Ransbottom performs QA/QC and review of all design documents and is the Professional Engineer-on-staff responsible for stamping all drawings. Project tasks include asbestos and lead inspections to accurately quantify, assess, and sample suspect ACMs and LBP that may be impacted by renovation work at several facilities including hospitals, schools, and airports.

Facility Reports and Plans, New York City, NY - Franklin Company Contractors, New York City Department of Environmental Protection:

Professional Engineer responsible for oversight of updates to new and existing PBS Facility Reports and SPCC Plans at multiple New York City Department of Environmental Protection (NYCDEP) water pollution control plants and pump stations. The purpose of the PBS Facility Report is to identify PBS deficiencies at the Site, if any, and to provide recommendations for corrective actions. The program is part of NYCDEP's on-going effort to inspect, test, maintain and determine the regulatory health of their PBS tanks, and ancillary equipment through testing, inspection, review, and modification.

Lime Lake Sewer Project Stormwater Pollution Prevention Plan, Machias, New York – MDA Engineers:

Professional Engineer responsible for oversight of the preparation of a Stormwater Water Pollution Prevention Plan (SWPPP) for construction activities for the installation of a force main and sanitary collection systems around Lime Lake in the Town of Machias, Cattaraugus County, New York. The SWPPP details sediment erosion control best management practices (BMPs) to be performed during construction, as well as permanent measures to be emplaced upon construction completion, to prevent eroded sediment from being transported to nearby surface water bodies. The SWPPP was prepared in compliance with the New York State Department of Environmental Conservation's (NYSDEC) State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activities (GP-0-15-002).

Tier 1 Environmental Review Services Various Locations, Western NY - NYS Homes and Community Renewal:

Professional Engineer responsible for oversight of Tier 1 reviews for Homes and Community Renewal HOMES Grant awardees in Western New York. The reviews include determination of State Environmental Quality Review Act classification for each program and preparation of a programmatic review in accordance with United States Department of Housing and Urban Development's (HUD's) National Environmental Policy Act (NEPA) regulations. Tasks included data compilation, preparation of Environmental Assessment Checklists, documentation of environmental characteristics through GIS mapping, and preparation of Public Notices for the Intent to Release Funds.

Lead and Asbestos Monitoring and Design Services Contract, NY – NYC Transit Authority MTA (March 2014 to Present):

Professional Engineer responsible for overall management of the survey and design drawings and reports. Services include QA/QC and review of all design documents. Ms. Ransbottom is the engineer on staff responsible for stamping all drawings. Project sites include operating substations, subway stations, office buildings, mechanical rooms, rail yards, bus depots, tunnels, bridges, manholes and other structures.

New York Power Authority, City of Buffalo Energy Master Plan (Wendel Energy Services), Buffalo, NY (Jan. 2014 – June 2014):
CORE acted as subconsultant to Wendel Energy Services to provide information regarding an Energy Master Plan for the City of Buffalo. The Master Plan will plan and coordinate strategies to improve energy efficiency that will support economic growth, create jobs, and serve the residents of New York State. Ms. Ransbottom was Project Manager responsible for the oversight of data collection, analysis, and development of recommendations for improved coordination and planning efforts between governmental departments, non-governmental agencies, and utility companies. She reviewed energy purchasing processes and strategies, analysis of future energy requirements, and recommendations for energy procurement strategies.

Various Asbestos Design Certifications, Various Firms, Buffalo, NY (Jan. 2014 to Present):
Professional Engineer responsible for oversight and approval of asbestos investigations and reports, and development of abatement work plans for various Dormitory Authority of the State of NY (DASNY), State University Construction Fund (SUCF) and NY State Office of General Services (OGS) building projects. CORE is typically a subconsultant to an architect or engineering firm for this work. Ms. Ransbottom has completed certifications for various local firms including Sienna Environmental Technologies, Trautman Associates, Mach Architecture, and Architectural Resources. Examples of projects include design certifications for various SUNY school buildings (including Albany, Buffalo, Fredonia, Oswego, Plattsburgh, and Purchase) and for various local primary and secondary schools. Ms. Ransbottom has also completed design certification for the NYS Office for People with Developmental Disabilities (OPWDD) Fire Safety Improvements & Associated Asbestos & Hazardous Materials Abatement Program.

Phase I Environmental Site Assessment, Wills Building, Long Island City, NY, Rockrose Development Corp. (October 2014):
Project Manager responsible for completion of Phase I Environmental Site Assessment (ESA) at the Wills Building in New York City. Phase I ESA was performed to identify recognized environmental conditions (RECs), historical recognized environmental conditions (HRECs), controlled recognized environmental conditions (CRECs), and/or potential environmental concerns (PECs). The Phase I ESA identified RECs and a PEC in connection with the target property, and multiple RECs, CRECs, and PECs in connection with adjacent/nearby properties.

Brownfield Remedial Investigation and Remediation, Wills Building, Long Island City, NY - Rockrose Development Corporation (June 2014 to Present):
Professional Engineer responsible for review and approval of Phase I Remedial Investigation (including installation of soil boring and groundwater monitoring wells), Remedial Investigation Work Plan (RIWP) for additional Site investigation activities and an Interim Remedial Measure (IRM) Work Plan to address sub-slab vapor and indoor air quality issues in the on-Site building. Responsible for review of application paperwork for admission to the New York State Brownfield Cleanup Program. Also responsible for review of design plans for installation of a sub-slab depressurization system.

Phase I Environmental Site Assessment and Hazardous Materials Survey, 3625 Highland Avenue, Niagara Falls, NY – Clark Patterson Lee:
Professional Engineer responsible for oversight of a Phase I ESA at the 5 acre property in the City of Niagara Falls, New York in compliance with ASTM and USEPA standards. The Phase I ESA identified recognized environmental conditions (RECs) in association with the target property, as well as controlled recognized environmental conditions (CRECs) associated with several nearby properties. Oversaw completion of a hazardous materials survey for lead-based paint (LBP) and asbestos-containing materials (ACMs) and associated reporting. Ms. Ransbottom also coordinated preparation of cost estimates for remediation of the property under three different reuse scenarios. Results were summarized in a letter report and provided to the City.

Mayor's Office of Environmental Remediation E-Designation Program Phase II Site Investigation, Hostos Community College, Bronx, NY – Flad Architects:
Professional Engineer responsible for oversight of a Phase II Work Plan for the Site as required by the New York City Mayor's Office of Environmental Remediation under E-Designation protocols. The Site was assigned an E-Designation for hazardous materials by the New York City Department of Planning as part of a rezoning action in the area of the Site. Ms. Ransbottom is also responsible for oversight of the hazardous materials survey of the on-Site buildings to determine the presence of LBP and ACMs.

Stormwater Pollution Prevention Programs, Zaepfel Development Corp., Williamsville, NY (Jan. 2014 to April

2014):
Professional Engineer responsible for the oversight and QA/QC for SWPPP inspections of the Remmington Woods Apartments and the PHH Office Building construction projects in Williamsville, NY, Erie County. Monthly inspections, inspection reports, and monthly, quarterly, and yearly summaries of inspections for both properties were required.

Fuel System Installation, Port Authority of NY-NJ, Red Hook Container Terminal, Bronx, NY (Jan. 2014 to Present):
Project Manager responsible for the development of site plans and details for the installation of a Petroleum Bulk Storage dispensing system at the Red Hook Container Terminal in Bronx, NY. Designs include the placement of tanks, fuel dispensers, and related monitoring equipment as per the relevant New York City Codes & regulations (NEPA 30). Development of a Fire Suppression system is also included in the design.

Fuel System Installation, 362 Kingsland Ave, Brooklyn, NY, Mendon Trucking and Leasing (May 2014 to Present):
Professional Engineer responsible for review and approval of site plans and details for the installation of a Petroleum Bulk Storage dispensing system at Mendon Trucking & Leasing in Brooklyn, NY. Designs include the placement of tanks, fuel dispensers, employee kiosk, a light pole, and associated monitoring equipment as per relevant New York City Codes & regulations (NEPA 30).

Oil/Water Separation Engineering Report, 360 Kingsland Ave, Brooklyn, NY, ESF Transport Inc. (April 2014 to May 2014):
Professional Engineer responsible for completion of Engineering report for ESF Transport located in Brooklyn, NY. The report detailed and provided cost estimates for three (3) alternatives to remediate oil/water contamination leaving the facility through the municipal storm water system. Engineering analysis of local hydrology and unique conditions of the site were performed and used to develop alternatives that gave flexibility to the client while conforming to the SPDES permit.

Health & Safety Plan, The LIRO Group, Syosset, NY (Jan. 2014):
Project Manager responsible for the development of a General Health & Safety Plan for The LIRO Group located in Syosset, NY. The plan provides guidelines for safety of LIRO employees and contractors and covers topics such as safety training, emergency action plans, job hazard analysis, means of egress, hazard communication, materials handling, and protective equipment. The plan includes examples of safety inspection checklists, noise & dust mitigation plans, maintenance and protection of traffic plan, lockout/tagout program, and confined space program.

Phase I Environmental Site Assessments, 21 S. Ryan Street and 245 Dearborn Street, Buffalo, NY – Buffalo Urban Renewal Agency (September 2014):
Project Manager responsible for completion of Phase I Environmental Site Assessments (ESAs) for two properties in Buffalo, NY. Phase I ESA for the property at 21 S. Ryan Street identified possible groundwater impacts and soil vapor intrusion issues from an upgradient dry cleaning facility that was a known point source of impacts to the subsurface. The Phase I ESA resulted in a Phase II Environmental Site Investigation (ESI) to evaluate the possibility that these impacts had migrated to the target property.

NYC School Construction Authority (SCA) Environmental Consulting Survey, Design, Project/Air Monitoring, and Sample Analysis Services to Industrial and Environmental Hygiene Division (Contract No. C000012710) (September 2014 to Present):
Professional Engineer responsible for review and approval of asbestos surveys, design, abatement monitoring, and final reports. Surveys include collection of bulk samples throughout campuses including operating office buildings, mechanical rooms, and various other structures.

