

**REMEDIAL ACTION WORK PLAN  
FORMER WEST 42nd STREET MGP  
MANHATTAN, NEW YORK  
VCA NUMBER D2-003-02-08  
SITE ID NO. V00531**



**CONSOLIDATED EDISON CO. OF NEW YORK, INC.  
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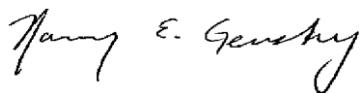
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**JANUARY 2017**

REMEDIAL ACTION WORK PLAN

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Former West 42<sup>nd</sup> Street  
Manufactured Gas Plant Site  
Site ID No. V00531



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B0043026.0000.00002  
Date:  
January 2017

## REMEDIAL ACTION WORK PLAN

### Certification

I, Jason D. Brien, P.E., certify that I am a New York State registered professional engineer and that this Remedial Action Work Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the Division of Environmental Remediation Technical Guidance for Site Investigation and Remediation (DER-10).



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## ACRONYMS AND ABBREVIATIONS

Arcadis	Arcadis of New York, Inc.
BCA	Brownfield Cleanup Agreement
bgs	below ground surface
bss	below sediment surface
BTEX	benzene, toluene, ethylbenzene, xylenes
CAMP	community air monitoring plan
Con Edison	Consolidated Edison Company of New York, Inc.
D&B	Dvirka & Bartilucci Consulting Engineers, P.C.
DER-10	Division of Environmental Remediation-10 Technical Guidance for Site Investigation and Remediation ER-L effects range-low
ER-M	effects range-median
ESA	environmental site assessment
EWP	Excavation Work Plan
FWRIA	Fish and Wildlife Resources Impact Analysis
GA criteria	NYSDEC groundwater criteria class GA
GCI	GCI Environmental Advisory, Inc
HASP	Health and Safety Plan
HHEA	human health exposure assessment
HRPT	Hudson River Park Trust
IC/EC	institutional control and engineering control
Langan	Langan Engineering and Environmental Services, P.C.
LEL	lowest effect level
MGP	manufactured gas plant

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mg/kg	milligrams per kilogram
msl	mean sea level
MTA	Metropolitan Transit Authority
NAPL	non-aqueous phase liquid
NYC EPA	New York City Environmental Protection Administration
NYCRR	New York Codes, Rules and Regulations
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
PAHs	polycyclic aromatic hydrocarbons
PRR	Periodic Review Report
RAWP	Remedial Action Work Plan
RETEC	RETEC Group, Inc.
RA	Remedial Action
RI	Remedial Investigation
RIR	Remedial Investigation Report
RAOs	Remedial Action Objectives
SCGs	Standards, Criteria and Guidance
SCOs	Soil Cleanup Objectives
SEL	severe effect level
SMP	Site Management Plan
SVOCs	semivolatile organic compound
TCL	Target Compound List
VCA	voluntary cleanup agreement
VCP	Voluntary Cleanup Program
VOCs	volatile organic compound
USGS	United States Geological Survey
UST	underground storage tank
µg/L	micrograms per liter
WQS	Water Quality Standards

## 1 INTRODUCTION

### 1.1 Overview

This Remedial Action Work Plan (RAWP) has been developed by Arcadis of New York, Inc. (Arcadis) on behalf of the Consolidated Edison Company of New York, Inc. (Con Edison) for a portion of the Voluntary Cleanup Agreement (VCA) Area of the former West 42<sup>nd</sup> Street manufactured gas plant (MGP) site (the site) located in the Borough of Manhattan, New York, New York. The New York State Department of Environmental Conservation (NYSDEC) and Con Edison entered into a VCA (Index Number D2-003-02-08) in January 2000 to investigate and remediate the site.

Subsequent to the VCA, two Brownfield Cleanup Agreements (BCAs) were entered into as follows:

- River Place I, LLC and Con Edison as Volunteer and Participant, respectively, entered into a BCA with NYSDEC for River Place I (Tax Block 1089 Lot 1) in December 2004 (BCA Number W2-1017-04-09, Site Identification Number C231024).
- River Place II, LLC and Con Edison as Volunteer and Participant, respectively, entered into a BCA with NYSDEC for River Place II (Tax Block 1089 Lot 3) in January 2005 (BCA Number W2-1018-04-09, Site Identification Number C231012).

The BCAs cover the land portion of the site, which lies between West 41<sup>st</sup> Street and West 42<sup>nd</sup> Street, and 11<sup>th</sup> Avenue and New York State (NYS) Route 9A (12<sup>th</sup> Avenue/West Side Highway), respectively. After the execution of these BCAs, the site was divided into the BCA portion (River Place I and II) and the VCA portion (the remainder of the site within Tax Block 1107), and a portion of the Hudson River as well as off-site areas adjacent to the site). Tax Block 1089 Lots 1 and 3 were revised to Lots 1, 3-C and 5. Tax Block 1107 was revised to Tax Block 1868-C Lot 1 and the Hudson River Greenway.

The BCA portion of the site has been investigated and remediated as summarized in the Final Engineering Report (Langan Engineering and Environmental Services, P.C. [Langan] 2007). A summary of the BCA remedial actions is provided in Section 2.3.

### 1.2 Purpose

The primary objective of this RAWP is to describe the proposed remedial action for the relevant VCA portion of the site, which will address the remaining MGP related impacts outside of the BCA remediation limits as documented in the Remedial Investigation Report [RIR] (Arcadis 2016) and approved by the NYSDEC on May 12, 2016.

This RAWP was developed in accordance with New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 375 (NYSDEC 2006) and NYSDEC's Division of Environmental Remediation-10 Technical Guidance for Site Investigation and Remediation (DER-10; NYSDEC 2010).

## 1.3 Document Organization

The remainder of this RAWP is organized into the following sections:

- Section 2 (Site Description and History) provides an overview of the site conditions and the history of the site and surrounding areas;
- Section 3 (Summary of Remedial Investigation and Exposure Assessment) summarizes the remedial investigation (RI), human and ecological risk assessments, and the nature and extent of impacts at the VCA portion of the site;
- Section 4 (Remedial Goals, Remedial Action Objectives and Potentially-Applicable Standards, Criteria and Guidance) describes the remedial goals, remedial action objectives (RAOs) and potentially-applicable standards, criteria and guidance;
- Section 5 (Proposed Remedial Alternative) details the recommended remedial action, including the Site Management Plan;
- Section 6 (Schedule) presents the timeline of RAWP activities; and
- Section 7 (References) provides the literature cited in the RAWP.

## 2 SITE DESCRIPTION AND HISTORY

### 2.1 Site Conditions

The former West 42<sup>nd</sup> Street MGP site is located in the Borough of Manhattan, New York City, New York (Figure 1). The former MGP site occupied approximately 5 acres and included all of Tax Block 1089 (now subdivided into Tax Lots 1, 3-C and 5), the Hudson River waterfront property immediately west of Tax Block 1089 (currently designated as Tax Block 1868-C), and the section of NYS Route 9A between Blocks 1089 and 1868-C. Figure 2, the site plan, shows the boundaries of the site and the former MGP facilities.

The Hudson River lies to the north, south and west of Tax Block 1868-C. Tax Block 1868-C and a portion of the Hudson River to the end of Pier 81 lie within Hudson River Park. The Hudson River Park extends from Battery Park to the south, from Pier 99/ West 59<sup>th</sup> Street to the north, from the Hudson River Greenway bikeway/walkway to the east, and from the end of the piers (known as the Pierhead Line) to the west (Hudson River Park Trust [HRPT] 2001).

Currently, Tax Block 1089 Lot 1 (River Place I) contains a high-rise residential building with retail facilities, Lot 3-C (River Place II) contains a high-rise residential building, and Lot 5 contains retail facilities. NYS Route 9A is a six-lane paved vehicle boulevard divided by a landscaped median. The Hudson River Greenway currently consists of a paved bike and pedestrian pathway and a parking lot partially on a platform that extends west over the Hudson River from the bulkhead (Figure 2).

West of and adjacent to the site, World Yacht and the Circle Line use Piers 81 and 83, respectively, as private and commercial vessel marinas and the area between the piers as river access and egress areas. Pier construction began in the Hudson River in the early 1800s and progressed from south to north (HRPT 2001). Piers north of the site are used for museums, passenger terminals, parking, fuel delivery facility, and

marine transfer station. Piers south of the site are used for parking, passenger terminals, rail transfer stations, heliport, sports/entertainment complex, and tunnel ventilation shafts among other uses.

South, east, and north of the site are residential, municipal, commercial, and retail facilities, including the Metropolitan Transit Authority (MTA) bus depot.

## 2.2 Site and Surrounding Area History

Information regarding the site history and ownership information was provided in the West 42<sup>nd</sup> Street Manufactured Gas Plant Site History Report (Parsons 2002) and summarized in the Site Characterization Report (Dvirka & Bartilucci Consulting Engineers, P.C. [D&B] 2004). The following summarizes the information provided in these two documents with supplemental historic information from Sanborn® fire insurance maps and the HRPT.

### 2.2.1 Site History Pre-MGP

Prior to the construction of the West 42<sup>nd</sup> Street MGP (1863) and until 1850, the former MGP lands consisted of a shallow embayment, a tidal creek, and associated tidal wetlands of the Hudson River (Parsons 2002). This area, known as the Great Kill, was subsequently drained and channeled out to the Hudson River. By 1850, this portion of the river system was filled, and the land on which the MGP was constructed was formed. Rock, soil, refuse, and sunken ships were reportedly used as the fill material. Filling activities were uncontrolled until 1870, when the New York City Department of Docks constructed a solid block and granite wall that replaced the existing river shoreline. In conjunction with the land development in the mid-1800s, sewers were installed that discharged via outfalls to the Hudson River. Through the early 1920s, development along this portion of the Hudson River waterfront continued with the construction of more than 100 piers to serve shipping, transportation, and passenger vessels (HRPT 2001).

### 2.2.2 MGP Operational History

The MGP operated as a coal gasification plant from 1863 into the early 1920s. Anthracite coal was delivered by barges or lighters to the MGP's Hudson River pier and then carted to the plant. The coal was stored in two coal houses at the western end of Tax Block 1089, and then transported to one of two retort houses. The first retort house was constructed along West 42<sup>nd</sup> Street, and later a second was built and enlarged along West 41<sup>st</sup> Street. At the eastern end of each retort house were the gas condensers. After passing through the condensers, the gas was conveyed to the purifying house, located east of the retort houses. The initial purifying house used the Dry-Lime Process, whereas the second purifying house used the Laming Process. The Laming Process included the use of wood chips treated with iron oxide and stored in boxes. After treatment in the purifying house, the gas was transferred to four gas holders located at the eastern end of the block for storage before distribution to customers. Each of the gas holders was constructed of brick and had a capacity of 250,000 cubic feet.

### 2.2.3 Post-MGP Operational History

The former MGP operated through the early 1920s and was likely demolished in approximately 1925. In 1932, the New York Railroad Company acquired the former MGP site and constructed a railroad yard with several small associated buildings and a gasoline service station.

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By 1930, a railroad complex occupied Tax Block 1089 including rail lines, a station, and a gasoline service station (including buried tanks). The MGP facilities were no longer present on the former pier; however, this pier was not removed until approximately 1934, when a bulkhead and relieving platform were installed adjacent to the Hudson River on Tax Block 1868-C. By 1940, the railroad complex and the gasoline service station were replaced by an assorting station, office, and garage with underground storage tanks (USTs) until Tax Block 1089 was purchased by real estate companies starting in 1967 (Parsons 2002). By the 1980s, a portion of the former MGP site was utilized as a parking lot. In 1999 to 2000, a high-rise residential building known as One River Place was erected on Tax Block 1089 Lot 1 (River Place I), and from 2007 to 2010, a high-rise residential building composed of two towers known as Silver Towers was erected at Tax Block 1089 Lot 3-C (River Place II) and retail facilities were erected at Tax Block 1089 Lot 5.

### 2.2.4 Surrounding Areas

Historically, the areas adjacent to the former MGP site contained various industrial, commercial, and retail facilities. To the north, another MGP site existed between 44<sup>th</sup> and 46<sup>th</sup> Streets (former West 45<sup>th</sup> Street MGP) in addition to other industries such as a carpet factory, a boiler manufacturer, a brick company, a lumber yard, a can company, coke and coal companies, a metal works, a gas station, and several warehouses. To the west, several piers were located in the Hudson River and used for various purposes such as passenger ferries, freight lines, ocean liners, recreation, and dumps. To the south, the following industries were present: stock yards, slaughterhouse, railroad yards, coal yards, junk yards, and a bus garage and service center. To the east, the following industries were present: coke and coal yards, a paper company, and machine shops (Sanborn Map Company 1890, 1899, 1911, 1930, 1950, 1968, 1980, 1984, 1988, 1992, 1996).

### 2.2.5 Summary of Property Ownership

The following timeline summarizes the property owner information provided in the Site History Report (Parsons 2002).

