MTA Long Island Rail Road

Delineation Phase II
Site Assessment Remedial Action Work Plan
Massapequa Substation: Site No. V00397-1

July 2010

Dvirka and Bartilucci
CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

Jamaica Station
Jamaica, NY 11435-4380
718 558-7400

Helena E. Williams
President

MTA Long Island Rail Road

July 19, 2010

Tara Diaz, Project Manager
New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau A
625 Broadway, 11th Floor
Albany, NY 12233-7015

Re: LIRR Massapequa Substation (NYSDEC VCA No. V-00397-1)
Draft Remedial Action Work Plan

Dear Ms. Diaz:

Enclosed please find two hard copies and one electronic copy of the Work Plan entitled:

"Delineation Phase II Site Assessment
LIRR Massapequa Substation
Remedial Action Work Plan
(NYSDEC VCA No. V-00397-1)"

Please be advised that, following remediation of the LIRR the Massapequa Substation property, the existing substation building will continue to provide electricity to the LIRR railway. As we have discussed in the past, the LIRR is eager to remediate this site to improve service to our customers. Remedial activities are currently scheduled to occur in the beginning of 2011.

Please do not hesitate to contact me at (718) 558-3620 if you have any questions or comments. Thank you in advance for your assistance and cooperation in this matter.

Very truly yours,

Andrew Wilson, P.E.
Project Manager

AW/PSM/jmy
cc: Case Attorney (NYSDEC)
S. Dewes (NYSDOH)
B. Callaghan (NYSDOH)
C. Pareja (NCDOH)
C. Hillenbrand (USEPA)
C. Channer (MTA)
G. Russo (LIRR)
T. Fox (D&B)
♦2737\MISC10LTR.DOC-01(R02)

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METROPOLITAN TRANSPORTATION AUTHORITY
LONG ISLAND RAIL ROAD

DELINEATION PHASE 2 SITE ASSESSMENT
FOR
MASSAPEQUA SUBSTATION

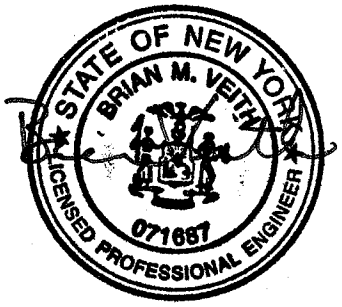
REMEDIAL ACTION WORK PLAN

Prepared for:

METROPOLITAN TRANSPORTATION AUTHORITY
LONG ISLAND RAIL ROAD

Prepared by:

DVIRKA AND BARTILUCCI CONSULTING ENGINEERS
WOODBURY, NEW YORK



JULY 2010

LONG ISLAND RAIL ROAD
DELINEATION PHASE 2 SITE ASSESSMENT FOR
MASSAPEQUA SUBSTATION
REMEDIAL ACTION WORK PLAN

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Section 1

1.0 INTRODUCTION

The Long Island Rail Road (LIRR) has entered into a Voluntary Cleanup Agreement (VCA) with the New York State Department of Environmental Conservation (NYSDEC) in order to investigate and remediate potential mercury contamination associated with the operation and subsequent decommissioning and removal of mercury-containing rectifiers at the Massapequa Electric Substation.

In 1999, the LIRR conducted environmental assessments at 20 of its electric substations which were identified as having previously utilized mercury-containing rectifiers. Among the substations investigated was the Massapequa Substation which detected mercury at concentrations above NYSDEC recommended cleanup objectives in soil at the facility. In order to further delineate and remediate impacted soil at the 20 substations, the LIRR agreed to undertake and complete what is referred to as "Delineation Phase 2 Site Assessments" under the NYSDEC's Voluntary Cleanup Program (VCP). As part of this Delineation Phase 2 Site Assessment program, an investigation was undertaken at the Massapequa Substation in January and February of 2003. Additional follow-up field work was also completed in July 2003 and August 2004. The results of these investigations were documented in a report prepared by D&B entitled, "Delineation Phase 2 Site Assessment Investigation Report for the Massapequa Substation," dated February 2006.

To support substation renovation, in July 2003, approximately 680 tons of soil were excavated and properly disposed of. Details of this are provided in a report prepared by D&B entitled, "Construction Excavation Completion Report for the Massapequa Substation," dated September 2004.

This Remedial Action Work Plan (RAWP) has been prepared by Dvirka and Bartilucci Consulting Engineers (D&B), under contract with the LIRR, to address mercury contamination identified in several areas of the Massapequa Substation as documented in the February 2006 Delineation Phase 2 Site Assessment Investigation Report.

As an agency under the Metropolitan Transportation Authority (MTA), the LIRR operates under the auspices of the Public Authorities Law. Section 1266, paragraph 11 of this law exempts the LIRR from the requirements of the State Environmental Quality Review Act (SEQRA) for projects, "which will not change in a material respect the general character of such prior transportation use." With this in mind, the LIRR is proceeding with the remediation of the existing substation at Massapequa without SEQRA evaluation.

1.1 Project Background

The LIRR initiated the operation of electric substations with mercury rectifiers from approximately the early 1930s through 1951. The rectifiers allowed the LIRR to receive 60-cycle, alternating current (AC) from local utilities and convert it to direct current (DC) for use as a source of electric power for its locomotives and electric passenger car fleet. Based on a detailed review of its operating records, the LIRR identified 20 substations located throughout Queens, Nassau and Suffolk Counties (including the Massapequa Substation) that once utilized mercury containing rectifiers.

It is believed that during the early 1980s, the mercury rectifiers were taken out of service and physically removed from these LIRR substations and replaced with non-mercury containing solid state equipment. However, due to uncertainties surrounding the work practices that may have been employed when managing the operation, maintenance and decommissioning of these mercury rectifiers, the LIRR believed it necessary to conduct environmental assessments at these 20 electric substations to determine the potential effects that may have occurred to the surrounding environment.

As mentioned above, in 1999, the LIRR conducted environmental assessments at 20 of its electric substations, which previously utilized mercury-containing rectifiers. The results of these assessments were documented in a report prepared by D&B entitled, "Site Assessment of 20 Substations for Mercury Contamination," dated December 2000. Based on the findings of that report, mercury was identified in soil at all 20 substations, including the Massapequa Substation, at concentrations above NYSDEC Technical and Administrative Guidance Manual (TAGM)

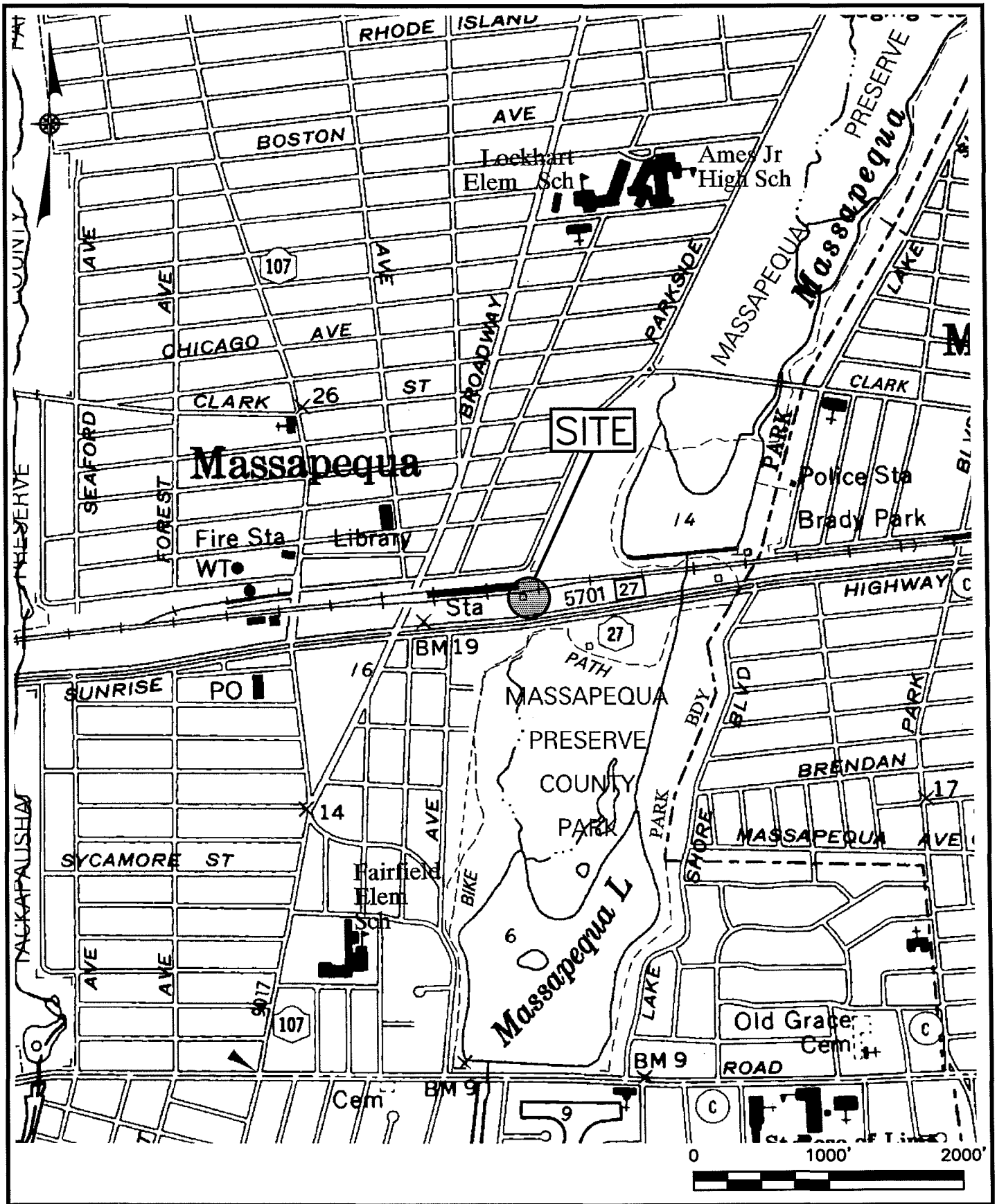
4046 Recommended Soil Cleanup Objectives. In order to further delineate and remediate impacted soil at the 20 substations, the LIRR agreed to undertake and complete Delineation Phase 2 Site Assessments under the NYSDEC's VCP. In support of this VCP, the LIRR completed Delineation Phase 2 Site Assessment activities at the Massapequa Substation, which were completed by August of 2004. Section 1.3 provides a summary of key findings associated with this investigation. To support substation renovations, in July 2003, approximately 680 tons of soil were excavated and properly disposed. Section 1.4 provides a summary of findings associated with this activity.

1.2 Site Description

The Massapequa substation site is located in Massapequa, Nassau County, New York (see Figure 1-1). The site consists of an approximately 625 square foot one-story brick building as shown in Drawing 1 (see insert at end of Section 1.0). An approximately 2,500 square foot transformer yard is located adjacent to the substation to the west and is secured by a perimeter chain-linked fence. The substation complex is utilized to convert alternating current to direct current for the LIRR-Montauk line. The areas surrounding the substation and the transformer yard are currently utilized as vehicular parking and pedestrian traffic areas. Note the areas immediately surrounding the site are owned by the LIRR.

The Massapequa substation is not equipped with a basement or any sanitary or office facilities. During the Delineation Phase 2 field program, the interior of the substation consisted of an active solid-state rectifier located over a pit that once supported a mercury-containing rectifier. The substation is also equipped with a second pit, referred to as a water trough on LIRR construction drawings. In addition, the substation contains a water pipe trench with a concrete bottom located in the southeast corner of the substation.

A water service pit with an earthen bottom is located along the outside of the eastern wall of the substation. In addition, a dry well with a solid cover exists off the northwest corner of the substation located within the transformer yard. Based on flush tests conducted during the initial site assessment, it was determined that the drain in the rectifier pit discharges to the dry well



LONG ISLAND RAIL ROAD
REMEDIAL ACTION WORK PLAN

Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

SITE LOCATION MAP
MASSAPEQUA SUBSTATION - S15

FIGURE 1-1

\\Nt4\cadwork\2737\dwg\2737-01.dwg, Layout1, 11/5/2008 9:45:39 AM, PMartorano

located in the transformer yard. A steel plate covered control communications pit, containing a floor drain, is located within the transformer yard, and a steel plate covered positive breaker cable pit containing a floor drain exists along the north side of the substation. Available LIRR construction drawings indicate that a dry well is located approximately 10 feet north of the substation. However, this dry well, if present, would currently be located beneath the existing railroad tracks. Based on available information, the approximate groundwater flow direction is to the south and the approximate depth to groundwater is 15 feet below grade.

1.3 Summary of Prior Investigations

The LIRR completed an initial environmental site assessment of the Massapequa Substation in 1999, as documented in the report entitled, "Site Assessment of 20 Substations for Mercury Contamination," dated December 2000. Investigation methods utilized during the initial site assessment included a site inspection, mercury vapor measurements and drainage determinations. In addition, samples of various environmental media were collected at the site for laboratory analysis. Samples collected for laboratory analysis included seven surface soil samples, eight subsurface soil samples and three concrete cores.

As discussed in Section 1.1 and subsequent to the Initial Site Assessment, a Delineation Phase 2 Site Assessment was completed in January and February of 2003, and August of 2004. As part of this investigation, a total of 41 surface soil samples, 111 subsurface soil samples and 3 groundwater samples, were collected for chemical analysis. In addition, several below grade structures were investigated for Underground Injection Control (UIC) applicability.

Mercury was detected in surface and subsurface soil at the Massapequa Substation in exceedance of the SCO for mercury in areas surrounding the substation building. The greatest mercury concentrations were detected in surface soil samples collected beneath the asphalt paved driveway and the adjacent crushed stone area located immediately east of the substation building at concentrations of up to 58.8 mg/kg, and in subsurface soil samples collected to the east of the substation building at concentrations up to 154 mg/kg.

Mercury and semivolatile organic compounds (SVOCs) were also detected in surface and subsurface soil samples collected to the northeast and east of the substation building in the location of two potential historical releases. Mercury was detected at concentrations of up to 178 mg/kg, while total SVOCs were detected at concentrations of up to 4.4 mg/kg.

The depth to groundwater beneath the Massapequa Substation is approximately 15 feet below ground surface. Mercury was not detected in either the filtered or unfiltered samples collected from groundwater probes, MSGP-01, MSGP-02, and MSGP-03.

The below grade structures investigated for UIC applicability included a communications pit located within the transformer yard, a dry well located to the west of the substation building, and a water service pit located to the southeast of the substation building. Note that the communications pit and water service pit were not designed as drainage structures and, as such, their primary function was not to accept fluids. Therefore, they are not UIC structures. However, both structures were investigated and remediated as described below.

Two subsurface soil samples were collected from the subsurface soil below the bottom of the water service pit and four subsurface soil samples were collected beneath the bottom of the dry well. Due to the close proximity of the communications pit to a transformer, soil samples were not collected from below the pit; however, in July 2003, it was remediated by soil excavation up to 10 feet below grade and then backfilled with clean soil to grade and covered with an asphalt cap. The soil samples collected were analyzed for total volatile organic compounds (VOCs), total SVOCs, Resource Conservation and Recovery Act (RCRA) metals and total petroleum hydrocarbons (TPHs).

Based on the results of the sampling, the dry well and water service pit were remediated in August 2003, in accordance with United States Environmental Protection Agency (USEPA) and Nassau County Department of Health (NCDH) requirements. Additional details concerning the closure of these structures are presented in the Underground Injection Control Closure Report for the Massapequa Substation, prepared by D&B in September of 2004.

1.4 Summary of Prior Excavation Activities

As a result of substation renovation and construction activities completed at the Massapequa Substation, nine soil probes were advanced as part of the Delineation Phase 2 Site Assessment in February 2003 on the western side of the substation to identify any potentially impacted soil greater than proposed excavation depths. As part of this investigation, 54 subsurface soil samples were collected from the soil probes and were analyzed for RCRA metals, SVOCs and PCBs.

Three of the subsurface soil samples analyzed for RCRA metals exhibited detectable levels of mercury, with concentrations of 0.025 mg/kg at MSSBX-04 (4 to 6 feet), 0.13 mg/kg at MSSBX-06 (6 to 8 feet) and 0.3 mg/kg at MSSBX-10 (8 to 10 feet). Concentrations detected in MSSBX-06 and MSSBX-10 exceeded the NYSDEC TAGM criteria for mercury of 0.1 mg/kg; however, it should be noted that all concentrations were below the current SCO for mercury. None of the subsurface soil samples analyzed for PCBs exhibited detectable levels of PCBs.

Approximately 680 tons of soil were excavated and properly disposed of off-site. The approximate area of soil excavated is shown on Drawing 1 (see insert at end of Section 1.0). Additional details regarding the construction excavation activities are presented in the "Construction Excavation Completion Report for the Massapequa Substation" prepared by D&B in September 2004.

1.5 Summary of Environmental Conditions at the Site

This section briefly describes the current and future conditions of the Massapequa Substation. The Massapequa Substation is actively used by the LIRR to convert AC obtained from the local electrical provider, the Long Island Power Authority (LIPA), to DC for use in powering the LIRR's electric train fleet. As discussed in Section 1.1, the substation has been used for this purpose since 1948.

The substation is only accessible by authorized LIRR personnel and its subcontractors. In addition, the substation is not occupied by LIRR personnel on a full-time basis. Under normal operating conditions, access to the substation only occurs when equipment requires monitoring, maintenance or repair. The substation building is locked at all times and all associated outside electrical equipment (i.e., transformers) are secured by a locked high-security fence. In addition, the property to the east of the substation is fenced and locked, preventing public access to the property. Grass-covered areas, concrete sidewalls and asphalt parking areas are located to the east and south of the substation, outside the fenced areas.

The Massapequa Substation is serviced by public water and on-site groundwater is not used for any purpose.

Based on the results of the Delineation Phase 2 Site Assessment Report, multiple areas to the east of the substation building will require remediation. This includes two areas to a depth of 2 feet below ground surface (bgs), two areas to a depth of 4 feet bgs and two areas to a depth of 6 feet bgs.

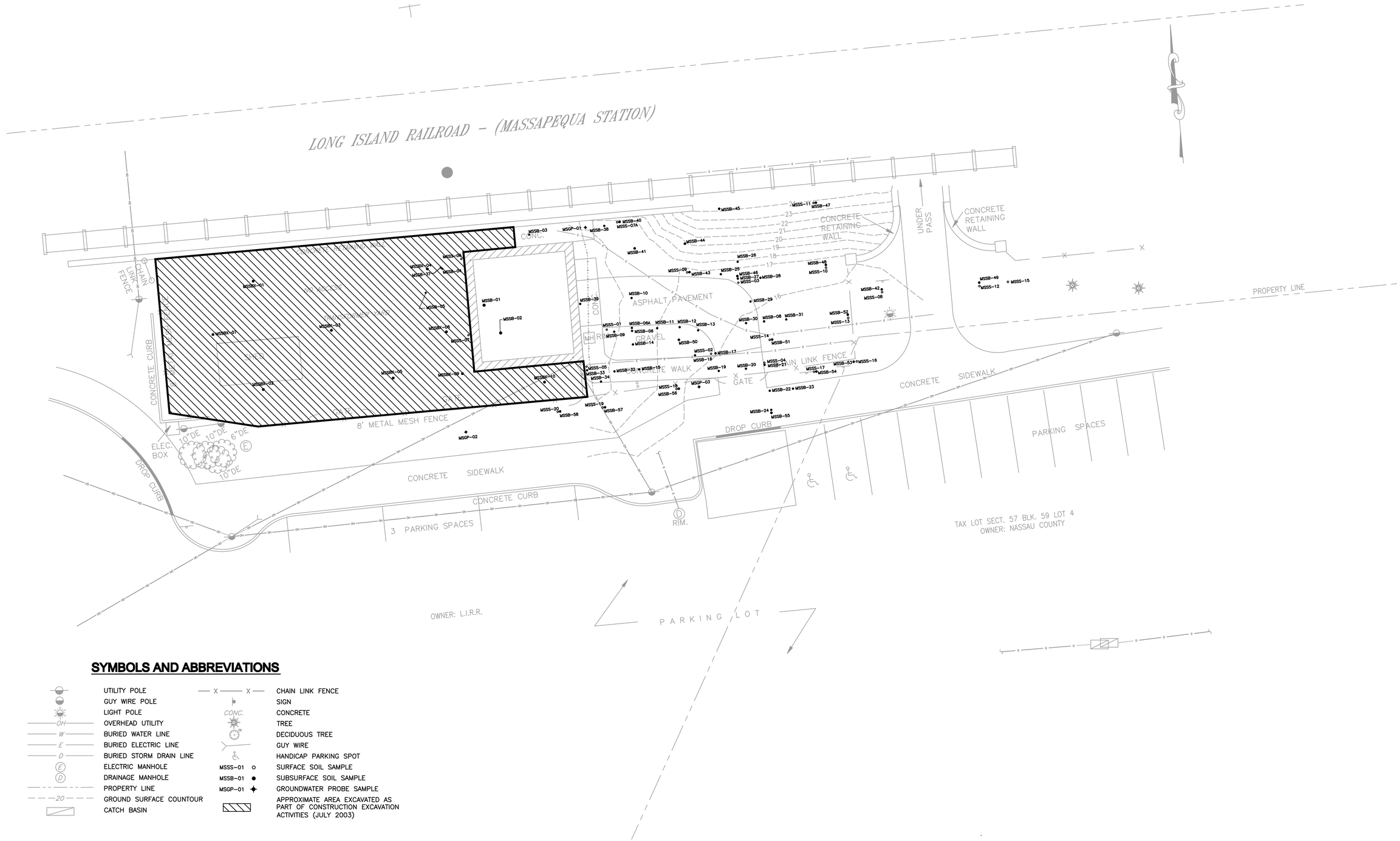
The areas requiring remediation are depicted on Drawing 2 (see insert at end of Section 1.0) in a "conceptual fashion." Specific details regarding the soil excavation will be included in the plans and specifications prepared for implementation of the remedy.