NYC School Construction Authority (SCA) Industrial & Environmental Hygiene Consulting Services in Connection with Hazardous Materials (Contract No. C000013006) (March 2014 to Present):
Professional Engineer responsible for oversight and QA/QC regarding reviews of Excavated Material Disposal Plans (EMDP) submitted by contractors for various NYC Schools projects. The EMDP's are reviewed against Earthwork specifications and templates. Reviews include the EMDP, as well as Site plans, Sample Characterization plans, Health and Safety Plans, and sample analytics.

Diesel Exhaust Fluid Dispensing System, Ryder Truck Rental Inc. (Feb. 2014):
Professional Engineer responsible for reviewing and approving site plans & details for the installation of a 1000 gallon enclosed aboveground diesel exhaust fluid (DEF) dispensing system for Ryder Truck Rental Inc. at the Farmingdale, NY facility in Suffolk County. Ms. Ransbottom oversaw engineering and administrative support to Ryder to expedite the tank registration process with

the Town of Babylon and Suffolk County.

Asbestos, Lead and PCB Abatement Design, Buffalo Public Schools, PS 95, Buffalo, NY (Jan. 2014 to October 2014):

Professional Engineer responsible for completing Hazardous Materials Abatement design drawings and specifications to document locations and methods of removals for abatement contractor bidding purposes. Design followed inspection and survey of several areas within Buffalo Public School 95 for renovation work to replace several air handling units.

Construction Inspection, Westmont Ridge Development project, Ellicottville, NY (2013):

Ms. Ransbottom performed construction inspection for the $22 million, multi-phase Westmont Ridge Development project at Holimont Ski Resort. The project included construction of several roadways and utilities to ultimately serve a total build out of 94 ski in/ski out residential properties and 72 condominiums. Ms. Ransbottom coordinated directly with the contractors (Northrup Construction and Coldsprings Construction) on a daily basis to ensure the project was built to the design plans and specifications. In addition to new roadway construction, the project included new water and sewer lines, storm drainage and large culverts, and retention ponds.

NYS Department of Transportation (DOT), Reconstruction of Main Street, Village of East Aurora, NY (2004 to 2007):

Project Manager for this project to reconstruct approximately 2 km of US 20A/NY16/NY78, Main Street, between the Traffic circle and the East Village Line. The project included Right of Way mapping, grading and drainage design, utility coordination, traffic signage/markings, street lighting, landscaping, pavement design, and maintenance of traffic. Also included design of a roundabout to replace the existing traffic circle and evaluate design options for additional roundabouts in the project area. A coordinated traffic signal system was designed in order to improve traffic flow through the corridor. Context Sensitive Design principles were used to develop a design to meet transportation needs as well as the needs of the community. Project also included a video survey of the existing drainage system and obtaining of oblique aerial photographs from a helicopter. This project included considerable public involvement and Public Meetings. Ms. Ransbottom developed and maintained both a project newsletter and project website to provide information regarding this high profile project. She was the lynchpin between the numerous stakeholders, including the Village Reconstruction Task Force, the driving force behind the project. She met with the Village Task Force every two weeks for the four-year duration of the design. Ms. Ransbottom's commitment to communication and organization between the task force and all other stakeholders, such as SHPO, NYSDOT, and NYSDEC, kept the project on schedule and moving smoothly.

City of Buffalo Department of Public Works, Reconstruction of Main Street, Buffalo, NY (2000 to 2002):

Project Manager/Senior Transportation Engineer for this locally administered, federally aided project to reconstruct Main Street from Bailey Avenue (US62) to the Scajaquada Expressway (NY198). Ms. Ransbottom was involved in the project from preliminary design to beginning of construction. Preliminary design included preparation of Design Report, highway capacity analyses, accident investigations, subsurface testing, bridge inspections, development projections, utility research, historical investigations, and bike route analyses. Final design included pavement replacement, widening and intersection re-alignment, drainage improvements, utility relocations, new traffic signals, bridge rehabilitation, maintenance of traffic plan, street signage/markings, and street lighting. The project required coordination with numerous federal, state, local, and private agencies, groups, and utilities. This project required numerous public meetings to keep the public informed of project progress. As project manager, Ms. Ransbottom went door to door to meet and coordinate with business owners. Since their businesses would be affected the most by the reconstruction of Main Street, she made sure the design included accommodations for temporary parking and maintaining pedestrian traffic during construction.

City of Buffalo Department of Public Works, Reconstruction of Elmwood Avenue in Buffalo NY:

Project Manager for this project to reconstruct nearly 1 mile of roadway along Elmwood and Forest Avenues. Project included preparation of Design Report, many design alternatives (including roundabouts), separating storm sewer from combined storm/sanitary system, accident analyses, capacity analyses, soil and pavement evaluation, utility coordination, traffic signage, street lighting, landscaping, and maintenance and protection of traffic. The design utilized Context sensitive design solutions and included a coordinated traffic signal system and City gateway features. The project area included Buffalo State College, Buffalo Psychiatric Center, Albright Knox Art Gallery, Buffalo Olmsted Parks and the Elmwood commercial strip. Ms. Ransbottom was responsible for coordinating with and obtaining agreement between several groups including the State Historic Preservation Office (SHPO), the City of Buffalo, NYSDOT, and a very active community task force. Her innovative design options were the key to getting consensus on the design of the project. She provided design alternatives that included safe and efficient operation for vehicles, bicycles, and pedestrians in this unique City neighborhood.

Greater Buffalo Niagara Regional Transportation Council (GBNTRC), Traffic Signal Optimization Project (2011 to 2012):
Project Manager for this $400k project to develop and implement cost effective traffic signal timing and coordination plans for 6 major corridors in the Buffalo area (142 signals) to reduce travel times and emissions. The project provided significant traffic flow improvements to the corridors with yearly benefits of over $1M in reduced travel time, stops, and gas consumption. City of Buffalo corridors included Clinton St. and Elmwood Ave. Traffic volume counts and geometric data were inventoried to develop coordination timings for each of the systems using the latest Synchro software. The resulting Synchro traffic models were used to manage and maintain the Owner's traffic network and provide a database for volumes, lane geometry, signal timing and phasing, and system coordination and offsets. Ms. Ransbottom also coordinated with the City of Buffalo Signal Dept. to assist with implementing new timings and phasings manually in the signal controllers.

City of Buffalo Department of Public Works, Curb and Sidewalk Project, Buffalo, NY:
Project Manager responsible for this $400,000 Locally Administered Federally Funded stimulus project for the City of Buffalo. Because it was a stimulus (ARA) project, it had a fast-paced design schedule (only 9 weeks). Project included curb and sidewalk replacement and curb ramp reconstruction to ADA standards on eight City streets. The project was closely coordinated with a separate project to mill/overlay the same eight City streets. Ms. Ransbottom's ability to provide a meticulous paperwork trail from design through construction assisted the City through two successful FHWA stimulus audits.

City of Buffalo Department of Public Works, Seneca Street Streetscape, Buffalo, NY:
Project Manager responsible for this $1 million Locally Administered Federal Funded project in the City of Buffalo. This was a streetscape project on Seneca Street from Hayden Street to Indian Church Road (approx. 1 mile), and included mill and overlay of the pavement, curb and sidewalk replacement, ADA compliant curb ramps, and traffic signal improvements at two intersections. This project also incorporated performing a traffic signal coordination / optimization study for the entire length of Seneca St. from Michigan Avenue to the City Line.

Greater Buffalo Niagara Regional Transportation Council (GBNTRC), Feasibility Study for Accommodating Motor Vehicles within the Pedestrian Mall on Main Street, Buffalo, NY:
Project Engineer responsible for compiling this study in conjunction with the City of Buffalo, NFTA, GBNRTC and Buffalo Place. Ms. Ransbottom attended numerous meetings with the project team in an effort to develop the feasibility study, which ultimately moved this important project in the City forward. The study included a matrix of numerous feasible options, photo simulations, and costs associated with all options.

Erie County Department of Environment and Planning, Black Rock Canal Park Feasibility Study, Buffalo, NY (2010):
Project Manager for this project as subconsultant to a Landscape Architect. Responsibilities included topographic and boundary surveys of a series of connected Erie County-owned waterfront parks. The study was to determine possible future development in the parks. Project included inspection of the Black Rock Canal park interlocked steel sheet-pile cantilevered retaining wall approximately 2200' in length. The inspection was conducted above water using a boat and walking along the top. Also prepared sketches and preliminary costs for a cantilevered walkway for a new pedestrian bridge over Cornelius Creek.

Erie County Department of Public Works, Maple Road Reconstruction Project (Flint Road to Niagara Falls Blvd), Amherst, NY:
Project Manager for this project as subconsultant to Prime consultant. Project included widening of shoulders along Maple Road, adding turning lanes to assist capacity issues, improved drainage systems, and replacement of guide rails. Project also included reconstruction of North Bailey Avenue between Maple and Romney Road including left turning lanes to alleviate traffic conditions and replacement of existing drainage system. Responsibilities included traffic analyses and capacity analyses in coordination with replacement of all traffic signals along Maple and North Bailey, a new signal at the intersection of Bowmart and North Bailey, and new sidewalks with handicap ramps and pedestrian signals.

Cattaraugus County Department of Public Works, St. Bonaventure University Access Improvements Project, Allegany, NY (2008 to 2010):
Project Manager for this $2M project that included several improvements at St. Bonaventure University (a private campus). Improvements included the design of a new multi-use trail, reconstruction, and realignment of several campus roadways; construction of a new campus access road; redesign of an existing 5-way intersection; stormwater treatment (bioretention), amenities and signage; and a new public safety/restroom building. Project included topographic survey/mapping, ROW mapping, Environmental Assessment, civil/site and structural design of the new building, and construction support/inspection. Ms.

Ransbottom effectively coordinated and resolved environmental issues associated with wetland impacts, contaminated soils, floodplain encroachment, utility relocations, and impacts to historically sensitive areas.

Cattaraugus County Department of Public Works, Replacement of Little Valley Bridge #15 - North Ninth Street over Little Valley Creek:
This project replaced a deficient 30 ft. span highway bridge and an adjacent trail bridge over the Little Valley Creek. Both structures were replaced with a two-cell reinforced precast concrete box structure. The channel is on a curved and skewed alignment that required a structure design, which was curved through the site. Wingwalls were also precast, and the trail was extended over the upstream side of the bridge. As Project Engineer, Ms. Ransbottom was responsible for highway design, MPT, and design report preparation.