- 1854 – Charles Appleby (from City of New York)
- 1860 – Metropolitan Gas Light Co.
- 1885 – Consolidated Gas Co. (company was organized in 1884)
- 1924 – New York Edison Co. (MGP shut down)
- 1927 – New York State Realty and Terminal Co.
- 1932 – New York Railroad Co.
- 1962 – Cola Realty Corp.
- 1962 – Railway Express Agency, Inc.
- 1967 – Joseph D. Keenan and Roger Deed, Trustees
- 1969 – Chrysler Realty Corp.
- 1981 – Ivory Forty-two Realty Corp.

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- 1984 – Silverstein 42nd Associates
- 1996 – River Place I, LLC (Tax Block 1089 Lot 1)
- 1999 – River Place II, LLC (Tax Block 1089 Lot 3-C and 5; Formerly Lot 3)

### 2.3 Previous Remedial Actions

Remedial actions have been completed in the BCA portion of the site prior to the construction of the River Place I and River Place II developments, as documented in the following reports:

- Underground Storage Tank Closure Report (Woodward-Clyde 1995) describes activities related to the removal of three separate UST systems consisting of 18 individual USTs located on Tax Block 1089 Lot 3.
- Final Engineering Report for West 42nd Street Former MGP Site (Langan 2007) documents the remedial actions at Tax Block 1089 including the excavation and removal of impacted soil to approximately 20 feet below ground surface (bgs) in former Lot 3 (current Lot 3-C and Lot 5) and a portion of former Lot 1, installation of a sheet pile containment wall around the excavation area (both for excavation support and contaminant migration mitigation), excavation and removal of subsurface former MGP structures (four gas holder and purifier house foundations), and the establishment of institutional and engineering controls. This report also documents additional remedial activities conducted during the construction of the Silver Towers at River Place II to accommodate the final building design including additional soil excavation and sealing a gap in the sheeting along West 42nd Street to stop an area of tar seepage. The excavation limits for the remedial action was approximately 64,000 square feet in area, encompassing all of current Tax Block 1089 Lot 3-C and Lot 5, and 80,557 tons of MGP-impacted material were removed and disposed of off-site.

## 3 SUMMARY OF REMEDIAL INVESTIGATION

Previous investigations conducted at and near the former West 42<sup>nd</sup> Street MGP site include historical research to determine ownership, occupancy and usage over time (including pre-MGP use, use during MGP operation and post-MGP operation use), as well as several environmental site assessments (ESAs) and field investigations completed prior to the RI. For additional reference, a more detailed summary of site investigations that occurred prior to April 2004, and the results of the investigations, are summarized in the Site Characterization Report (D&B 2004).

Arcadis conducted field investigations in accordance with the NYSDEC-approved Supplemental Remedial Investigation Work Plan (ARCADIS BBL 2007b). During these investigations, soil, groundwater, sediment and surface water were collected for laboratory analysis. Additional boring and monitoring well locations were installed to delineate the extent of MGP impacts. Table 1 provides a summary of the samples submitted for laboratory analysis during the RI activities and all sampling locations are shown on Figure 3. Arcadis submitted a Remedial Investigation Report ([RIR] Arcadis 2016) summarizing the results of the RI to NYSDEC, which was approved on May 12, 2016. The RIR prepared by Arcadis uses certain previous investigation results primarily from the Site Characterization Report (D&B 2004), the Remedial Investigation Data Summary Report (D&B 2005), and the Data Report Transformer Vault Area (ARCADIS BBL 2007a).

The results of the RI activities are summarized in the following sections.

### 3.1 Site Geology and Hydrogeology

The site stratigraphy is divided into the following geologic units:

- Fill
- Silty Clay
- Lower sand/weathered bedrock
- Bedrock

Two east-west cross sections of the site are shown on Figures 4 and 5 (cross section A-A' and B-B', respectively), and a north-south cross section is shown on Figure 6 (cross section C-C'). The fill is present throughout the site and consists of a silty to gravelly sand containing anthropogenic materials such as brick, wood, concrete, metal shavings, ash-like materials, coal fragments, cinders, asphalt, construction debris, cobbles, and blocks. The fill thickness ranges from approximately 13 to 17 feet along West 42<sup>nd</sup> Street and 13.8 to 29 feet along West 41<sup>st</sup> Street. Farther west, the fill thickness ranges from 22 to 32 feet along NYS Route 9A and 21 to 40 feet along the Hudson River. Overall, the fill thickens to the west toward the river. This is consistent with the history of filling the river and adjacent tidal wetlands in the mid-1800s.

Below the fill and upper sand lies a silty clay unit. The clay consists of dense organic silty clay, containing peat and wood in some areas. This unit likely represents former river areas and adjacent tidal wetland areas prior to filling. The silty clay unit contains occasional silty sand lenses which are likely associated with former wetland drainage channels and tidal creeks. The silty clay thickness ranges from approximately 3 to 27 feet along West 42<sup>nd</sup> Street and 4 to 22.8 feet along West 41<sup>st</sup> Street. Farther west, the silty clay thickness ranges from 6 to 32.5 feet east of NYS Route 9A and 20 to 38 feet along the Hudson River. Overall, the silty clay thickens to the west toward the river. Based on the thickness, continuity, and field observations, the silty clay unit likely serves to retard flow.

A discontinuous sand unit is present in portions of the site below the silty clay unit and above bedrock. This sand unit generally contains weathered bedrock fragments and likely represents a weathered bedrock zone above more competent bedrock. The sand is generally coarse to fine grained with silts and gravels. The sand thickness ranges from approximately 3 to 7 feet along West 42<sup>nd</sup> Street and 2 to 13 feet along West 41<sup>st</sup> Street. Farther west, the sand thickness ranges from 0 to 9 feet along NYS Route 9A and 0 to 18 feet along the Hudson River.

Underlying all the unconsolidated geologic units discussed above is a crystalline mica schist of the Manhattan Schist Formation. The depth to bedrock ranges from approximately 19 to 51 feet along West 42<sup>nd</sup> Street and 31.8 to 49 feet along West 41<sup>st</sup> Street. Farther west, the depth to bedrock is approximately 54 feet along NYS Route 9A and ranges from 66 to 78 feet along the Hudson River. The depth to bedrock increases primarily toward the Hudson River. The bedrock surface generally dips west toward the Hudson River.

Groundwater is first encountered in the fill unit at approximately 6 to 7 feet bgs. Localized groundwater flow patterns have been observed due to:

- Variable permeabilities and hydraulic conductivities of the fill materials
- Former tidal channels and creeks that may act as preferential pathways
- Storm sewers and utility conduits that may serve as groundwater "drains"

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- Ongoing “dewatering” of basements, subway tunnels, or other structures in the vicinity of the site
- Tidal influences

Based on groundwater level measurements in wells MW-07 to MW-10, tidal influences on groundwater levels were observed in wells MW-09 and MW-10 along the Hudson River but not at wells MW-07 and MW-08 farther east along the east side of NYS Route 9A.

Invert elevations of the storm sewer along West 42<sup>nd</sup> Street range from approximately 0.2 foot above mean sea level (msl) at 11<sup>th</sup> Avenue to -3 feet msl at NYS Route 9A to -3.5/-4 feet msl at the eastern edge of Pier 83. Along the south side of West 42<sup>nd</sup> Street and Pier 83, two overflow sewers discharge to the Hudson River at an invert elevation of approximately -0.6 feet msl, per the New York City Environment Protection Administration sewer map (NYC EPA). Groundwater elevations are generally near the sewer elevations. As such, there is a potential that groundwater could intersect the storm sewer and then migrate preferentially within the sewer (depending on the condition of the sewer) and/or within the backfill of the sewer along West 42<sup>nd</sup> Street.

### 3.2 Nature and Extent of Impacts

The BCA portion of the site was remediated prior to the construction of River Place I and II facilities, as previously discussed in Section 2.3. The specific objectives of the supplemental investigation activities were to delineate the extent of any remaining upland MGP impacts and to determine the presence and if present to delineate the extent of MGP impacts within the Hudson River. The following subsections summarize the results of the RI activities.

#### 3.2.1 NAPL

The presence of coal-tar non-aqueous phase liquids (NAPLs) and purifier waste was evaluated by visual review of subsurface soil samples from 27 borings and five wells completed in support of the RI and related activities. Figure 7 presents the distribution of NAPL, staining, and sheens as observed in soil at RI boring and monitoring well locations. NAPL was observed in five of the 27 soil borings, and sheen and/or staining were observed in 12 of the 27 soil borings.

As shown on Figure 7, NAPLs or staining were observed along West 42<sup>nd</sup> Street except at boring SB-48, north of the former seepage area along the northern sheeting installed during the remediation at River Place II. However, no visible impacts were observed at the two borings directly north of SB-48 on the northern side of West 42<sup>nd</sup> Street (SB-50 and SB-51). Therefore, the northern extent of NAPL has been delineated.

No NAPLs, staining, or sheens were observed along West 41<sup>st</sup> Street adjacent to River Place II. Staining and sheens were observed at soil borings SB-20 to SB-22 and SB-30, and trace NAPL blebs were observed in SB-20 along River Place I. No NAPL was observed in the soil boring for MW-11 installed south of SB-20. Therefore, the southern extent of NAPL has been delineated. Further, visual/olfactory (beyond slight odors) observations of potential contamination are at and generally deeper than 8 feet.

As depicted on Figure 7, tar-like NAPLs were observed at soil borings SB-24 and SB-23 but not at SB-31 to the north where no NAPLs, staining, nor sheens were observed. South of SB-23, staining and sheens were observed at soil borings SB-30 and SB-49, and NAPL blebs were observed in SB-46. Therefore, the west-

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southwestern NAPL extent has been delineated. Further, visual/olfactory (beyond slight odors) observations of potential contamination are at and generally deeper than 10 feet.

No NAPLs were observed along the Hudson River in the Hudson River Greenway. Staining and/or sheens were observed at soil borings SB-32, SB-34, SB-38, and SB-39, and only slight staining was observed at SB-40. Therefore, the western extent of NAPL has been delineated. Further, visual/olfactory (beyond slight odors) observations of potential contamination are at and generally deeper than 7 feet.

Laboratory analytical data collected to confirm and supplement these field observations are discussed in the following section.

### 3.2.2 Soil

Soil analytical results from 51 samples from the RI and from previous investigations are presented in Tables 2, 3 and 4. As shown in these tables, analytical soil results were compared to NYSDEC screening levels including Unrestricted Residential Use, Restricted Commercial Use, and Restricted Residential Soil Cleanup Objectives ([SCOs] NYSDEC 2006). The unrestricted SCOs are initially used to screen the data followed by the restricted SCOs. The restricted SCOs are consistent with the restricted residential use of the River Place I and II properties. Thus, the restricted SCOs are used to evaluate the horizontal and vertical extent of site-related constituents. The subsequent sections describe the results for the volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), metals, and cyanide in soil. Figure 8 shows the distribution of total benzene, toluene, ethylbenzene, and xylenes (total BTEX) and total polycyclic aromatic hydrocarbons (PAHs) for the RI soil locations.

The primary MGP-related constituents in the soil were BTEX and PAHs. Other constituents were detected that may be site-related, but these compounds are co-located with the BTEX and PAHs at a lower frequency of detection. For example, 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene were co-located with relatively higher concentrations of BTEX, and dibenzofuran and 4-methylphenol were co-located with PAHs. Therefore, the delineation of MGP-related constituents was based on BTEX and PAHs.

#### Volatile Organic Compounds

As shown in Table 2, 51 RI soil samples were analyzed for Target Compound List (TCL) VOCs. The following VOCs were detected at concentrations higher than the Unrestricted Residential Use SCOs:

- acetone
- 2-butanone
- benzene
- dichloromethane
- ethylbenzene
- n-propylbenzene
- toluene
- 1,3,5-trimethylbenzene
- 1,2,4-trimethylbenzene
- xylenes

Acetone, 2-butanone, n- propylbenzene, and dichloromethane were not detected at concentrations above the Restricted Commercial Use and Restricted Residential Use SCOs (collectively referred to as the restricted SCOs).

BTEX compounds, and two trimethylbenzenes, were detected at concentrations above their respective restricted SCOs in one or more samples. 1,2,4-Trimethylbenzene and 1,3,5-trimethylbenzene were only

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detected at concentrations above their respected restricted SCOs in four and three samples, respectively, from borings SB-23, SB-24, and SB-38 in the same intervals with relatively higher BTEX concentrations.