1.6 Contemplated Use of the Site

The Massapequa Substation is an integral component of the LIRR rail system and will remain as an electric substation for the foreseeable future.

All remedial excavation activities will be overseen by a LIRR representative and will be completed in accordance with the Contractor's Construction Health and Safety Plan (CHASP) as detailed in Section 5.0. In addition, full-time air monitoring will be performed in accordance with the CHASP and the Community Air Monitoring Plan (CAMP), as detailed in Appendix A. Specific details regarding remedial activities will be included in the plans and specifications.

Once remedial activities are completed, the LIRR will backfill all excavation areas with clean fill and restore all areas outside the fenced area with topsoil/seed, asphalt or concrete. Once remedial activities are complete, the LIRR will not be disturbing or excavating in the Massapequa Substation for the foreseeable future. As a result, future exposure to residual contamination, if any, is not expected.



SYMBOLS AND ABBREVIATIONS

	UTILITY POLE	X X	CHAIN LINK FENCE
	GUY WIRE POLE		SIGN
	LIGHT POLE	CONC.	CONCRETE
OH	OVERHEAD UTILITY		TREE
W	BURIED WATER LINE	DE	DECIDUOUS TREE
E	BURIED ELECTRIC LINE		GUY WIRE
D	BURIED STORM DRAIN LINE		HANDICAP PARKING SPOT
E	ELECTRIC MANHOLE	MSSS–01	SURFACE SOIL SAMPLE
D	DRAINAGE MANHOLE	MSSB–01	SUBSURFACE SOIL SAMPLE
	PROPERTY LINE	MSGP–01	GROUNDWATER PROBE SAMPLE
20	GROUND SURFACE COUNTOUR		APPROXIMATE AREA EXCAVATED AS PART OF CONSTRUCTION EXCAVATION ACTIVITIES (JULY 2003)
	CATCH BASIN		

MAP SOURCE: SEPTEMBER 2008 SURVEY, PREPARED BY MUNICIPAL LAND SURVEY, P.C. & 2008 SURVEY, PREPARED BY A.K. ASSOCIATES

NO.	DATE	REVISION	INT.

PROJECT ENGINEER:	DRAWN BY:
PGM	PGM
DESIGNED BY:	CHECKED BY:
PGM/ST	TF

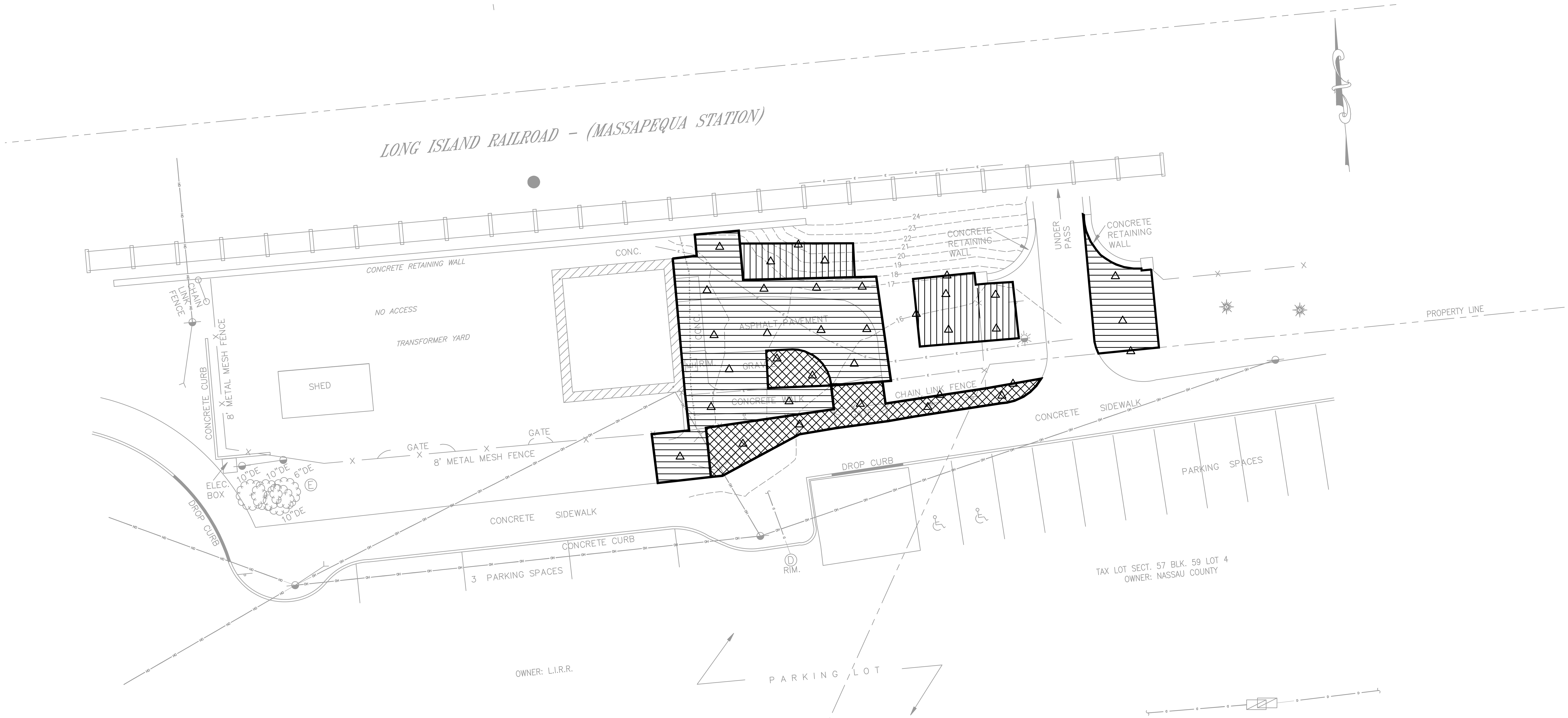
Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

METROPOLITAN TRANSPORTATION AUTHORITY
LONG ISLAND RAIL ROAD
NASSAU COUNTY — NEW YORK

REMEDIAL ACTION WORK PLAN

MASSAPEQUA SUBSTATION SITE PLAN

PROJECT NO.	DRAWING NO.
2737	1
DATE: JULY 2009	
SCALE: 1" = 10'	



SYMBOLS AND ABBREVIATIONS

- UTILITY POLE
- GUY WIRE POLE
- LIGHT POLE
- OVERHEAD UTILITY (OH)
- BURIED WATER LINE (W)
- BURIED ELECTRIC LINE (E)
- BURIED STORM DRAIN LINE (D)
- ELECTRIC MANHOLE
- DRAINAGE MANHOLE
- PROPERTY LINE
- GROUND SURFACE COUNTOUR (20)
- CATCH BASIN
- CHAIN LINK FENCE (X)
- SIGN
- CONCRETE (CONC.)
- TREE
- DECIDUOUS TREE
- GUY WIRE
- HANDICAP PARKING SPOT
- PROPOSED ENDPOINT SAMPLE LOCATION

LEGEND

- LIMITS OF SOIL TO BE EXCAVATED TO 2-FEET BELOW GROUND SURFACE
- LIMITS OF SOIL TO BE EXCAVATED TO 4-FEET BELOW GROUND SURFACE
- LIMITS OF SOIL TO BE EXCAVATED TO 6-FEET BELOW GROUND SURFACE

MAP SOURCE: SEPTEMBER 2008 SURVEY, PREPARED BY MUNICIPAL LAND SURVEY, P.C. & 2008 SURVEY, PREPARED BY AK ASSOCIATES PROFESSIONAL LAND SURVEYORS

NO.	DATE	REVISION	INT.

PROJECT ENGINEER: PSM	DRAWN BY: PSM
DESIGNED BY: PSM/ST	CHECKED BY: TF

Dvirka and Bartilucci
CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

METROPOLITAN TRANSPORTATION AUTHORITY
LONG ISLAND RAIL ROAD
NASSAU COUNTY NEW YORK

REMEDIAL ACTION WORK PLAN

MASSAPEQUA SUBSTATION
AREAS OF REMEDIATION OF SOIL CONTAINING MERCURY

PROJECT NO.: 2737	DRAWING NO.: 2
DATE: JULY 2009	
SCALE: 1" = 10'	

Section 2

2.0 REMEDIAL ACTION SELECTION

The purpose of this section is to provide an engineering evaluation of the selected remedial alternative to address the surface and subsurface soil contamination in multiple areas defined in the Delineation Phase 2 Site Assessment Investigation Report. The goal of this evaluation is to demonstrate how the selected remedy would meet the remedial goals and remedial action objectives presented in Section 2.1 below.

2.1 Remedial Goals and Remedial Action Objectives

Remedial action objectives (RAOs) are goals developed for the protection of human health and the environment. Definition of these objectives requires an assessment of the media of concern, migration pathways, exposure routes and potential receptors. Typically, remedial goals are established based on standards, criteria and guidelines (SCGs) to protect human health and the environment. SCGs for the site, which were developed in the Site Assessment Investigation Report, include NYSDEC TAGM 4046 Recommended SCOs; however, as of December 14, 2006, NYSDEC implemented new cleanup standards as part of New York Codes, Rules and Regulations Title 6 (6 NYCRR), Part 375 Environmental Remediation Programs. Within Part 375, Soil Cleanup Objectives (SCOs) for Industrial Use and for Commercial Use are presented. These SCOs have been utilized to define areas requiring remediation. Typically, only the SCOs for Industrial Use are used to define areas requiring remediation; however, since a portion of the substation property is not fenced, it poses a higher risk to commuters who use the nearby parking facilities and sidewalks. Therefore, the SCOs for Commercial Use are utilized to define areas requiring remediation outside of the existing fenced area. In addition, note that the unfenced areas and the areas immediately surrounding the substation building are owned by the LIRR.

To the south and southeast of the substation building, outside the fenced-in area, elevated concentrations of mercury were detected within surface soil and shallow subsurface soil within the grass-covered areas and within shallow subsurface soil beneath the concrete pedestrian

sidewalk. As a result, this portion of the site is accessible to off-site receptors. Therefore, off-site receptors could be potentially exposed to these contaminants if the soil were to be disturbed.

To the east of the substation building, within the existing fenced-in area, elevated mercury and SVOC levels were detected. Currently, the majority of this area is isolated by the existing locked chain link fence, with the exception of a small portion of fence near a concrete retaining wall and elevated track berm. Note, due to the height of the retaining wall and elevated track berm, this area is generally unaccessible to the public. Therefore, direct exposure to mercury contamination of off-site receptors and LIRR workers (on-site receptors) who are required to periodically enter the site for equipment maintenance and repair is unlikely. LIRR workers and subcontractors could be potentially exposed to this contaminant source during excavation activities as the result of dermal contact and inhalation of windblown dust. However, as discussed above, the LIRR has in place procedures to avoid the excavation and handling of contaminated soil without undertaking appropriate health and safety measures. Based on the nature of the contaminants associated with the site, the RAOs of this RAWP include the following:

RAOs for Public Health Protection

- Mitigate ingestion/direct contact with contaminated soil and dust.
- Mitigate inhalation of or exposure from contaminants volatilizing from contaminants in soil.

RAOs for Environmental Protection

- Mitigate migration of contaminants that would result in groundwater or surface water contamination.
- Prevent impacts to biota from ingestion/direct contact with soil causing toxicity or impacts from bioaccumulation through the terrestrial food chain.

2.2 Summary of Remedy

The approximate locations and limits of areas requiring remediation are depicted on Drawing 2 (see insert at end of Section 1.0). The areas were defined based on comparison of the sample analytical results to the Part 375 Industrial Use Standard of 5.7 mg/kg (within fenced LIRR property areas) or the Part 375 Commercial Use Standard of 2.8 mg/kg (in unfenced LIRR property areas) (see Appendix A). As shown on Drawing 2, the areas include the following:

- One area to the east of the substation building will be excavated to a depth 2 feet bgs. This area is approximately 1,355 square feet in area, and will require the removal of approximately 100 cubic yards of soil.
- One area to the east of the substation building, outside of the fenced in area, will be excavated to a depth 2 feet below ground surface (bgs). This area is approximately 247 square feet in area, and will require the removal of approximately 18 cubic yards of soil.
- Two areas to the east of the substation building will be excavated to a depth of 4 feet bgs. These areas are approximately 468 square feet in combined area, and will require the removal of approximately 70 cubic yards of soil.
- Two areas to the east of the substation building will be excavated to a depth of 6 feet bgs. These areas are approximately 444 square feet in combined area, and will require the removal of approximately 99 cubic yards of soil.

As part of this remediation, the chain link fence surrounding the eastern portions of substation property will be removed and replaced with high security fence to ensure that the site is secure from any possible trespass.

Generation of dust during the implementation of the remedy will be monitored by utilizing a digital dust monitor and, if necessary, dust controls will be implemented in accordance with the CHASP. Air monitoring is discussed further in Section 5.0 of this report.

Endpoint samples will be collected from the excavation areas to determine the characteristics of the remaining soil prior to site restoration. The proposed location of each endpoint sample is shown on Drawing 2. Endpoint sample results will be provided to NYSDEC

and New York State Department of Health (NYSDOH) for review. Based on the results of the endpoint sampling, determination will be made between LIRR and NYSDEC with regard to the need for additional excavation. Institutional controls in the form of a deed restriction and/or environmental easement will be implemented to maintain the industrial nature of the property.

2.3 Evaluation of Remedy

The following discussion presents the engineering evaluation of the remedy against the six remedy selection criteria. In accordance with NYSDEC draft VCP Guide, the following discussion evaluates the remedy against the factors presented in 6 NYCRR 375-1.10(c) with the exception of cost effectiveness and community acceptance which will be evaluated by the NYSDEC.

Protection of Human Health and the Environment

As described above, implementation of the remedy will include mitigation of the potential for the direct exposure to contaminated soil through the excavation and off-site transportation and disposal of soil exceeding Part 375 SCOs for Industrial Use (within fenced LIRR property areas) and Commercial Use (in unfenced LIRR property areas). The remedy will meet the RAOs for the site through the removal of contaminated soil and mitigating potential impacts to human health through removal of the potential for exposure through ingestion, direct contact and/or inhalation. The remedy will also meet the RAOs through the implementation of a CHASP that will provide protection of on-site workers and surrounding community during implementation of the remedy. This RAWP also provides information on proper management of contaminated soil and generated waste to mitigate impacts to surrounding community during implementation of the remedy. Therefore, this remedy will provide for the protection of human health and the environment.

Standards, Criteria and Guidance

The selected remedy will comply with applicable regulatory SCGs developed for the site. Applicable regulatory SCGs are considered minimum performance specifications for the remedy. The following is a list of major SCGs that apply to the site:

- 6 NYCRR Part 364 - Waste Transporter Permits
- 6 NYCRR Part 370 - Hazardous Waste Management Systems
- 6 NYCRR Part 375 - Environmental Remediation Programs
- 6 NYCRR Part 376 - Land Disposal Restrictions
- 29 CFR Part 1910.120 - Hazardous Waste Operations and Emergency Response (HAZWOPER) Standard
- 29 CFR Part 1926 - Safety and Health Regulations for Consideration
- TAGM 4031 - Fugitive Dust Suppression and Particulate Monitoring Program at Inactive Hazardous Waste Sites
- NYSDOH Generic CAMP
- NYSDEC Draft VCP Guide - May 2002

As described above, since the remedy will remove the majority of soil exhibiting contaminants above the Part 375 SCOs for Industrial Use (within fenced LIRR property areas) and Commercial Use (in unfenced LIRR property areas), and will be implemented in accordance with the above standards and guidelines, the remedy will meet the SCGs for the site.

Short-term Effectiveness and Impacts

Evaluation of short-term effectiveness and impacts includes defining potential health and environmental risks likely to exist during implementation of the remedy and the ability to control the risks during implementation. Excavation and off-site disposal of approximately 287 cubic yards of soil from the surface and shallow subsurface of the site will pose a low risk to health and the environment. Generation of dust during excavation will be monitored and controlled

through dust suppression techniques, if necessary. Due to the small volume of soil requiring excavation and off-site disposal, the remedy will be completed in less than 1 month. Remedial activities will only occur during normal business hours and noise levels will be maintained to meet local noise ordinances. Public access may be possible to the unsecured or unrestricted areas of the site: therefore, temporary fencing will be placed around those areas to minimize public exposure during implementation of the remedy. Since the fenced area is only accessible by authorized LIRR personnel and its subcontractors, access to the site is limited and therefore impacts to the community during implementation of the remedy would be negligible. Impacts to the on-site workers would include exposure to contaminated soil, vapors and dust; however, these impacts would be minimized through the implementation of the CHASP. Implementation of appropriate storm water management, soil erosion and sediment control techniques during construction will be designed to minimize the potential for migration of contaminated soil off-site. In addition, vehicles used to transport contaminated soil will be tarped before departing the site and equipment contacting contaminated soil would be properly decontaminated, as per the CHASP, prior to moving off-site, also minimizing the potential for off-site migration of contaminated soil and impacts to the community.

Long-Term Effectiveness and Permanence

Excavation and off-site disposal of the soil exceeding the Part 375 SCOs for Industrial Use (from within fenced LIRR property areas) and Commercial Use (from unfenced LIRR property areas) will be a long-term permanent and effective remedy for the site. The potential for exposure to contaminated soil at the site in the future will be limited and/or eliminated. Although it is anticipated that a majority of the soil exceeding the Part 375 SCOs for Industrial Use (from within fenced LIRR property areas) and Commercial Use (from unfenced LIRR property areas) will be removed from the site, the results of endpoint sampling will be evaluated to determine the need for additional excavation. Institutional controls in the form of a deed restriction and/or environmental easement will be implemented to maintain the industrial nature of the property.

Reduction of Toxicity, Mobility or Volume

Removal of approximately 287 cubic yards of contaminated soil from the site will effectively reduce the toxicity, mobility and volume of contamination at the site. The contaminated soil will be disposed of at a permitted off-site disposal facility, which would minimize the potential for mobility of the contaminants.

Implementability

Excavation and off-site disposal of contaminated soil at the site can be completed with standard equipment. All necessary labor, equipment and supplies are readily available. This remedy will require coordination with NYSDEC, which is not expected to impact implementation.

As described above the selected remedy for the site meets the objectives of the six remedy selection criteria as defined in the draft VCP Guide.

Section 3

3.0 REMEDIAL CONSTRUCTION

As detailed in Section 2.0, the LIRR has identified multiple areas at the Massapequa Substation requiring remediation. This section describes the activities to be undertaken to complete the implementation of the remedy. Specific details regarding the remediation will be included in the plans and specifications prepared for the implementation of the remedy.

3.1 Mobilization

Site mobilization activities by the remediation contractor will occur prior to initiation of the implementation of the remedial measure. Staging areas for construction equipment and excavated material storage and handling, decontamination areas and temporary facilities will be established in the area of the existing substation as directed by LIRR.

Equipment and personnel decontamination facilities will be described in detail in the CHASP to be provided by the contractor. All equipment exposed to contaminated soil will be decontaminated on-site in accordance with the CHASP and removed at the conclusion of remedial activities.

All personnel and visitors will be required to sign in and sign out upon arrival and departure. Personnel and visitors entering the site will be required to have 40-hour HAZWOPER training and participate in a medical surveillance program.

Prior to the initiation of the remedial activities, utilities will be identified and located by the contractor in coordination with the LIRR in accordance with local and state requirements.

3.2 Excavation and Material Handling

The approximate areas of surface and subsurface soil to be excavated as part of the remedial measures presented as part of this RAWP, and as discussed in Section 2.2, are

presented on Drawing 2. The actual extent of the area to be remediated will be staked and marked by a land surveyor in the field prior to excavation.

Air monitoring will be performed throughout the duration of the work and will dictate actions required to control emissions. A detailed air-monitoring program including action levels will be included in the CHASP. If dust is generated during implementation of the remedy at levels that exceed minimum action levels, standard dust suppression techniques will be employed. Standard dust suppression techniques that may be employed during excavation activities, as well as any other material handling activities include:

- Application of wetting agents to soil, stockpiles, buckets and equipment; and
- Covering/tarping of containers, excavations and stockpiles.

If dust suppression techniques do not lower the particulate concentrations to an acceptable level, work will be suspended until acceptable corrective measures are implemented. As part of the CHASP, the contractor will prepare a CAMP prior to mobilization. The contractor will be responsible for implementing the CAMP. The plan will comply with the requirements of the NYSDOH CAMP included in Appendix B.