Village of East Aurora, NY, Landscaping and Scenic Beautification Project, East Aurora, NY:
Project Manager for this $1M Transportation Enhancement Program (TEP) project in the Village. The project was locally administrated and federally funded. Project included new directional signage within the Central Business District, new Village boundary signs, and improvements to alleyways in downtown area with new signage, landscaping, and lighting. Project also included extensive restoration of pedestrian pathways and parking areas on the National Historic Landmark Roycroft campus. This project was designed in close coordination with another of Ms. Ransbottom's projects to install drainage on the Roycroft campus, which previously had no storm drainage system. The National Historic Landmark status necessitated extensive coordination with the State Historic Preservation Office (SHPO). Ms. Ransbottom coordinated the Environmental Assessment for both projects on the campus, which included a month-long Phase III Archaeological Data Recovery phase.

Roycroft Campus Corporation (RCC), Roycroft Campus Drainage Project:
Project Manager for drainage improvements on the Roycroft Campus, a recognized National Historic Landmark, which lacked storm water collection and flooded frequently. Mrs. Ransbottom also guided the Campus through extensive reviews by the State Historic Preservation Office.

City of Tonawanda NY, Delaware Street Rehabilitation:
Transportation Engineer responsible for writing Draft Expanded Project Proposal (EPP) for the select reconstruction and general rehabilitation of Route 384, Delaware Street, a locally administered, federally aided project. Provided pavement evaluation, horizontal and vertical alignment analysis, drainage analysis, replacement of sidewalks, driveway aprons and curbs, intersection improvements, right-of-way analysis, traffic volumes, non-standard features, safety considerations and alternative lane configurations. Analyzed traffic counts, signal phasing and existing conditions at all signalized intersections and used Highway Capacity Manual methodology and Highway Capacity Software to determine a LOS at these intersections and examine the need for improvements. Coordinated presentations to and feedback from the client.

New York State Department of Transportation (NYSDOT), Hamburg, NY:
Project Engineer responsible for the Route 75 reconstruction and widening included pavement widening design, pavement full-depth reconstruction design, intersection design, closed drainage system design, curb design, sidewalk design, waterline design and tabulation, performed vertical geometric design calculations, and horizontal geometry calculations to determine proposed curb locations.

NYSDOT, Towns of Clarence and Newstead, NY:
Project Engineer responsible for the reconstruction of Route 5 (Main Street). The project included writing pre-draft and Draft Design Report/Environmental Assessment for project involving rehabilitation, widening, intersection design, closed-drainage system design, traffic operations analysis, reconstruction through an historic business district, installation of new traffic control devices (signs and signals), left and center turn lane analyses, curb and sidewalk design, and replacement of two box culverts. Performed horizontal and vertical geometric design, driveway analysis, preliminary Right-of-way analysis, and coordination with utility owners.

NYSDOT, Town of Newfane, NY:
Project Engineer responsible for minor widening, intersection improvements, open and closed drainage system analyses, and traffic analysis of signalized intersections for the Route 78 rehabilitation and reconstruction, Lockport-Olcott Road. Wrote Design Reports that included descriptions of existing speeds and delay, traffic volumes, Level of Service (LOS), non-standard features and safety considerations. Performed horizontal and vertical geometric design, super elevation design, intersection design, left turn lane analysis, driveway design, curb and sidewalk design, preliminary Right-of-way analysis, tree analysis, pavement reconstruction and widening design and design of drainage systems. Prepared public hearing materials, including script, slides, and brochure; coordinated preparation of take-line meeting materials such as colored plans and cross sections; prepared and reviewed individual

take maps. Assisted in development of Right-of-Way plan. Wrote Final Design Report that included responses to comments generated at public hearing. Prepared 40% and ADP submittals, including estimates.

NYSDOT, Route 240 Reconstruction, Harlem Road, Amherst, NY:
Project Engineer responsible for writing Draft and Final Design Report. The report included descriptions of existing speeds, traffic volumes, and level of service and safety considerations, preparing responses to general and individual comments generated at the public hearing. Also included was a left turn lane analysis, assistance with pavement full-depth reconstruction design, center turn lane evaluation, intersection design, curb and sidewalk design, horizontal and vertical geometric design, assistance with design of right-of-way plan, and preparation of individual ROW acquisition maps.

NY State Thruway Authority, New E-ZPass Only Toll Lanes at Five Buffalo area Locations (2004 to 2005):
Project Manager for this project involving new E-ZPass Only toll lanes at five Buffalo area interchanges - Pembroke (#48A), Depew (#49), Silver Creek (#58), Dunkirk (#59) and North Grand Island Bridge (#89). The project included data collection and research, topographic survey and mapping, Environmental Assessment, preliminary and detailed design, geotechnical work, electrical design, structural design, and construction administration. This project was part of a Thruway term agreement that included four other projects in the Buffalo area coordinated and managed by Ms. Ransbottom.

Town of Wheatfield, NY, Drainage Study:
Civil Engineer responsible for analyzing existing drainage systems when problems arose and proposing alternative solutions, using HEC-2 computer software to analyze impact of existing and proposed cross culverts and bridges on Sawyer Creek, and reviewing subdivision site plans including drainage design, contour design, detention ponds and roadway horizontal and vertical geometry.

Chautauqua County Industrial Development Agency (CCIDA), Dunkirk and Fredonia NY:
Project Engineer responsible for researching and evaluating financial and operational information regarding sewer operations, assisted in preparation of a report regarding development of a master sewer district for Northern Chautauqua County, and met with City and Village officials and County agencies.

Town of Hamburg, NY, Master Plan Update:
Civil Engineer responsible for updating information regarding transportation, infrastructure, land characteristics and environmental restrictions within the Town, using information to write Town Master Plan, and meeting with various Town committees and officials and state and county transportation agencies.

New York Air National Guard, Niagara Falls, NY:
Project Engineer responsibilities for this term contract/Kirsch Drive reconstruction included the redesign of roadway on Air National Guard base that included horizontal and vertical geometric design, pavement full-depth reconstruction design, and coordinating design with existing utilities. Performed NYANG Type “A” services including design evaluation of several alternative roadway designs and preparation of report, and performed NYANG Type “B” services including design and evaluation of proposed project, technical specifications, horizontal alignment data, maintenance, and protection of traffic, cross-section design, and cost estimates.

Little Ausable River Trail, Peru, NY:
Project Manager for this $800,000 Rails-to-Trails conversion project in Town of Peru. The project included design of a picturesque trail along the Little Ausable River between two of the Town’s most popular historic parks. Ms. Ransbottom worked closely with the Town to ensure proper procedures for the Transportation Enhancement Program (TEP) were followed and assisted in dealing with the NYSDOT regarding the trail crossing a state highway. The project included design of a 180 ft. long steel and timber pedestrian bridge and extensive coordination with the NY State Historic Preservation Office including completion of a Phase IA and IB Cultural Resource investigation.

Permitting and Inspection of Solar Photo Voltaic Installations, New York Power Authority (NYPA):
Professional Engineer / Civil Engineer responsible for oversight of subconsultant tasks for a project to provide plan review, permitting, and inspection services of Solar Photo Voltaic (PV) system installations that will be developed by the K-Solar program. CORE is a subconsultant to Tectonic who is ultimately responsible for creating an expedited, streamlined permitting process for PV systems, consistent with the goals and intent of the K-Solar program. Under the NY-Sun Initiative, the K-Solar program pursues aggressive strategies to address the hidden, non-hardware “soft costs” associated with solar deployments on public school properties. CORE’s tasks will include Civil and Environmental review of PV system design plans including building/roof plans, site drainage, access roads, parking, site diagram, final site layout and any other documentation at each site to comply with appropriate State codes and local utility requirements. CORE will assist with permit review and approval to install PV systems on school building rooftops, in parking lots, on parking structures, and mounted on the ground.

Alyssa Cruikshank

Geologist

Summary of Experience

Soil Management Plan and Environmental Construction Oversight, Walden Park, Buffalo, NY – Buffalo Urban Renewal Agency:

Project Geologist responsible for preparation of Soil Management Plan (SMP) and construction oversight during project to replace a building at the part. Ms. Cruikshank developed best management practices (BMPs) for handling and disposing of impacted soils during any excavation at the park, including air monitoring for particulates, stormwater pollution prevention requirements and dust suppression techniques. Ms. Cruikshank also provided air monitoring services and contractor oversight, and characterized soils for off-site disposal and backfill materials prior to import to site.

Tier 1 Environmental Review Services Various Locations, Western NY - NYS Homes and Community Renewal:

Qualified Environmental Professional responsible for performing Tier 1 reviews for Homes and Community Renewal HOMES Grant awardees in Western New York. The Tier 1 reviews included determination of the State Environmental Quality Review Act classification for each program and preparation of a programmatic review in accordance with United States Department of Housing and Urban Development's (HUD's) National Environmental Policy Act (NEPA) regulations. Tasks included coordination with program Local Program Administrators (LPAs), review of program activities in compliance with NEPA, data compilation, preparation of Environmental Assessment Checklists, documentation of environmental characteristics through GIS mapping, and preparation of Public Notices for the Intent to Release Funds.

Phase II Environmental Site Investigation, Walden Park, Buffalo, NY – Buffalo Urban Renewal Agency:

Project Geologist responsible for preparation of a Phase II Environmental Site Investigation (ESI) Work Plan, including a Site-specific Health and Safety Plan (HASP) and Quality Assurance Project Plan (QAPP). On-Site geologist responsible for drilling subcontractor oversight, soil sample collection, and logging and screening of soil cores and test pits. Ms. Cruikshank compiled a Phase II ESI Report that included a summary of field activities, observations and findings, data table summaries, boring and test pit logs, and recommendations for future steps for the Site. The primary recommendation of the Phase II ESI was to complete a Supplemental ESI to delineate urban fill that was encountered during soil boring and test pit installation and determine potential exposure risks associated with shallow impacts identified on Site.

Supplemental Phase II Environmental Site Investigation, Walden Park, Buffalo, NY – Buffalo Urban Renewal Agency:

Project Geologist responsible for preparation of a Supplemental Phase II Environmental Site Investigation (ESI) Work Plan. On-Site geologist responsible for drilling subcontractor oversight, soil sample collection, and logging and screening of soil cores. Ms. Cruikshank compiled a Supplemental Phase II ESI Report that included a quantitative Human Health Risk Assessment (HHRA), and conclusions and recommendations for future steps for the Site. CORE concluded that no further investigation was necessary at the park as the HHRA determined that there was no additional risk associated with shallow impacts; however, that a Soil Management Plan should be implemented in the event that soil excavation were to occur.