BTEX compounds were detected in 42 of the 51 RI samples at concentrations above unrestricted SCOs and in 9 of 51 RI samples (8 locations) at concentrations above restricted SCOs. BTEX compounds were detected at concentrations above restricted SCOs generally where NAPLs were observed at SB-23, SB-24, SB-46, and SB-48; and where heavy staining and/or sheens were observed at SB-30, SB-38, and SB-39. In these borings, the vertical extent of BTEX was delineated at SB-23, SB-48, SB-30, SB-38, and SB-39. Given the correlation of BTEX concentrations with the presence of NAPLs and staining, the vertical extent would be expected to be similar. The overall horizontal extent of BTEX in subsurface soils is defined by absence of these compounds or, if present at concentrations below the Restricted Commercial Use and Restricted Residential Use SCOs, at the following locations:

- Along West 42nd Street (North of River Places I and II) – SB-31, SB-25, SB-50 and SB-51
- At and West of NYS Route 9A (West of River Places I and II) – SB-47, SB-32, SB-33, SB-34, and SB-49
- Along West 41st Street (South of River Places I and II) – SB-22, SB-21 SB-20, SB-09, and SB-41 to SB-44

### Semivolatile Organic Compounds

As shown in Table 3, 51 RI soil samples were analyzed for TCL SVOCs. The following SVOCs were detected at concentrations higher than the Unrestricted Residential Use SCOs:

- PAHs:
  - acenaphthene
  - acenaphthylene
  - anthracene
  - benzo(a)anthracene
  - benzo(b)fluoranthene
  - benzo(k)fluoranthene
  - benzo(a)pyrene
  - benzo(g,h,i)perylene
  - chrysene
  - dibenzo(a,h)anthracene
  - fluorene
  - fluoranthene
  - indeno(1,2,3-cd)pyrene
  - naphthalene
  - phenanthrene
  - pyrene
- dibenzofuran
- 2-methylphenol
- 4-methyl phenol
- phenol

2-Methylphenol and phenol were not detected at concentrations above the restricted SCOs. PAHs, dibenzofuran, and 4-methyl phenol were detected at concentrations above their respective restricted SCOs. 4-Methylphenol was only detected above its restricted SCOs in three samples, in borings SB-38 and SB-39, in the same intervals with relatively higher PAH concentrations.

PAH compound concentrations above restricted SCOs were observed at most sampling locations. At least one PAH compound and/or dibenzofuran were detected in 31 of the 51 RI samples (20 locations) at

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concentrations above unrestricted SCOs and in 31 of 51 samples (20 locations) at concentrations above restricted SCOs. PAHs were not detected at concentrations above unrestricted SCOs in soil samples from SB-09, SB-41, SB-42, SB-44, SB-50, and SB-51. The highest concentrations of PAHs (Total PAH [for purposes of this RI the sum of the 17 TCL PAHs] > 1,000 milligrams per kilogram [mg/kg]) were generally observed where the highest BTEX concentrations (above SCOs) were observed; where NAPLs were observed at SB-23, SB-24, and SB-46; and where heavy staining and/or sheens were observed at SB-30, SB-38, SB-39, and SB-26. In addition, relatively higher PAH concentrations (Total PAHs > 1,000 mg/kg) were also observed at SB-34 and SB-49, where BTEX concentrations were not elevated, and only sheens and staining were observed. In these locations of relatively elevated PAHs, the vertical extent was defined at SB-34, SB-38, SB-30, and SB-49. The vertical extent of PAHs was delineated except at borings SB-26 to the north and SB-23, SB-24, SB-39, SB-40, and SB-46 to the west, where NAPLs and staining were observed. The overall extent of PAHs and dibenzofuran in subsurface soils is defined by absence of these compounds and if present concentrations below the Restricted Commercial Use and Restricted Residential Use SCOs at the following locations:

- Along West 42<sup>nd</sup> Street (North of River Places I and II) – SB-50 and SB-51
- Along West 41<sup>st</sup> Street (South of River Places I and II) – SB-09, SB-41 SB-43, and SB-44

The horizontal extent of PAHs along NYS Route 9A has not been delineated with respect to the restricted SCOs in soil. However, PAHs were only detected in low concentrations in the sediments, which would not exceed the restricted SCOs.

### Metals and Cyanide

As shown in Table 4, at least one metal was detected at concentrations above unrestricted SCOs in 28 of the 51 RI samples including arsenic, cadmium, copper, lead, mercury, nickel, selenium, silver, and zinc. Cyanide was not detected at concentrations above SCOs. Only sporadic detections of arsenic (three samples), cadmium (two samples), lead (three samples), and mercury (eight samples) were observed at concentrations greater than their respective restricted SCOs. Although the aforementioned metals were observed in concentrations exceeding their respective SCOs, these metals are not attributed to the site due to their limited detection, and they were generally detected at concentrations within, or near background ranges for eastern USA or New York State soils (NYSDEC).

#### 3.2.3 Ground water

Well construction details are provided in Table 5. Groundwater analytical results for the RI are presented in Tables 6, 7, and 8. Nine groundwater samples were reviewed for the RI, from sample locations outside of the River Place I and II BCA areas. Results used for the RI evaluation are from groundwater samples collected by ARCADIS in 2010 and 2011 and by D&B in 2005. The subsequent sections describe the groundwater results for VOCs, SVOCs, metals and cyanide for the RI. Figure 9 shows the distribution of total BTEX and total PAHs in groundwater for the RI locations.

The primary MGP-related constituents detected in the groundwater were BTEX and PAHs. Other constituents were detected that may be site-related, but these compounds are co-located with the BTEX and PAHs at a lower frequency of detection. For example, cumene was co-located with relatively higher concentrations of BTEX, and 2,4-dimethyl phenol was co-located with PAHs. Therefore, the delineation of MGP-related constituents will be based on BTEX and PAHs.

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### Volatile Organic Compounds

As shown in Table 6, nine RI groundwater samples were analyzed for TCL VOCs. The following VOCs were detected at concentrations higher than the NYSDEC groundwater criteria class GA (GA criteria):

- benzene
- cumene
- ethylbenzene
- tert butylbenzene
- toluene
- n- propylbenzene
- 1,2,4 trimethylbenzene
- 1,3,5 trimethylbenzene
- xylene

Cumene was only detected at concentrations above its GA criteria in two samples (from monitoring wells MW-07 and MW-09 in 2005). Cumene was not analyzed for in the 2011 samples from these two monitoring wells. Tertbutylbenzene and n-propylbenzene were only detected in the MW-09 groundwater samples from 2005. The two trimethylbenzenes were detected in the MW-07, MW-09, and MW-10 groundwater samples from 2005. These constituents were not analyzed for in 2011.

VOCs were not detected at concentrations above GA criteria at MW-08 and MW-11, which are located to the north of River Place I and south of River Place II, respectively. The highest BTEX concentrations were detected at the three locations closest to the river west of River Place I (MW-07, MW-09, and MW-10).

The overall horizontal extent of BTEX in groundwater is defined by absence of these compounds or, if present, at concentrations below the GA class groundwater criteria. The extent of BTEX is bounded to the south by monitoring well MW-11, to the north by monitoring well MW-08, and to the west by surface water samples in the Hudson River, where no BTEX was observed.

### Semivolatile Organic Compounds

As shown in Table 7, nine RI groundwater samples were analyzed for TCL SVOCs. The following SVOCs were detected at concentrations higher than GA criteria:

- PAHs:
  - acenaphthene
  - benzo(a)anthracene
  - benzo(a)pyrene
  - benzo(b)fluoranthene
  - chrysene
  - naphthalene
  - phenanthrene
- 2-methyl phenol
- 4-methyl phenol (p-cresol)
- 2,4-dimethyl phenol
- phenol

2-Methyl phenol was only detected at concentrations above its respective GA criteria in one sample from MW-07 in 2005. Phenol was detected at concentrations above its respective GA criteria in one sample from MW-09 in 2005. 4-Methyl phenol was detected at concentrations above its respective GA criteria in two samples MW-07 and MW-09 in 2005. 2,4-Dimethyl phenol was detected at concentrations above its

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respective GA criteria in four samples MW-07 and MW-10 in 2005 and MW-09 in 2005 and 2011. PAH compounds were detected in six of the nine RI groundwater samples at concentrations above GA criteria. PAHs were not detected at concentrations above GA criteria in groundwater samples from MW-08 and MW-11. The highest concentrations of PAHs (Total PAH [for purposes of this RI the sum of the 17 TCL PAHs] > 4 micrograms per liter [ $\mu\text{g/L}$ ]) were generally observed where the highest BTEX concentrations (above GA criteria) were observed (MW-07, MW-09, and MW-10).

The overall horizontal extent of PAHs in groundwater is defined by absence of these compounds or, if present, at concentrations below the GA criteria. The extent of PAHs is bounded to the north by MW-08, to the south by monitoring well MW-11, and to the west by surface water samples in the Hudson River, where no PAHs were observed.

### Metals and Cyanide

As shown in Table 8, there were sporadic detections of a few total metals above GA criteria including antimony (1 sample), lead (2 samples), manganese (2 samples), and selenium (1 sample). In addition, iron, magnesium, and sodium were detected above the GA criteria. Antimony was detected above criteria in all of the filtered ground water samples obtained in 2005.

Cyanide was detected above GA criteria in one sample collected at MW-08 in 2005. Due to the limited detection of metals and cyanide; metals and cyanide are not attributed to the site.

### 3.2.4 Sediment

Sediment analytical results from eleven samples from the RI are presented in Tables 9, 10, and 11. As shown in these tables sediment analytical results were compared to NYSDEC sediment screening values (NYSDEC 1999). The subsequent sections describe the results for the VOCs, SVOCs, metals, cyanide, and ancillary parameters in sediment for this RI. Figure 10 shows the distribution of total BTEX and total PAHs for the sediment RI locations.

No NAPL, staining, or sheens were observed in any of the seven sediment cores. Accordingly as discussed in this section, minimal MGP-related impacts were observed in sediment. The primary MGP-related constituents in the sediment were PAHs. BTEX compounds were detected in two samples. Other constituents were detected that may be site-related but these compounds were co-located with BTEX and PAHs. For example, carbazole, dibenzofuran, and phenol were also detected in the one sample with detectable BTEX concentrations and relatively higher PAH concentrations. Therefore, the delineation of MGP-related constituents will be based on BTEX and PAHs.

### Volatile Organic Compounds

Eleven sediment samples were analyzed for TCL VOCs (Table 9). The following VOCs were infrequently detected at low concentrations (<0.1 mg/kg):

- 2-butanone (one sample)
- acetone (five samples)
- benzene (one sample)
- carbon disulfide (three samples)
- ethylbenzene (one sample)
- xylenes (two samples)

BTEX compounds were only detected in one of the eleven sediment samples, SD-02 (6 to 9.5 feet below sediment surface (bss)), which is located along the shoreline near probe location PSL-11, where a slight

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sheen was observed during probing. The total BTEX concentration detected in the sediment sample from SD-02 was 0.029 mg/kg. Total xylenes were also detected at a low concentration (0.0056J) at SD-03 (0-0.5 feet bss). Although there are no effects range-low (ER-L) and effects range-median (ER-M) screening values for BTEX compounds, there are carbon-normalized screening levels related to benthic aquatic life (NYSDEC 1999); the BTEX compound concentrations did not exceed these screening levels. (Note: the sediment screening values are relevant to the biologically active zone , generally the upper 6 inches of sediment, and not necessarily relevant to deeper sediments. The screening levels are used herein to assess relative levels of contamination.)

There are no ER-L and ER-M screening values or other NYSDEC screening levels for VOCs. Given the low detections, the infrequent observations, and the lack of upland detections at concentrations above SCOs, the other VOCs are not considered site-related.

### Semivolatile Organic Compounds

Eleven sediment samples were analyzed for TCL SVOCs (Table 10). The following SVOCs were detected in the sediments (generally at low concentrations [ $<1$  mg/kg]):

- bis (2- ethylhexyl) phthalate
- butylbenzyl phthalate
- carbazole
- p-chloroaniline
- 1,4 dichlorobenzene
  - acenaphthene
  - acenaphthylene
  - anthracene
  - benzo(a)anthracene
  - benzo(a)pyrene
  - benzo(b)fluoranthene
  - benzo(g,h,i)perylene
  - benzo(k)fluoranthene
  - chrysene
- di-n-butyl phthalate
- 4 methylphenyl
- dibenzofuran
- phenol
- PAHs:
  - dibenzo(a,h)anthracene
  - fluoranthene
  - fluorene
  - indeno(1,2,3-cd)pyrene
  - 2-methylnaphthalene
  - naphthalene
  - phenanthrene
  - pyrene

When detected, most individual PAH concentrations are higher than their respective individual ER-L but lower than their ER-Ms except at sample SD-2 (6-9.5 feet bss), and dibenzo (a,h) anthracene in 10 of 12 sediment samples. Total PAH concentrations in surface sediments (0-0.5 feet bss) ranged from 5.65 to 11.3 mg/kg in eight surface samples which are slightly higher than the ER-L of 4 mg/kg, well below the ER-M of 44.8 mg/kg, and within the PAH concentrations observed in urban sections of the Hudson River. For example, the Hudson River Foundation documented total PAHs (14 PAHs) levels ranging from 4.1 to 17.4 mg/kg at River Mile 3 (Keane and Bopp 1999) and the United States Geological Survey (USGS) documented total PAHs (16 PAHs) concentrations ranging from ND to 11.8 mg/kg in the Hudson River and ND to 54 mg/kg in the Hudson River Basin (USGS 1998). Subsurface Total PAH concentrations ranged from 6.75 to 8.19 mg/kg in three of four subsurface sediment samples which are slightly higher than the ER-L of 4 mg/kg, well below the ER-M of 44.8 mg/kg, and within Hudson River PAH concentrations. In one of the subsurface sediment samples (SD-02 [6-9.5 feet bss]) the Total PAH concentration was 172.8 mg/kg, which is above the ER-M. SD-02 is located along the shoreline and near probe location PSL-11, where a

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slight sheen was observed. The extent of MGP-related constituents is limited to SD-02 at depth (i.e., below 6 feet).