3.3 Soil Characterization

The remedial contractor will be required to collect and analyze waste characterization samples from the areas to be excavated prior to performance of the remedial work. The samples shall conform to the requirements of the off-site LIRR approved disposal facility.

3.4 Waste Transportation and Disposal

As discussed above, prior to the off-site transportation of the excavated material, the remedial contractor will need to obtain confirmation from the disposal facility that the contaminated soil will be accepted at the facility. Permitted transporters approved by the LIRR

will transport the soil to permitted off-site LIRR approved disposal facilities. All trucks will have functional intact tarps to cover their loads.

LIRR will be the generator of record. Soil will not be transported for disposal without prior approval from LIRR. Documentation of transportation and disposal of all material will be maintained in the project files.

3.5 Endpoint Sampling

Upon reaching the final excavation depth, samples will be collected by the contractor from the base and sidewalls of the excavation to determine the characteristics of the remaining soil prior to site restoration. Although the draft NYSDEC VCP Guide does not provide guidance regarding endpoint sampling, the NYSDEC Draft DER-10 Technical Guidance recommends sampling from the bottom of the excavation every 900 square feet and from the sidewall of the excavation every 30 linear feet. Since each area is less than 900 square feet, a minimum of one endpoint sample for each area would be required. In addition, to minimize the total amount of extra soil that would need to be removed in the event the endpoint samples exceed the SCOs, additional endpoint samples are proposed. Sidewall samples are proposed only in areas where sufficient sampling was not completed during the Delineation Phase 2 Site Assessment. The proposed endpoint sample locations are shown on Drawing 2.

Each sample will be collected and analyzed for mercury. Expedited 2-day turnaround analysis will be performed to determine the characteristics of remaining soil prior to completion of site restoration. The Part 375 SCOs for Industrial Use (within fenced LIRR property areas) and Commercial Use (in unfenced LIRR property areas) will be used to screen the endpoint samples. The actual need for additional remediation will be determined by the LIRR in consultation with the NYSDEC and NYSDOH. When available, the LIRR will transmit the data to the NYSDEC and NYSDOH for review, along with a sample location map. The NYSDEC will be available for a conference call with the LIRR to discuss the provided data and to determine if additional remediation is necessary within 1 day of receipt of the endpoint sample analysis data. Field sampling procedures and quality assurance protocols will be conducted in

accordance with the Quality Assurance/Quality Control (QA/QC) Plan prepared by the remedial contractor.

3.6 Backfill

The excavated areas will be backfilled with clean fill from an off-site source approved by LIRR. The fill will consist of mostly general fill containing no organic material, rubbish or debris and being capable of being compacted to a relative compaction of 90 percent, and 3/4-inch crushed stone, commonly referred to as track ballast.

The fill material will be accompanied by a Certificate of Clean Fill certifying that the area from which the fill originated was never used for industrial purposes and that the fill is free of contaminants. Details regarding backfill requirements will be included in the plans and specifications. The Certificate of Clean Fill will be submitted with the name of the supplier, the source of fill and the history of the location where the fill was obtained for approval by the LIRR and NYSDEC prior to use of the fill. Upon receipt, the LIRR and NYSDEC will review the information provided regarding the backfill and will determine the acceptability of the material and its source. Copies of the Certificates of Clean Fill will be submitted in the Final Engineering Report.

3.7 Site Restoration

The excavated areas outside of the fenced area will be restored with 6 inches of topsoil and seed. Asphalt and concrete areas will also be restored to match the conditions that existed prior to excavation. Areas outside the excavation area disturbed during implementation of the remedy will be restored as necessary.

3.8 Erosion Controls

Storm water management, soil erosion and sediment control will be performed in accordance with New York State Guidelines for Urban Erosion and Sediment Controls. The

contractor will be responsible for preventing off-site migration of storm water during implementation of the remedy.

If it will be necessary to stockpile contaminated soil, it will be placed on bermed plastic liners and covered with plastic tarps to prevent erosion. Stockpiles of clean fill will also be placed on bermed liners and covered. Liners will be secured in place with stakes or concrete.

Section 4

4.0 QUALITY ASSURANCE/QUALITY CONTROL (QA/QC)

A Construction QA/QC Plan will be prepared by the contractor for review by the LIRR and for review and acceptance by the NYSDEC. The plan will identify procedures to be utilized to ensure the quality of the work performed meets the objectives of this RAWP. The QA/QC plan will include, at a minimum, the following:

- A description of the quality control organization including a chart showing the lines of authority.
- The names, qualifications, duties and responsibilities of each person assigned a QC function.
- Procedures for scheduling and managing submittals including those from subcontractors.
- The location, number and type of each sample to be collected and analysis to be performed for all samples to be collected, including waste characterization and endpoint sampling requirements.
- Description of sample collection methods for each sample matrix including sample containers, sample custody, sample packaging, storage and shipping procedures.
- The analytical protocols to be utilized.
- Quality control methods and procedures for each specific test to be used during construction.
- The name, address and qualifications of each proposed testing laboratory and the intended project-specific function.
- A description of all instrumentation and equipment to be used for testing on-site, as well as operating and calibration procedures.
- Reporting procedures for quality assurance activities including proposed reporting formats.
- Method for notification of changes.

The contractor will be responsible for implementing the QA/QC plan.

Section 5

5.0 HEALTH AND SAFETY

The remedial contractor will prepare a CHASP. Site personnel performing remedial work will be required to read and comply with the requirements of the CHASP.

The CHASP will be submitted to the LIRR and the NYSDEC for review and acceptance prior to initiation of the project. The CHASP will be required to address all the appropriate federal, state and local regulatory requirements necessary to undertake and successfully complete implementation of the remedy. The CHASP will be prepared in accordance with 29 CFR 1910.129 and will include the following items:

- Health and safety organization, including résumés of personnel responsible for health and safety
- Project site description and hazard assessment
- Training requirements
- Medical surveillance requirements
- Project site control procedures
- Standard operating procedures and engineering controls
- Personnel protective equipment requirements
- Personnel hygiene and decontamination protocols
- Equipment decontamination procedures
- Air monitoring requirements
- Emergency equipment/first aid requirements
- Emergency responses/contingency procedures
- Heat and cold stress procedures
- Record keeping requirements
- Community protection plan

The contractor will be responsible for ensuring that the CHASP and all work associated with the implementation of the remedy is performed in accordance with safe working practices including all Occupational Safety and Health Administration (OSHA) requirements. All site personnel will be trained and certified in the proper use of personal protective equipment and will have knowledge and understanding of construction standards. Certifications regarding training and expertise will be required prior to the start of work.

As part of the CHASP, the remedial contractor will prepare a CAMP prior to mobilization. The remedial contractor will be responsible for implementing the CAMP. The plan will comply with the requirements of the NYSDOH Generic CAMP included as Appendix B.

Section 6

6.0 REPORTING AND DOCUMENTATION

6.1 Monthly Progress Report

The remedial contractor will be required to prepare progress reports each week during implementation of the remedy. Each report will include information on the work completed during the week, the anticipated schedule for the following weeks, and a description of any problems encountered which will impact project progress and their resolution. Progress reports will be submitted to the NYSDEC on a weekly basis and available for other regulatory agency review.

6.2 On-Site Recordkeeping

Throughout implementation of the remedy, records will be maintained by the remedial contractor and engineer performing construction inspection to document activities completed on-site. Records that will be maintained include the following:

- Daily field activity reports
- Visitor sign-in/sign-out logs
- Construction photographs
- Instrument calibration logs
- Waste manifests/bills of lading and disposal facility receipts
- Waste characterization sampling results and waste treatment/ disposal facility prequalification forms
- Chain-of-custody forms
- Air monitoring forms
- Contractor submittals
- Measurements of material quantities for progress payments
- Incident/accident reports
- Meeting minutes
- Endpoint sampling results

6.3 Final Engineering Report

Following completion of the remedy, and in accordance with the draft VCP Guide, within 150 days of completion of the remedy, a Final Engineering Report will be prepared. This report will include the following:

- Description of remedial actions performed;
- Deviations from the RAWP, if any;
- Copies of records maintained during the remediation;
- Problems encountered during construction and their resolution;
- A discussion on the quantification and listing of soil removed from the site;
- Detailed "as-built" drawings showing limits of the restored asphalt/concrete cap, limits of the excavation and the locations of documentation samples;
- Copies of the Certificates of Clean Fill;
- Copies of all records documenting off-site disposal of soil; and
- Endpoint sampling results.

Also in accordance with the draft VCP Guide, the report will include a certification by a Professional Engineer registered in New York State, stating that the work was implemented and construction activities were completed in substantial conformance with this RAWP.

6.4 Site Management Plan

A Site Management Plan (SMP) will be prepared following completion of the remedial activities in order to establish proper and controlled site usage polices. Specifically, the SMP will include the following:

- Detail the institutional and engineering controls to be implemented at the Massapequa Substation;

- Ensure that the institutional and engineering controls remain in place and continue to be effective;

- Detail the steps necessary to inspect, monitor and report the performance and effectiveness of the remedy, both short and long-term; and

- Specify site management reporting requirements, as well as criteria for site closeout.

Section 7

7.0 PROJECT MANAGEMENT

7.1 Key Participants and Responsibilities

Key participants involved in the remediation of the LIRR Massapequa Substation site under the VCP include the following:

Key Participants	Primary Responsibilities
Volunteer: Long Island Rail Road	Oversee planning, implementation and reporting for remedial construction in accordance with approved RAWP, including procuring and directing contractors and consultants for design, remedial construction and site development in accordance with approved RAWP.
Regulatory Agencies: New York State Department of Environmental Conservation and New York State Department of Health	Regulatory oversight.
Remedial Engineer: Dvirka and Bartilucci Consulting Engineers	Construction inspection, record keeping, reporting and preparation of the Final Engineering Report.
Remedial Contractor: [to be determined]	Furnish labor, material, supplies, etc. for remedial construction in accordance with approved plans.

7.2 Project Communication and Management

Throughout the project, project meetings will be held to discuss work progress, plan upcoming activities for the week and discuss any unanticipated site conditions encountered. The remedial contractor's superintendent, as well as LIRR's Project Manager, will be required to attend the project meetings. Representatives of NYSDEC and NYSDOH will be made aware of the schedule for project meetings. Following an initial pre-construction meeting, project meetings will be held once per week at the site during the remediation.

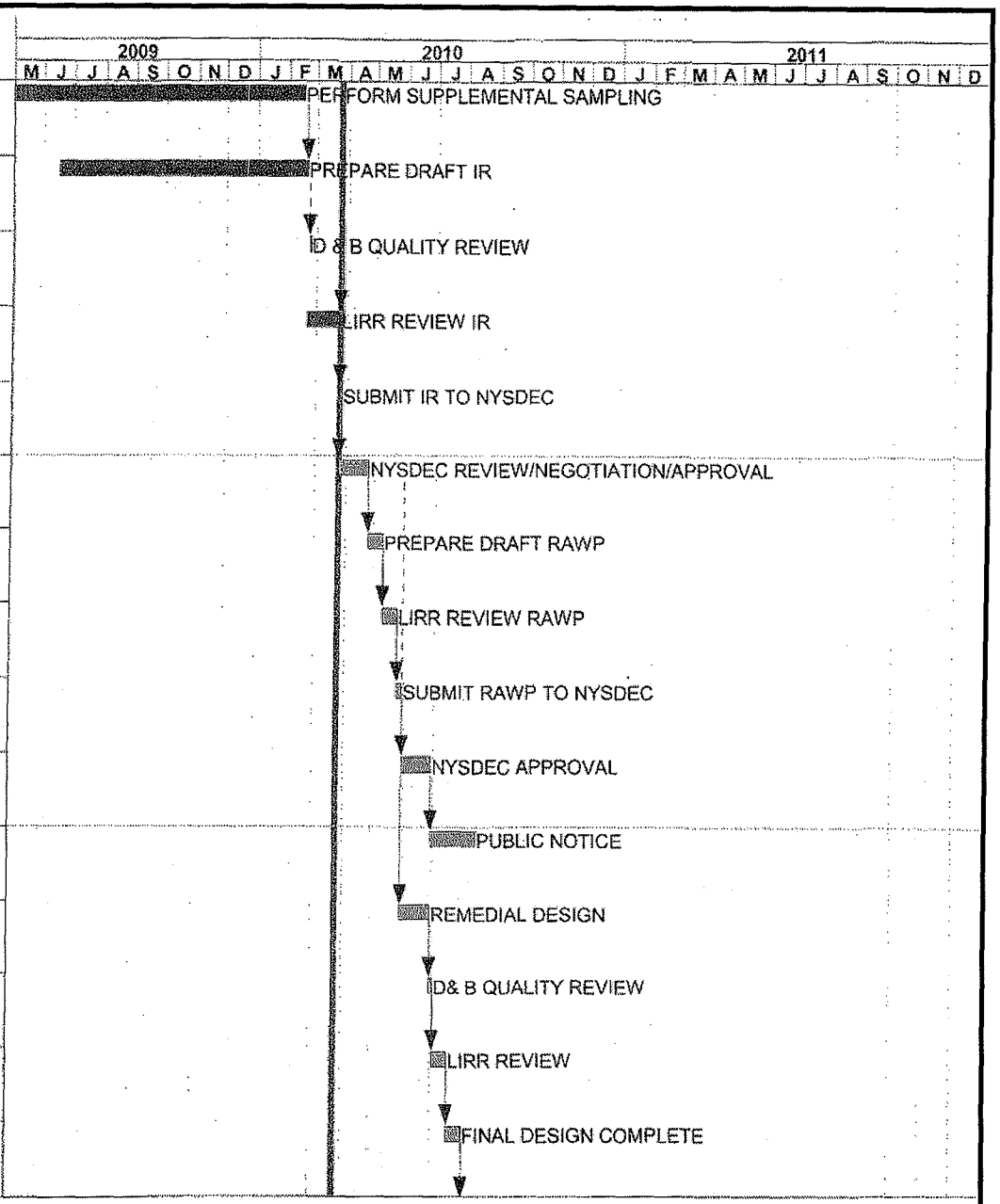
During remedial construction, D&B will provide full-time on-site inspection of the work, engage in day-to-day communications with the remedial contractor's superintendent and maintain records and prepare reports as described in Section 6.0.

Section 8

8.0 PROJECT SCHEDULE AND KEY MILESTONES

A preliminary schedule for implementation of the remedy is depicted on Figure 8-1. The schedule details key milestones and current corresponding dates of completion for each activity to be completed throughout the remainder of the project.

Activity ID	Activity Description	Orig Dur	Rem Dur	Early Start	Early Finish
224	PERFORM SUPPLEMENTAL SAMPLING	15	0	01MAY09A	15FEB10A
230	PREPARE DRAFT IR	20	0	16JUN09A	19FEB10A
235	D & B QUALITY REVIEW	5	0	22FEB10A	23FEB10A
240	LIRR REVIEW IR	10	0	19FEB10A	24MAR10A
245	SUBMIT IR TO NYSDEC	71	0	25MAR10A	26MAR10A
250	NYSDEC REVIEW/NEGOTIATION/APPROVAL	30	30	26MAR10	24APR10
252	PREPARE DRAFT RAWP	15	15	25APR10	09MAY10
254	LIRR REVIEW RAWP	15	15	10MAY10	24MAY10
256	SUBMIT RAWP TO NYSDEC	5	5	25MAY10	29MAY10
257	NYSDEC APPROVAL	30	30	30MAY10	28JUN10
258	PUBLIC NOTICE	45	45	29JUN10	12AUG10
260	REMEDIAL DESIGN	30	30	30MAY10	28JUN10
265	D& B QUALITY REVIEW	5	5	29JUN10	03JUL10
270	LIRR REVIEW	15	15	04JUL10	18JUL10
280	FINAL DESIGN COMPLETE	15	15	19JUL10	02AUG10



Note: Substation Remediation Schedule Activities and Dates Provided by the LIRR

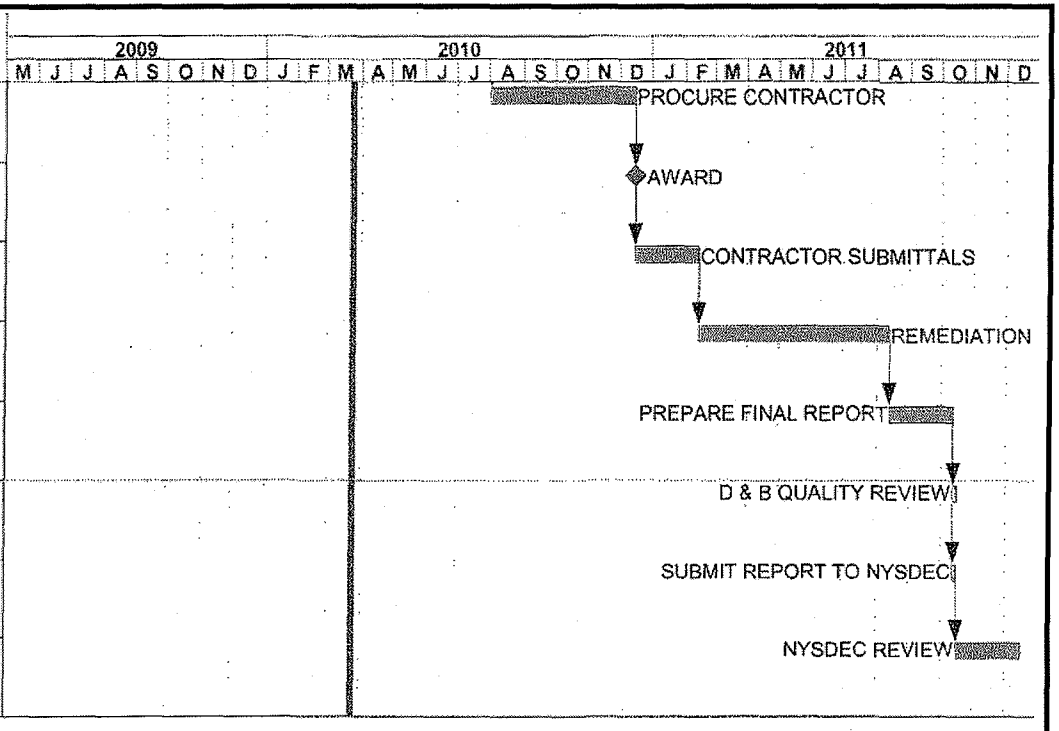
Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

LONG ISLAND RAIL ROAD
REMEDIAL ACTION WORK PLAN

SUBSTATION REMEDIATION SCHEDULE
MASSAPEQUA SUBSTATION (V00397-1)

Figure 8-1

Activity ID	Activity Description	Orig Dur	Rem Dur	Early Start	Early Finish
290	PROCURE CONTRACTOR	135	135	03AUG10	15DEC10
295	AWARD	0	0	16DEC10	
300	CONTRACTOR SUBMITTALS	60	60	16DEC10	13FEB11
310	REMEDIATION	180	180	14FEB11	12AUG11
320	PREPARE FINAL REPORT	60	60	13AUG11	11OCT11
325	D & B QUALITY REVIEW	5	5	12OCT11	16OCT11
330	SUBMIT REPORT TO NYSDEC	5	5	12OCT11	16OCT11
340	NYSDEC REVIEW	59	59	17OCT11	14DEC11



Note: Substation Remediation Schedule Activities and Dates Provided by the LIRR

Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

LONG ISLAND RAIL ROAD
REMEDIAL ACTION WORK PLAN

SUBSTATION REMEDIATION SCHEDULE
MASSAPEQUA SUBSTATION (V00397-1)

Figure 8-1

Appendix A

APPENDIX A

HISTORICAL SOIL SAMPLING ANALYTICAL RESULTS

TABLE 15

MASSAPEQUA SUBSTATION
LONG ISLAND RAIL ROAD
DELINEATION PHASE 2 SITE ASSESSMENT

SURFACE SOIL - MERCURY AND RCRA METALS

AREA OF CONCERN	East Side of Substation Supplemental Sampling								INSTRUMENT DETECTION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective	NYSDEC 6 Part 375 Commercial Use Soil Cleanup Objective
SAMPLE ID	MSSS-07A	MSSS-08 (O)	MSSS-09	MSSS-10	MSSS-11	MSSS-12 (O)	MSSS-13	MSSS-14			
SAMPLE DEPTH (IN)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)			
DATE OF COLLECTION	8/10/2004	8/10/2004	8/10/2004	8/10/2004	8/10/2004	8/10/2004	8/10/2004	8/10/2004			
PERCENT SOLIDS	99.0	90.0	94.0	96.0	93.0	97.0	95.0	90.0			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/l)	(mg/kg)	(mg/Kg)
Mercury	6.7	0.40	4.7	0.23	4.1	13.6	0.92	0.83	0.042	5.7	2.8