Phase I Environmental Site Assessment and Limited Subsurface

Education

B.S., Environmental Science, Rensselaer Polytechnic Institute, 2004

M.S., Geology, Rensselaer Polytechnic Institute, 2005

M.A., Biological Sciences, State University of New York at Buffalo, 2012

Experience

12 years

Certifications

40 Hour OSHA HAZWOPER Training

Areas of Expertise

- Project management
- Soil boring and logging
- Soil and groundwater sampling
- Brownfield Cleanup Program
- Remedial investigation
- Phase I ESAs
- Phase II ESIs
- Technical reporting

Investigation, Mechanic Street and Franklin Street Parking Area, Village of Springville, NY – Village of Springville, Department of Public Works:
Geologist responsible for preparation and review of a Phase I Environmental Site Assessment (ESA) for the parking area at Mechanic and Franklin Streets in the Village of Springville. The Phase I ESA was performed prior to Village acquisition of the property for conversion to a public parking area. Ms. Cruikshank also oversaw drillers during completion of a Limited Subsurface Investigation (LSI) at the site to determine subsurface conditions.

Phase I Environmental Site Assessment and Limited Subsurface Investigation, Mechanic Street and Franklin Street Parking Area, Village of Springville, NY – Village of Springville, Department of Public Works:
Geologist responsible for preparation and review of a Phase I Environmental Site Assessment (ESA) for the parking area at Mechanic and Franklin Streets in the Village of Springville. The Phase I ESA was performed prior to Village acquisition of the property for conversion to a public parking area. Ms. Cruikshank also oversaw drillers during completion of a Limited Subsurface Investigation (LSI) at the site to determine subsurface conditions.

Brownfield Cleanup Program Revised Remedial Action Work Plan, Atlas Park Parcel C, Glendale, NY – Cooper 8200 Realty LLC:
Geologist responsible for preparation of a revised Remedial Action Work Plan (RAWP) for the Site following a transfer a property ownership. Based on provisions in the Decision Document (DD) issued for the Site and current and planned future use as a commercial and industrial property, Ms. Cruikshank reevaluated the Track 1 Unrestricted Use cleanup goals. She suggested a Track 4 Commercial Use cleanup with evaluation of soil vapor intrusion potential in on-Site buildings. The Track 4 cleanup goals prevent unnecessary demolition of on-Site buildings and is more cost-effective than achieving Track 1 cleanup goals. Upon approval of the revised RAWP by NYSDEC, CORE will complete soil vapor intrusion evaluation via installation of sub-slab vapor points and collection of sub-slab vapor and indoor air quality (IAQ) samples.

Remedial Investigation/Feasibility Study for the Former National Rubber Adhesives Site, Long Island City, NY – Hamil Stratten Properties, LLC:
Remedial Investigation activities are being performed to delineate the nature and extent of subsurface impacts associated with historic site activities. Prepared a two-phased approach Remedial Investigation/Feasibility Study (RIFS) Work Plan for the former National Rubber Adhesives Site in Long Island City, New York. In addition to determining the proper field and office activities necessary for the successful completion of the investigation, the Work Plan included preparation of Site-specific Quality Assurance Project Plan (QAPP), Health and Safety Plan (HASP), and Community Air Monitoring Plan (CAMP). Ms. Cruikshank performed Remedial Investigation field activities including driller oversight and soil sample collection. Compiled a RI/FS report detailing RI related activities and potential remedial actions for the Site. Prepare Monthly Progress Reports for the Site for submission to the New York State Department of Environmental Conservation (NYSDEC) to document progress of Remedial Investigation activities.

Brownfield Cleanup Program Remedial Investigation and Remediation, Wills Building, Long Island City, NY – Rockrose Development Corporation:
Geologist responsible for preparation of a Phase I Environmental Site Assessment performed for a property transaction. Scope of Work for Phase I Limited Subsurface Investigation (LSI), including the installation of soil boring and groundwater monitoring wells to delineate the nature and extent of subsurface impacts. Prepared a Phase I LSI Report summarizing Site investigation activities, investigation results, and an analysis and interpretation of results. Ms. Cruikshank assisted with subsequent application paperwork for admission to the New York State Brownfield Cleanup Program (BCP). Prepared a Citizen Participation Plan (CPP) in accordance with NYSDEC requirements. Developed and prepared a Remedial Investigation Work Plan (RIWP) for additional Site investigation activities under BCP requirements and an Interim Remedial Measure (IRM) Work Plan to address sub-slab vapor and indoor air quality issues in the on-Site building as part of the RI. Compiled a Remedial Investigation Report (RIR) and Remedial Work Plan (RWP) detailing aspects of a preferred final remedy for the Site, which consists of an air sparge and soil vapor extraction system as well as in-situ groundwater treatment at the downgradient property boundary. Ms. Cruikshank completed a Site Management Plan (SMP) for post-remedial management of residual impacts. Project involves consistent and continual contact with NYSDEC to achieve project goals.

Remedial Action Report and Quarterly Groundwater Monitoring Reports for Everest Scaffolding, Bronx, NY – Mendon Truck Leasing and Rental Corporation:
Prepared a Remedial Action Report (RAR) detailing remedial field activities, including the installation of injection wells and injection of an oxidizing agent to address known petroleum-related impacts at the Site. Report detailed methods and results of the injection event. Prepared quarterly groundwater monitoring reports summarizing analytical data results and conclusions and

recommendations for Site closure. The Site was granted spill closure by NYSDEC in July 2014.

Stormwater Pollution Prevention Plan (SWPPP) and Discharge Monitoring Reporting, Brooklyn, NY – ESF Transport:
Geologist responsible for updating Site-specific SWPPP following a change to the State Multi-Sector General Permit (MSGP) and State-dictated sampling frequency and parameters. Ms. Cruikshank tracks quarterly inspections and annual sampling, and submits annual Discharge Monitoring Reports (DMRs) and Annual Certification Reports (ACRs) to NYSDEC's Bureau of Water Compliance to maintain compliance with Client's discharge permit.

Underground Storage Tank Investigation, Buffalo Public School 94, Buffalo, NY – Popli Design Group:
Performed driller oversight, soil sample collection, and logged soil cores for the investigation of an underground storage tank (UST) prior to removal. Upon receipt of analytical data, compiled a data summary table and letter report summarizing field activities, findings, and conclusions of the investigation..

Phase I Environmental Site Assessment and Geophysical Assessment, 201 Ellicott Street, Buffalo, NY – Buffalo Civic Auto Ramps:
Project Geologist responsible for review of a Phase I Environmental Site Assessment (ESA) for the property of 201 Ellicott Street in downtown Buffalo. Ms. Cruikshank also prepared a sampling plan and oversaw drillers during a geophysical investigation at the property to determine soil properties and depth to bedrock for future Site redevelopment purposes.

Phase I Environmental Site Assessment and Limited Subsurface Soil Investigation, 3625 Highland Avenue, Niagara Falls, NY – Clark Patterson Lee:
Completed a Phase I ESA at the 5 acre property in the City of Niagara Falls, New York in compliance with ASTM and USEPA standards. The Phase I ESA identified recognized environmental conditions (RECs) in association with the target property, as well as controlled recognized environmental conditions (CRECs) associated with several nearby properties. Ms. Cruikshank also oversaw installation of four soil borings to collect shallow soil samples for confirmatory analysis of constituents detected during previous investigations, and submitted soil samples for laboratory analysis. Elevated concentrations of semi-volatile organic compounds (SVOCs) and metals in the soil samples led to a recommendation that a Phase II ESI be performed at the property to fully delineate soil and groundwater conditions at the Site. Upon completion of the Phase I ESA, Ms. Cruikshank assisted in preparation of cost estimates for remediation of the target property under three different reuse scenarios. Results were summarized in a letter report and provided to the City.

Mayor's Office of Environmental Remediation E-Designation Program Phase II Site Investigation, Hostos Community College, Bronx, NY – Flad Architects:
Prepared a Phase II Work Plan for the Site as required by the New York City Mayor's Office of Environmental Remediation under E-Designation protocols. The Site was assigned an E-Designation for hazardous materials by the New York City Department of Planning as part of a rezoning action in the area of the Site. The purpose of the Phase II is to evaluate whether the Site has been impacted by historical uses as a carpet factory, among other activities. Phase II activities include soil, groundwater, and soil gas sample collection and analysis.

Remedial Action Work Plan and Remedial Action Report for 26th Ward Water Pollution Control Plant, Brooklyn, NY – Franklin Company Contractors, New York City Department of Environmental Protection:
Geologist responsible for preparation of Remedial Action Work Plan (RAWP) for enhanced in situ aerobic bioremediation via injection of Oxygen Release Compound (ORC) to address petroleum impacts to soil and groundwater stemming from a No. 2 fuel oil tank overfill. Following completion of remedial actions, prepared a RAR for the Site which included detailed injection methods utilized during the injection event, a summary of analytical data obtained prior to and following the injection event, and conclusions and recommendations.

Phase II Limited Subsurface Investigation Work Plan for Gulf Service Station, Astoria, NY – Franklin Company Contractors:
At the request of NYSDEC, prepared a Phase II LSI Work Plan including soil boring installation and groundwater sample collection to delineate anticipated impacts related to a waste oil tank formerly located at the Site.

Phase II Limited Subsurface Investigation Report for Professional Service Centers for the Handicapped – College Point, NY – Franklin Company Contractors:
Geologist responsible for preparation of Phase II LSI Report detailing field activities that included soil and groundwater sample collection. The report included a discussion of findings, analytical data summary tables, and conclusions. The Phase II was

performed following a Phase I Environmental Site Assessment (ESA) for the property that indicated Recognized Environmental Conditions (RECs) related to the former uses of the Site and nearby properties.