There are no ER-L and ER-M screening values or other NYSDEC screening levels for other SVOCs. Phthalates, chlorobenzenes, and chloroanilines are not typically related to MGP sites. Given these constituents were not detected in the upland soils at concentrations above SCOs, phthalates, chlorobenzene, and chloroaniline are not considered site-related. Carbazole, dibenzofuran, and the phenols were only detected in one sample at low concentrations in the one sample with relatively higher PAH concentrations (SD-2 [6 to 9.5 feet bss]) and may be site-related.

### Metals and Cyanide

The sediment samples were analyzed for metals and all samples had at least one metal concentration detected that exceeded its respective lowest effect level (LEL) (Table 11). Cyanide was not detected in the sediment samples. Metals detected at concentrations above their respective LELs include: arsenic, cadmium, chromium, copper, iron, lead, manganese, mercury, nickel, silver, and zinc. Only cadmium and manganese concentrations did not exceed the severe effect levels (SELs). Although the aforementioned metals were observed in concentrations exceeding their respective sediment screening levels, these metals are not attributed to the site because they were not detected in the upland soils at concentrations above SCOs, and they were generally detected at concentrations within Hudson River Basin concentrations (USGS 1998).

### 3.2.5 Surface Water

Surface water analytical results from five RI samples are presented in Table 12 through 14 for VOCs, SVOCs and metals and cyanide, respectively. Figure 3 shows the surface water sampling locations. No VOCs, SVOCs, metals, or cyanide were detected at concentrations above NYSDEC surface water standards except for iron, magnesium, sodium, and thallium. These metals are not considered site-related.

## 3.3 Human Health and Ecological Risk Assessments

This section presents the results of a qualitative Human Health Exposure Assessment (HHEA) and Fish and Wildlife Resources Impact Analysis (FWRIA) conducted using data collected during the RI and previous investigations. This HHEA was conducted consistent with the New York State Department of Health (NYSDOH) guidance, as presented in DER-10 (NYSDEC 2010). The FWRIA was conducted in accordance with the NYSDEC guidance documents Fish and Wildlife Impact Analysis for Inactive Hazardous Waste Sites (NYSDEC 1994) and DER-10 (NYSDEC 2010). The HHEA and FWRIA use information regarding current and foreseeable land/river uses and available data to evaluate the potential for exposure of human and ecological receptors.

### 3.3.1 Potential Sources

#### Site Related Sources

The primary impacts are associated with MGP tars as NAPLs and MGP residuals as stained soils. Two NAPL areas were identified within the VCA portion of the site:

- Along NYS Route 9A between West 42nd Street and West 40th Street, where saturated tars were noted at borings SB-23 and SB-24 and NAPL blebs were noted at SB-46

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- Along West 42nd Street in a localized area at SB-48 near the former seepage area in the northern sheet pile wall for the River Place II construction
- Two other areas of staining were also identified:
- South-southeast along West 41st Street at SB-22 and SB-30
- West along the Hudson River at SB-34, SB-38, and SB-39
- The areas of NAPLs and stained soils contain relatively elevated BTEX and PAH concentrations.

### Non-MGP Sources

The former West 42<sup>nd</sup> Street MGP site lies within a historic industrial area and current urban commercial area. Industries in the site area could contribute NAPLs and constituents similar to those observed at MGP sites, including tarry NAPL. Given the widespread use of creosote and related preservatives for wood protection and the significant dockage, piers, piling, and rail lines around the former West 42<sup>nd</sup> Street MGP site as well as documented hydrocarbon spills, other sources of tarry and oily NAPLs, BTEX, PAHs, and other constituents were and could be present. In addition to the industrial setting described above, the site also lies within in a highly urbanized area. As such, sewer discharges, urban runoff, vessel traffic, and channel modification can also contribute constituents such as PAHs to the Hudson River through a variety of point and non-point sources.

### 3.3.2 Release and Transport Pathways

NAPL migration and the resultant distribution of NAPL at the site is complex and depends on a variety of forces and conditions. Historically, NAPL from the former MGP facilities likely migrated downward through the subsurface due to gravity. Where present, NAPL appears to have migrated laterally along the top of silty clay unit and, over time, penetrated into the silty clay unit. The NAPL at borings SB-23 and SB-24 appear to have concentrated in a low point in the clay (Figure 7) and likely originated from the MGP facilities and operation directly to the east. The localized NAPL along West 42<sup>nd</sup> Street appears to be associated with tars removed in the River Place II excavation or contained within sheeting that was left in place and sealed near the seepage area. Beyond these two NAPL areas, tars may have migrated in and along the top of the clay unit, resulting in the stained soils and NAPL blebs along West 42<sup>nd</sup> Street, along West 41<sup>st</sup> Street, along NYS Route 9A and along the Hudson River.

No MGP-related impacts were observed in the river sediment and surface water west of the site, with the possible exception of a deep area of relatively elevated PAHs from 6.5 to 9 feet bss in sediment core SD-2. Therefore, potential migration pathways connecting the upland to the river, such as dissolved or separate phase migration in the subsurface, discharge via preferential sewer pathways, and historic discharge to or disposal in the river, are not present.

### 3.3.3 Surface Soil

Exposure to surface soil is not expected to be a significant current pathway because the majority of the site and surrounding areas is covered by asphalt and concrete (streets and sidewalks) except for the landscaped medians within NYS Route 9A and along the Hudson River. Future exposures could occur if the streets and sidewalk are disturbed, exposing the underlying surface soil. These surface soils would not

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be expected to contain site-related constituents based on the deeper (generally greater than 7 feet) distribution of NAPLs, stained soils, and related constituents. Therefore, exposure to surface soil is not expected to be a significant future pathway to humans.

The NYSDEC DER-10 guidance (2010) indicates surface soils are defined as 0 to 6 inches bgs for an FWRIA. Because the site and surrounding areas are covered by impervious surfaces such as buildings, roads, and parking lots, surface soils do not present a complete exposure pathway to ecological receptors.

### 3.3.4 Subsurface Soil

Exposure to subsurface soil is not expected to be a significant current pathway because the majority of the site and surrounding areas is covered by streets and sidewalks. Future exposures could occur during subsurface excavations associated with utility and construction projects if deep (greater than 7 feet). Construction/ utility workers could be exposed to site-related constituents depending on the depth of the excavation. Because the majority of the site-related impacts are deeper than 7 feet, most utility-related excavations may not encounter the impacts. Worker exposure pathways could include direct contact, incidental ingestion, and inhalation. Potential exposure of workers to impacted soils could be mitigated by the use of standard health and safety practices, such as personal protective equipment use, air monitoring, and construction procedures, to mitigate potential releases during excavations (e.g., water sprays, covers). In addition, residents and pedestrians near the excavation could be exposed to subsurface soils containing site-related constituents (depth depending). Resident/pedestrian exposure pathways could include inhalation. Potential exposure of residents/ pedestrians to vapors/ dust from site-impacted soils could be mitigated by the use of standard health and safety practices, such as community air monitoring and construction procedures, to mitigate potential releases during excavations (e.g., water sprays, covers, foams).

Numerous subsurface soil samples were collected from various locations across the site as part of previous and ongoing investigations. Based on the behavior of typical wildlife that may inhabit a highly developed urban landscape (e.g., birds, small mammals), wildlife would not be expected to be exposed to subsurface soils during normal activities such as foraging or nesting. Therefore, exposure to subsurface soils is not considered to be a significant ecological exposure pathway.

### 3.3.5 Ground water

Exposure to groundwater is not expected to be a significant current pathway because of the depth to groundwater below paved streets and sidewalks and the use of a public water supply (i.e., groundwater is not used for potable [or non-potable] purposes). Future exposures could occur during subsurface excavations associated with utility and construction projects. Depth to groundwater is at or below 5 feet; therefore, only deeper utility-related excavations could potentially contact impacted groundwater. Construction/ utility workers could be exposed to site-related constituents depending on the depth of the excavation in relation to the groundwater. Worker exposure pathways could include direct contact, incidental ingestion, and inhalation. Potential exposure of workers to impacted groundwater could be mitigated by the use of standard health and safety practices as discussed for subsurface soil above. In addition, residents and pedestrians near the excavation could be exposed to groundwater containing site-related constituents (depth depending). Resident/pedestrian exposure pathways could include inhalation. Potential exposure of residents/ pedestrians to vapors from site-impacted groundwater could be mitigated

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by the use of standard health and safety practices, such as community air monitoring and construction procedures, as discussed above for subsurface soils.

Exposure of wildlife to groundwater would only occur if an animal were to burrow down to the water table, which is unlikely given the depth to groundwater and the fact that wildlife use of the site and surrounding areas is likely restricted due to the highly developed urban landscape. Therefore, direct contact exposure to groundwater is not considered to be a significant ecological exposure pathway.

### **3.3.6 Air**

Based on depth of contamination and investigation results from the buildings at River Place I and II, soil vapor is not expected to migrate to indoor air of buildings located at in the VCA portion of the site resulting in an indoor air exposure pathway. As described in the Site Characterization Report (D&B 2004), the RETEC Group, Inc. (RETEC) collected three indoor air samples from the ground floor of the One River Place building and four ambient air samples outside of the building for comparison purposes. Air monitoring results indicated that the air quality was not impacted by subsurface intrusion of vapors emanating from any MGP-related material. In accordance with the River Place I and II Site Management Plan (SMP), post-remediation air monitoring consisting of three indoor and two outdoor air samples was also conducted in 2010 by GCI Environmental Advisory, Inc. (GCI) for Silverstein Properties Inc. GCI concluded that the chemicals detected in the building were the result of general cleaning products and building occupation and not the result of vapor intrusion.

### **3.3.7 Sediment**

Exposure to sediment is not expected to be a significant current pathway to humans because of the lack of site-related impacts at the sediment surface and the isolated and deeper area of PAHs at depth in one sample. Future exposures could occur if the sediments are disturbed during, for example, dredging. However, even if the deeper sediment were exposed, the relatively lower PAH concentrations, and the lack of NAPLs and stained sediments, exposure to subsurface workers via direct contact or incidental ingestions is not expected to be a significant future pathway.

Although sediments in the Hudson River exceed screening levels for select PAHs and metals, this river is highly industrialized with many point and non-point sources of contamination. As such, the exceedance of sediment screening levels is not expected to pose a significant risk to fish and wildlife.

### **3.3.8 Surface Water**

No site-related constituents were detected in the surface water. Therefore, exposure to surface water is not expected to be a significant current or future pathway for human and ecological receptors.

### **3.3.9 Conclusions**

Based on the results of the HHEA and FWRIA, it is noted that there is currently minimal potential for incidental public and ecological contact with site related constituents. However, human exposure to site-related constituents in soil and groundwater may occur as a result of construction activities involving excavation. Plans should be implemented that provide guidelines for the performance of intrusive activities including management of soil and groundwater and worker safety.

## 4 REMEDIAL GOALS, REMEDIAL ACTION OBJECTIVES AND APPLICABLE STANDARDS/CRITERIA/GUIDANCE

As set forth in Section 2.3, substantial remediation was completed in the BCA portion of the site that comprises Tax Block 1089. Four gas holder and purifier house foundations were removed, as well as 18 USTs, in accordance with DER-10 remedial goals for bulk storage tanks and containment vessels (DER-10 Section 4.1.(d).3.iii), and 80,557 tons of MGP impacted soils were removed and disposed of, in accordance with DER-10 remedial goals for removal (DER-10 Section 4.1.(d).2.i. Additionally, a sheet pile containment system was installed, in accordance with DER-10 remedial goals (DER-10 Section 4.1.(d).2.ii).

As discussed in Section 3.2.1 and Section 3.2.2, the distribution of the NAPLs, stained soils, BTEX and PAHs in subsurface soils is primarily east of the bulkhead along the Hudson River and along the margins of the former MGP (i.e. along the south side of West 42<sup>nd</sup> Street and the north side of West 41<sup>st</sup> Street) as well as to the southwest within the MTA Bus Depot property. In groundwater, the primary site-related constituents were BTEX and PAHs. The extent of BTEX and PAHs in groundwater generally corresponds with the extent of subsurface soil impacts, as set forth in Section 3.2.3. No MGP-related impacts were observed in the Hudson River sediment and surface water west of the site, with the possible exception of a deep area of PAHs from 6.5 to 9 feet bss in sediment core SD-2, as set forth in Section 3.2.4.