AREA OF CONCERN	East Side of Substation Supplemental Sampling						East Side of Substn.		INSTRUMENT DETECTION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective	NYSDEC 6 Part 375 Commercial Use Soil Cleanup Objective
SAMPLE ID	MSSS-15 (O)	MSSS-16 (O)	MSSS-17 (O)	MSSS-18 (O)	MSSS-19 (O)	MSSS-20 (O)	MSSB-06A	MSSB-09			
SAMPLE DEPTH (IN)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)			
DATE OF COLLECTION	8/10/2004	8/10/2004	8/10/2004	8/10/2004	8/10/2004	8/10/2004	2/4/2003	2/4/2003			
PERCENT SOLIDS	49.0	82.0	68.0	88.0	98.0	97.0	84.0	88.0			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/l)	(mg/kg)	(mg/Kg)
Mercury	0.72	0.99	0.83	6.7	4.0	2.0	0.15	57.6	0.042	5.7	2.8

AREA OF CONCERN	East Side of Substation								INSTRUMENT DETECTION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective	NYSDEC 6 Part 375 Commercial Use Soil Cleanup Objective
SAMPLE ID	MSSB-10	MSSB-11	MSSB-12	MSSB-13	MSSB-14	MSSB-15	MSSB-16	MSSB-17			
SAMPLE DEPTH (IN)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)			
DATE OF COLLECTION	2/4/2003	2/4/2003	2/4/2003	2/3/2003	2/4/2003	2/4/2003	2/4/2003	2/4/2003			
PERCENT SOLIDS	86.0	92.0	92.0	88.0	89.0	91.0	93.0	90.0			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/l)	(mg/kg)	(mg/Kg)
Mercury	54.6	0.22	58.8	3.5	3.2	12.9	7.9	0.12	0.042	5.7	2.8

AREA OF CONCERN	East Side of Substation								INSTRUMENT DETECTION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective	NYSDEC 6 Part 375 Commercial Use Soil Cleanup Objective
SAMPLE ID	MSSB-18	MSSB-19	MSSB-20	MSSB-21	MSSB-22 (O)	MSSB-23 (O)	MSSB-24 (O)	MSSB-25			
SAMPLE DEPTH (IN)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)			
DATE OF COLLECTION	2/4/2003	2/4/2003	2/4/2003	2/3/2003	2/4/2003	2/4/2003	2/4/2003	2/3/2003			
PERCENT SOLIDS	88.0	93.0	91.0	90.0	91.0	86.0	91.0	88.0			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/l)	(mg/kg)	(mg/Kg)
Mercury	6.6	3.1	4.1	2.1	3.6	1	0.67	0.86	0.042	5.7	2.8

QUALIFIERS:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

Notes:
[ ] : Result exceeds NYSDEC 6 Part 375 Soil Cleanup Objective
(O): Samples collected outside of fence area compared to NYSDEC Commercial Use Soil Cleanup Objective

TABLE 15 (continued)

MASSAPEQUA SUBSTATION
LONG ISLAND RAIL ROAD
DELINEATION PHASE 2 SITE ASSESSMENT

SURFACE SOIL - MERCURY AND RCRA METALS

AREA OF CONCERN	East Side of Substation										
SAMPLE ID	MSSB-26	MSSB-27	MSSB-28	MSSB-29	MSSB-30	MSSB-31	MSSB-32	MSSB-33	INSTRUMENT DETECTION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective	NYSDEC 6 Part 375 Commercial Use Soil Cleanup Objective
SAMPLE DEPTH (IN)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)			
DATE OF COLLECTION	2/3/2003	2/3/2003	2/3/2003	2/3/2003	2/4/2003	2/3/2003	2/4/2003	2/4/2003			
PERCENT SOLIDS	89.0	85.0	84.0	92.0	93.0	92.0	86.0	87.0			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/l)	(mg/kg)	(mg/Kg)
Mercury	0.5	1.5	0.4	0.43	30.5	3.7	8.2	16.2	0.042	5.7	2.8

AREA OF CONCERN	E. Side of Sub.	Potential Releases								
SAMPLE ID	MSSB-34	MSSB-38	MSSB-39						INSTRUMENT DETECTION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective	NYSDEC 6 Part 375 Commercial Use Soil Cleanup Objective
SAMPLE DEPTH (IN)	(0-2)	(0-2)	(0-2)								
DATE OF COLLECTION	2/4/2003	2/3/2003	2/4/2003								
PERCENT SOLIDS	88.0	89.0	85.0								
UNITS	(mg/kg)	(mg/kg)	(mg/kg)						(ug/l)	(mg/kg)	(mg/Kg)
Arsenic	NA	3.9	4						3.0	16	16
Barium	NA	34.7	37.8						3.0	10,000	400
Cadmium	NA	0.82	0.73						2.0	60	9.3
Chromium	NA	10	33.8						3.0	800	400
Lead	NA	323	16						1.0	3900	1000
Mercury	7.3	3.3	178						0.1	5.7	2.8
Selenium	NA	U	U						8.0	6800	1,500
Silver	NA	0.37 B	0.58 B						2.0	6800	1,500

QUALIFIERS:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.
NA: Not Analyzed for

Notes:
[ ] : Result exceeds NYSDEC 6 Part 375 Soil Cleanup Objective

TABLE 15 (continued)

MASSAPEQUA SUBSTATION
LONG ISLAND RAIL ROAD
DELINEATION PHASE 2 SITE ASSESSMENT

SURFACE SOIL - MERCURY AND RCRA METALS

AREA OF CONCERN	East Side of Substation										
SAMPLE ID	MSSB-26	MSSB-27	MSSB-28	MSSB-29	MSSB-30	MSSB-31	MSSB-32	MSSB-33	INSTRUMENT DETECTION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective	NYSDEC 6 Part 375 Commercial Use Soil Cleanup Objective
SAMPLE DEPTH (IN)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)			
DATE OF COLLECTION	2/3/2003	2/3/2003	2/3/2003	2/3/2003	2/4/2003	2/3/2003	2/4/2003	2/4/2003			
PERCENT SOLIDS	89.0	85.0	84.0	92.0	93.0	92.0	86.0	87.0			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/l)	(mg/kg)	(mg/Kg)
Mercury	0.5	1.5	0.4	0.43	30.5	3.7	8.2	16.2	0.042	5.7	2.8

AREA OF CONCERN	E. Side of Sub.	Potential Releases								
SAMPLE ID	MSSB-34	MSSB-38	MSSB-39					INSTRUMENT DETECTION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective	NYSDEC 6 Part 375 Commercial Use Soil Cleanup Objective
SAMPLE DEPTH (IN)	(0-2)	(0-2)	(0-2)							
DATE OF COLLECTION	2/4/2003	2/3/2003	2/4/2003							
PERCENT SOLIDS	88.0	89.0	85.0							
UNITS	(mg/kg)	(mg/kg)	(mg/kg)					(ug/l)	(mg/kg)	(mg/Kg)
Arsenic	NA	3.9	4					3.0	16	16
Barium	NA	34.7	37.8					3.0	10,000	400
Cadmium	NA	0.82	0.73					2.0	60	9.3
Chromium	NA	10	33.8					3.0	800	400
Lead	NA	323	16					1.0	3900	1000
Mercury	7.3	3.3	178					0.1	5.7	2.8
Selenium	NA	U	U					8.0	6800	1,500
Silver	NA	0.37 B	0.58 B					2.0	6800	1,500

QUALIFIERS:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.
NA: Not Analyzed for

Notes:
[ ] : Result exceeds NYSDEC 6 Part 375 Soil Cleanup Objective

TABLE 16

MASSAPEQUA SUBSTATION
LONG ISLAND RAIL ROAD
DELINEATION PHASE 2 SITE ASSESSMENT

SURFACE SOIL - SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)

AREA OF CONCERN	Potential Releases							
SAMPLE ID	MSSB-38	MSSB-39					LABORATORY QUANTITATION LIMITS	NYSDEC 6 Part 365 Industrial Use Soil Cleanup Objective
SAMPLE DEPTH (IN)	(0-2)	(0-2)						
DATE OF COLLECTION	2/3/2003	2/4/2003						
DILUTION FACTOR	1	1						
PERCENT SOLIDS	89.0	85.0						
UNITS	(ug/Kg)	(ug/Kg)					(ug/Kg)	(ug/Kg)
Phenol	U	U					330	1,000,000
bis(2-Chloroethyl)ether	U	U					330	--
2-Chlorophenol	U	U					330	--
1,3-Dichlorobenzene	U	U					330	560,000
1,4-Dichlorobenzene	U	U					330	250,000
1,2-Dichlorobenzene	U	U					330	1,000,000
2-Methylphenol	U	U					330	--
2,2'-oxybis (1-chloropropane)	U	U					330	--
4-Methylphenol	U	U					330	--
N-Nitroso-di-n-propylamine	U	U					330	--
Hexachloroethane	U	U					330	--
Nitrobenzene	U	U					330	--
Isophorone	U	U					330	--
2-Nitrophenol	U	U					330	--
2,4-Dimethylphenol	U	U					330	--
2,4-Dichlorophenol	U	U					330	--
1,2,4-Trichlorobenzene	U	U					330	--
Naphthalene	U	U					330	1,000,000
4-Chloroaniline	U	U					330	--
bis(2-Chloroethoxy)methane	U	U					330	--
Hexachlorobutadiene	U	U					330	--
4-Chloro-3-methylphenol	U	U					330	--
2-Methylnaphthalene	44 J	U					330	--
Hexachlorocyclopentadiene	U	U					330	--
2,4,6-Trichlorophenol	U	U					330	--
2,4,5-Trichlorophenol	U	U					660	--
2-Chloronaphthalene	U	U					330	--
2-Nitroaniline	U	U					660	--
Dimethylphthalate	U	U					330	--
Acenaphthylene	74 J	U					330	1,000,000
2,6-Dinitrotoluene	U	U					330	--
3-Nitroaniline	U	U					660	--
Acenaphthene	U	U					330	1,000,000

QUALIFIERS:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.
E: Compound concentration exceeded the calibration range.

NOTES:
-- : Not applicable.

TABLE 16 (continued)

MASSAPEQUA SUBSTATION
LONG ISLAND RAIL ROAD
DELINEATION PHASE 2 SITE ASSESSMENT

SURFACE SOIL - SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)

AREA OF CONCERN	Potential Releases						LABORATORY QUANTITATION LIMITS	NYSDEC 6 Part 365 Industrial Use Soil Cleanup Objective
SAMPLE ID	MSSB-38	MSSB-39						
SAMPLE DEPTH (IN)	(0-2)	(0-2)						
DATE OF COLLECTION	2/3/2003	2/4/2003						
DILUTION FACTOR	1	1						
PERCENT SOLIDS	89.0	85.0						
UNITS	(ug/Kg)	(ug/Kg)					(ug/Kg)	(ug/Kg)
2,4-Dinitrophenol	U	U					660	--
4-Nitrophenol	U	U					660	--
Dibenzofuran	U	U					330	1,000,000
2,4-Dinitrotoluene	U	U					330	--
Diethylphthalate	U	U					330	--
4-Chlorophenyl-phenylether	U	U					330	--
Fluorene	U	U					330	1,000,000
4-Nitroaniline	U	U					330	--
4,6-Dinitro-2-methylphenol	U	U					330	--
N-Nitrosodiphenylamine	U	U					330	--
4-Bromophenyl-phenylether	U	U					330	--
Hexachlorobenzene	U	U					330	12,000
Pentachlorophenol	U	U					660	55,000
Phenanthrene	180 J	U					330	1,000,000
Anthracene	76 J	U					330	1,000,000
Carbazole	U	U					330	--
Di-n-butylphthalate	U	U					330	--
Fluoranthene	640	U					330	1,000,000
Pyrene	650	U					330	1,000,000
Butylbenzylphthalate	47 J	U					330	--
3,3'-Dichlorobenzidine	U	U					330	--
Benzo(a)anthracene	360 J	U					330	--
Chrysene	490	U					330	110,000
bis(2-Ethylhexyl)phthalate	280 J	U					330	--
Di-n-octylphthalate	U	U					330	--
Benzo(b)fluoranthene	620	U					330	11,000
Benzo(k)fluoranthene	28 J	U					330	110,000
Benzo(a)pyrene	430	U					330	1,100
Indeno(1,2,3-cd)pyrene	200 J	U					330	11,000
Dibenz(a,h)anthracene	55 J	U					330	1,100
Benzo(g,h,i)perylene	200 J	U					330	1,000,000
Total PAHs	4,047	0					--	
Total CaPAHs	2,183	0					--	
Total SVOCs	4,374	0					--	

QUALIFIERS:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

NOTES:
-- : Not applicable.

TABLE 17

MASSAPEQUA SUBSTATION
LONG ISLAND RAIL ROAD
DELINEATION PHASE 2 SITE ASSESSMENT

SURFACE SOIL - POLYCHLORINATED BIPHENYLS (PCBs)

AREA OF CONCERN	Potential Releases			
SAMPLE ID	**MSSB-38**	**MSSB-39**	**LABORATORY QUANTITATION LIMITS**	**NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective**
SAMPLE DEPTH (IN)	(0-2)	(0-2)		
DATE OF COLLECTION	2/3/2003	2/4/2003		
DILUTION FACTOR	1	1		
PERCENT SOLIDS	89.0	85.0		
UNITS	(ug/Kg)	(ug/Kg)	(ug/kg)	(ug/kg)
Aroclor- 1016	U	U	34	----
Aroclor- 1221	U	U	34	----
Aroclor- 1232	U	U	34	----
Aroclor- 1242	U	U	34	----
Aroclor- 1248	U	U	34	----
Aroclor- 1254	U	U	34	----
Aroclor- 1260	U	U	34	----
TOTAL PCBs	0	0	--	1,000

QUALIFIERS:
U: Compound analyzed for but not detected.

NOTES:
--: Not applicable.

TABLE 18

MASSAPEQUA SUBSTATION
LONG ISLAND RAIL ROAD
DELINEATION PHASE 2 SITE ASSESSMENT

SUBSURFACE SOIL - MERCURY AND RCRA METALS

AREA OF CONCERN	East Side of Substation								INSTRUMENT DETECTION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective	NYSDEC 6 Part 375 Commercial Use Soil Cleanup Objective
SAMPLE ID	MSSB-06A	MSSB-06A	MSSB-09	MSSB-09	MSSB-10	MSSB-10	MSSB-11	MSSB-11			
SAMPLE DEPTH (FT)	(2-4)	(4-6)	(2-4)	(4-6)	(2-4)	(4-6)	(2-4)	(4-6)			
DATE OF COLLECTION	2/4/2003	2/4/2003	2/4/2003	2/4/2003	2/4/2003	2/4/2003	2/4/2003	2/4/2003			
PERCENT SOLIDS	89.0	96.0	87.0	92.0	87.0	98.0	96.0	98.0			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/l)	(mg/Kg)	(mg/Kg)
Mercury	0.13	U	0.36	0.058	0.26	0.084	0.72	1.2	0.042	5.7	2.8

AREA OF CONCERN	East Side of Substation								INSTRUMENT DETECTION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective	NYSDEC 6 Part 375 Commercial Use Soil Cleanup Objective
SAMPLE ID	MSSB-12	MSSB-12	MSSB-13	MSSB-13	MSSB-14	MSSB-14	MSSB-15	MSSB-16			
SAMPLE DEPTH (FT)	(2-4)	(4-6)	(2-4)	(4-6)	(2-4)	(4-6)	(4-6)	(2-4)			
DATE OF COLLECTION	2/4/2003	2/4/2003	2/3/2003	2/3/2003	2/4/2003	2/4/2003	2/4/2003	2/4/2003			
PERCENT SOLIDS	96.0	95.0	95.0	97.0	93.0	95.0	96.0	93.0			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/l)	(mg/Kg)	(mg/Kg)
Mercury	32.1	0.56	0.31	0.015 B	0.14	U	0.061	0.27	0.042	5.7	2.8

AREA OF CONCERN	East Side of Substation								INSTRUMENT DETECTION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective	NYSDEC 6 Part 375 Commercial Use Soil Cleanup Objective
SAMPLE ID	MSSB-17	MSSB-18	MSSB-19	MSSB-20	MSSB-21	MSSB-22 (O)	MSSB-23 (O)	MSSB-24 (O)			
SAMPLE DEPTH (FT)	(2-4)	(2-4)	(2-4)	(2-4)	(2-4)	(2-4)	(2-4)	(2-4)			
DATE OF COLLECTION	2/4/2003	2/4/2003	2/4/2003	2/4/2003	2/3/2003	2/4/2003	2/4/2003	2/4/2003			
PERCENT SOLIDS	88.0	88.0	94.0	88.0	95.0	86.0	94.0	93.0			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/l)	(mg/Kg)	(mg/Kg)
Mercury	8.7	7.9	1.2	5.8	1.3	4.7	0.067	0.17	0.042	5.7	2.8

AREA OF CONCERN	East Side of Substation								INSTRUMENT DETECTION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective	NYSDEC 6 Part 375 Commercial Use Soil Cleanup Objective
SAMPLE ID	MSSB-25	MSSB-26	MSSB-27	MSSB-28	MSSB-29	MSSB-30	MSSB-31	MSSB-32			
SAMPLE DEPTH (FT)	(2-4)	(2-4)	(2-4)	(2-4)	(2-4)	(2-4)	(2-4)	(2-4)			
DATE OF COLLECTION	2/3/2003	2/3/2003	2/3/2003	2/3/2003	2/3/2003	2/4/2003	2/3/2003	2/4/2003			
PERCENT SOLIDS	90.0	92.0	90.0	86.0	95.0	94.0	94.0	92.0			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/l)	(mg/Kg)	(mg/Kg)
Mercury	0.52	1	3.3	1.6	0.51	0.091	0.41	0.27	0.042	5.7	2.8

QUALIFIERS:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.
NA: Not Analyzed for

Notes:
[ ] : Result exceeds NYSDEC 6 Part 375 Soil Cleanup Objective
(O): Samples collected outside of fence area compared to NYSDEC Commercial Use Soil Cleanup Objective

TABLE 18 (continued)

MASSAPEQUA SUBSTATION
LONG ISLAND RAIL ROAD
DELINEATION PHASE 2 SITE ASSESSMENT

SUBSURFACE SOIL - MERCURY AND RCRA METALS

AREA OF CONCERN	East Side of Substation								INSTRUMENT DETECTION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective	NYSDEC 6 Part 375 Commercial Use Soil Cleanup Objective
SAMPLE ID	MSSB-32	MSSB-32	MSSB-32	MSSB-33	MSSB-33	MSSB-33	MSSB-33	MSSB-34			
SAMPLE DEPTH (FT)	(4-6)	(6-8)	(8-10)	(2-4)	(4-6)	(6-8)	(8-10)	(2-4)			
DATE OF COLLECTION	2/3/2003	2/3/2003	2/3/2003	2/3/2003	2/3/2003	2/3/2003	2/3/2003	2/4/2003			
PERCENT SOLIDS	92.0	83.0	94.0	90.0	98.0	96.0	90.0	89.0			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/l)	(mg/Kg)	(mg/Kg)
Mercury	4.3	0.056	U	1.9	0.057	U	0.025 B	1.8	0.042	5.7	2.8

AREA OF CONCERN	East Side of Substation			East Side of Substation Supplemental Sampling					INSTRUMENT DETECTION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective	NYSDEC 6 Part 375 Commercial Use Soil Cleanup Objective
SAMPLE ID	MSSB-34	MSSB-34	MSSB-34	MSSB-40	MSSB-40	MSSB-40	MSSB-41	MSSB-41			
SAMPLE DEPTH (FT)	(4-6)	(6-8)	(8-10)	(0-2)	(2-4)	(4-6)	(0-2)	(2-4)			
DATE OF COLLECTION	2/3/2003	2/3/2003	2/3/2003	8/9/2004	8/9/2004	8/9/2004	8/9/2004	8/9/2004			
PERCENT SOLIDS	97.0	96.0	89.0	97.0	91.0	98.0	89.0	94.0			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/l)	(mg/Kg)	(mg/Kg)
Mercury	U	U	0.09	0.23	1.2	0.029 B	0.11	3.8	0.042	5.7	2.8

AREA OF CONCERN	East Side of Substation Supplemental Sampling								INSTRUMENT DETECTION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective	NYSDEC 6 Part 375 Commercial Use Soil Cleanup Objective
SAMPLE ID	MSSB-41	MSSB-42 (O)	MSSB-42 (O)	MSSB-42 (O)	MSSB-43	MSSB-43	MSSB-43	MSSB-44			
SAMPLE DEPTH (FT)	(4-6)	(0-2)	(2-4)	(4-6)	(0-2)	(2-4)	(4-6)	(0-2)			
DATE OF COLLECTION	8/9/2004	8/9/2004	8/9/2004	8/9/2004	8/9/2004	8/9/2004	8/9/2004	8/10/2004			
PERCENT SOLIDS	95.0	93.0	96.0	89.0	83.0	90.0	96.0	98.0			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/l)	(mg/Kg)	(mg/Kg)
Mercury	0.090	0.53	0.7	0.45	6.7	0.12	0.091	1.7	0.042	5.7	2.8