Facility Report and Plan, New York City, NY – Franklin Company Contractors, New York City Fire Department:

Geologist responsible for updating and finalizing Facility Spill Prevention, Control, and Countermeasures Plan (SPCC) for Petroleum Bulk Storage (PBS) and Spill Prevention Report (SPR) for Chemical Bulk Storage (CBS). The purpose of the SPR is to identify CBS deficiencies at the Site, if any, and to provide recommendations for corrective actions. The SPR and SPCC for this Facility were being issued as new documents for use by the New York City Fire Department (FDNY), the current Site owner/operator

Facility Reports and Plans, New York City, NY - Franklin Company Contractors, New York City Department of Environmental Protection:

Responsible for updating PBS Facility Reports and SPCC Plans at eight New York City Department of Environmental Protection (NYCDEP) Water Pollution Control Plants under Contracts 1198-PBS and 1320-PBS. The purpose of the PBS Facility Report is to identify PBS deficiencies at the Site, if any, and to provide recommendations for corrective actions. The program is part of NYCDEP's on-going effort to inspect, test, maintain and determine the regulatory health of their PBS tanks, and ancillary equipment through testing, inspection, review, and modifications.

Lead Based Paint Inspection Services Contract, New York City, NY - NYC Housing Authority:

Report Manager responsible for the deliverables of the lead based paint inspections. Inspections are completed on housing units, common areas, and storage units in accordance with United States Housing and Urban Development (HUD) protocols. Inspections included the use of X-Ray Fluorescence (XRF) analysis in each unit, and often paint chip samples were collected for laboratory analysis of lead content. The XRF analysis is conducted on site, using a portable LPA-1 Lead Paint Inspection System manufactured by Radiation Monitoring Devices, Inc. (RMD).

SENY Reporting for Poletti, 500MW, and Flynn Plants, Astoria, NY – New York Power Authority (NYPA):

Ms. Cruikshank is the Field Staff Manager for the current contract (4600002580) overseeing all field staff performing environmental sampling services. CORE provides State Pollution Discharge Elimination System (SPDES), Major Oil Storage Facility (MOSF), and Resource Conservation and Recovery Act (RCRA) Metals sampling services at the facilities as part of on-going environmental compliance programs. Ms. Cruikshank is responsible for coordinating field staff and QA/QC of weekly reports of analytical sample results for submission to the client.

Stormwater Pollution Prevention Plan (SWPPP) and Discharge Monitoring Reporting, Brooklyn, NY – Mendon Truck Leasing and Rental Corporation:

Geologist responsible for updating Site-specific SWPPP following a change to the State Multi-Sector General Permit (MSGP) and State-dictated sampling frequency and parameters. Ms. Cruikshank tracks quarterly inspections and sampling, and submits quarterly Discharge Monitoring Reports (DMRs) and Annual Certification Reports (ACRs) to NYSDEC's Bureau of Water Compliance to maintain compliance with Client's discharge permit.

Phase I Environmental Site Assessment, Williamsville, New York - SYMS Corporation:

Provided investigations and reporting for McKinley, Inc. for the SYMS building located in Williamsville, New York in Erie County. Executed historical records reviews including but not limited to environmental records, proprietary records, topographical maps, Sanborn maps, aerial photography, and City Directories to assess the current and past environmental conditions at the site. Completed FOIL/FOIA requests to all applicable government agencies.

Phase I Environmental Site Assessment, Buffalo, NY - Eberl Ironworks:

Provided investigations and reporting for Eberl Iron Works, Inc. for two properties owned by Buffalo Metal Forming located in Buffalo, New York in Erie County. Executed historical records reviews including but not limited to environmental records, proprietary records, topographical maps, Sanborn maps, aerial photography, and City Directories to assess the current and past environmental conditions at the site. Completed FOIL/FOIA requests to all applicable government agencies.

Phase I Environmental Site Assessment, Ellicottville, New York - Edelweiss Ski Lodge:

Provided investigations and reporting for the Edelweiss Ski Lodge occupying four adjacent properties in Ellicottville, New York in Cattaraugus County. Executed historical records reviews including but not limited to environmental records, proprietary records, topographical maps, Sanborn maps, aerial photography, and City Directories to assess the current and past environmental conditions at the site. Completed FOIL/FOIA requests to all applicable government agencies. The Phase I ESA revealed potential environmental concerns (PECs) associated with the target property. CORE concluded that the age of some of the on-site buildings may indicate the potential presence of lead-based paints (LBPs) or asbestos-containing materials (ACMs).

Phase I Environmental Site Assessment, Queens, New York - Trattoria Neo:

Provided investigations and reporting for the Trattoria Neo restaurant located in Queens, New York in Queens County. Executed historical records reviews including but not limited to environmental records, proprietary records, topographical maps, Sanborn maps, aerial photography, and City Directories to assess the current and past environmental conditions at the site. Completed FOIL/FOIA requests to all applicable government agencies.

Phase I Environmental Site Assessment, Bronx, New York – Group Corporation:

Provided investigations and reporting for two adjacent properties on 179th Street and Bronx Park Avenue in Bronx, New York in Bronx County. Executed historical records reviews including but not limited to environmental records, proprietary records, topographical maps, Sanborn maps, aerial photography, and City Directories to assess the current and past environmental conditions at the site. Completed FOIL/FOIA requests to all applicable government agencies.

Phase I Environmental Site Assessments, 21 S. Ryan Street and 245 Dearborn Street, Buffalo, New York – Buffalo Urban Renewal Agency:

Provided ASTM International (ASTM) and United States Environmental Protection Agency (USEPA) compliant Phase I ESAs for two properties in Buffalo, New York. Executed historical records reviews including but not limited to environmental records, proprietary records, topographical maps, Sanborn maps, aerial photography, and City Directories to assess the current and past environmental conditions at the site. Completed FOIL/FOIA requests to all applicable government agencies. The Phase I ESA for the property at 21 S. Ryan Street identified possible groundwater impacts and soil vapor intrusion issues from an upgradient dry cleaning facility that was a known point source of impacts to the subsurface. The Phase I ESA resulted in a Phase II Environmental Site Investigation (ESI) to evaluate the possibility that these impacts had migrated to the target property.

Site Characterization at the Former Papermate Facility, Santa Monica, CA – The Gillette Company:

On-Site geologist responsible for oversight of drilling activities to determine vertical and horizontal extent of VOC and other impacts to the subsurface. Responsible for soil and groundwater sample collection. Performed construction oversight of installation and sampling of continuous multichannel tubing (CMT) and traditional groundwater wells. Interpreted and reported lithologic and hydrogeologic data collected during Site assessments, developed cross-sections, and compiled and performed QA/QC and data validation of laboratory analytical data.

MGP Remedial Investigation for the West Station Plant, Rochester, NY – Rochester Gas and Electric Corporation:

Field Investigator for the Manufactured Gas Plant Site, including soil and rock core collection and monitoring well installation. Assisted with preparation of associated Work Plans, Remedial Investigation Report, Supplemental Remedial Investigation Reports, and Feasibility Study.

Site Investigation for Property Redevelopment, New Philadelphia, OH – GE Water & Process Technology:

On-Site geologist responsible for overseeing and monitoring drilling activities to determine potential vertical and horizontal extent of impacts to the subsurface prior to property redevelopment. Responsible for lithologic logging of all soils and soil sample collection. Performed oversight of construction, installation, and sampling groundwater wells.

RCRA Corrective Action Activities for the FMC Middleport Facility, Middleport, NY – FMC Corporation:

Community Relations Liaison for an industrial client and associated environmental project, handling community complaints, preparing newsletters, updating various client-sponsored websites, coordinating stakeholder meetings, and relaying information between the client and the community.

Environmental Restoration Specialist – Edwards Air Force Base, CA – CH2MHill:

Performed quarterly groundwater sampling and prepared quarterly and annual groundwater monitoring reports for various long-term-monitoring Sites, including a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)-listed Site. Prepared reports in accordance with regulatory guidelines, including CERCLA, California EPA and applicable Regional Water Quality

Control Boards.

Site Investigations and Management at Multiple Locations, Massachusetts - ExxonMobil Corporation:

Field duties included Site characterization for petroleum impacts to soil, groundwater, and surface water by performing investigative drilling using hollow stem auger, direct push, cone penetrometer (CPT), and air-rotary hammer methods, lithologic logging of borings, soil and groundwater sample collection, and monitoring well installation.

Construction Oversight and Tank-Top Upgrade, Concord, MA - ExxonMobil Corporation:

Field Investigator responsible for construction oversight of contractors during operations to perform gasoline service station tank-top upgrades and underground storage tank (UST) removals.

ASTM Phase I Reporting at Multiple Locations, Rhode Island – Shell Oil Company:

Case manager responsible for performing several ASTM Phase I ESAs for property divestment purposes, including historical records review.

Draft Environmental Impact Statement Review for Proposed Wind Farm, Life Under the Turbines, Warsaw, New York:

Environmental Technician responsible for limited review of the Environmental Assessment Form (EAF), Draft Environmental Impact Statement (DEIS) Scope document, and the DEIS for the proposed Stony Creek Wind Farm. The review focused on water resources (surface, wetlands and groundwater), geography (topography, geology and soils), seismic issues, and rare, threatened and endangered species. The project consisted of the installation of 59 wind turbine generators, an electrical collection system, and related support facilities in the Town of Orangeville, Wyoming County, New York. A review of the DEIS Scope identified a number of omitted or deficient items with regard to the potential impacts to a local reservoir, the prevalence of use of groundwater for drinking water, geotechnical information and the identification of turbine fall zones. The DEIS review identified numerous inaccurate or deficient items including the lack of mitigation for the contamination of the reservoir from a spill of oil, the number of creek crossings estimated, the lack of a groundwater use inventory, and the location of all groundwater wells. Additionally, the review noted the project area was located within a fault system and noted the presence of federal and state threatened species (Bald Eagle).

Elizabeth Tramposch, PE

Senior Project Engineer

Summary of Experience

Building Demolition, Brooklyn, NY – ARC Terminals

Building Demolition Plans: Project Engineer responsible for preparing required documents for demolition of buildings in accordance with NYC 2014 Building Code Chapter 12 Section 3306. Drawings include plans, sections and details of the building showing extent and sequence of demolition, an asbestos abatement plan, bracing and shoring necessary to support demolition operations, and calculations showing the adequacy of the existing structure to support loads. Other responsibilities include preparing the Plan/Work Applications, DS1 Demolition Submittal Form, and other permit application requirements.