The results of the HHEA and FWRIA, summarized in Section 3.3, indicate that there is minimal potential for incidental human and ecological exposure to site-related constituents. However, human exposure to soil and groundwater may occur as the result of potential future subsurface construction activities involving excavation.

Based on the RI results discussed above, the recommended Remedial Action (RA) area encompasses the following:

- 42nd Street, bounded by the northern sidewalk of 42nd Street to the north, the western pedestrian crossing of 11th Avenue to the east, Tax Block 1089 to the South, and NYS Route 9A to the west.
- Hudson River Park, Hudson River Greenway and NYS Route 9A, including the eastern sidewalk of NYS Route 9A, bounded by West 42<sup>nd</sup> Street to the north, Tax Block 1089 and MTA Bus Depot to the east, West 40<sup>th</sup> street to the south including a continuation of the northern sidewalk, and the Hudson River to the west.
- The MTA Bus Depot property in Tax Block 1088 and West 41<sup>st</sup> Street, including the northern and southern sidewalks, bounded by Tax Block 1089 to the North, the western sidewalk of 11<sup>th</sup> Avenue to the east, West 40<sup>th</sup> Street to the south including the northern sidewalk of West 40<sup>th</sup> Street, and NYS Route 9A to the west.

Figure 11 presents the boundaries of the proposed RA area, which represent the areas where NAPLs, staining, as well as constituents associated with the former MGP may remain in subsurface soils and groundwater after the BCA remediations. The overall remedial goal, remedial action objectives, as well as standards/criteria/guidance for the RA area are further described in this section.

## 4.1 Remedial Goals

The overall remedial goal for the RA area is to prepare a remedial action work plan to address potential future exposures associated with site-related impacts in soil and groundwater in accordance with the Voluntary Cleanup Program (VCP) guidance.

## 4.2 Potentially-Applicable Standards, Criteria and Guidance

NYSDEC DER-10 includes a complete list of Standards, Criteria and Guidance (SCGs) that are set forth in New York State law. The SCG for soil includes the 6 NYCRR Part 375-6.4.(b).(3) Remedial Program Soil Cleanup Objectives (SCOs) for commercial use. The SCGs for groundwater quality includes the NYSDEC Division of Water Technical and Operational Guidance Series – Water Quality Standards (WQS) and the 6 NYCRR 700 to 705 (NYSDEC, 1998). These SCGs represent available criteria and guidance used by the NYSDEC to evaluate soil and groundwater quality and are presented in Table 15. It should be noted that neither the WQS or 6 NYCRR Parts 700-705 are directly applicable to the RA area groundwater, because the local groundwater is not used as a drinking water source, nor will it likely be used in the future due to its impaired quality (e.g. historic fill impacts and other non-MGP related impacts).

## 4.3 Remedial Action Objectives

RAOs are medium-specific objectives which achieve protection of public health and the environment. RAOs were established based on impacted media, identified site-related constituents, SCGs, and results of the human health and ecological exposure assessments. The following RAOs were developed for the RA area in accordance with the NYSDEC Generic RAOs (NYSDEC 2016)

### Soil

#### RAOs for Public Health Protection:

- Prevent ingestion/direct contact with site-related constituents in soil.
- Prevent inhalation of or exposure from site-related constituents in soil.

#### RAOs for Environmental Protection:

- Prevent migration of site-related constituents that would result in groundwater or surface water contamination.

### Ground water

#### RAOs for Public Health Protection:

- Prevent ingestion of groundwater with site-related constituent levels exceeding drinking water standards.
- Prevent contact with, or inhalation of volatiles, from site-related constituents in groundwater.

#### RAOs for Environmental Protection:

- Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.

## REMEDIAL ACTION WORK PLAN

- Prevent the discharge of site-related constituents to surface water.

## 5 PROPOSED REMEDIAL ALTERNATIVE

The proposed remedial alternative consists of the following elements and is summarized on Figure 11:

- Development and implementation of an SMP, which will include an Excavation Work Plan (EWP) that will be implemented during future intrusive activities that may potentially encounter site-related materials. The EWP will include procedures to control worker exposure to site-related materials, community air monitoring, and proper soil handling/disposal procedures.
- Annual inspections of the RA area subject to the SMP conditions or institutional controls shown on Figure 11 to document the land usage and any change in features (e.g., paving, construction). Changes to land use and/or features may require re-evaluation of remedial alternatives and/or the extent of areas requiring the SMP.

Considering the current usage of the RA area, the remedial alternative outlined above is proposed. As discussed below, and per DER-10 subsection 4.2.(a).1, the proposed remedial alternative was evaluated against the two threshold criteria (Overall Protectiveness of Public Health and the Environment and SCGs) and one of the balancing criteria (Land Use):

- Overall Protectiveness of Public Health and the Environment

This criteria is an assessment of whether the alternative meets requirements that are overall protective of human health and the environment by achieving the RAOs, complying with the SCGs, and considering long-term and short-term effectiveness. Overall protection of human health and the environment considers how the proposed remedial alternative prevents or mitigates potential risks. Since the majority of the RA area is currently paved or covered with concrete building slabs, the potential for exposure to site-related impacts in soil is minimal. Furthermore groundwater at and surrounding the RA area is not utilized for potable water supply.

The proposed remedial alternative consists of the development and implementation of a long-term SMP to control potential future subsurface exposures. This remedy is effective in the short term via the current barriers to exposures and is effective in the long term in the potential future event of subsurface exposures. By developing institutional controls and engineering controls (IC/ECs) for subsurface soils and groundwater, the risk of human exposure to the remaining site-related impacts can be mitigated to achieve the RAOs. As per NYSDEC's DER-10, a SMP is required where an implementation of IC/ECs is required. The SMP will be applied to the RA area shown on Figure 11.

- SCGs

Even though significant excavation has occurred in the BCA remediation areas, soil and groundwater quality may not achieve SCGs given the remaining site-related impacts as well as the overall urban, industrial impacts. Further remediation within NYS Route 9A, West 41st Street, MTA Bus Depot, and the Hudson River Park is technically impracticable especially considering the low potential for exposures under current conditions and the effective use of ICs/ECs for potential future exposures. Direct contact with soil and groundwater will be controlled or eliminated by implementing a SMP.

Exposure to MGP-impacted materials will be under controlled conditions, following the EWP, reducing potential risks to workers and the community.

- Land Use

6 NYCRR Part 375 subchapter 1.8.(f).9 and 1.8.(g) requires the consideration of restricted or unrestricted land use land use criteria when evaluating a remedial alternative. Restricted uses include required controls and restrictions, such as IC/ECs following remediation to Part 375 SCOs for restricted use, per 6 NYRCRR Table 6.8 [b]). The individual properties within the RA area (i.e., NYS Route 9A, West 41<sup>st</sup> Street, MTA Bus Depot, and the Hudson River Park) are already developed and usage is not anticipated to change in the near or long term future. The properties within the RA area are currently zoned for manufacturing, per the New York City Planning Commission Zoning Maps 8a, 8c and 8d included in Appendix A, which implies Industrial land use. However, the Restricted Industrial land use category cannot include any recreational component, per subchapter 1.8.(g).2.iv. Therefore, this remedial alternative will use the Restricted Commercial land use category, which includes passive recreational uses for public uses with limited potential for soil contact, per subchapter 1.8.(g).2.iii.

Therefore, the proposed remedial alternative for the RA area will be sufficient to protect public health and the environment under the Restricted Commercial land use category in accordance with 6 NYCRR Part 375.

## 5.1 Site Management Plan

The purpose of the SMP is to provide:

- A description of IC/ECs for the RA area;
- The basic operation and intended role of each implemented IC/EC;
- A description of the features that should be evaluated during each periodic inspection and compliance certification period;
- A description of plans and procedures to be followed for implementation of IC/ECs, such as the implementation of an EWP for the safe handling of site related impacted soils that may be disturbed during maintenance, redevelopment or subsurface utility repair/relocation;
- Any other provisions necessary to identify or establish methods for implementing the IC/ECs required by the site remedy, as determined by the NYSDEC; and
- A description of the reporting requirements for these controls.

The SMP will be developed for the areas shown on Figure 11 once NYSDEC approves the RAWP. At a minimum, the SMP will include the following items:

- The notification requirements for future soil disturbance activities that may potentially encounter site related materials, including building renovation/expansion, subsurface utility line repair/relocation, and new construction;
- EWP;
- A flow chart showing guidelines for intrusive activities, provided in Appendix B;
- Requirements for evaluation of the need for additional investigation or further delineation based on accessibility due to new construction or changes in land use;
- Requirements for annual inspections and certifications in accordance with DER-10; and a

- Well Abandonment Plan.

## 5.2 Health and Safety

For potential future intrusive construction activities, the contractor or owner performing the construction activities will prepare a project-specific Health and Safety Plan (HASP) that meets the requirements of DER-10, 29 CFR 1910, 29 CFR 1926, and all other applicable federal, New York State and local laws and regulations.

NYSDOH requires that real-time monitoring for VOCs and particulates (i.e., dust) be conducted during intrusion activities at contaminated sites at the downwind perimeter of each designated work area. This air monitoring conducted during future intrusive remediation or construction excavation activities should be completed in accordance with the NYSDOH Generic Community Air Monitoring Plan (CAMP) provided as Appendix C.

The purpose of CAMP is to prevent exposure of the community to airborne hazardous constituents at levels above accepted regulatory limits. For the future remediation and construction activities, the worker protection and community air monitoring will be conducted by the contractor's or owner's representative performing the construction activities.

## 5.3 Annual Site Inspections

In accordance with DER-10 Section 6.3, a Periodic Review Report (PRR) will be submitted to the NYSDEC to document the effectiveness of the institutional and engineering controls. An IC/EC certification checklist that will be used during the annual PRR is included in Appendix D. The PRR will be signed by a professional engineer or other qualified environmental professional, and will include recommendations for modifying the SMP requirements and reporting frequency, if needed. If changes are noted, the PRR will include documentation explaining why the certification cannot be rendered, along with a statement of proposed corrective measure(s) and a proposed schedule for implementing the corrective action(s).

# 6 SCHEDULE

This final RAWP was prepared after comments were received from the NYSDEC on January 11, 2017. The SMP will be completed per the schedule below. It is important to note that the schedule shown below presents the duration of time to complete the described tasks and the tasks are dependent upon the successful completion of an earlier task (e.g. Final SMP cannot be completed until the NYSDEC comments are received).

Task	Duration
Draft SMP	12 Weeks
NYSDEC Comments on SMP	6 Weeks
Final SMP	4 Weeks

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## REMEDIAL ACTION WORK PLAN

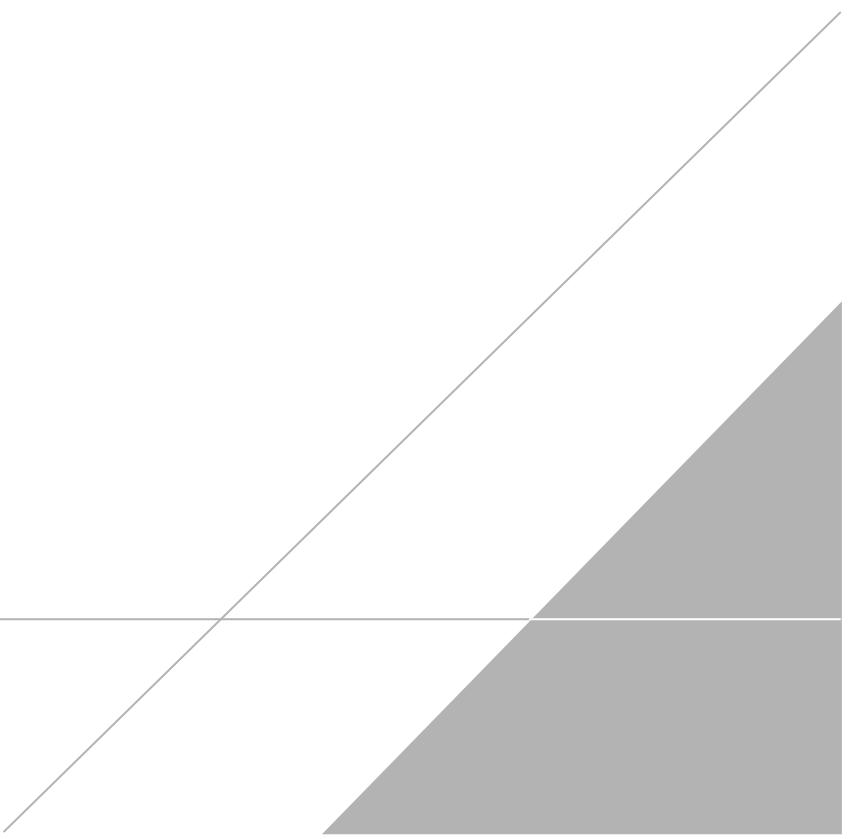
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# TABLES