AREA OF CONCERN	East Side of Substation Supplemental Sampling								INSTRUMENT DETECTION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective	NYSDEC 6 Part 375 Commercial Use Soil Cleanup Objective
SAMPLE ID	MSSB-44	MSSB-44	MSSB-45	MSSB-45	MSSB-45	MSSB-46	MSSB-46	MSSB-46			
SAMPLE DEPTH (FT)	(2-4)	(4-6)	(0-2)	(2-4)	(4-5)	(0-2)	(2-4)	(4-6)			
DATE OF COLLECTION	8/10/2004	8/10/2004	8/10/2004	8/10/2004	8/10/2004	8/9/2004	8/9/2004	8/9/2004			
PERCENT SOLIDS	95.0	93.0	97.0	98.0	97.0	94.0	85.0	94.0			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/l)	(mg/Kg)	(mg/Kg)
Mercury	3.5	154	0.59	0.39	0.31	0.52	4.8	0.079	0.042	5.7	2.8

QUALIFIERS:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.
NA: Not Analyzed for

Notes:
: Result exceeds NYSDEC 6 Part 375 Soil Cleanup Objective
(O): Samples collected outside of fence area compared to NYSDEC Commercial Use Soil Cleanup Objective

TABLE 18 (continued)

MASSAPEQUA SUBSTATION
LONG ISLAND RAIL ROAD
DELINEATION PHASE 2 SITE ASSESSMENT

SUBSURFACE SOIL - MERCURY AND RCRA METALS

AREA OF CONCERN	East Side of Substation Supplemental Sampling								INSTRUMENT DETECTION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective	NYSDEC 6 Part 375 Commercial Use Soil Cleanup Objective
SAMPLE ID	MSSB-47	MSSB-47	MSSB-47	MSSB-48	MSSB-48	MSSB-48	MSSB-49 (O)	MSSB-49 (O)			
SAMPLE DEPTH (FT)	(0-2)	(2-4)	(4-5)	(0-2)	(2-4)	(4-6)	(0-2)	(2-4)			
DATE OF COLLECTION	8/10/2004	8/10/2004	8/10/2004	8/9/2004	8/9/2004	8/9/2004	8/9/2004	8/9/2004			
PERCENT SOLIDS	96.0	96.0	96.0	93.0	95.0	82.0	92.0	94.0			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/l)	(mg/Kg)	(mg/Kg)
Mercury	1.9	1.5	1.4	0.042	0.41	12.7	2.4	0.04 B	0.042	5.7	2.8

AREA OF CONCERN	East Side of Substation Supplemental Sampling								INSTRUMENT DETECTION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective	NYSDEC 6 Part 375 Commercial Use Soil Cleanup Objective
SAMPLE ID	MSSB-49 (O)	MSSB-50	MSSB-50	MSSB-50	MSSB-51	MSSB-51	MSSB-51	MSSB-52			
SAMPLE DEPTH (FT)	(4-6)	(0-2)	(2-4)	(4-6)	(0-2)	(2-4)	(4-6)	(0-2)			
DATE OF COLLECTION	8/9/2004	8/10/2004	8/10/2004	8/10/2004	8/9/2004	8/9/2004	8/9/2004	8/9/2004			
PERCENT SOLIDS	80.0	89.0	92.0	97.0	92.0	94.0	90.0	91.0			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/l)	(mg/Kg)	(mg/Kg)
Mercury	0.031 B	7.2	14.6	0.18 B	0.99	0.042	0.039	0.41	0.042	5.7	2.8

AREA OF CONCERN	East Side of Substation Supplemental Sampling								INSTRUMENT DETECTION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective	NYSDEC 6 Part 375 Commercial Use Soil Cleanup Objective
SAMPLE ID	MSSB-52	MSSB-52	MSSB-53 (O)	MSSB-53 (O)	MSSB-53 (O)	MSSB-54 (O)	MSSB-54 (O)	MSSB-54 (O)			
SAMPLE DEPTH (FT)	(2-4)	(4-6)	(0-2)	(2-4)	(6-8)	(0-2)	(2-4)	(4-6)			
DATE OF COLLECTION	8/9/2004	8/9/2004	8/9/2004	8/9/2004	8/9/2004	8/9/2004	8/9/2004	8/9/2004			
PERCENT SOLIDS	93.0	95.0	94.0	93.0	66.0	95.0	93.0	98.0			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/l)	(mg/Kg)	(mg/Kg)
Mercury	0.053	0.045	5.4	103	2.3	0.91	0.32	0.020 B	0.042	5.7	2.8

AREA OF CONCERN	East Side of Substation Supplemental Sampling								INSTRUMENT DETECTION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective	NYSDEC 6 Part 375 Commercial Use Soil Cleanup Objective
SAMPLE ID	MSSB-55 (O)	MSSB-55 (O)	MSSB-55 (O)	MSSB-55 (O)	MSSB-56 (O)	MSSB-56 (O)	MSSB-56 (O)	MSSB-57 (O)			
SAMPLE DEPTH (FT)	(0-2)	(2-4)	(4-6)	(6-8)	(0-2)	(2-4)	(4-6)	(0-2)			
DATE OF COLLECTION	8/9/2004	8/9/2004	8/9/2004	8/9/2004	8/9/2004	8/9/2004	8/9/2004	8/9/2004			
PERCENT SOLIDS	92.0	95.0	84.0	91.0	96.0	91.0	95.0	87.0			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/l)	(mg/Kg)	(mg/Kg)
Mercury	0.89	0.10	0.92	7.0	32.3	5.8	0.029	0.90	0.042	5.7	2.8

QUALIFIERS:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.
NA: Not Analyzed for

Notes:
[ ] : Result exceeds NYSDEC 6 Part 375 Soil Cleanup Objective
(O): Samples collected outside of fence area compared to NYSDEC Commercial Use Soil Cleanup Objective

TABLE 18 (continued)

MASSAPEQUA SUBSTATION
LONG ISLAND RAIL ROAD
DELINEATION PHASE 2 SITE ASSESSMENT

SUBSURFACE SOIL - MERCURY AND RCRA METALS

AREA OF CONCERN	East Side of Substation Supplemental Sampling					Potential Releases					
SAMPLE ID	MSSB-57 (O)	MSSB-57 (O)	MSSB-58 (O)	MSSB-58 (O)	MSSB-58 (O)	MSSB-38	MSSB-39		INSTRUMENT DETECTION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective	NYSDEC 6 Part 375 Commercial Use Soil Cleanup Objective
SAMPLE DEPTH (FT)	(2-4)	(4-6)	(0-2)	(2-4)	(4-6)	(2-4)	(2-4)				
DATE OF COLLECTION	8/9/2004	8/9/2004	8/9/2004	8/9/2004	8/9/2004	2/3/2003	2/4/2003				
PERCENT SOLIDS	89.0	98.0	91.0	96.0	98.0	91.0	97.0				
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)		(ug/l)	(mg/Kg)	(mg/Kg)
Arsenic	NA	NA	NA	NA	NA	15.9	3		3.0	16	16
Barium	NA	NA	NA	NA	NA	6.6 B	5.4 B		3.0	10,000	400
Cadmium	NA	NA	NA	NA	NA	0.23 B	0.21 B		2.0	60	9.3
Chromium	NA	NA	NA	NA	NA	8.5	8.8		3.0	800	400
Lead	NA	NA	NA	NA	NA	11.4	2.7		1.0	3,900	1,000
Mercury	0.11	0.019 B	0.30	0.016 B	0.046	1.1	5.6		0.1	5.7	2.8
Selenium	NA	NA	NA	NA	NA	U	U		8.0	6,800	1,500
Silver	NA	NA	NA	NA	NA	0.32 B	0.39 B		2.0	6,800	1,500

QUALIFIERS:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.
NA: Not Analyzed for

Notes:
(O): Samples collected outside of fence area compared to NYSDEC Commercial Use Soil Cleanup Objective

TABLE 19

MASSAPEQUA SUBSTATION
LONG ISLAND RAIL ROAD
DELINEATION PHASE 2 SITE ASSESSMENT

SUBSURFACE SOIL - SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)

AREA OF CONCERN	Potential Releases								
SAMPLE ID	MSSB-38	MSSB-39						LABORATORY QUANTITATION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective
SAMPLE DEPTH (FT)	(2-4)	(2-4)							
DATE OF COLLECTION	2/3/2003	2/4/2003							
DILUTION FACTOR	1	1							
PERCENT SOLIDS	91.0	97.0							
UNITS	(ug/kg)	(ug/kg)						(ug/Kg)	(ug/Kg)
Phenol	U	U						330	1,000,000
bis(2-Chloroethyl)ether	U	U						330	--
2-Chlorophenol	U	U						330	--
1,3-Dichlorobenzene	U	U						330	560,000
1,4-Dichlorobenzene	U	U						330	250,000
1,2-Dichlorobenzene	U	U						330	1,000,000
2-Methylphenol	U	U						330	--
2,2'-oxybis (1-chloropropane)	U	U						330	--
4-Methylphenol	U	U						330	--
N-Nitroso-di-n-propylamine	U	U						330	--
Hexachloroethane	U	U						330	--
Nitrobenzene	U	U						330	--
Isophorone	U	U						330	--
2-Nitrophenol	U	U						330	--
2,4-Dimethylphenol	U	U						330	--
2,4-Dichlorophenol	U	U						330	--
1,2,4-Trichlorobenzene	U	U						330	--
Naphthalene	U	U						330	1,000,000
4-Chloroaniline	U	U						330	--
bis(2-Chloroethoxy)methane	U	U						330	--
Hexachlorobutadiene	U	U						330	--
4-Chloro-3-methylphenol	U	U						330	--
2-Methylnaphthalene	U	U						330	--
Hexachlorocyclopentadiene	U	U						330	--
2,4,6-Trichlorophenol	U	U						330	--
2,4,5-Trichlorophenol	U	U						660	--
2-Chloronaphthalene	U	U						330	--
2-Nitroaniline	U	U						660	--
Dimethylphthalate	U	U						330	--
Acenaphthylene	U	U						330	1,000,000
2,6-Dinitrotoluene	U	U						330	--
3-Nitroaniline	U	U						660	--
Acenaphthene	U	U						330	1,000,000

QUALIFIERS:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

NOTES:
-- : Not applicable.

TABLE 19 (continued)

MASSAPEQUA SUBSTATION
LONG ISLAND RAIL ROAD
DELINEATION PHASE 2 SITE ASSESSMENT

SUBSURFACE SOIL - SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)

AREA OF CONCERN	Potential Releases								
SAMPLE ID	MSSB-38	MSSB-39						LABORATORY QUANTITATION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective
SAMPLE DEPTH (FT)	(2-4)	(2-4)							
DATE OF COLLECTION	2/3/2003	2/4/2003							
DILUTION FACTOR	1	1							
PERCENT SOLIDS	91.0	97.0							
UNITS	(ug/kg)	(ug/kg)						(ug/Kg)	(ug/Kg)
2,4-Dinitrophenol	U	U						660	--
4-Nitrophenol	U	U						660	--
Dibenzofuran	U	U						330	350,000
2,4-Dinitrotoluene	U	U						330	--
Diethylphthalate	U	U						330	--
4-Chlorophenyl-phenylether	U	U						330	--
Fluorene	U	U						330	500,000
4-Nitroaniline	U	U						330	--
4,6-Dinitro-2-methylphenol	U	U						330	--
N-Nitrosodiphenylamine	U	U						330	--
4-Bromophenyl-phenylether	U	U						330	--
Hexachlorobenzene	U	U						330	6,000
Pentachlorophenol	U	U						660	6,700
Phenanthrene	U	U						330	500,000
Anthracene	U	U						330	500,000
Carbazole	U	U						330	--
Di-n-butylphthalate	U	U						330	--
Fluoranthene	65 J	U						330	500,000
Pyrene	60 J	U						330	500,000
Butylbenzylphthalate	U	U						330	--
3,3'-Dichlorobenzidine	U	U						330	--
Benzo(a)anthracene	48 J	U						330	--
Chrysene	54 J	U						330	56,000
bis(2-Ethylhexyl)phthalate	U	U						330	--
Di-n-octylphthalate	U	U						330	--
Benzo(b)fluoranthene	59 J	U						330	5,600
Benzo(k)fluoranthene	U	U						330	56,000
Benzo(a)pyrene	44 J	U						330	1,000
Indeno(1,2,3-cd)pyrene	U	U						330	5,600
Dibenz(a,h)anthracene	U	U						330	560
Benzo(g,h,i)perylene	U	U						330	500,000
Total PAHs	330	0						--	
Total CaPAHs	205	0						--	
Total SVOCs	330	0						--	

QUALIFIERS:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

NOTES:
-- : Not applicable.

TABLE 20

MASSAPEQUA SUBSTATION
LONG ISLAND RAIL ROAD
DELINEATION PHASE 2 SITE ASSESSMENT

SUBSURFACE SOIL - POLYCHLORINATED BIPHENYLS (PCBs)

AREA OF CONCERN	Potential Releases			
SAMPLE ID	**MSSB-38**	**MSSB-39**	**LABORATORY QUANTITATION LIMITS**	**NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objectives**
SAMPLE DEPTH (FT)	(2-4)	(2-4)		
DATE OF COLLECTION	2/3/2003	2/4/2003		
DILUTION FACTOR	1	1		
PERCENT SOLIDS	91.0	97.0		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Aroclor- 1016	U	U	34	----
Aroclor- 1221	U	U	34	----
Aroclor- 1232	U	U	34	----
Aroclor- 1242	U	U	34	----
Aroclor- 1248	U	U	34	----
Aroclor- 1254	U	U	34	----
Aroclor- 1260	U	U	34	----
TOTAL PCBs	0	0	--	1,000

QUALIFIERS:
U: Compound analyzed for but not detected.

NOTES:
--: Not applicable.

TABLE 21

MASSAPEQUA SUBSTATION
LONG ISLAND RAIL ROAD
UNDERGROUND INJECTION CONTROL INVESTIGATION

SUBSURFACE SOIL - RCRA METALS

UIC STRUCTURE	Water Service Pit		Dry Well					
SAMPLE ID	MSSB-36	MSSB-36	MSSB-37	MSSB-37	MSSB-37	MSSB-37	INSTRUMENT DETECTION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective
SAMPLE DEPTH (FT)	(7.5-9.5)	(9.5-11.5)	(12-14)	(14-16)	(16-18)	(18-20)		
DATE OF COLLECTION	2/4/2003	2/4/2003	2/7/2003	2/7/2003	2/7/2003	2/7/2003		
PERCENT SOLIDS	96.0	87.0	85.0	85.0	88.0	82.0		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/l)	(mg/kg)
Arsenic	1.1	0.58 B	0.6 B	0.63 B	0.79 B	0.71 B	3.0	16
Barium	6.1 B	3.4 B	3.1 B	3.8 B	3.4 B	5.9 B	3.0	10,000
Cadmium	0.19 B	0.061 B	U	U	U	U	2.0	60
Chromium	3.5	2	1.6	2	1.9	2.1	3.0	800
Lead	2.5	0.88	0.95	1	1.4	1.9	1.0	3,900
Mercury	0.74	0.074	U	U	U	U	0.1	5.7
Selenium	U	U	U	U	U	U	8.0	6,800
Silver	0.26 B	U	U	0.11 B	0.092 B	U	2.0	6,800

QUALIFIERS:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

TABLE 22

MASSAPEQUA SUBSTATION
LONG ISLAND RAIL ROAD
UNDERGROUND INJECTION CONTROL INVESTIGATION

SUBSURFACE SOIL - VOLATILE ORGANIC COMPOUNDS (VOCs)

UIC STRUCTURE	Water Service Pit		Dry Well					
SAMPLE ID	MSSB-36	MSSB-36	MSSB-37	MSSB-37	MSSB-37	MSSB-37	LABORATORY QUANTITATION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective
SAMPLE DEPTH (FT)	(7.5-9.5)	(9.5-11.5)	(12-14)	(14-16)	(16-18)	(18-20)		
DATE OF COLLECTION	2/4/2003	2/4/2003	2/7/2003	2/7/2003	2/7/2003	2/7/2003		
DILUTION FACTOR	1	1	1	1	1	1		
PERCENT SOLIDS	96.0	87.0	85.0	85.0	88.0	82.0		
UNITS	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)
Dichlorodifluoromethane	U	U	U	U	U	U	5	--
Chloromethane	U	U	U	U	U	U	5	--
Vinyl Chloride	U	U	U	U	U	U	5	27,000
Bromomethane	U	U	U	U	U	U	5	--
Chloroethane	U	U	U	U	U	U	5	--
Trichlorofluoromethane	U	U	U	U	U	U	5	--
1,1-Dichloroethene	U	U	U	U	U	U	5	480,000
Acetone	4 J	10	12	2 J	11	13	5	1,000,000
Idomethane	U	U	U	U	U	U	5	--
Carbon Disulfide	U	U	U	U	U	U	5	--
Methylene Chloride	U*	U*	3 J	2 J	5	3 J	5	1,000,000
trans-1,2-Dichloroethene	U	U	U	U	U	U	5	--
Methyl tert-butyl ether	U	U	U	U	U	U	5	1,000,000
1,1-Dichloroethane	U	U	U	U	U	U	5	480,000
Vinyl acetate	U	U	U	U	U	U	5	--
2-Butanone	U	U	U	U	U	U	5	--
cis-1,2-Dichloroethene	U	U	U	U	U	U	5	1,000,000
2,2-Dichloropropane	U	U	U	U	U	U	5	--
Bromochloromethane	U	U	U	U	U	U	5	--
Chloroform	U	U	U	U	U	U	5	700,000
1,1,1-Trichloroethane	U	U	U	U	U	U	5	1,000,000
1,1-Dichloropropene	U	U	U	U	U	U	5	--
Carbon Tetrachloride	U	U	U	U	U	U	5	44,000
1,2-Dichloroethane	U	U	U	U	U	U	5	60,000
Benzene	U	U	U	U	U	U	5	89,000
Trichloroethene	U	U	U	U	U	U	5	--
1,2-Dichloropropane	U	U	U	U	U	U	5	--
Dibromomethane	U	U	U	U	U	U	5	--
Bromodichloromethane	U	U	U	U	U	U	5	--
cis-1,3-Dichloropropane	U	U	U	U	U	U	5	--
4-Methyl-2-pentanone	U	U	U	U	U	U	5	--
Toluene	U	U	U	U	U	U	5	1,000,000
trans-1,3-Dichloropropene	U	U	U	U	U	U	5	--
1,1,2-Trichloroethane	U	U	U	U	U	U	5	--

QUALIFIERS:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.
U*: Compound qualified as non-detect due to validation criteria.

NOTES:
--: Not applicable.

TABLE 22 (continued)

MASSAPEQUA SUBSTATION
LONG ISLAND RAIL ROAD
UNDERGROUND INJECTION CONTROL INVESTIGATION

SUBSURFACE SOIL - VOLATILE ORGANIC COMPOUNDS (VOCs)

UIC STRUCTURE	Water Service Pit		Dry Well					
SAMPLE ID	MSSB-36	MSSB-36	MSSB-37	MSSB-37	MSSB-37	MSSB-37	LABORATORY QUANTITATION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective
SAMPLE DEPTH (FT)	(7.5-9.5)	(9.5-11.5)	(12-14)	(14-16)	(16-18)	(18-20)		
DATE OF COLLECTION	2/4/2003	2/4/2003	2/7/2003	2/7/2003	2/7/2003	2/7/2003		
DILUTION FACTOR	1	1	1	1	1	1		
PERCENT SOLIDS	96.0	87.0	85.0	85.0	88.0	82.0		
UNITS	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)
1,3-Dichloropropane	U	U	U	U	U	U	5	--
Tetrachloroethene	U	U	U	U	U	U	5	300,000
2-Hexanone	U	U	U	U	U	3 J	5	--
Dibromochloromethane	U	U	U	U	U	U	5	--
1,2-Dibromoethane	U	U	U	U	U	U	5	--
Chlorobenzene	U	U	U	U	U	U	5	1,000,000
1,1,1,2-Tetrachloroethane	U	U	U	U	U	U	5	--
Ethylbenzene	U	U	U	U	U	U	5	780,000
m,p-Xylene	U	U	U	U	U	U	5	--
o-Xylene	U	U	U	U	U	U	5	--
Xylene (total)	U	U	U	U	U	U	5	1,000,000
Styrene	U	U	U	U	U	U	5	--
Bromoform	U	U	U	U	U	U	5	--
Isopropylbenzene	U	U	U	U	U	U	5	--
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	5	--
Bromobenzene	U	U	U	U	U	U	5	--
1,2,3-Trichloropropane	U	U	U	U	U	U	5	--
n-Propylbenzene	U	U	U	U	U	U	5	1,000,000
2-Chlorotoluene	U	U	U	U	U	U	5	--
1,3,5-Trimethylbenzene	U	U	U	U	U	U	5	380,000
4-Chlorotoluene	U	U	U	U	U	U	5	--
tert-Butylbenzene	U	U	U	U	U	U	5	1,000,000
1,2,4-Trimethylbenzene	U	U	U	U	U	U	5	380,000
sec-Butylbenzene	U	U	U	U	U	U	5	1,000,000
4-Isopropyltoluene	U	U	U	U	U	U	5	--
1,3-Dichlorobenzene	U	U	U	U	U	U	5	560,000
1,4-Dichlorobenzene	U	U	U	U	U	U	5	250,000
n-Butylbenzene	U	U	U	U	U	U	5	--
1,2-Dichlorobenzene	U	U	U	U	U	U	5	1,000,000
1,2-Dibromo-3-chloropropane	U	U	U	U	U	U	5	--
1,2,4-Trichlorobenzene	U	U	U	U	U	U	5	--
Hexachlorobutadiene	U	U	U	U	U	U	5	--
Naphthalene	U	4 J	U	U	U	22 B	5	1,000,000
1,2,3-Trichlorobenzene	U	U	U	U	U	U	5	--
Totals VOCs	4	14	15	4	16	41	--	

QUALIFIERS:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.
U*: Compound qualified as non-detect due to validation criteria.