Petroleum Bulk Storage (PBS) and Dispensing Design, 2075 Ocean Ave, Ronkonkoma, NY - Ryder Truck Rental, Inc.:

Project Engineer responsible for the design of several tank and pump improvements at the site. This included developing site plans and details for the installation of a PBS dispensing system and all accessories at Ryder Truck Rental in Ronkonkoma, NY. The design included removal of two 12,000 gallon diesel and gasoline underground storage tanks (UST) and installation of one replacement 12,000 gallon underground storage tank and dispensing system, installation of a diesel exhaust fuel tank and dispensing system, removal and replacement of motor oil and used oil tanks, removal and replacement of the dispenser islands, pumps, and piping, and the removal and replacement of the tank monitoring system and related components as per relevant New York City Codes and regulations (NEPA 30).

Design Of 1,000 Gallon Diesel Dispensing System, Brooklyn, NY – Sims Metal Management

Project Engineer responsible for preparing engineering plans for the installation of a 1,000 gallon aboveground storage tank (AST) at the site along with all required equipment and appurtenances. The design included a double wall AST (UL 2085 approved tank), a concrete pad to support the AST, pipe bollards for protection against vehicular collision, submersible turbine pump, commercial dispenser, a new leak and level monitoring system.

UST Design, Malverne, NY – Incorporated Village of Malverne

Project Engineer responsible for the engineering design and permitting services for the installation of two (2) 4,000-gallon underground storage tanks (USTs) and dispensing system at the Department of Public Works maintenance garage location at 9 Hempstead Avenue in Malverne, New York. The project included the removal of two (2) existing 4,000 gallon USTs, removal of dispensers, island and all associated underground piping, installation of two (2) 4,000 gallon double wall fiberglass USTs (one diesel tank and one gasoline tank), submersible turbine pumps, dispensers, sumps and fuel island, underground double wall fiberglass piping, leak and level monitoring system, and the design of a fire suppression system. Construction is scheduled to begin October 2017. Responsible for will providing routine inspections during construction and will complete as-built drawings upon completion.

Ellwood Water Treatment Plant, Ellwood City, PA – American Water Pennsylvania (AWPA)

Responsible for the design of an 8 MGD (with future expansion to 16 MGD) water treatment plant which included coagulation, flocculation, clarification, filtration, and disinfection, chemical treatment, taste and odor control, pH adjustment, and corrosion control. Duties included preparing design drawings in the three-

Education

M.S.E, Environmental Engineering, The Johns Hopkins University, 2013

B.S., Environmental Engineering, The Johns Hopkins University, 2012

Experience

6 Years

Certifications

Professional Engineer: Maryland #42032

Areas of Expertise

- Water & Wastewater Treatment
- Petroleum Bulk Storage Tank and Dispensing Design
- Pumping Station Design
- Stormwater Management
- Revit & AutoCAD

dimensional software Revit. Responsible for equipment selections and specifications including rapid mixers, chemical storage tanks, chemical pumps, static mixers, and instrumentation. Specific design examples include pump head loss calculations for finished water high service pumps to distribution, chemical transfer pumps from bulk tank to day tanks, filter washwater pumps, and chemical dosing pumps. Chemical storage calculations were completed to size chemical storage tank based on plant flows and chemical doses. Calculations also included a full hydraulic profile of the entire plant from the rapid mix basins to the finished water clearwell incorporating head loss calculations from baffle walls, filter media, sluice gates and weirs. Responsible for sizing unit process basins including rapid mix, sedimentation and flocculation basins, filters, and clearwell. Clearwell CT calculations were performed to ensure adequate volume for disinfection, followed by extensive clearwell sizing exercises to ensure adequate storage and volume for washwater supply and plant use at various plant flows. Construction services included reviewing contractor equipment submittals, answering contractor request for information, and updating the Revit model during construction.

Cunningham Falls State Park Water Treatment Plant Upgrade, Thurmont, MD, Maryland Environmental Service (MES)

Responsible for the upgrade of an existing conventional water treatment plant. The upgrade included the demolition of the existing conventional system and replacement with ultrafiltration membranes and installation of a new finished water force main. The design also includes new raw water strainers, a reaction tank, ultrafiltration membranes, and disinfection. The design allowed for future installation of granular activated carbon vessels and UV disinfection. The design was completed for two competing membrane filter manufacturers. Responsible for the creation of process drawings detailing piping interconnections, equipment, process flow diagrams, and site work. Existing building was modeled and the design was completed in three-dimensional software Revit. Design calculations included chemical metering pump headloss and piping, high service pump headloss (discharge pressure was ~200 psi) and water main calculation, and verifying raw water pump adequacy. Responsible for stormwater and erosion and sediment control submissions and permitting. Construction phase services included reviewing equipment manufacturer submittals.

Sodium Hypochlorite Storage Facility Design, New Cumberland, PA – Suez Water Pennsylvania (SWPA)

Project Manager/Engineer responsible for the permitting and design of a sodium hypochlorite storage facility to replace existing gas chlorine disinfection. Historic gas chlorine usage was used to calculate the bulk storage requirements for sodium hypochlorite. The design included two (2) 3,000 gallon polyethylene storage tanks, a 100 gallon day tank, chemical transfer pumps, and chemical metering pumps. The new storage facility was designed above the existing finished water clearwell. Double wall storage tanks were specified for containment. Sodium hypochlorite will be fed to the raw water, filtered water, and a new point added at the settled water to improve process conditions at the WTP and reduce creation of disinfection by products by decreasing the dose of chlorine to the raw water. Responsible for completing the design the three-dimensional software Revit. Design calculations included chemical storage volumes, chemical dosing rates and meter pump sizing and chemical transfer pump sizing. Responsible also for the public water supply permit application and Design Engineer’s Report.

Stormwater Compliance/Industrial Wastewater System Design, Denver, PA – High Concrete Group, LLC

Project Engineer responsible for performing a site survey and alternatives assessment, including capital appropriations costs and recommendations for improvements at a concrete facility. The goal of the assessment is to provide improvements the existing wastewater treatment system and to ensure compliance with stormwater runoff. Based on a site survey, alternatives were developed, which include rerouting un-impacted stormwater to bypass process operations, segregating process from impacted stormwater areas, developing best management practices and treatment technologies for impacted stormwater, upgrading the existing wastewater treatment system for process wastewater, and developing improvements to the on-site stormwater basin. A detailed cost estimate was prepared for each alternative. The assessment supports, negotiations with regulatory authorities and company goals for compliance, enhancing site operations, and reducing operating costs for compliance. Responsible for performing a wastewater treatability study in order to determine the most appropriate technology for concrete wastewater treatment for direct discharge to the sanitary sewer. Duties include preparing a wastewater sample plan, performing the sampling, and preparing a wastewater treatability study based on the analytical results.

Risk Assessment at Former Gold Course, Fairfax, VA – Confidential Client

Project Engineer responsible for incremental soil sampling at former golf course and assisting in the completion of a risk assessment report. Duties involved sampling 200 x 200-foot grids on the footprint of future homes at 41 lots and creating a sample location map. Assisted in the development of a site conceptual model using the analytical results of the soil sampling.

Construction Phase Services for Remedial Design, Chillum, MD – Confidential Client

Project Engineer responsible for construction phase services for the installation of a final remedy at three different areas. The design included the expansion of an existing dual-phase extraction system to include an angle-drilled recovery well under a four-lane thoroughfare, including a new underground precast-concrete vault, new recovery wells and monitoring wells, an iron sequestration system, and a new 1,000-pound granular activated carbon vessel. In a second area the design included an oxygen reactive zone, consisting of a series of five oxygen injection wells connected via trench to a precast-concrete, below grade concrete vault containing an oxygen cylinder. In a third area, the design included groundwater monitoring wells and an in-situ groundwater remediation well borehole. was responsible for providing construction completion reports for all three areas as well as as-built drawings based on final conditions. I prepared quarterly discharge reports from the treatment system, which included groundwater modeling using AutoCAD. Field activities included indoor air sampling.

Remedial Design/Action for Release from Underground Storage Tank, Baltimore, MD – Confidential Client

Project Engineer/Assistant Project Manager assisting with the subsurface soil/groundwater assessment and the remedial design of a petroleum impacted site. Responsible for obtaining soil boring permits for the installation of 22 groundwater monitoring wells and assisting with the work plan. Field monitoring activities included overseeing drilling, soil logging, well development, groundwater sampling, and aquifer testing to estimate hydraulic conductivity at the site. Compiled laboratory data as well as created tables and figures for data analysis. Prepared a Monitoring Well Installation and Sampling Report and assisted with a Corrective Action Plan. Prepared a three-dimensional groundwater model used to evaluate the performance of groundwater recovery with and without vacuum enhancement. This was used to determine the number, orientation, and depth of wells for optimal configuration to capture the groundwater plume. The system also included a groundwater containment system to prevent off-site migration of groundwater. Responsible for preparing remedial design drawings, system specifications, and obtaining permits. Remedial design included a dual-phase extraction system (pump and treat using vertical extraction wells). Completed calculations for sizing the system air compressor, blowers, and pumps.

Industrial Wastewater Treatment System Designs, Various Locations – CSX Corporation

Project engineer responsible for providing design documents for several new industrial wastewater treatment systems (WWTS). Services include generating the preliminary engineering layout of the WWTS, including interface points with the building construction (i.e., lift station wet wells, outfall location, equipment pads, and loadings), providing regulatory support for the discharge permit, and reviewing shop drawings. Specific calculations include wet well sizing, total head requirements, system curves, and gravity flow.

Groundwater Treatment System Upgrade

Project engineer responsible for providing design documents for a groundwater treatment system upgrade. Activities include preparing base site drawings, as well as design drawings for the installation of a 3,000-gallon oil water separator, a cascade aerator, and new gravity and force main piping. Responsible for designing the hydraulic process, including a hydraulic profile and system curves. The treatment system is designed to remove non-aqueous phase liquids from groundwater extracted from wells and discharge treated water to a National Pollutant Discharge Elimination System (NPDES) outfall.