**Table 1**  
**Sample Summary**

**Remedial Action Work Plan**  
**Consolidated Edison Company of New York, Inc.**  
**West 42nd Street Former MGP Site**  
**New York, New York**

Location ID	Sample ID	Date Collected	Coordinates		Ground Elevation <sup>1</sup> (feet)	Sample Depth (feet)	Sampled by?
<b>Sediment Samples</b>							
SD-01	SD-01 (0-0.5')	02/27/08	983707.4000	216995.1000	0.10	0-0.5	ARCADIS
SD-02	SD-02 (0-0.5')	02/29/08	983688.7000	216910.9000	-1.90	0-0.5	ARCADIS
SD-02	SD-02 (6-9.5')	02/29/08	983688.7000	216910.9000	-1.90	6-9.5	ARCADIS
SD-02A	SD-02A (0-0.5')	02/29/08	983668.7000	216926.8000	-1.90	0-0.5	ARCADIS
SD-02A	SD-02A (5-6')	02/29/08	983668.7000	216926.8000	-1.90	5-6	ARCADIS
SD-02A	SD-02A (10-11')	02/29/08	983668.7000	216926.8000	-1.90	10-11	ARCADIS
SD-03	SD-03 (0-0.5')	03/03/08	983647.0000	216907.5000	-1.90	0-0.5	ARCADIS
SD-03	SD-03 (8-12')	03/03/08	983647.0000	216907.5000	-1.90	8-12	ARCADIS
SD-04	SD-04 (0-0.5')	02/28/08	983422.9000	217005.6000	-1.50	0-0.5	ARCADIS
SD-05	SD-05 (0-0.5')	02/28/08	983329.6000	217173.9000	-2.20	0-0.5	ARCADIS
SD-06	SD-06 (0-0.5')	02/28/08	983199.2000	217127.2000	-2.20	0-0.5	ARCADIS
SD-06-DUP	SD-DUP-01	02/28/08	983199.2000	217127.2000	-2.20	0-0.5	ARCADIS
<b>Surface-Water Samples</b>							
SW-01	SW-01	03/04/08	983699.6000	217005.3000	0.60	NA	ARCADIS
SW-02	SW-02	03/04/08	983691.2000	216952.5000	0.30	NA	ARCADIS
SW-03	SW-03	03/04/08	983658.5000	216934.1000	0.50	NA	ARCADIS
SW-04	SW-04	03/04/08	983427.6000	217049.0000	-1.10	NA	ARCADIS
SW-05	SW-05	03/04/08	983198.5000	217147.0000	-0.90	NA	ARCADIS
<b>Soil Samples</b>							
SB-09	SB-09 (11-15)	9/5/2003	984368.8149	216376.6343	9.55	11-15	D&B
SB-09	SB-09 (31-33.5)	9/5/2003	984368.8149	216376.6343	9.55	31-33.5	D&B
SB-20	SB-20 (12-16)	10/2/2003	984278.3228	216417.2634	7.88	12-16	D&B
SB-20	SB-20 (16-20)	10/2/2003	984278.3228	216417.2634	7.88	16-20	D&B
SB-21	SB-21 (12-16)	9/30/2003	984203.5283	216464.8179	7.14	12-16	D&B
SB-21	SB-21 (36-38.9)	9/30/2003	984203.5283	216464.8179	7.14	36-38.9	D&B
SB-22	SB-22 (12-16)	9/29/2003	984022.0823	216583.0117	4.67	12-16	D&B
SB-22	SB-22 (36-44)	9/29/2003	984022.0823	216583.0117	4.67	36-44	D&B
SB-23	SB-23 (20-24)	9/30/2003	983871.1082	216700.7438	3.04	20-24	D&B
SB-23	SB-23 (52-54.5)	9/30/2003	983871.1082	216700.7438	3.04	52-54.5	D&B
SB-24	SB-24 (30-32)	10/3/2003	983931.3598	216782.8758	3.04	30-32	D&B
SB-24	SB-24 (34-36)	10/3/2003	983931.3598	216782.8758	3.04	34-36	D&B
SB-24	SB-24 (36-38)	10/2/2003	983931.3598	216782.8758	3.04	36-38	D&B
SB-25	SB-25 (12-16)	10/1/2003	984191.9859	216683.6611	6.18	12-16	D&B
SB-25	SB-25 (24-28)	10/1/2003	984191.9859	216683.6611	6.18	24-28	D&B
SB-26	SB-26 (9-13)	9/29/03	984334.6495	216614.8687	7.09	9-13	D&B
SB-26	SB-26 (16-19)	10/1/03	984334.6495	216614.8687	7.09	16-19	D&B
SB-30	SB-30 (10-14)	2/20/2005	983844.7916	216653.1893	2.03	10-14	D&B
SB-30	SB-30 (34-36)	2/20/2005	983844.7916	216653.1893	2.03	34-36	D&B
SB-31	SB-31 (7-11)	3/6/2005	983999.4593	216818.4760	2.20	7-11	D&B
SB-32	SB-32 (9-11)	3/2/2005	983753.8378	216896.5023	2.23	9-11	D&B
SB-32	SB-32 (35-39)	3/2/2005	983753.8378	216896.5023	2.23	35-39	D&B
SB-33	SB-33 (5-7)	2/27/2005	983733.5232	216855.8732	2.29	5-7	D&B
SB-34	SB-34 (13-17)	2/23/2005	983722.4425	216836.0204	2.23	13-17	D&B
SB-34	SB-34 (37-39)	2/24/2005	983722.4425	216836.0204	2.23	37-39	D&B
SB-38	SB-38 (25-27)	2/22/2005	983697.5110	216792.6211	2.10	25-27	D&B
SB-38	SB-38 (43-45)	2/22/2005	983697.5110	216792.6211	2.10	43-45	D&B

**Table 1**  
**Sample Summary**

**Remedial Action Work Plan**  
**Consolidated Edison Company of New York, Inc.**  
**West 42nd Street Former MGP Site**  
**New York, New York**

Location ID	Sample ID	Date Collected	Coordinates		Ground Elevation <sup>1</sup> (feet)	Sample Depth (feet)	Sampled by?
<b>Soil Samples (cont'd)</b>							
SB-39	SB-39 (45-47)	3/10/2005	983650.4182	216722.4435	1.62	45-47	D&B
SB-39	SB-39 (65-67)	3/12/2005	983650.4182	216722.4435	1.62	65-67	D&B
SB-40	SB-40 (28-30)	4/5/2005	983630.5653	216670.2720	1.53	28-30	D&B
SB-40	SB-40 (46-48)	4/5/2005	983630.5653	216670.2720	1.53	46-48	D&B
SB-41	SB-41(13-14)	12/06/06	984386.7067	216354.2468	NM	13-14	ARCADIS
SB-41	SB-41(24-25)	12/06/06	984386.7067	216354.2468	NM	24-25	ARCADIS
SB-42	SB-42(13-14)	12/06/06	984404.8872	216344.8037	NM	13-14	ARCADIS
SB-42	SB-42(24-25)	12/06/06	984404.8872	216344.8037	NM	24-25	ARCADIS
SB-42	SB-42(27-28)	12/06/06	984404.8872	216344.8037	NM	27-28	ARCADIS
SB-43	SB-43(16-17)	12/05/06	984431.0870	216329.2169	NM	16-17	ARCADIS
SB-43	SB-43(28-29)	12/05/06	984431.0870	216329.2169	NM	28-29	ARCADIS
SB-44	SB-44(14-15)	12/05/06	984455.6590	216315.3269	NM	14-15	ARCADIS
SB-44	SB-44(19-20)	12/05/06	984455.6590	216315.3269	NM	19-20	ARCADIS
SB-44	SB-44(21-22)	12/05/06	984455.6590	216315.3269	NM	21-22	ARCADIS
SB-44-DUP	DUP120506	12/05/06	984455.6590	216315.3269	NM	21-22	ARCADIS
SB-45	SB-45(3-10)	12/05/06	984425.0988	216332.8379	NM	3-10	ARCADIS
SB-46	SB-46(25-28)	06/12/08	983825.8807	216576.1800	6.94	25-28	ARCADIS
SB-46	SB-46(28-30)	06/12/08	983825.8807	216576.1800	6.94	28-30	ARCADIS
SB-47	SB-47 (5-7)	03/26/08	983775.0346	216945.0555	6.55	5-7	ARCADIS
SB-47	SB-47 (23)	03/26/08	983775.0346	216945.0555	6.55	23	ARCADIS
SB-48	SB-48 (12)	07/24/10	984399.3286	216599.0899	11.79	12	ARCADIS
SB-48	SB-48 (18.5-19)	07/24/10	984399.3286	216599.0899	11.79	18.5-19	ARCADIS
SB-48-DUP	DUP-SB01	07/24/10	984399.3286	216599.0899	11.79	18.5-19	ARCADIS
SB-49	SB-49 (9.5)	07/25/10	983736.3425	216427.3836	5.83	9.5	ARCADIS
SB-49	SB-49 (12)	07/25/10	983736.3425	216427.3836	5.83	12	ARCADIS
SB-50	SB-50 (9)	02/26/11	984383.1921	216693.9377	11.42	9	ARCADIS
SB-51	SB-51 (14.5)	02/27/11	984444.0885	216659.9887	11.73	14.5	ARCADIS
SB-51-DUP	DUP022711	02/27/11	984444.0885	216659.9887	11.73	14.5	ARCADIS
<b>Groundwater Samples</b>							
MW-07	MW-07	3/7/2011	983848.9468	216648.1107	2.03	NA	ARCADIS
MW-08	MW-08	3/5/2011	983996.2274	216821.2461	2.15	NA	ARCADIS
MW-09	MW-09	3/1/2011	983720.1341	216832.7885	2.20	NA	ARCADIS
MW-10	MW-10	3/1/2011	983695.6642	216787.5424	2.08	NA	ARCADIS
MW-11	MW-11	7/29/2010	984317.9365	216339.5511	13.28	NA	ARCADIS

**Notes:**

1. 2003 and 2005 sample elevations in NGVD 1929; 2006, 2008, 2010 and 2011 sample elevations in NAVD 1988.

2. Elevations provided are the following:

Sediment - elevation of the top of sediment at the core location

Surface Water - elevation at which surface water sample was collected

Soil - elevation of the top of ground at the boring location

Groundwater - elevation of the top of ground at the well location

3. Elevations refer to NAVD 88 vertical datum as derived from GPS.

NA = Not applicable

NM = Not measured

D&B = Dvirka & Bartilucci Consulting Engineers

**Table 2**  
**Soil Analytical Results - Volatile Organic Compounds**

**Remedial Action Work Plan**  
**Consolidated Edison Company of New York, Inc.**  
**West 42nd Street Former MGP Site**  
**New York, New York**

Location ID: Sample Depth (feet): Date Collected: Sample Name:	SCO Restricted – Residential <b>(bold)</b>	SCO Restricted – Commercial <i>(italics)</i>	SCO – Unrestricted Use <i>(shade)</i>	Units	SB-09 11-15 9/5/2003	SB-09 31-33.5 9/5/2003	SB-20 12-16 10/2/2003	SB-20 16-20 10/2/2003	SB-21 12-16 9/30/2003	SB-21 36-38.9 9/30/2003	SB-22 12-16 9/29/2003	SB-22 36-44 9/29/2003	SB-23 20-24 9/30/2003	SB-23 52-54.5 9/30/2003	SB-24 30-32 10/3/2003	SB-24 34-36 10/3/2003	SB-24 30-32 10/3/2003	SB-24 34-36 10/2/2003	SB-25 <b>SB-25</b>
Acetone (2- propanone, dimethyl ketone)	100	500	0.05	mg/kg	0.049	0.025	0.03	0.49	U	0.019	U	0.36	U	0.55	U	U	U		
Benzene	4.8	44	0.06	mg/kg	0.002	J	0.07	U	U	0.004	J	2.4	J	U	50	J	U		
Bromobenzene	--	--	--	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U		
Bromoform	--	--	--	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U		
Bromochloromethane	--	--	--	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U		
Bromodichloromethane	--	--	--	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U		
Bromomethane/ methyl bromide	--	--	--	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U		
2- butanone (methyl ethyl ketone)	100	500	0.12	mg/kg	U	U	U	0.64	U	U	U	0.49	U	0.68	U	U	U		
n- butylbenzene	100	500	12	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U		
sec- butylbenzene	100	500	11	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U		
tert- butylbenzene	100	500	5.9	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U		
Carbon disulfide	--	--	--	mg/kg	U	0.002	J	U	U	U	U	U	U	U	U	U	U		
Carbon tetrachloride	2.4	22	0.76	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U		
Chlorobenzene	100	500	1.1	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U		
Chlorodibromomethane	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Chloroethane	--	--	--	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U		
Chloroform	49	350	0.37	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U		
Chloromethane (methyl chloride)	--	--	--	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U		
2- chlorotoluene	--	--	--	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U		
4- chlorotoluene	--	--	--	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U		
Cumene	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
1,2- dibromo- 3- chloropropane	--	--	--	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U		
Dibromochloromethane	--	--	--	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U		
1,2- dibromoethane	--	--	--	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U		
Dibromomethane	--	--	--	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U		
cis- 1,3- dichloro, 1- propene	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
1,2- dichlorobenzene	100	500	1.1	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U		
1,3- dichlorobenzene	49	280	2.4	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U		
1,4- dichlorobenzene	13	130	1.8	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U		
Dichlorobromomethane	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Dichlorodifluoromethane	--	--	--	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U		
1,1- dichloroethane	26	240	0.27	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U		
1,2- dichloroethane	3.1	30	0.02	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U		
cis- 1,2- dichloroethylene	100	500	0.25	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U		
trans- 1,2- dichloroethylene	100	500	0.19	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U		
1,1- dichloroethylene	--	--	--	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U		
Dichloromethane	100	500	0.05	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
1,2- dichloropropane	--	--	--	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U		
1,3- dichloropropane	--	--	--	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U		

**Table 2**  
**Soil Analytical Results - Volatile Organic Compounds**

**Remedial Action Work Plan  
Consolidated Edison Company of New York, Inc.  
West 42nd Street Former MGP Site  
New York, New York**

See notes on page 9.