NOTES:
--: Not applicable.

TABLE 23

MASSAPEQUA SUBSTATION
LONG ISLAND RAIL ROAD
UNDERGROUND INJECTION CONTROL INVESTIGATION

SUBSURFACE SOIL - SEMIVOLATILE ORGANIC COMPOUNDS (VOCs)

UIC STRUCTURE	Water Service Pit		Dry Well					
SAMPLE ID	MSSB-36	MSSB-36	MSSB-37	MSSB-37	MSSB-37	MSSB-37	LABORATORY QUANTITATION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective
SAMPLE DEPTH (FT)	(7.5-9.5)	(9.5-11.5)	(12-14)	(14-16)	(16-18)	(18-20)		
DATE OF COLLECTION	2/4/2003	2/4/2003	2/7/2003	2/7/2003	2/7/2003	2/7/2003		
DILUTION FACTOR	1	1	1	1	1	1		
PERCENT SOLIDS	96.0	87.0	85.0	85.0	88.0	82.0		
UNITS	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)
Phenol	U	U	U	U	U	U	330	1,000,000
bis(2-Chloroethyl)ether	U	U	U	U	U	U	330	--
1,3-Dichlorobenzene	U	U	U	U	U	U	330	560,000
1,4-Dichlorobenzene	U	U	U	U	U	U	330	250,000
1,2-Dichlorobenzene	U	U	U	U	U	U	330	1,000,000
2-Methylphenol	U	U	U	U	U	U	330	--
2,2'-oxybis (1-chloropropane)	U	U	U	U	U	U	330	--
4-Methylphenol	U	U	U	U	U	U	330	--
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	330	--
Hexachloroethane	U	U	U	U	U	U	330	--
Nitrobenzene	U	U	U	U	U	U	330	--
Isophorone	U	U	U	U	U	U	330	--
2-Nitrophenol	U	U	U	U	U	U	330	--
2,4-Dimethylphenol	U	U	U	U	U	U	330	--
2,4-Dichlorophenol	U	U	U	U	U	U	330	--
1,2,4-Trichlorobenzene	U	U	U	U	U	U	330	--
Naphthalene	U	U	U	U	U	U	330	1,000,000
4-Chloroaniline	U	U	U	U	U	U	330	--
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	330	--
Hexachlorobutadiene	U	U	U	U	U	U	330	--
4-Chloro-3-methylphenol	U	U	U	U	U	U	330	--
2-Methylnaphthalene	U	U	U	U	U	U	330	--
Hexachlorocyclopentadiene	U	U	U	U	U	U	330	--
2,4,6-Trichlorophenol	U	U	U	U	U	U	330	--
2,4,5-Trichlorophenol	U	U	U	U	U	U	660	--
2-Chloronaphthalene	U	U	U	U	U	U	330	--
2-Nitroaniline	U	U	U	U	U	U	660	--
Dimethylphthalate	U	U	U	U	U	U	330	--
Acenaphthylene	U	U	U	U	U	U	330	1,000,000
2,6-Dinitrotoluene	U	U	U	U	U	U	330	--
3-Nitroaniline	U	U	U	U	U	U	660	--
Acenaphthene	U	U	U	U	U	U	330	1,000,000

QUALIFIERS:
U: Compound analyzed for but not detected.

NOTES:
-- : Not applicable.

TABLE 23 (continued)

MASSAPEQUA SUBSTATION
LONG ISLAND RAIL ROAD
UNDERGROUND INJECTION CONTROL INVESTIGATION

SUBSURFACE SOIL - SEMIVOLATILE ORGANIC COMPOUNDS (VOCs)

UIC STRUCTURE	Water Service Pit		Dry Well					
SAMPLE ID	MSSB-36	MSSB-36	MSSB-37	MSSB-37	MSSB-37	MSSB-37	LABORATORY QUANTITATION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective
SAMPLE DEPTH (FT)	(7.5-9.5)	(9.5-11.5)	(12-14)	(14-16)	(16-18)	(18-20)		
DATE OF COLLECTION	2/4/2003	2/4/2003	2/7/2003	2/7/2003	2/7/2003	2/7/2003		
DILUTION FACTOR	1	1	1	1	1	1		
PERCENT SOLIDS	96.0	87.0	85.0	85.0	88.0	82.0		
UNITS	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)
2,4-Dinitrophenol	U	U	U	U	U	U	660	--
4-Nitrophenol	U	U	U	U	U	U	660	--
Dibenzofuran	U	U	U	U	U	U	330	350,000
2,4-Dinitrotoluene	U	U	U	U	U	U	330	--
Diethylphthalate	U	U	U	U	U	U	330	--
4-Chlorophenyl-phenylether	U	U	U	U	U	U	330	--
Fluorene	U	U	U	U	U	U	330	500,000
4-Nitroaniline	U	U	U	U	U	U	330	--
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	330	--
N-Nitrosodiphenylamine	U	U	U	U	U	U	330	--
4-Bromophenyl-phenylether	U	U	U	U	U	U	330	--
Hexachlorobenzene	U	U	U	U	U	U	330	6,000
Pentachlorophenol	U	U	U	U	U	U	660	6,700
Phenanthrene	U	U	U	U	U	U	330	500,000
Anthracene	U	U	U	U	U	U	330	500,000
Carbazole	U	U	U	U	U	U	330	--
Di-n-butylphthalate	U	U	U	U	U	U	330	--
Fluoranthene	U	U	U	U	U	U	330	500,000
Pyrene	U	U	U	U	U	U	330	500,000
Butylbenzylphthalate	U	U	U	U	U	U	330	--
3,3'-Dichlorobenzidine	U	U	U	U	U	U	330	--
Benzo(a)anthracene	U	U	U	U	U	U	330	--
Chrysene	U	U	U	U	U	U	330	56,000
bis(2-Ethylhexyl)phthalate	U	U	U	U	U	U	330	--
Di-n-octylphthalate	U	U	U	U	U	U	330	--
Benzo(b)fluoranthene	U	U	U	U	U	U	330	5,600
Benzo(k)fluoranthene	U	U	U	U	U	U	330	56,000
Benzo(a)pyrene	U	U	U	U	U	U	330	1,000
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	U	330	5,600
Dibenz(a,h)anthracene	U	U	U	U	U	U	330	560
Benzo(g,h,i)perylene	U	U	U	U	U	U	330	500,000
Total PAHs	0	0	0	0	0	0	--	
Total CaPAHs	0	0	0	0	0	0	--	
Total SVOCs	0	0	0	0	0	0	--	

QUALIFIERS:
U: Compound analyzed for but not detected.

NOTES:
-- : Not applicable.

TABLE 24

MASSAPEQUA SUBSTATION
LONG ISLAND RAIL ROAD
UNDERGROUND INJECTION CONTROL INVESTIGATION

SUBSURFACE SOIL - TOTAL PETROLEUM HYDROCARBONS (TPH)

UIC STRUCTURE	Water Service Pit		Dry Well				
SAMPLE ID	MSSB-36	MSSB-36	MSSB-37	MSSB-37	MSSB-37	MSSB-37	INSTRUMENT DETECTION LIMITS
SAMPLE DEPTH (FT)	(7.5-9.5)	(9.5-11.5)	(12-14)	(14-16)	(16-18)	(18-20)	
DATE OF COLLECTION	2/4/2003	2/4/2003	2/7/2003	2/7/2003	2/7/2003	2/7/2003	
PERCENT SOLID	96.0	87.0	85.0	85.0	88.0	82.0	
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(mg/kg)
Total Petroleum Hydrocarbons	ND	ND	ND	ND	ND	ND	12.0

Notes:
ND: Not Detected

TABLE 29

MASSAPEQUA SUBSTATION
LONG ISLAND RAIL ROAD
CONSTRUCTION EXCAVATION INVESTIGATION

SUBSURFACE SOIL - RCRA METALS

SAMPLE ID	MSSBX-01	MSSBX-01	MSSBX-01	MSSBX-01	MSSBX-01	MSSBX-02	MSSBX-02	MSSBX-02	INSTRUMENT DETECTION	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective
SAMPLE DEPTH (FT)	(4-6)	(6-8)	(8-10)	(10-12)	(12-14)	(4-6)	(6-8)	(8-10)		
DATE OF COLLECTION	2/6/2003	2/6/2003	2/6/2003	2/6/2003	2/6/2003	2/6/2003	2/6/2003	2/6/2003	LIMITS	
PERCENT SOLIDS	99.0	83.0	84.0	89.0	85.0	99.0	98.0	93.0		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/l)	(mg/kg)
Arsenic	0.54 B	0.78 B	3.2	2.3	0.72 B	0.33 B	1.1	0.8 B	3.0	16
Barium	2.1 B	3.3 B	3 B	3.7 B	3.1 B	2.5 B	3.4 B	3.5 B	3.0	10,000
Cadmium	U	U	U	0.054 B	U	U	U	0.037 B	2.0	60
Chromium	6.4	2.6	10.1	5.4	3.8	1.1	3	3.8	3.0	800
Lead	0.74	1.5	1.5	1.9	0.93	1.1	1.6	5.3	1.0	3,900
Mercury	U	U	U	U	U	U	U	U	0.1	5.7
Selenium	U	U	U	U	U	U	U	U	8.0	6,800
Silver	U	U	U	U	U	U	U	U	2.0	6,800

SAMPLE ID	MSSBX-02	MSSBX-02	MSSBX-02	MSSBX-03	MSSBX-03	MSSBX-03	MSSBX-03	MSSBX-03	INSTRUMENT DETECTION	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective
SAMPLE DEPTH (FT)	(10-12)	(12-14)	(14-16)	(4-6)	(6-8)	(8-10)	(10-12)	(12-14)		
DATE OF COLLECTION	2/6/2003	2/6/2003	2/6/2003	2/3/2003	2/3/2003	2/6/2003	2/6/2003	2/6/2003	LIMITS	
PERCENT SOLIDS	89.0	86.0	84.0	97.0	98.0	94.0	93.0	85.0		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/l)	(mg/kg)
Arsenic	0.54 B	0.73 B	1.1	0.61 B	0.8	0.7 B	0.43 B	0.64 B	3.0	16
Barium	11.1	3.6 B	5.1 B	2.3 B	4.4 B	7.9 B	6.8 B	2.9 B	3.0	10,000
Cadmium	0.13 B	U	U	U	U	0.037 B	U	U	2.0	60
Chromium	2	2.8	3	1.5 B	2.7	2.1	1.4	1.4	3.0	800
Lead	1.2	1.3	1.7	1 B	0.96 B	1.8	1.2	0.99	1.0	3,900
Mercury	U	U	U	U	U	U	U	U	0.1	5.7
Selenium	U	U	U	U	U	U	U	U	8.0	6,800
Silver	U	U	U	U	U	U	U	U	2.0	6,800

QUALIFIERS:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

TABLE 29 (continued)

MASSAPEQUA SUBSTATION
LONG ISLAND RAIL ROAD
CONSTRUCTION EXCAVATION INVESTIGATION

SUBSURFACE SOIL - RCRA METALS

SAMPLE ID	MSSBX-03	MSSBX-03	MSSBX-03	MSSBX-04	MSSBX-04	MSSBX-04	MSSBX-04	MSSBX-04	INSTRUMENT	NYSDEC 6 Part 375 Industrial Use Soil Cleanup
SAMPLE DEPTH (FT)	(14-16)	(16-18)	(18-20)	(4-6)	(6-8)	(8-10)	(10-12)	(12-14)	DETECTION	Objective
DATE OF COLLECTION	2/6/2003	2/6/2003	2/6/2003	2/7/2003	2/7/2003	2/7/2003	2/7/2003	2/7/2003	LIMITS	
PERCENT SOLIDS	91.0	99.0	91.0	97.0	92.0	88.0	89.0	86.0		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/l)	(mg/kg)
Arsenic	0.6 B	0.93	0.69 B	2.2	1.4	U	0.55 B	0.58 B	3.0	16
Barium	3 B	2.9 B	2.8 B	4.2 B	4.5 B	1.6 B	3.7 B	3.4 B	3.0	10,000
Cadmium	U	U	U	0.073 B	0.31	U	U	U	2.0	60
Chromium	3.7	2.6	2.4	14.3	13.7	2.2	4.2	2.1	3.0	800
Lead	1.1	1	1.1	2.8	1.8	2.2	1.1	1.1	1.0	3,900
Mercury	U	U	U	0.025 B	U	U	U	U	0.1	5.7
Selenium	U	U	U	U	U	U	U	U	8.0	6,800
Silver	U	U	U	0.1 B	U	U	U	U	2.0	6,800

SAMPLE ID	MSSBX-04	MSSBX-04	MSSBX-04	MSSBX-05	MSSBX-05	MSSBX-05	MSSBX-05	MSSBX-05	INSTRUMENT	NYSDEC 6 Part 375 Industrial Use Soil Cleanup
SAMPLE DEPTH (FT)	(14-16)	(16-18)	(18-20)	(4-6)	(6-8)	(8-10)	(10-12)	(12-14)	DETECTION	Objective
DATE OF COLLECTION	2/7/2003	2/7/2003	2/7/2003	2/6/2003	2/6/2003	2/6/2003	2/6/2003	2/6/2003	LIMITS	
PERCENT SOLIDS	86.0	84.0	82.0	98.0	99.0	97.0	94.0	94.0		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/l)	(mg/kg)
Arsenic	0.67 B	0.77 B	0.74 B	0.56 B	0.51 B	4.4	0.79 B	0.31 B	3.0	16
Barium	3.7 B	3.5 B	5.6 B	2.2 B	2.9 B	5.4 B	4.8 B	2.2 B	3.0	10,000
Cadmium	U	U	U	U	U	0.066 B	U	U	2.0	60
Chromium	2.3	2.8	3.9	1.8	2	11.5	5.7	1.7	3.0	800
Lead	1	1.4	1.5	1.1	1.1	3.3	1.4	0.93	1.0	3,900
Mercury	U	U	U	U	U	U	U	U	0.1	5.7
Selenium	U	U	U	U	U	U	U	U	8.0	6,800
Silver	U	U	U	U	U	U	U	U	2.0	6,800

QUALIFIERS:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

TABLE 29 (continued)

MASSAPEQUA SUBSTATION
LONG ISLAND RAIL ROAD
CONSTRUCTION EXCAVATION INVESTIGATION

SUBSURFACE SOIL - RCRA METALS

SAMPLE ID	MSSBX-05	MSSBX-05	MSSBX-05	MSSBX-06	MSSBX-06	MSSBX-07	MSSBX-07	MSSBX-07	INSTRUMENT	NYSDEC 6 Part 375
SAMPLE DEPTH (FT)	(14-16)	(16-18)	(18-20)	(4-6)	(6-8)	(4-6)	(6-8)	(8-10)	DETECTION	Industrial Use Soil Cleanup
DATE OF COLLECTION	2/6/2003	2/6/2003	2/6/2003	2/6/2003	2/6/2003	2/6/2003	2/6/2003	2/6/2003	LIMITS	Objective
PERCENT SOLIDS	88.0	90.0	92.0	90.0	96.0	97.0	98.0	97.0		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/l)	(mg/kg)
Arsenic	0.8 B	0.53 B	0.58 B	0.84 B	1.2	1.1	0.69 B	1.1	3.0	16
Barium	2.5 B	2.8 B	2.7 B	3 B	10.3	3.7 B	3 B	5.1 B	3.0	10,000
Cadmium	U	U	U	0.077 B	0.29	0.14 B	0.072 B	0.32	2.0	60
Chromium	1.6	2.6	2	2	6.2	4.3	1.9	10.4	3.0	800
Lead	1	1	1	24.8	71.6	1.3	1.1	38.5	1.0	3,900
Mercury	U	U	U	U	0.13	U	U	U	0.1	5.7
Selenium	U	U	U	U	U	U	U	U	8.0	6,800
Silver	U	U	U	U	U	U	U	U	2.0	6,800

SAMPLE ID	MSSBX-07	MSSBX-07	MSSBX-09	MSSBX-09	MSSBX-09	MSSBX-09	MSSBX-09	MSSBX-10	INSTRUMENT	NYSDEC 6 Part 375
SAMPLE DEPTH (FT)	(10-12)	(12-14)	(4-6)	(6-8)	(8-10)	(10-12)	(16-18)	(4-6)	DETECTION	Industrial Use Soil Cleanup
DATE OF COLLECTION	2/6/2003	2/6/2003	2/6/2003	2/6/2003	2/6/2003	2/6/2003	2/6/2003	2/6/2003	LIMITS	Objective
PERCENT SOLIDS	88.0	87.0	98.0	97.0	98.0	95.0	88.0	98.0		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/l)	(mg/kg)
Arsenic	1.9	1.5	0.57 B	0.72 B	1.3	1.8	0.58 B	0.95	3.0	16
Barium	2.8 B	3.7 B	3.6 B	2.7 B	4 B	3 B	2.7 B	2.3 B	3.0	10,000
Cadmium	0.066 B	0.037 B	U	0.059 B	0.065 B	0.18 B	U	0.035 B	2.0	60
Chromium	4.1	3	1.5	2.3	8.8	5.5	3.8	2	3.0	800
Lead	1.9	1.6	4	2.3	3	2	2.1	1 B	1.0	3,900
Mercury	U	U	U	U	U	U	U	U	0.1	5.7
Selenium	U	U	U	U	U	U	U	U	8.0	6,800
Silver	U	U	U	U	U	U	U	0.45 B	2.0	6,800

QUALIFIERS:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

TABLE 29 (continued)

MASSAPEQUA SUBSTATION
LONG ISLAND RAIL ROAD
CONSTRUCTION EXCAVATION INVESTIGATION

SUBSURFACE SOIL - RCRA METALS

SAMPLE ID	**MSSBX-10**	**MSSBX-10**	**MSSBX-10**	**MSSBX-10**	**MSSBX-10**	**MSSBX-10**			**INSTRUMENT DETECTION**	**NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective**
SAMPLE DEPTH (FT)	(6-8)	(8-10)	(10-12)	(12-14)	(16-18)	(18-20)				
DATE OF COLLECTION	2/6/2003	2/6/2003	2/6/2003	2/3/2003	2/3/2003	2/3/2003			**LIMITS**	
PERCENT SOLIDS	96.0	91.0	80.0	83.0	86.0	88.0				
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)			(ug/l)	(mg/kg)
Arsenic	0.7	3.5	0.83	1	0.67 B	0.73 B			3.0	16
Barium	3.8 B	19.5	5.7 B	2.8 B	3.3 B	2.1 B			3.0	10,000
Cadmium	U	0.17 B	0.073 B	U	U	U			2.0	60
Chromium	1.8 B	11.8	2.4	2.4	2.4	2.6			3.0	800
Lead	0.87 B	8.3	1.3 B	0.95 B	0.88 B	0.79 B			1.0	3,900
Mercury	U	0.3	U	U	U	U			0.1	5.7
Selenium	U	U	U	U	U	U			8.0	6,800
Silver	0.3 B	0.39 B	0.26 B	0.14 B	U	U			2.0	6,800

QUALIFIERS:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

TABLE 30

MASSAPEQUA SUBSTATION
LONG ISLAND RAIL ROAD
CONSTRUCTION EXCAVATION INVESTIGATION

SUBSURFACE SOIL - SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)

SAMPLE ID	MSSBX-01	MSSBX-01	MSSBX-01	MSSBX-01	MSSBX-01	MSSBX-02	MSSBX-02	MSSBX-02	LABORATORY QUANTITATION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective (ug/Kg)
SAMPLE DEPTH (FT)	(4-6)	(6-8)	(8-10)	(10-12)	(12-14)	(4-6)	(6-8)	(8-10)		
DATE OF COLLECTION	2/6/2003	2/6/2003	2/6/2003	2/6/2003	2/6/2003	2/6/2003	2/6/2003	2/6/2003		
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	99.0	83.0	84.0	89.0	85.0	99.0	98.0	93.0		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	
Phenol	U	U	U	U	U	U	U	U	330	1,000,000
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U	330	--
2-Chlorophenol	U	U	U	U	U	U	U	U	330	--
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	330	560,000
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	330	250,000
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	330	1,000,000
2-Methylphenol	U	U	U	U	U	U	U	U	330	--
2,2-oxybis (1-chloropropane)	U	U	U	U	U	U	U	U	330	--
4-Methylphenol	U	U	U	U	U	U	U	U	330	--
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U	330	--
Hexachloroethane	U	U	U	U	U	U	U	U	330	--
Nitrobenzene	U	U	U	U	U	U	U	U	330	--
Isophorone	U	U	U	U	U	U	U	U	330	--
2-Nitrophenol	U	U	U	U	U	U	U	U	330	--
2,4-Dimethylphenol	U	U	U	U	U	U	U	U	330	--
2,4-Dichlorophenol	U	U	U	U	U	U	U	U	330	--
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	330	--
Naphthalene	U	U	U	U	U	U	U	U	330	1,000,000
4-Chloroaniline	U	U	U	U	U	U	U	U	330	--
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	U	U	330	--
Hexachlorobutadiene	U	U	U	U	U	U	U	U	330	--
4-Chloro-3-methylphenol	U	U	U	U	U	U	U	U	330	--
2-Methylnaphthalene	U	U	U	U	U	U	U	U	330	--
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U	330	--
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U	330	--
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U	330	--
2-Chloronaphthalene	U	U	U	U	U	U	U	U	330	--
2-Nitroaniline	U	U	U	U	U	U	U	U	330	--
Dimethylphthalate	U	U	U	U	U	U	U	U	330	--
Acenaphthylene	U	U	U	U	U	U	U	U	330	1,000,000
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U	330	--
3-Nitroaniline	U	U	U	U	U	U	U	U	330	--
Acenaphthene	U	U	U	U	U	U	U	U	330	1,000,000

QUALIFIERS:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

NOTES:
-- : Not applicable.