Truck Wash Bay Assessment and Design, Maryland (various locations) – Maryland State Highway Administration

Project Engineer responsible for performing an environmental issues assessment to review and assess regulatory requirement and environmental design issues for washbay facilities. This included water usage and water supply constraints, methods, processes, and equipment for wash water treatment and disposal, including grit chambers, oil/water separators, trench drains, and storage tanks, and regulatory requirements and alternatives related to wash water treatment and disposal, including publicly owned treatment works pretreatment ordinances, National Pollutant Discharge Elimination System (NPDES) discharge permitting, discharges to septic systems, and treatment of water containing high levels of chlorides. Provided conceptual environmental drawings for the wastewater conveyance system. During design phase services, responsibilities include developing detailed design drawings for the oil water separator, grit chamber, and trench drains. Completed calculations for gravity flow to the grit chambers, oil water separator, and the sanitary sewer connection, as well as calculations to size the grit chamber based on maximum flow and grit removal.

Storage Tank Removal and Replacement Designs, Maryland (various locations) – Maryland State Highway Administration

Project Engineer responsible for the study, design, permitting, and bid-phase services for the replacement of existing USTs with ASTs at state maintenance facilities. Responsibilities include developing a design and site plan, generating drawings and specifications, developing a cost estimate, working with equipment manufacturers, and meeting the budget and schedule. Duties include performing excavation slope and volume calculations, sheeting and shoring requirements, quantities for backfill and paving. Detailed design plans include demolition, proposed AST layout plan, fueling details including tank accessories and dispensing. Responsible for coordination with other disciplines such as electrical and structural to ensure a coherent submittal. Designs also include sediment control and stormwater management plan submissions

Interceptor Sewer, Edgewood, Maryland – Harford County Department of Public Works

Project Engineer responsible for developing an evaluation and preliminary design for approximately 9,200 LF of 30-inch parallel gravity sewer to provide sufficient capacity for the projected flows within a sewer shed. The evaluation includes performing an alternative alignments and phasing study, a geotechnical investigation and test pits, and environmental permitting. Responsibilities include the development of a detailed evaluation report with drawings of the proposed alignments and connections to the existing pumping station. In addition, I completed for gravity flow and headloss along the alignment.

John Quinn

Environmental Scientist

Summary of Experience

Red Hook WPCP Tank Closure and Limited Subsurface Investigation, Brooklyn, NY - Franklin Company Contractors:

Mr. Quinn assisted with field work for a Limited Subsurface Investigation (LSI) Report following in-place abandonment of two 25,000-gallon diesel underground storage tanks (USTs) at the New York City Department of Environmental Protection (NYCDEP) Red Hook Water Pollution Control Plan (WPCP). He oversaw soil boring installation and generated soil boring logs to document subsurface conditions.

22-44 119th Avenue Tank Closure and Limited Subsurface Investigation, College Point, NY - Franklin Company Contractors:

Mr. Quinn performed groundwater sample collection from monitoring wells installed following the removal of two 550-gallon USTs. Mr. Quinn generated development/purge logs and submitted samples to the laboratory for analysis. The groundwater data was utilized in a Tank Closure and LSI Report detailing tank removal activities, investigation scope of work, field activities, and findings and conclusions.

SENY Sampling for Poletti, 500MW, and Flynn Plants, Astoria, NY – New York Power Authority:

Mr. Quinn is the Field Technician for the current contract (4600002580) performing environmental sampling and analysis services. CORE provides State Pollution Discharge Elimination System (SPDES), Major Oil Storage Facility (MOSF), and Resource Conservation and Recovery Act (RCRA) Metals sampling services at the Southeastern New York facilities as part of on-going environmental compliance programs. Mr. Quinn performs on-site water, soil, and miscellaneous materials sampling upon client request. In addition to regularly scheduled sampling (weekly, monthly, quarterly, and annually), Mr. Quinn performs on-call sampling for unidentified and hazardous wastes.

Remedial System Operation and Maintenance for the Wills Building, Long Island City, NY – Rockrose Development Corporation:

Mr. Quinn performs weekly and monthly operation and maintenance (O&M) of the air sparge and soil vapor extraction (AS/SVE) system installed at the Site to remediate chlorinated volatile organic compounds (VOCs) in soil and groundwater. In addition, Ms. King collects monthly carbon influent and effluent samples to monitor effectiveness of system operation and determine VOC mass removed.

NYC Schools Potable Water System Evaluation, Five Boroughs of NYC, NY – New York City School Construction Authority:

CORE was retained the New York City School Construction Authority (NYCSCA) to complete lead in water sampling to evaluate the conditions of the potable water systems found in NYC public schools. CORE's field technicians collected water samples from throughout the schools' drinking water, hand wash stations, and kitchen sink faucets in full compliance of Department of Education protocol and NYCSCA directives. Mr. Quinn assisted with technician and laboratory coordination, including pickup and delivery of all samples and the daily reporting to NYCSCA.

SPDES Compliance Inspections and Sampling, 362 Kingsland Avenue Brooklyn, New York – Mendon Truck Leasing and Rental Corporation:

Environmental Scientist responsible for quarterly and annual Stormwater Pollution

Education

B.S., Biology, Cornell University, 2015

Experience

1 years

Certifications

40 Hour OSHA HAZWOPER Training

NYCT Track Safety Training

NYSDEC Class A/B Operator for Underground Storage Tank (UST) Systems

NYSDEC Erosion & Sediment Control

OSHA 10 Hour Construction Safety

SSPC C3 Lead Training

Areas of Expertise

- Soil and groundwater sampling
- Site Investigations
- Remedial Operation & Monitoring
- Phase I ESAs
- Environmental reviews
- SWPPP Inspections

Prevention Plan (SWPPP) site inspections. Inspections are performed to ensure site-specific best management practices (BMPs) are being utilized and followed to prevent discharge of pollutants to nearby Newtown Creek as a result of stormwater runoff. Mr. Quinn also performs State Pollutant Discharge Elimination System (SPDES) compliance sampling on a quarterly basis at one outfall location on the property.

Spill Prevention Control and Countermeasure Plan Updates, Various Locations throughout the Five Boroughs – NYCDEP:

Mr. Quinn is responsible for field inspections required during updates to Petroleum Bulk Storage (PBS) Facility Reports and Spill Prevention, Control and Countermeasures (SPCC) Plans at multiple New York City Department of Environmental Protection (NYCDEP) water pollution control plants and pump stations. The purpose of the PBS Facility Report is to identify PBS deficiencies at the Site, if any, and to provide recommendations for corrective actions. The program is part of NYCDEP's on-going effort to inspect, test, maintain and determine the regulatory health of their PBS tanks, and ancillary equipment through testing, inspection, review, and modifications.

Laboratory Technician, Farmingdale, NY – Prior to CORE:

Mr. Quinn prepared solutions, made aliquots of different solutions and compounds, performed colorimetry experiments to compare histones, antibodies, or proteins, tested solutions for proper pH, salinity, chemical quality, etc., and performed quality control tasks.

APPENDIX H

Site Management Forms

DAILY OBSERVATION LOG

CORE ENVIRONMENTAL CONSULTANTS

Page __1___ of _____

Project Name:	**Date:**
Project Address:	**Weather:**
Field Activity:	

PERSONNEL: Name	**COMPANY**	**TIME IN**	**TIME OUT**

TIME	**DESCRIPTION OF WORK PERFORMED**

DAILY OBSERVATION LOG
(continued)

CORE ENVIRONMENTAL CONSULTANTS

Page _____ of _____

Project Name:	**Date:**

TIME	DESCRIPTION OF WORK PERFORMED

CORE ENVIRONMENTAL CONSULTANTS

Annual Site Inspection

Site Name:	Brooklyn Navy Yard	**Site Code:**	V00120		
Address:	63 Flushing Avenue	**City:**	Brooklyn		
State:	New York	**Zip Code:**	11205	**County:**	Kings

Inspection Item	Yes	No	Comments	
General Site Inspection				
Change of Ownership or use or transfer of COC?			Site use permitted: commercial, industrial	
New construction affecting building footprints?				
Any activity likely to disrupt or expose contamination/increase exposure risk?				
Any activity that will interfere with implementation of engineering or institutional controls?				
Site Cover				
Presence of holes, cracks, or other deficiences?				
Repairs to the cover?				

Inspector's Name:	**Inspector's Title:**
Inspector's Signature:	**Inspector's Affiliation:** CORE Environmental Consultants, Inc.
Date/Time of Inspection:	**Phone No.:** *(718) 786-4730*

SUMMARY OF GREEN REMEDIATION METRICS FOR SITE MANAGEMENT

Site Name:	Brooklyn Navy Yard	**Site Code:**	V00120		
Address:	63 Flushing Avenue	**City:**	Brooklyn		
State:	New York	**Zip Code:**	11205	**County:**	Kings

Initial Report Period (Start Date of period covered by the Initial Report submittal)	
Start Date:	
Current Reporting Period	
From:	To:
Contact Information	
Preparer's Name	Phone No.
Preparer's Affiliation	

I. Energy Usage - Quantify the amount of energy used directly on Site and the portion of that derived from renewable energy sources.

	Current Reporting Period	Total to Date
Fuel Type 1 (e.g. natural gas [cf])		
Fuel Type 2 (e.g. fuel oil, propane [gals])		
Electricity (kWh)		
Of that Electric usage, provide quantity		
Derived from renewable sources (e.g. solar, wind)		
Other energy sources (e.g. geothermal, solar thermal [BTU])		

Provide a description of all energy usage reduction programs for the Site in the space provided on Page 3.

II. Solid Waste Generation - Quantify the management of solid waste generated on Site.

	Current Reporting Period	Total to Date
Total waste generated on Site (tons)		
OM&M generated waste		
Of that total amount, provide quantity (tons)		
Transported off Site to landfills		
Transported off Site to other disposal facilities		
Transported off Site for recycling/reuse		
Reused on Site		

Provide a description of any implemented waste reduction programs for the Site in the space provided on Page 3.

III. Transportation/Shipping - Quantify the distances traveled for delivery of supplies, shipping of laboratory samples, and the removal of waste.

	Current Reporting Period	Total to Date
Total distance traveled (miles)		
Standby Engineer/Contractor		
Laboratory Courier/Delivery Service		
Waste Removal/Hauling		

Provide a description of all mileage reduction programs for the Site in the space provided on Page 3. Include specifically any local vendor/services utilized that are within 50 miles of the Site.