**Table 2**  
**Soil Analytical Results - Volatile Organic Compounds**

**Remedial Action Work Plan**  
**Consolidated Edison Company of New York, Inc.**  
**West 42nd Street Former MGP Site**  
**New York, New York**

Location ID: Sample Depth (feet): Date Collected: Sample Name:	SCO Restricted – Residential <b>(bold)</b>	SCO Restricted – Commercial <i>(italics)</i>	SCO – Unrestricted Use <i>(shade)</i>	Units	SB-25 24-28 10/1/2003	SB-26 9-13 9/29/2003	SB-26 16-19 10/1/2003	SB-30 10 - 14 02/20/05	SB-30 34 - 36 02/20/05	SB-31 7 - 11 03/06/05	SB-32 9 - 11 03/02/05	SB-32 9 - 11 03/02/05	SB-32 35 - 39 03/02/05	SB-32 DL	SB-33 5 - 7 02/27/05	SB-33 5 - 7 02/27/05	SB-34 13 - 17 02/23/05	SB-34 13 - 17 02/23/05	SB-34 37 - 39 02/24/05	SB-38 25 - 27 02/22/05	SB-38 25 - 27 02/22/05
Acetone (2-propanone, dimethyl ketone)	100	500	0.05	mg/kg	U	U	U	7.6	U	0.068	0.009	0.027	0.006	U	0.015	0.013	0.06	0.023	8 U		
Benzene	4.8	44	0.06	mg/kg	U	U	1.5 J	8.1	J	0.039 U	0.006 U	0.003 J	0.003 J	J	0.008 U	0.008 U	0.012 J	0.003 J	120		
Bromobenzene	--	--	--	mg/kg	U	U	U	7.6	U	0.039 U	0.006 U	0.006 U	0.006 U	U	0.008 U	0.008 U	0.04 U	0.008 U	8 U		
Bromo-chloromethane	--	--	--	mg/kg	U	U	U	7.6	U	0.039 U	0.006 U	0.006 U	0.006 U	U	0.008 U	0.008 U	0.04 U	0.008 U	8 U		
Bromo-dichloromethane	--	--	--	mg/kg	U	U	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Bromoform	--	--	--	mg/kg	U	U	U	7.6	U	0.039 U	0.006 U	0.006 U	0.006 U	U	0.008 U	0.008 U	0.04 U	0.008 U	8 U		
Bromo-methane/ methyl bromide	--	--	--	mg/kg	U	U	U	7.6	U	0.039 U	0.006 U	0.006 U	0.006 U	U	0.008 U	0.008 U	0.04 U	0.008 U	8 U		
2- butanone (methyl ethyl ketone)	100	500	0.12	mg/kg	0.78 J	U	U	7.6	U	0.039 U	0.006 U	0.006 U	0.006 U	U	0.008 U	0.008 U	0.04 U	0.008 U	8 U		
n- butylbenzene	100	500	12	mg/kg	U	U	U	2.2	J	0.039 U	0.006 U	0.006 U	0.006 U	U	0.008 U	0.008 U	0.12	0.008 U	6.1 J		
sec- butylbenzene	100	500	11	mg/kg	U	U	U	7.6	U	0.039 U	0.006 U	0.006 U	0.006 U	U	0.008 U	0.008 U	0.16	0.008 U	8 U		
tert- butylbenzene	100	500	5.9	mg/kg	U	U	U	7.6	U	0.039 U	0.006 U	0.006 U	0.006 U	U	0.008 U	0.008 U	0.04 U	0.008 U	8 U		
Carbon disulfide	--	--	--	mg/kg	U	U	U	7.6	U	0.02 J	0.002 J	0.003 J	0.002 J	J	0.008 U	0.008 U	0.011 J	0.008 U	8 U		
Carbon tetrachloride	2.4	22	0.76	mg/kg	U	U	U	7.6	U	0.039 U	0.006 U	0.006 U	0.006 U	U	0.008 U	0.008 U	0.04 U	0.008 U	8 U		
Chlorobenzene	100	500	1.1	mg/kg	U	U	U	7.6	U	0.039 U	0.006 U	0.006 U	0.006 U	U	0.008 U	0.008 U	0.04 U	0.008 U	8 U		
Chloro-dibromomethane	--	--	--	mg/kg	NA	NA	NA	7.6	U	0.039 U	0.006 U	0.006 U	0.006 U	U	0.008 U	0.008 U	0.04 U	0.008 U	8 U		
Chloroethane	--	--	--	mg/kg	U	U	U	7.6	U	0.039 U	0.006 U	0.006 U	0.006 U	U	0.008 U	0.008 U	0.04 U	0.008 U	8 U		
Chloroform	49	350	0.37	mg/kg	U	U	U	7.6	U	0.039 U	0.006 U	0.006 U	0.006 U	U	0.008 U	0.008 U	0.04 U	0.008 U	8 U		
Chloro-methane (methyl chloride)	--	--	--	mg/kg	U	U	U	7.6	U	0.039 U	0.006 U	0.006 U	0.006 U	U	0.008 U	0.008 U	0.04 U	0.008 U	8 U		
2- chlorotoluene	--	--	--	mg/kg	U	U	U	7.6	U	0.039 U	0.006 U	0.006 U	0.006 U	U	0.008 U	0.008 U	0.04 U	0.008 U	8 U		
4- chlorotoluene	--	--	--	mg/kg	U	U	U	7.6	U	0.039 U	0.006 U	0.006 U	0.006 U	U	0.008 U	0.008 U	0.04 U	0.008 U	8 U		
Cumene	--	--	--	mg/kg	NA	NA	NA	5.7	J	0.039 U	0.006 U	0.006 U	0.006 U	U	0.008 U	0.008 U	0.2	0.008 U	3.6 J		
1,2- dibromo- 3- chloropropane	--	--	--	mg/kg	U	U	U	7.6	U	0.039 U	0.006 U	0.006 U	0.006 U	U	0.008 U	0.008 U	0.04 U	0.008 U	8 U		
Dibromo-chloromethane	--	--	--	mg/kg	U	U	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
1,2- dibromoethane	--	--	--	mg/kg	U	U	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Dibromo-methane	--	--	--	mg/kg	U	U	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
cis- 1,3- dichloro, 1- propene	--	--	--	mg/kg	NA	NA	NA	7.6	U	0.039 U	0.006 U	0.006 U	0.006 U	U	0.008 U	0.008 U	0.04 U	0.008 U	8 U		
1,2- dichlorobenzene	100	500	1.1	mg/kg	U	U	U	7.6	U	0.039 U	0.006 U	0.006 U	0.006 U	U	0.008 U	0.008 U	0.04 U	0.008 U	8 U		
1,3- dichlorobenzene	49	280	2.4	mg/kg	U	U	U	7.6	U	0.039 U	0.006 U	0.006 U	0.006 U	U	0.008 U	0.008 U	0.04 U	0.008 U	8 U		
1,4- dichlorobenzene	13	130	1.8	mg/kg	U	U	U	7.6	U	0.039 U	0.006 U	0.006 U	0.006 U	U	0.008 U	0.008 U	0.04 U	0.008 U	8 U		
Dichloro-bromomethane	--	--	--	mg/kg	NA	NA	NA	7.6	U	0.039 U	0.006 U	0.006 U	0.006 U	U	0.008 U	0.008 U	0.04 U	0.008 U	8 U		
Dichloro-difluoromethane	--	--	--	mg/kg	U	U	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
1,1- dichloroethane	26	240	0.27	mg/kg	U	U	U	7.6	U	0.039 U	0.006 U	0.006 U	0.006 U	U	0.008 U	0.008 U	0.04 U	0.008 U	8 U		
1,2- dichloroethane	3.1	30	0.02	mg/kg	U	U	U	7.6	U	0.039 U	0.006 U	0.006 U	0.006 U	U	0.008 U	0.008 U	0.04 U	0.008 U	8 U		
cis- 1,2- dichloroethene	100	500	0.25	mg/kg	U	U	U	7.6	U	0.039 U	0.006 U	0.006 U	0.006 U	U	0.008 U	0.008 U	0.04 U	0.008 U	8 U		
trans- 1,2- dichloroethene	100	500	0.19	mg/kg	U	U	U	7.6	U	0.039 U	0.006 U	0.006 U	0.006 U	U	0.008 U	0.008 U	0.04 U	0.008 U	8 U		
1,1- dichloroethylene	--	--	--	mg/kg	U	U	U	7.6	U	0.039 U	0.006 U	0.006 U	0.006 U	U	0.008 U	0.008 U	0.04 U	0.008 U	8 U		
Dichloro-methane	100	500	0.05	mg/kg	NA	NA	NA	7.6	U	0.039 U	0.002 JB	0.006 U	0.002 JB	JB	0.001 J	0.003 JB	0.04 U	0.008 U	8 U		
1,2- dichloro-propane	--	--	--	mg																	

**Table 2**  
**Soil Analytical Results - Volatile Organic Compounds**

**Remedial Action Work Plan**  
**Consolidated Edison Company of New York, Inc.**  
**West 42nd Street Former MGP Site**  
**New York, New York**