TABLE 30 (continued)

MASSAPEQUA SUBSTATION
LONG ISLAND RAIL ROAD
CONSTRUCTION EXCAVATION INVESTIGATION

SUBSURFACE SOIL - SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)

SAMPLE ID	MSSBX-01	MSSBX-01	MSSBX-01	MSSBX-01	MSSBX-01	MSSBX-02	MSSBX-02	MSSBX-02	LABORATORY QUANTITATION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective
SAMPLE DEPTH (FT)	(4-6)	(6-8)	(8-10)	(10-12)	(12-14)	(4-6)	(6-8)	(8-10)		
DATE OF COLLECTION	2/6/2003	2/6/2003	2/6/2003	2/6/2003	2/6/2003	2/6/2003	2/6/2003	2/6/2003		
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	99.0	83.0	84.0	89.0	85.0	99.0	98.0	93.0		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/Kg)
2,4-Dinitrophenol	U	U	U	U	U	U	U	U	330	--
4-Nitrophenol	U	U	U	U	U	U	U	U	330	--
Dibenzofuran	U	U	U	U	U	U	U	U	330	350,000
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	330	--
Diethylphthalate	U	U	U	U	U	U	U	U	330	--
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U	U	330	--
Fluorene	U	U	U	U	U	U	U	U	330	500,000
4-Nitroaniline	U	U	U	U	U	U	U	U	330	--
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U	330	--
N-Nitrosodiphenylamine	U	U	U	U	U	U	U	U	330	--
4-Bromophenyl-phenylether	U	U	U	U	U	U	U	U	330	--
Hexachlorobenzene	U	U	U	U	U	U	U	U	330	6,000
Pentachlorophenol	U	U	U	U	U	U	U	U	330	6,700
Phenanthrene	U	U	U	U	U	U	U	U	330	500,000
Anthracene	U	U	U	U	U	U	U	U	330	500,000
Carbazole	U	U	U	U	U	U	U	U	330	--
Di-n-butylphthalate	U	U	U	U	U	U	U	U	330	--
Fluoranthene	U	U	U	U	U	U	U	U	330	500,000
Pyrene	U	U	U	U	U	U	U	U	330	500,000
Butylbenzylphthalate	U	U	U	U	U	U	U	U	330	--
3,3-Dichlorobenzidine	U	U	U	U	U	U	U	U	330	--
Benzo(a)anthracene	U	U	U	U	U	U	U	U	330	--
Chrysene	U	U	U	U	U	U	U	U	330	56,000
bis(2-Ethylhexyl)phthalate	U	U	U	U	U	U	U	U	330	--
Di-n-octylphthalate	U	U	U	U	U	U	U	U	330	--
Benzo(b)fluoranthene	U	U	U	U	U	U	U	U	330	5,600
Benzo(k)fluoranthene	U	U	U	U	U	U	U	U	330	56,000
Benzo(a)pyrene	U	U	U	U	U	U	U	U	330	1,000
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	U	U	U	330	5,600
Dibenzo(a,h)anthracene	U	U	U	U	U	U	U	U	330	560
Benzo(g,h,i)perylene	U	U	U	U	U	U	U	U	330	500,000
Total PAHs	0	0	0	0	0	0	0	0	--	
Total CaPAHs	0	0	0	0	0	0	0	0	--	
Total SVOCs	0	0	0	0	0	0	0	0	--	

QUALIFIERS:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

NOTES:
-- : Not applicable.

TABLE 30 (continued)

MASSAPEQUA SUBSTATION
LONG ISLAND RAIL ROAD
CONSTRUCTION EXCAVATION INVESTIGATION

SUBSURFACE SOIL - SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)

SAMPLE ID	MSSBX-02	MSSBX-02	MSSBX-02	MSSBX-03	MSSBX-03	MSSBX-03	MSSBX-03	MSSBX-03	LABORATORY QUANTITATION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective
SAMPLE DEPTH (FT)	(10-12)	(12-14)	(14-16)	(4-6)	(6-8)	(8-10)	(10-12)	(12-14)		
DATE OF COLLECTION	2/6/2003	2/6/2003	2/6/2003	2/3/2003	2/3/2003	2/6/2003	2/6/2003	2/6/2003		
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	89.0	86.0	84.0	97.0	98.0	94.0	93.0	85.0		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/Kg)
Phenol	U	U	U	U	U	U	U	U	330	1,000,000
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U	330	--
2-Chlorophenol	U	U	U	U	U	U	U	U	330	--
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	330	560,000
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	330	250,000
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	330	1,000,000
2-Methylphenol	U	U	U	U	U	U	U	U	330	--
2,2-oxybis (1-chloropropane)	U	U	U	U	U	U	U	U	330	--
4-Methylphenol	U	U	U	U	U	U	U	U	330	--
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U	330	--
Hexachloroethane	U	U	U	U	U	U	U	U	330	--
Nitrobenzene	U	U	U	U	U	U	U	U	330	--
Isophorone	U	U	U	U	U	U	U	U	330	--
2-Nitrophenol	U	U	U	U	U	U	U	U	330	--
2,4-Dimethylphenol	U	U	U	U	U	U	U	U	330	--
2,4-Dichlorophenol	U	U	U	U	U	U	U	U	330	--
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	330	--
Naphthalene	U	U	U	U	U	U	U	U	330	1,000,000
4-Chloroaniline	U	U	U	U	U	U	U	U	330	--
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	U	U	330	--
Hexachlorobutadiene	U	U	U	U	U	U	U	U	330	--
4-Chloro-3-methylphenol	U	U	U	U	U	U	U	U	330	--
2-Methylnaphthalene	U	U	U	U	U	U	U	U	330	--
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U	330	--
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U	330	--
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U	330	--
2-Chloronaphthalene	U	U	U	U	U	U	U	U	330	--
2-Nitroaniline	U	U	U	U	U	U	U	U	330	--
Dimethylphthalate	U	U	U	U	U	U	U	U	330	--
Acenaphthylene	U	U	U	U	U	U	U	U	330	1,000,000
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U	330	--
3-Nitroaniline	U	U	U	U	U	U	U	U	330	--
Acenaphthene	U	U	U	U	U	U	U	U	330	1,000,000

QUALIFIERS:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

NOTES:
-- : Not applicable.

TABLE 30 (continued)

MASSAPEQUA SUBSTATION
LONG ISLAND RAIL ROAD
CONSTRUCTION EXCAVATION INVESTIGATION

SUBSURFACE SOIL - SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)

SAMPLE ID	MSSBX-02	MSSBX-02	MSSBX-02	MSSBX-03	MSSBX-03	MSSBX-03	MSSBX-03	MSSBX-03	LABORATORY QUANTITATION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective
SAMPLE DEPTH (FT)	(10-12)	(12-14)	(14-16)	(4-6)	(6-8)	(8-10)	(10-12)	(12-14)		
DATE OF COLLECTION	2/6/2003	2/6/2003	2/6/2003	2/3/2003	2/3/2003	2/6/2003	2/6/2003	2/6/2003		
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	89.0	86.0	84.0	97.0	98.0	94.0	93.0	85.0		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/Kg)
2,4-Dinitrophenol	U	U	U	U	U	U	U	U	330	--
4-Nitrophenol	U	U	U	U	U	U	U	U	330	--
Dibenzofuran	U	U	U	U	U	U	U	U	330	350,000
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	330	--
Diethylphthalate	U	U	U	U	U	U	U	U	330	--
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U	U	330	--
Fluorene	U	U	U	U	U	U	U	U	330	500,000
4-Nitroaniline	U	U	U	U	U	U	U	U	330	--
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U	330	--
N-Nitrosodiphenylamine	U	U	U	U	U	U	U	U	330	--
4-Bromophenyl-phenylether	U	U	U	U	U	U	U	U	330	--
Hexachlorobenzene	U	U	U	U	U	U	U	U	330	6,000
Pentachlorophenol	U	U	U	U	U	U	U	U	330	6,700
Phenanthrene	U	U	U	U	U	U	U	U	330	500,000
Anthracene	U	U	U	U	U	U	U	U	330	500,000
Carbazole	U	U	U	U	U	U	U	U	330	--
Di-n-butylphthalate	U	U	U	U	U	U	U	U	330	--
Fluoranthene	U	U	U	U	U	U	U	U	330	500,000
Pyrene	U	U	U	U	U	U	U	U	330	500,000
Butylbenzylphthalate	U	U	U	U	U	U	U	U	330	--
3,3-Dichlorobenzidine	U	U	U	U	U	U	U	U	330	--
Benzo(a)anthracene	U	U	U	U	U	U	U	U	330	--
Chrysene	U	U	U	U	U	U	U	U	330	56,000
bis(2-Ethylhexyl)phthalate	U	U	U	U	U	U	U	U	330	--
Di-n-octylphthalate	U	U	U	U	U	U	U	U	330	--
Benzo(b)fluoranthene	U	U	U	U	U	U	U	U	330	5,600
Benzo(k)fluoranthene	U	U	U	U	U	U	U	U	330	56,000
Benzo(a)pyrene	U	U	U	U	U	U	U	U	330	1,000
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	U	U	U	330	5,600
Dibenzo(a,h)anthracene	U	U	U	U	U	U	U	U	330	560
Benzo(g,h,i)perylene	U	U	U	U	U	U	U	U	330	500,000
Total PAHs	0	0	0	0	0	0	0	0	--	
Total CaPAHs	0	0	0	0	0	0	0	0	--	
Total SVOCs	0	0	0	0	0	0	0	0	--	

QUALIFIERS:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

NOTES:
-- : Not applicable.

TABLE 30 (continued)

MASSAPEQUA SUBSTATION
LONG ISLAND RAIL ROAD
CONSTRUCTION EXCAVATION INVESTIGATION

SUBSURFACE SOIL - SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)

SAMPLE ID	MSSBX-03	MSSBX-03	MSSBX-03	MSSBX-04	MSSBX-04	MSSBX-04	MSSBX-04	MSSBX-04	LABORATORY QUANTITATION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective
SAMPLE DEPTH (FT)	(14-16)	(16-18)	(18-20)	(4-6)	(6-8)	(8-10)	(10-12)	(12-14)		
DATE OF COLLECTION	2/6/2003	2/6/2003	2/6/2003	2/7/2003	2/7/2003	2/7/2003	2/7/2003	2/7/2003		
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	91.0	99.0	91.0	97.0	92.0	88.0	89.0	86.0		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/Kg)
Phenol	U	U	U	U	U	U	U	U	330	1,000,000
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U	330	--
2-Chlorophenol	U	U	U	U	U	U	U	U	330	--
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	330	560,000
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	330	250,000
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	330	1,000,000
2-Methylphenol	U	U	U	U	U	U	U	U	330	--
2,2-oxybis (1-chloropropane)	U	U	U	U	U	U	U	U	330	--
4-Methylphenol	U	U	U	U	U	U	U	U	330	--
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U	330	--
Hexachloroethane	U	U	U	U	U	U	U	U	330	--
Nitrobenzene	U	U	U	U	U	U	U	U	330	--
Isophorone	U	U	U	U	U	U	U	U	330	--
2-Nitrophenol	U	U	U	U	U	U	U	U	330	--
2,4-Dimethylphenol	U	U	U	U	U	U	U	U	330	--
2,4-Dichlorophenol	U	U	U	U	U	U	U	U	330	--
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	330	--
Naphthalene	U	U	U	U	U	U	U	U	330	1,000,000
4-Chloroaniline	U	U	U	U	U	U	U	U	330	--
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	U	U	330	--
Hexachlorobutadiene	U	U	U	U	U	U	U	U	330	--
4-Chloro-3-methylphenol	U	U	U	U	U	U	U	U	330	--
2-Methylnaphthalene	U	U	U	U	U	U	U	U	330	--
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U	330	--
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U	330	--
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U	330	--
2-Chloronaphthalene	U	U	U	U	U	U	U	U	330	--
2-Nitroaniline	U	U	U	U	U	U	U	U	330	--
Dimethylphthalate	U	U	U	U	U	U	U	U	330	--
Acenaphthylene	U	U	U	U	U	U	U	U	330	1,000,000
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U	330	--
3-Nitroaniline	U	U	U	U	U	U	U	U	330	--
Acenaphthene	U	U	U	U	U	U	U	U	330	1,000,000

QUALIFIERS:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

NOTES:
-- : Not applicable.

TABLE 30 (continued)

MASSAPEQUA SUBSTATION
LONG ISLAND RAIL ROAD
CONSTRUCTION EXCAVATION INVESTIGATION

SUBSURFACE SOIL - SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)

SAMPLE ID	MSSBX-03	MSSBX-03	MSSBX-03	MSSBX-04	MSSBX-04	MSSBX-04	MSSBX-04	MSSBX-04	LABORATORY QUANTITATION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective (ug/Kg)
SAMPLE DEPTH (FT)	(14-16)	(16-18)	(18-20)	(4-6)	(6-8)	(8-10)	(10-12)	(12-14)		
DATE OF COLLECTION	2/6/2003	2/6/2003	2/6/2003	2/7/2003	2/7/2003	2/7/2003	2/7/2003	2/7/2003		
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	91.0	99.0	91.0	97.0	92.0	88.0	89.0	86.0		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	
2,4-Dinitrophenol	U	U	U	U	U	U	U	U	330	--
4-Nitrophenol	U	U	U	U	U	U	U	U	330	--
Dibenzofuran	U	U	U	U	U	U	U	U	330	350,000
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	330	--
Diethylphthalate	U	U	U	U	U	U	U	U	330	--
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U	U	330	--
Fluorene	U	U	U	U	U	U	U	U	330	500,000
4-Nitroaniline	U	U	U	U	U	U	U	U	330	--
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U	330	--
N-Nitrosodiphenylamine	U	U	U	U	U	U	U	U	330	--
4-Bromophenyl-phenylether	U	U	U	U	U	U	U	U	330	--
Hexachlorobenzene	U	U	U	U	U	U	U	U	330	6,000
Pentachlorophenol	U	U	U	U	U	U	U	U	330	6,700
Phenanthrene	U	U	U	U	U	U	U	U	330	500,000
Anthracene	U	U	U	U	U	U	U	U	330	500,000
Carbazole	U	U	U	U	U	U	U	U	330	--
Di-n-butylphthalate	U	U	U	U	U	U	U	U	330	--
Fluoranthene	U	U	U	U	U	U	U	U	330	500,000
Pyrene	U	U	U	U	U	U	U	U	330	500,000
Butylbenzylphthalate	U	U	U	U	U	U	U	U	330	--
3,3-Dichlorobenzidine	U	U	U	U	U	U	U	U	330	--
Benzo(a)anthracene	U	U	U	U	U	U	U	U	330	--
Chrysene	U	U	U	U	U	U	U	U	330	56,000
bis(2-Ethylhexyl)phthalate	U	U	U	U	U	U	U	U	330	--
Di-n-octylphthalate	U	U	U	U	U	U	U	U	330	--
Benzo(b)fluoranthene	U	U	U	U	U	U	U	U	330	5,600
Benzo(k)fluoranthene	U	U	U	U	U	U	U	U	330	56,000
Benzo(a)pyrene	U	U	U	U	U	U	U	U	330	1,000
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	U	U	U	330	5,600
Dibenzo(a,h)anthracene	U	U	U	U	U	U	U	U	330	560
Benzo(g,h,i)perylene	U	U	U	U	U	U	U	U	330	500,000
Total PAHs	0	0	0	0	0	0	0	0	--	
Total CaPAHs	0	0	0	0	0	0	0	0	--	
Total SVOCs	0	0	0	0	0	0	0	0	--	

QUALIFIERS:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

NOTES:
-- : Not applicable.

TABLE 30 (continued)

MASSAPEQUA SUBSTATION
LONG ISLAND RAIL ROAD
CONSTRUCTION EXCAVATION INVESTIGATION

SUBSURFACE SOIL - SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)

SAMPLE ID	MSSBX-04	MSSBX-04	MSSBX-04	MSSBX-05	MSSBX-05	MSSBX-05	MSSBX-05	MSSBX-05	LABORATORY QUANTITATION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective
SAMPLE DEPTH (FT)	(14-16)	(16-18)	(18-20)	(4-6)	(6-8)	(8-10)	(10-12)	(12-14)		
DATE OF COLLECTION	2/7/2003	2/7/2003	2/7/2003	2/7/2003	2/7/2003	2/7/2003	2/7/2003	2/7/2003		
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	86.0	84.0	82.0	98.0	99.0	97.0	94.0	94.0		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/Kg)
Phenol	U	U	U	U	U	U	U	U	330	1,000,000
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U	330	--
2-Chlorophenol	U	U	U	U	U	U	U	U	330	--
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	330	560,000
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	330	250,000
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	330	1,000,000
2-Methylphenol	U	U	U	U	U	U	U	U	330	--
2,2-oxybis (1-chloropropane)	U	U	U	U	U	U	U	U	330	--
4-Methylphenol	U	U	U	U	U	U	U	U	330	--
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U	330	--
Hexachloroethane	U	U	U	U	U	U	U	U	330	--
Nitrobenzene	U	U	U	U	U	U	U	U	330	--
Isophorone	U	U	U	U	U	U	U	U	330	--
2-Nitrophenol	U	U	U	U	U	U	U	U	330	--
2,4-Dimethylphenol	U	U	U	U	U	U	U	U	330	--
2,4-Dichlorophenol	U	U	U	U	U	U	U	U	330	--
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	330	--
Naphthalene	U	U	U	U	U	U	U	U	330	1,000,000
4-Chloroaniline	U	U	U	U	U	U	U	U	330	--
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	U	U	330	--
Hexachlorobutadiene	U	U	U	U	U	U	U	U	330	--
4-Chloro-3-methylphenol	U	U	U	U	U	U	U	U	330	--
2-Methylnaphthalene	U	U	U	U	U	U	U	U	330	--
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U	330	--
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U	330	--
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U	330	--
2-Chloronaphthalene	U	U	U	U	U	U	U	U	330	--
2-Nitroaniline	U	U	U	U	U	U	U	U	330	--
Dimethylphthalate	U	U	U	U	U	U	U	U	330	--
Acenaphthylene	U	U	U	U	U	U	U	U	330	1,000,000
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U	330	--
3-Nitroaniline	U	U	U	U	U	U	U	U	330	--
Acenaphthene	U	U	U	U	U	U	U	U	330	1,000,000

QUALIFIERS:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

NOTES:
-- : Not applicable.