IV. Water Usage - Quantify the volume of water used on Site from various sources.

	Current Reporting Period	Total to Date
Total quantity of water used on Site (gallons)		
Of that total amount, provide quantity (gallons)		
Public potable water supply usage		
Surface water usage		
On-Site groundwater usage		
Collected or diverted storm water usage		

Provide a description of any implemented water consumption reduction programs for the Site in the space provided on Page 3.

V. Land Use and Ecosystems - Quantify the amount of land and/or ecosystems disturbed and the area of land and/or ecosystems restored to a pre-development condition (i.e. Green Infrastructure).

	Current Reporting Period	Total to Date
Land disturbed (acres)		
Land restored (acres)		

Provide a description of any implemented land restoration/green infrastructure programs for the Site in the space provided on Page 3.

Description of green remediation programs reported above (Attach additional sheets if needed)
Energy Usage:
Waste Generation:
Transportation/Shipping:
Water usage:
Land Use and Ecosystems:
Other:

CERTIFICATION BY CONTRACTOR	
I, ___________________________ (**Name**) do hereby certify that I am ______________________ (**Title**) of the Company/Corporation herein referenced and contractor for the work described in the foregoing application for payment. According to my knowledge and belief, all items and amounts shown on the face of this application for payment are correct, all work has been performed and/or materials supplied, the foregoing is a true and correct statement of the contract account up to and including that last day of the period covered by this application.	
Date:	**Contractor:**

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

60-Day Advance Notification of Site Change of Use, Transfer of Certificate of Completion, and/or Ownership

Required by 6NYCRR Part 375-1.11(d) and 375-1.9(f)

To be submitted at least 60 days prior to change of use to:

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

I. Site Name: ________________________________ **DEC Site ID No.** ________________

II. Contact Information of Person Submitting Notification:

Name: ____

Address1: ____

Address2: ____

Phone: ______________________ E-mail: ______________________________

III. Type of Change and Date: Indicate the Type of Change(s) (check all that apply):

- ☐ Change in Ownership or Change in Remedial Party(ies)
- ☐ Transfer of Certificate of Completion (CoC)
- ☐ Other (e.g., any physical alteration or other change of use)

Proposed Date of Change (mm/dd/yyyy): ☐

IV. Description: Describe proposed change(s) indicated above and attach maps, drawings, and/or parcel information.

____

____

____

If "Other," the description must explain <u>and</u> advise the Department how such change may or may not affect the site's proposed, ongoing, or completed remedial program (attach additional sheets if needed).

____

____

____

____

V. Certification Statement: Where the change of use results in a change in ownership or in responsibility for the proposed, ongoing, or completed remedial program for the site, the following certification must be completed (by owner or designated representative; see §375-1.11(d)(3)(i)):

I hereby certify that the prospective purchaser and/or remedial party has been provided a copy of any order, agreement, Site Management Plan, or State Assistance Contract regarding the Site's remedial program as well as a copy of all approved remedial work plans and reports.

Name: ______________________ (Signature)   ______________ (Date)

______________________ (Print Name)

Address1: ______________________

Address2: ______________________

Phone: ______________ E-mail: ______________

VI. Contact Information for New Owner, Remedial Party, or CoC Holder: If the site will be sold or there will be a new remedial party, identify the prospective owner(s) or party(ies) along with contact information. If the site is subject to an Environmental Easement, Deed Restriction, or Site Management Plan requiring periodic certification of institutional controls/engineering controls (IC/ECs), indicate who will be the certifying party (attach additional sheets if needed).

☐ Prospective Owner ☐ Prospective Remedial Party ☐ Prospective Owner Representative

Name: ______________________

Address1: ______________________

Address2: ______________________

Phone: ______________ E-mail: ______________

Certifying Party Name: ______________________

Address1: ______________________

Address2: ______________________

Phone: ______________ E-mail: ______________

VII. Agreement to Notify DEC after Transfer: If Section VI applies, and all or part of the site will be sold, a letter to notify the DEC of the completion of the transfer must be provided. If the current owner is also the holder of the CoC for the site, the CoC should be transferred to the new owner using DEC's form found at http://www.dec.ny.gov/chemical/54736.html. This form has its own filing requirements (see 6NYCRR Part 375-1.9(f)).

Signing below indicates that these notices will be provided to the DEC within the specified time frames. If the sale of the site also includes the transfer of a CoC, the DEC agrees to accept the notice given in VII.3 below in satisfaction of the notice required by VII.1 below (which normally must be submitted within 15 days of the sale of the site).

Within 30 days of the sale of the site, I agree to submit to the DEC:

1. the name and contact information for the new owner(s) (see §375-1.11(d)(3)(ii));
2. the name and contact information for any owner representative; and
3. a notice of transfer using the DEC's form found at http://www.dec.ny.gov/chemical/54736.html (see §375-1.9(f)).

Name: ______________________________ ______________________
(Signature) (Date)

____
(Print Name)

Address1: ____

Address2: ____

Phone: ____________________ E-mail: ______________________________

Continuation Sheet

☐ Prospective Owner/Holder ☐ Prospective Remedial Party ☐ Prospective Owner Representative

Name: ______________________________

Address1: ______________________________

Address2: ______________________________

Phone: ______________ E-mail: ______________________________

☐ Prospective Owner/Holder ☐ Prospective Remedial Party ☐ Prospective Owner Representative

Name: ______________________________

Address1: ______________________________

Address2: ______________________________

Phone: ______________ E-mail: ______________________________

☐ Prospective Owner/Holder ☐ Prospective Remedial Party ☐ Prospective Owner Representative

Name: ______________________________

Address1: ______________________________

Address2: ______________________________

Phone: ______________ E-mail: ______________________________

☐ Prospective Owner/Holder ☐ Prospective Remedial Party ☐ Prospective Owner Representative

Name: ______________________________

Address1: ______________________________

Address2: ______________________________

Phone: ______________ E-mail: ______________________________

☐ Prospective Owner/Holder ☐ Prospective Remedial Party ☐ Prospective Owner Representative

Name: ______________________________

Address1: ______________________________

Address2: ______________________________

Phone: ______________ E-mail: ______________________________

☐ Prospective Owner/Holder ☐ Prospective Remedial Party ☐ Prospective Owner Representative

Name: ______________________________

Address1: ______________________________

Address2: ______________________________

Phone: ______________ E-mail: ______________________________

New York State Department of Environmental Conservation

Instructions for Completing the 60-Day Advance Notification of Site Change of Use, Transfer of Certificate of Completion (CoC), and/or Ownership Form

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

Section I	**Description**
Site Name	Official DEC site name. (see http://www.dec.ny.gov/cfmx/extapps/derexternal/index.cfm?pageid=3)
DEC Site ID No.	DEC site identification number.
Section II	**Contact Information of Person Submitting Notification**
Name	Name of person submitting notification of site change of use, transfer of certificate of completion and/or ownership form.
Address1	Street address or P.O. box number of the person submitting notification.
Address2	City, state and zip code of the person submitting notification.
Phone	Phone number of the person submitting notification.
E-mail	E-mail address of the person submitting notification.
Section III	**Type of Change and Date**
Check Boxes	Check the appropriate box(s) for the type(s) of change about which you are notifying the Department. Check all that apply.
Proposed Date of Change	Date on which the change in ownership or remedial party, transfer of CoC, or other change is expected to occur.
Section IV	**Description**
Description	For each change checked in Section III, describe the proposed change. Provide all applicable maps, drawings, and/or parcel information. If “Other” is checked in Section III, explain how the change may affect the site’s proposed, ongoing, or completed remedial program at the site. Please attach additional sheets, if needed.

Section V Certification Statement

This section must be filled out if the change of use results in a change of ownership or responsibility for the proposed, ongoing, or completed remedial program for the site. When completed, it provides DEC with a certification that the prospective purchaser has been provided a copy of any order, agreement, or State assistance contract as well as a copy of all approved remedial work plans and reports.

Name	The owner of the site property or their designated representative must sign and date the certification statement. Print owner or designated representative's name on the line provided below the signature.
Address1	Owner or designated representative's street address or P.O. Box number.
Address2	Owner or designated representative's city, state and zip code.
Phone	Owner or designated representative's phone number.
E-Mail	Owner or designated representative's E-mail.

Section VI Contact Information for New Owner, Remedial Party, and CoC Holder (if a CoC was issued)

Fill out this section only if the site is to be sold or there will be a new remedial party. Check the appropriate box to indicate whether the information being provided is for a Prospective Owner, CoC Holder (if site was ever issued a COC), Prospective Remedial Party, or Prospective Owner Representative. Identify the prospective owner or party and include contact information. A Continuation Sheet is provided at the end of this form for additional owner/party information.

Name	Name of Prospective Owner, Prospective Remedial Party or Prospective Owner Representative.
Address1	Street address or P.O. Box number for the Prospective Owner, Prospective Remedial Party, or Prospective Owner Representative.
Address2	City, state and zip code for the Prospective Owner, Prospective Remedial Party, or Prospective Owner Representative.
Phone	Phone number for the Prospective Owner, Prospective Remedial Party or Prospective Owner Representative.
E-Mail	E-mail address of the Prospective Owner, Prospective Remedial Party or Prospective Owner Representative.

If the site is subject to an Environmental Easement, Deed Restriction, or Site Management Plan requiring periodic certification of institutional controls/engineering controls (IC/EC), indicate who will be the certifying party(ies). Attach additional sheets, if needed.

Certifying Party Name	Name of Certifying Party.
Address1	Certifying Party's street address or P.O. Box number.
Address2	Certifying Party's city, state and zip code.
Phone	Certifying Party's Phone number.
E-Mail	Certifying Party's E-mail address.

Section VII Agreement to Notify DEC After Property Transfer/Sale

This section must be filled out for all property transfers of all or part of the site. If the site also has a CoC, then the CoC shall be transferred using DEC's form found at http://www.dec.ny.gov/chemical/54736.html

Filling out and signing this section of the form indicates you will comply with the post transfer notifications within the required timeframes specified on the form. If a CoC has been issued for the site, the DEC will allow 30 days for the post transfer notification so that the "Notice of CoC Transfer Form" and proof of it's filing can be included. Normally the required post transfer notification must be submitted within 15 day (per 375-1.11(d)(3)(ii)) when no CoC is involved.

Name	Current property owner must sign and date the form on the designated lines. Print owner's name on the line provided.
Address1	Current owner's street address.
Address2	Current owner's city, state and zip code.