TABLE 30 (continued)

MASSAPEQUA SUBSTATION
LONG ISLAND RAIL ROAD
CONSTRUCTION EXCAVATION INVESTIGATION

SUBSURFACE SOIL - SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)

SAMPLE ID	MSSBX-04	MSSBX-04	MSSBX-04	MSSBX-05	MSSBX-05	MSSBX-05	MSSBX-05	MSSBX-05	LABORATORY QUANTITATION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective (ug/Kg)
SAMPLE DEPTH (FT)	(14-16)	(16-18)	(18-20)	(4-6)	(6-8)	(8-10)	(10-12)	(12-14)		
DATE OF COLLECTION	2/7/2003	2/7/2003	2/7/2003	2/7/2003	2/7/2003	2/7/2003	2/7/2003	2/7/2003		
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	86.0	84.0		98.0	99.0	97.0	94.0	94.0		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	
2,4-Dinitrophenol	U	U	U	U	U	U	U	U	330	--
4-Nitrophenol	U	U	U	U	U	U	U	U	330	--
Dibenzofuran	U	U	U	U	U	U	U	U	330	350,000
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	330	--
Diethylphthalate	U	U	U	U	U	U	U	U	330	--
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U	U	330	--
Fluorene	U	U	U	U	U	U	U	U	330	500,000
4-Nitroaniline	U	U	U	U	U	U	U	U	330	--
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U	330	--
N-Nitrosodiphenylamine	U	U	U	U	U	U	U	U	330	--
4-Bromophenyl-phenylether	U	U	U	U	U	U	U	U	330	--
Hexachlorobenzene	U	U	U	U	U	U	U	U	330	6,000
Pentachlorophenol	U	U	U	U	U	U	U	U	330	6,700
Phenanthrene	U	U	U	U	U	U	U	U	330	500,000
Anthracene	U	U	U	U	U	U	U	U	330	500,000
Carbazole	U	U	U	U	U	U	U	U	330	--
Di-n-butylphthalate	U	U	U	U	U	U	U	U	330	--
Fluoranthene	U	U	U	U	U	U	U	U	330	500,000
Pyrene	U	U	U	U	U	U	U	U	330	500,000
Butylbenzylphthalate	U	U	U	U	U	U	U	U	330	--
3,3-Dichlorobenzidine	U	U	U	U	U	U	U	U	330	--
Benzo(a)anthracene	U	U	U	U	U	U	U	U	330	--
Chrysene	U	U	U	U	U	U	U	U	330	56,000
bis(2-Ethylhexyl)phthalate	U	U	U	U	U	55 J	U	U	330	--
Di-n-octylphthalate	U	U	U	U	U	U	U	U	330	--
Benzo(b)fluoranthene	U	U	U	U	U	U	U	U	330	5,600
Benzo(k)fluoranthene	U	U	U	U	U	U	U	U	330	56,000
Benzo(a)pyrene	U	U	U	U	U	U	U	U	330	1,000
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	U	U	U	330	5,600
Dibenzo(a,h)anthracene	U	U	U	U	U	U	U	U	330	560
Benzo(g,h,i)perylene	U	U	U	U	U	U	U	U	330	500,000
Total PAHs	0	0	0	0	0	0	0	0	--	
Total CaPAHs	0	0	0	0	0	0	0	0	--	
Total SVOCs	0	0	0	0	0	55	0	0	--	

QUALIFIERS:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

NOTES:
-- : Not applicable.

TABLE 30 (continued)

MASSAPEQUA SUBSTATION
LONG ISLAND RAIL ROAD
CONSTRUCTION EXCAVATION INVESTIGATION

SUBSURFACE SOIL - SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)

SAMPLE ID	MSSBX-05	MSSBX-05	MSSBX-05	MSSBX-06	MSSBX-06	MSSBX-07	MSSBX-07	MSSBX-07	LABORATORY QUANTITATION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective
SAMPLE DEPTH (FT)	(14-16)	(16-18)	(18-20)	(4-6)	(6-8)	(4-6)	(6-8)	(8-10)		
DATE OF COLLECTION	2/7/2003	2/7/2003	2/7/2003	2/6/2003	2/6/2003	2/6/2003	2/6/2003	2/6/2003		
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	88.0	90.0	92.0	90.0	96.0	97.0	98.0	97.0		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/Kg)
Phenol	U	U	U	U	U	U	U	U	330	1,000,000
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U	330	--
2-Chlorophenol	U	U	U	U	U	U	U	U	330	--
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	330	560,000
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	330	250,000
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	330	1,000,000
2-Methylphenol	U	U	U	U	U	U	U	U	330	--
2,2-oxybis (1-chloropropane)	U	U	U	U	U	U	U	U	330	--
4-Methylphenol	U	U	U	U	U	U	U	U	330	--
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U	330	--
Hexachloroethane	U	U	U	U	U	U	U	U	330	--
Nitrobenzene	U	U	U	U	U	U	U	U	330	--
Isophorone	U	U	U	U	U	U	U	U	330	--
2-Nitrophenol	U	U	U	U	U	U	U	U	330	--
2,4-Dimethylphenol	U	U	U	U	U	U	U	U	330	--
2,4-Dichlorophenol	U	U	U	U	U	U	U	U	330	--
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	330	--
Naphthalene	U	U	U	U	U	U	U	U	330	1,000,000
4-Chloroaniline	U	U	U	U	U	U	U	U	330	--
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	U	U	330	--
Hexachlorobutadiene	U	U	U	U	U	U	U	U	330	--
4-Chloro-3-methylphenol	U	U	U	U	U	U	U	U	330	--
2-Methylnaphthalene	U	U	U	U	U	U	U	U	330	--
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U	330	--
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U	330	--
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U	330	--
2-Chloronaphthalene	U	U	U	U	U	U	U	U	330	--
2-Nitroaniline	U	U	U	U	U	U	U	U	330	--
Dimethylphthalate	U	U	U	U	U	U	U	U	330	--
Acenaphthylene	U	U	U	U	U	U	U	U	330	1,000,000
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U	330	--
3-Nitroaniline	U	U	U	U	U	U	U	U	330	--
Acenaphthene	U	U	U	U	U	U	U	U	330	1,000,000

QUALIFIERS:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

NOTES:
-- : Not applicable.

TABLE 30 (continued)

MASSAPEQUA SUBSTATION
LONG ISLAND RAIL ROAD
CONSTRUCTION EXCAVATION INVESTIGATION

SUBSURFACE SOIL - SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)

SAMPLE ID	MSSBX-05	MSSBX-05	MSSBX-05	MSSBX-06	MSSBX-06	MSSBX-07	MSSBX-07	MSSBX-07	LABORATORY QUANTITATION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective
SAMPLE DEPTH (FT)	(14-16)	(16-18)	(18-20)	(4-6)	(6-8)	(4-6)	(6-8)	(8-10)		
DATE OF COLLECTION	2/7/2003	2/7/2003	2/7/2003	2/6/2003	2/6/2003	2/6/2003	2/6/2003	2/6/2003		
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	88.0	90.0	92.0	90.0	96.0	97.0	98.0	97.0		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/Kg)
2,4-Dinitrophenol	U	U	U	U	U	U	U	U	330	--
4-Nitrophenol	U	U	U	U	U	U	U	U	330	--
Dibenzofuran	U	U	U	U	U	U	U	U	330	350,000
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	330	--
Diethylphthalate	U	U	U	U	U	U	U	U	330	--
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U	U	330	--
Fluorene	U	U	U	U	U	U	U	U	330	500,000
4-Nitroaniline	U	U	U	U	U	U	U	U	330	--
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U	330	--
N-Nitrosodiphenylamine	U	U	U	U	U	U	U	U	330	--
4-Bromophenyl-phenylether	U	U	U	U	U	U	U	U	330	--
Hexachlorobenzene	U	U	U	U	U	U	U	U	330	6,000
Pentachlorophenol	U	U	U	U	U	U	U	U	330	6,700
Phenanthrene	U	U	U	U	U	U	U	U	330	500,000
Anthracene	U	U	U	U	U	U	U	U	330	500,000
Carbazole	U	U	U	U	U	U	U	U	330	--
Di-n-butylphthalate	U	U	U	U	54 J	U	U	U	330	--
Fluoranthene	U	U	U	U	U	U	U	U	330	500,000
Pyrene	U	U	U	U	U	U	U	U	330	500,000
Butylbenzylphthalate	U	U	U	U	U	U	U	U	330	--
3,3-Dichlorobenzidine	U	U	U	U	U	U	U	U	330	--
Benzo(a)anthracene	U	U	U	U	U	U	U	U	330	--
Chrysene	U	U	U	U	U	U	U	U	330	56,000
bis(2-Ethylhexyl)phthalate	U	U	U	U	U	U	U	U	330	--
Di-n-octylphthalate	U	U	U	U	U	U	U	U	330	--
Benzo(b)fluoranthene	U	U	U	U	U	U	U	U	330	5,600
Benzo(k)fluoranthene	U	U	U	U	U	U	U	U	330	56,000
Benzo(a)pyrene	U	U	U	U	U	U	U	U	330	1,000
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	U	U	U	330	5,600
Dibenzo(a,h)anthracene	U	U	U	U	U	U	U	U	330	560
Benzo(g,h,i)perylene	U	U	U	U	U	U	U	U	330	500,000
Total PAHs	0	0	0	0	0	0	0	0	--	
Total CaPAHs	0	0	0	0	0	0	0	0	--	
Total SVOCs	0	0	0	0	54	0	0	0	--	

QUALIFIERS:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

NOTES:
-- : Not applicable.

TABLE 30 (continued)

MASSAPEQUA SUBSTATION
LONG ISLAND RAIL ROAD
CONSTRUCTION EXCAVATION INVESTIGATION

SUBSURFACE SOIL - SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)

SAMPLE ID	MSSBX-07	MSSBX-07	MSSBX-09	MSSBX-09	MSSBX-09	MSSBX-09	MSSBX-09	MSSBX-10	LABORATORY QUANTITATION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective (ug/Kg)
SAMPLE DEPTH (FT)	(10-12)	(12-14)	(4-6)	(6-8)	(8-10)	(10-12)	(16-18)	(4-6)		
DATE OF COLLECTION	2/6/2003	2/6/2003	2/6/2003	2/6/2003	2/6/2003	2/6/2003	2/6/2003	2/6/2003		
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	88.0	87.0	98.0	97.0	98.0	95.0	88.0	98.0		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	
Phenol	U	U	U	U	U	U	U	U	330	1,000,000
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U	330	--
2-Chlorophenol	U	U	U	U	U	U	U	U	330	--
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	330	560,000
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	330	250,000
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	330	1,000,000
2-Methylphenol	U	U	U	U	U	U	U	U	330	--
2,2-oxybis (1-chloropropane)	U	U	U	U	U	U	U	U	330	--
4-Methylphenol	U	U	U	U	U	U	U	U	330	--
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U	330	--
Hexachloroethane	U	U	U	U	U	U	U	U	330	--
Nitrobenzene	U	U	U	U	U	U	U	U	330	--
Isophorone	U	U	U	U	U	U	U	U	330	--
2-Nitrophenol	U	U	U	U	U	U	U	U	330	--
2,4-Dimethylphenol	U	U	U	U	U	U	U	U	330	--
2,4-Dichlorophenol	U	U	U	U	U	U	U	U	330	--
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	330	--
Naphthalene	U	U	U	U	U	U	U	U	330	1,000,000
4-Chloroaniline	U	U	U	U	U	U	U	U	330	--
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	U	U	330	--
Hexachlorobutadiene	U	U	U	U	U	U	U	U	330	--
4-Chloro-3-methylphenol	U	U	U	U	U	U	U	U	330	--
2-Methylnaphthalene	U	U	U	U	U	U	U	U	330	--
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U	330	--
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U	330	--
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U	330	--
2-Chloronaphthalene	U	U	U	U	U	U	U	U	330	--
2-Nitroaniline	U	U	U	U	U	U	U	U	330	--
Dimethylphthalate	U	U	U	U	U	U	U	U	330	--
Acenaphthylene	U	U	U	U	U	U	U	U	330	1,000,000
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U	330	--
3-Nitroaniline	U	U	U	U	U	U	U	U	330	--
Acenaphthene	U	U	U	U	U	U	U	U	330	1,000,000

QUALIFIERS:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

NOTES:
-- : Not applicable.

TABLE 30 (continued)

MASSAPEQUA SUBSTATION
LONG ISLAND RAIL ROAD
CONSTRUCTION EXCAVATION INVESTIGATION

SUBSURFACE SOIL - SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)

SAMPLE ID	MSSBX-07	MSSBX-07	MSSBX-09	MSSBX-09	MSSBX-09	MSSBX-09	MSSBX-09	MSSBX-10	LABORATORY QUANTITATION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective
SAMPLE DEPTH (FT)	(10-12)	(12-14)	(4-6)	(6-8)	(8-10)	(10-12)	(16-18)	(4-6)		
DATE OF COLLECTION	2/6/2003	2/6/2003	2/6/2003	2/6/2003	2/6/2003	2/6/2003	2/6/2003	2/6/2003		
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	88.0	87.0	98.0	97.0	98.0	95.0	88.0	98.0		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/Kg)
2,4-Dinitrophenol	U	U	U	U	U	U	U	U	330	--
4-Nitrophenol	U	U	U	U	U	U	U	U	330	--
Dibenzofuran	U	U	U	U	U	U	U	U	330	350,000
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	330	--
Diethylphthalate	U	U	U	U	U	U	U	U	330	--
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U	U	330	--
Fluorene	U	U	U	U	U	U	U	U	330	500,000
4-Nitroaniline	U	U	U	U	U	U	U	U	330	--
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U	330	--
N-Nitrosodiphenylamine	U	U	U	U	U	U	U	U	330	--
4-Bromophenyl-phenylether	U	U	U	U	U	U	U	U	330	--
Hexachlorobenzene	U	U	U	U	U	U	U	U	330	6,000
Pentachlorophenol	U	U	U	U	U	U	U	U	330	6,700
Phenanthrene	U	U	U	U	U	U	U	U	330	500,000
Anthracene	U	U	U	U	U	U	U	U	330	500,000
Carbazole	U	U	U	U	U	U	U	U	330	--
Di-n-butylphthalate	U	U	U	U	U	U	U	U	330	--
Fluoranthene	U	U	U	U	U	U	U	U	330	500,000
Pyrene	U	U	U	U	U	U	U	U	330	500,000
Butylbenzylphthalate	U	U	U	U	U	U	U	U	330	--
3,3-Dichlorobenzidine	U	U	U	U	U	U	U	U	330	--
Benzo(a)anthracene	U	U	U	U	U	U	U	U	330	--
Chrysene	U	U	U	U	U	U	U	U	330	56,000
bis(2-Ethylhexyl)phthalate	U	U	U	U	U	U	U	U	330	--
Di-n-octylphthalate	U	U	U	U	U	U	U	U	330	--
Benzo(b)fluoranthene	U	U	U	U	U	U	U	U	330	5,600
Benzo(k)fluoranthene	U	U	U	U	U	U	U	U	330	56,000
Benzo(a)pyrene	U	U	U	U	U	U	U	U	330	1,000
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	U	U	U	330	5,600
Dibenzo(a,h)anthracene	U	U	U	U	U	U	U	U	330	560
Benzo(g,h,i)perylene	U	U	U	U	U	U	U	U	330	500,000
Total PAHs	0	0	0	0	0	0	0	0	--	
Total CaPAHs	0	0	0	0	0	0	0	0	--	
Total SVOCs	0	0	0	0	0	0	0	0	--	

QUALIFIERS:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

NOTES:
-- : Not applicable.

TABLE 30 (continued)

MASSAPEQUA SUBSTATION
LONG ISLAND RAIL ROAD
CONSTRUCTION EXCAVATION INVESTIGATION

SUBSURFACE SOIL - SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)

SAMPLE ID	MSSBX-10	MSSBX-10	MSSBX-10	MSSBX-10	MSSBX-10	MSSBX-10			LABORATORY QUANTITATION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective
SAMPLE DEPTH (FT)	(6-8)	(8-10)	(10-12)	(12-14)	(16-18)	(18-20)				
DATE OF COLLECTION	2/6/2003	2/6/2003	2/3/2003	2/3/2003	2/3/2003	2/3/2003				
DILUTION FACTOR	1	1	1	1	1	1				
PERCENT SOLIDS	96.0	91.0	80.0	83.0	86.0	88.0				
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)			(ug/kg)	(ug/Kg)
Phenol	U	U	U	U	U	U			330	1,000,000
bis(2-Chloroethyl)ether	U	U	U	U	U	U			330	--
2-Chlorophenol	U	U	U	U	U	U			330	--
1,3-Dichlorobenzene	U	U	U	U	U	U			330	560,000
1,4-Dichlorobenzene	U	U	U	U	U	U			330	250,000
1,2-Dichlorobenzene	U	U	U	U	U	U			330	1,000,000
2-Methylphenol	U	U	U	U	U	U			330	--
2,2-oxybis (1-chloropropane)	U	U	U	U	U	U			330	--
4-Methylphenol	U	U	U	U	U	U			330	--
N-Nitroso-di-n-propylamine	U	U	U	U	U	U			330	--
Hexachloroethane	U	U	U	U	U	U			330	--
Nitrobenzene	U	U	U	U	U	U			330	--
Isophorone	U	U	U	U	U	U			330	--
2-Nitrophenol	U	U	U	U	U	U			330	--
2,4-Dimethylphenol	U	U	U	U	U	U			330	--
2,4-Dichlorophenol	U	U	U	U	U	U			330	--
1,2,4-Trichlorobenzene	U	U	U	U	U	U			330	--
Naphthalene	U	U	U	U	U	U			330	1,000,000
4-Chloroaniline	U	U	U	U	U	U			330	--
bis(2-Chloroethoxy)methane	U	U	U	U	U	U			330	--
Hexachlorobutadiene	U	U	U	U	U	U			330	--
4-Chloro-3-methylphenol	U	U	U	U	U	U			330	--
2-Methylnaphthalene	U	U	U	U	U	U			330	--
Hexachlorocyclopentadiene	U	U	U	U	U	U			330	--
2,4,6-Trichlorophenol	U	U	U	U	U	U			330	--
2,4,5-Trichlorophenol	U	U	U	U	U	U			330	--
2-Chloronaphthalene	U	U	U	U	U	U			330	--
2-Nitroaniline	U	U	U	U	U	U			330	--
Dimethylphthalate	U	U	U	U	U	U			330	--
Acenaphthylene	U	U	U	U	U	U			330	1,000,000
2,6-Dinitrotoluene	U	U	U	U	U	U			330	--
3-Nitroaniline	U	U	U	U	U	U			330	--
Acenaphthene	U	U	U	U	U	U			330	1,000,000

QUALIFIERS:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

NOTES:
-- : Not applicable.

TABLE 30 (continued)

MASSAPEQUA SUBSTATION
LONG ISLAND RAIL ROAD
CONSTRUCTION EXCAVATION INVESTIGATION

SUBSURFACE SOIL - SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)

SAMPLE ID	MSSBX-10	MSSBX-10	MSSBX-10	MSSBX-10	MSSBX-10	MSSBX-10			LABORATORY QUANTITATION LIMITS	NYSDEC 6 Part 375 Industrial Use Soil Cleanup Objective
SAMPLE DEPTH (FT)	(6-8)	(8-10)	(10-12)	(12-14)	(16-18)	(18-20)				
DATE OF COLLECTION	2/6/2003	2/6/2003	2/3/2003	2/3/2003	2/3/2003	2/3/2003				
DILUTION FACTOR	1	1	1	1	1	1				
PERCENT SOLIDS	96.0	91.0	80.0	83.0	86.0	88.0				
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)			(ug/kg)	(ug/Kg)
2,4-Dinitrophenol	U	U	U	U	U	U			330	--
4-Nitrophenol	U	U	U	U	U	U			330	--
Dibenzofuran	U	U	U	U	U	U			330	350,000
2,4-Dinitrotoluene	U	U	U	U	U	U			330	--
Diethylphthalate	U	U	U	U	U	U			330	--
4-Chlorophenyl-phenylether	U	U	U	U	U	U			330	--
Fluorene	U	U	U	U	U	U			330	500,000
4-Nitroaniline	U	U	U	U	U	U			330	--
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U			330	--
N-Nitrosodiphenylamine	U	U	U	U	U	U			330	--
4-Bromophenyl-phenylether	U	U	U	U	U	U			330	--
Hexachlorobenzene	U	U	U	U	U	U			330	6,000
Pentachlorophenol	U	U	U	U	U	U			330	6,700
Phenanthrene	U	U	U	U	U	U			330	500,000
Anthracene	U	U	U	U	U	U			330	500,000
Carbazole	U	U	U	U	U	U			330	--
Di-n-butylphthalate	U	U	U	U	U	U			330	--
Fluoranthene	U	U	U	U	U	U			330	500,000
Pyrene	U	U	U	U	U	U			330	500,000
Butylbenzylphthalate	U	U	U	U	U	U			330	--
3,3-Dichlorobenzidine	U	U	U	U	U	U			330	--
Benzo(a)anthracene	U	U	U	U	U	U			330	--
Chrysene	U	U	U	U	U	U			330	56,000
bis(2-Ethylhexyl)phthalate	38 J	46 J	U	U	U	U			330	--
Di-n-octylphthalate	U	U	U	U	U	U			330	--
Benzo(b)fluoranthene	U	U	U	U	U	U			330	5,600
Benzo(k)fluoranthene	U	U	U	U	U	U			330	56,000
Benzo(a)pyrene	U	U	U	U	U	U			330	1,000
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	U			330	5,600
Dibenzo(a,h)anthracene	U	U	U	U	U	U			330	560
Benzo(g,h,i)perylene	U	U	U	U	U	U			330	500,000
Total PAHs	0	0	0	0	0	0			--	
Total CaPAHs	0	0	0	0	0	0			--	
Total SVOCs	38	46	0	0	0	0			--	

QUALIFIERS:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

NOTES:
-- : Not applicable.

Appendix B

APPENDIX B

NEW YORK STATE DEPARTMENT OF HEALTH
GENERIC COMMUNITY AIR MONITORING PLAN

New York State Department of Health
Generic Community Air Monitoring Plan

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 volatile organic compounds (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 NYSDEC/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 bailing/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. 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.

- 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.

- 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.

- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

All 15-minute readings must be recorded and be available for State (DEC and DOH) 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.

- 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.

- 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.

All readings must be recorded and be available for State (DEC and DOH) personnel to review.

June 20, 2000

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