Location ID: Sample Depth (feet): Date Collected: Sample Name:	SCO Restricted – Residential <b>(bold)</b>	SCO Restricted – Commercial <i>(italics)</i>	SCO – Unrestricted Use <i>(shade)</i>	Units	SB-25 24-28 10/1/2003	SB-26 9-13 9/29/2003	SB-26 16-19 10/1/2003	SB-30 10 - 14 02/20/05	SB-30 34 - 36 02/20/05	SB-31 7 - 11 03/06/05	SB-32 9 - 11 03/02/05	SB-32 9 - 11 03/02/05	SB-32 35 - 39 03/02/05	SB-32 DL	SB-33 5 - 7 02/27/05	SB-33 5 - 7 02/27/05	SB-34 13 - 17 02/23/05	SB-34 13 - 17 02/23/05	SB-34 37 - 39 02/24/05	SB-38 25 - 27 02/22/05	SB-38 25 - 27 02/22/05				
2,2- dichloropropane	--	--	--	mg/kg	U	U	U	7.6	U	0.039	U	0.006	U	0.006	U	NA	0.008	U	NA	NA	NA				
cis- 1,3- dichloropropane	--	--	--	mg/kg	U	U	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
1,1- dichloropropene	--	--	--	mg/kg	U	U	U	7.6	U	0.039	U	0.006	U	0.006	U	0.008	U	0.008	U	0.04	U	0.008	U		
trans- 1,3- dichloropropene	--	--	--	mg/kg	U	U	U	7.6	U	0.039	U	0.006	U	0.006	U	0.008	U	0.008	U	0.04	U	0.008	U		
Ethylbenzene	41	390	1	mg/kg	1.2	J	14	J	3.8	J	18	0.039	U	0.006	U	0.002	J	0.006	U	0.008	U	0.054	0.003	J	
Ethylene dibromide	--	--	--	mg/kg	NA	NA	NA	7.6	U	0.039	U	0.006	U	0.006	U	0.006	U	0.008	U	0.04	U	0.008	U		
Freon 12	--	--	--	mg/kg	NA	NA	NA	7.6	U	0.039	U	0.006	U	0.006	U	0.006	U	0.008	U	0.04	U	0.008	U		
Hexachlorobutadiene	--	--	--	mg/kg	U	U	U	7.6	U	0.039	U	0.006	U	0.006	U	0.006	U	0.008	U	0.04	U	0.008	U		
2- hexanone	--	--	--	mg/kg	U	U	U	7.6	U	0.039	U	0.006	U	0.006	U	0.006	U	0.008	U	0.04	U	0.008	U		
Iodomethane (methyl iodide)	--	--	--	mg/kg	U	U	U	7.6	U	0.039	U	0.006	U	0.006	U	0.008	U	0.008	U	0.04	U	0.008	U		
Isopropylbenzene	--	--	--	mg/kg	U	U	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
4- isopropyltoluene	--	--	--	mg/kg	U	U	U	7.6	U	0.039	U	0.006	U	0.006	U	0.006	U	0.008	U	NA	NA	NA	NA		
4- methyl- 2- pentanone	--	--	--	mg/kg	U	U	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
Methyl isobutyl ketone	--	--	--	mg/kg	NA	NA	NA	7.6	U	0.039	U	0.006	U	0.006	U	0.006	U	0.008	U	0.04	U	0.008	U		
Methyl tert-butyl ether	100	500	0.93	mg/kg	U	U	U	7.6	U	0.039	U	0.006	U	0.006	U	0.006	U	0.008	U	0.04	U	0.008	U		
Methylene bromide	--	--	--	mg/kg	NA	NA	NA	7.6	U	0.039	U	0.006	U	0.006	U	0.006	U	0.008	U	0.04	U	0.008	U		
Methylene chloride	--	--	--	mg/kg	0.58	J	U	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
2,2- oxybis (1-chloropropane)	--	--	--	mg/kg	NA	NA	NA	10	U	0.52	U	0.41	U	2.2	U	NA	0.5	U	0.4	U	5.3	U	0.52	U	
n- propylbenzene	100	500	3.9	mg/kg	U	U	U	3.4	J	0.039	U	0.006	U	0.006	U	0.006	U	0.008	U	0.008	U	0.16	0.008	U	
Styrene	--	--	--	mg/kg	U	U	U	7.6	U	0.039	U	0.006	U	0.006	U	0.006	U	0.008	U	0.04	U	0.008	U		
Tetrachloroethylene	19	150	1.3	mg/kg	U	U	U	7.6	U	0.039	U	0.006	U	0.006	U	0.006	U	0.008	U	0.04	U	0.008	U		
1,1,1,2- tetrachloroethane	--	--	--	mg/kg	U	U	U	7.6	U	0.039	U	0.006	U	0.006	U	0.006	U	0.008	U	0.04	U	0.008	U		
1,1,2,2- tetrachloroethane	--	--	--	mg/kg	U	U	U	7.6	U	0.039	U	0.006	U	0.006	U	0.006	U	0.008	U	0.04	U	0.008	U		
Toluene	100	500	0.7	mg/kg	U	U	5.4	J	14	0.039	U	0.006	U	0.002	J	0.006	U	0.008	U	0.008	U	0.012	J		
1,2,3- trichlorobenzene	--	--	--	mg/kg	U	U	U	7.6	U	0.039	U	0.006	U	0.006	U	0.006	U	0.008	U	0.04	U	0.008	U		
1,2,4- trichlorobenzene	--	--	--	mg/kg	U	U	U	7.6	U	0.039	U	0.006	U	0.006	U	0.006	U	0.008	U	0.04	U	0.008	U		
1,1,1- trichloroethane (methyl chloroform)	100	500	0.68	mg/kg	U	U	U	7.6	U	0.039	U	0.006	U	0.006	U	0.006	U	0.008	U	0.04	U	0.008	U		
1,1,2- trichloroethane	--	--	--	mg/kg	U	U	U	7.6	U	0.039	U	0.006	U	0.006	U	0.006	U	0.008	U	0.04	U	0.008	U		
Trichloroethylene (trichloroethylene)	21	200	0.47	mg/kg	U	U	U	7.6	U	0.039	U	0.006	U	0.006	U	0.006	U	0.008	U	0.04	U	0.008	U		
Trichlorofluoromethane (freon 11)	--	--	--	mg/kg	U	U	U	7.6	U	0.039	U	0.006	U	0.006	U	0.006	U	0.008	U	0.04	U	0.008	U		
1,2,3 - trichloropropane	--	--	--	mg/kg	U	U	U	7.6	U	0.039	U	0.006	U	0.006	U	0.006	U	0.008	U	0.04	U	0.008	U		
1,2,4- trimethylbenzene	52	190	3.6	mg/kg	0.88	J	11	J	5.6	J	46	0.031	J	0.006	U	0.006	U	0.006	U	0.008	U	0.04	U	0.008	U
1,3,5- trimethylbenzene	52	190	8.4	mg/kg	U	U	U	21	0.014	J	0.006	U	0.006	U	0.006	U	0.008	U	0.04	U	0.008	U	56		
Vinyl acetate	--	--	--	mg/kg	U	U	U	7.6	U	0.039	U	0.006	U	0.006	U	0.006	U	0.008	U	0.04	U	0.008	U		
Vinyl chloride (chloroethene)	0.9	13	0.02	mg/kg	U	U	U	7.6	U	0.039	U	0.006	U	0.006	U	0.006	U	0.008</							

**Table 2**  
**Soil Analytical Results - Volatile Organic Compounds**

**Remedial Action Work Plan**  
**Consolidated Edison Company of New York, Inc.**  
**West 42nd Street Former MGP Site**  
**New York, New York**

Location ID: Sample Depth (feet): Date Collected: Sample Name:	SCO Restricted – Residential <b>(bold)</b>	SCO Restricted – Commercial <i>(italics)</i>	SCO – Unrestricted Use <i>(shade)</i>	Units	SB-38 43 - 45 02/22/05	SB-39 45 - 47 03/10/05	SB-39 65 - 67 03/12/05	SB-40 28 - 30 04/05/05	SB-40 46 - 48 04/05/05	SB-41 13 - 14 12/06/06	SB-41 24 - 25 12/06/06	SB-42 13 - 14 12/06/06	SB-42 24 - 25 12/06/06	SB-42 27 - 28 12/06/06	SB-43 16 - 17 12/05/06	SB-43 28 - 29 12/05/06	SB-43 14 - 15 12/05/06	SB-44 19 - 20 12/05/06	SB-44														
Acetone (2- propanone, dimethyl ketone)	100	500	0.05	mg/kg	0.039	18	U	0.055	0.03	B	1.5	U	0.057	P	0.011	JP	0.024	P	0.082	JP	0.047	P	0.096	P	0.012	JP	0.024	JP	0.023	JP			
Benzene	4.8	44	0.06	mg/kg	0.01	J	140	0.14	0.006	U	1.1	J	0.032		0.0013	U	0.019		0.62		0.0029	J	0.025		0.0088		0.0041	J	0.013				
Bromobenzene	--	--	--	mg/kg	0.02	U	18	U	0.034	U	0.006	U	1.5	U		NA		NA		NA		NA		NA		NA		NA		NA			
Bromochloromethane	--	--	--	mg/kg	0.02	U	18	U	0.034	U	0.006	U	1.5	U		NA		NA		NA		NA		NA		NA		NA		NA			
Bromodichloromethane	--	--	--	mg/kg	NA		NA		NA		NA		NA		NA		NA																
Bromoform	--	--	--	mg/kg	0.02	U	18	U	0.034	U	0.006	U	1.5	U	0.0011	U	0.0015	U	0.0012	U	0.0076	U	0.0015	U	0.0014	U	0.0012	U	0.0012	U	0.0013	U	
Bromomethane/ methyl bromide	--	--	--	mg/kg	0.02	U	18	U	0.034	U	0.006	U	1.5	U	0.00095	U	0.0012	U	0.00098	U	0.0063	U	0.0013	U	0.0012	U	0.00096	U	0.00098	U	0.0011	U	
2- butanone (methyl ethyl ketone)	100	500	0.12	mg/kg	0.02	U	18	U	0.034	U	0.012		1.5	U	0.013		0.0026	U	0.0054	J	0.014	U	0.0085	J	0.023		0.0032	J	0.0053	J	0.005	J	
n- butylbenzene	100	500	12	mg/kg	0.02	U	18	U	0.034	U	0.002	J	1.5	U		NA		NA		NA		NA		NA		NA		NA		NA		NA	
sec- butylbenzene	100	500	11	mg/kg	0.02	U	18	U	0.034	U	0.002	J	1.5	U		NA		NA		NA		NA		NA		NA		NA		NA		NA	
tert- butylbenzene	100	500	5.9	mg/kg	0.02	U	18	U	0.034	U	0.006	U	1.5	U		NA		NA		NA		NA		NA		NA		NA		NA		NA	
Carbon disulfide	--	--	--	mg/kg	0.014	J	18	U	0.034	UU	0.006	U	1.5	U	0.00071	U	0.00089	U	0.0013	J	0.0053	J	0.0024	J	0.00088	U	0.002	J	0.00073	U	0.0008	U	
Carbon tetrachloride	2.4	22	0.76	mg/kg	0.02	U	18	U	0.034	U	0.006	U	1.5	U	0.0009	U	0.0011	U	0.00093	U	0.006	U	0.0012	U	0.0011	U	0.00091	U	0.00093	U	0.001	U	
Chlorobenzene	100	500	1.1	mg/kg	0.02	U	18	U	0.034	U	0.006	U	1.5	U	0.00092	U	0.0012	U	0.00094	U	0.006	U	0.0012	U	0.0011	U	0.00093	U	0.001	U			
Chlorodibromomethane	--	--	--	mg/kg	0.02	U	18	U	0.034	U	0.006	U	1.5	U	0.00048	U	0.0006	U	0.00049	U	0.0031	U	0.00063	U	0.00059	U	0.00048	U	0.00049	U	0.00053	U	
Chloroethane	--	--	--	mg/kg	0.02	U	18	U	0.034	U	0.006	U	1.5	U	0.0022	U	0.0028	U	0.0023	U	0.014	U	0.0029	U	0.0027	U	0.0022	U	0.0023	U	0.0025	U	
Chloroform	49	350	0.37	mg/kg	0.02	U	18	U	0.034	U	0.006	U	1.5	U	0.00061	U	0.00078	U	0.00063	U	0.0041	U	0.00081	U	0.00076	U	0.00062	U	0.00063	U	0.00069	U	
Chloromethane (methyl chloride)	--	--	--	mg/kg	0.02	U	18	U	0.034	U	0.006	U	1.5	U	0.001	U	0.0013	U	0.0011	U	0.0069	U	0.0014	U	0.0013	U	0.0011	U	0.0012	U			
2- chlorotoluene	--	--	--	mg/kg	0.02	U	18	U	0.034	U	0.006	U	1.5	U		NA		NA		NA		NA		NA		NA		NA		NA		NA	
4- chlorotoluene	--	--	--	mg/kg	0.02	U	18	U	0.034	U	0.006	U	1.5	U		NA		NA		NA		NA		NA		NA		NA		NA		NA	
Cumene	--	--	--	mg/kg	0.02	U	18	U	0.034	U	0.001	J	1.5	U		NA		NA		NA		NA		NA		NA		NA		NA		NA	
1,2- dibromo- 3- chloropropane	--	--	--	mg/kg	0.02	U	18	U	0.034	U	0.006	U	1.5	U		NA		NA		NA		NA		NA		NA		NA		NA		NA	
Dibromochloromethane	--	--	--	mg/kg	NA		NA		NA		NA		NA		NA		NA		NA														
1,2- dibromoethane	--	--	--	mg/kg	NA		NA		NA		NA		NA		NA		NA		NA														
Dibromomethane	--	--	--	mg/kg	NA		NA		NA		NA		NA		NA		NA		NA														
cis- 1,3- dichloro, 1- propene	--	--	--	mg/kg	0.02	U	18	U	0.034	U	0.006	U	1.5	U		NA		NA		NA		NA		NA		NA		NA		NA		NA	
1,2- dichlorobenzene	100	500	1.1	mg/kg	0.02	U	18	U	0.034	U	0.006	U	1.5	U		NA		NA		NA		NA		NA		NA		NA		NA		NA	
1,3- dichlorobenzene	49	280	2.4	mg/kg	0.02	U	18	U	0.034	U	0.006	U	1.5	U		NA		NA		NA		NA		NA		NA		NA		NA		NA	
1,4- dichlorobenzene	13	130	1.8																														

**Table 2**  
**Soil Analytical Results - Volatile Organic Compounds**

**Remedial Action Work Plan**  
**Consolidated Edison Company of New York, Inc.**  
**West 42nd Street Former MGP Site**  
**New York, New York**

Location ID: Sample Depth (feet): Date Collected: Sample Name:	SCO Restricted – Residential (bold)	SCO Restricted – Commercial (italics)	SCO – Unrestricted Use (shade)	Units	SB-38 43 - 45 02/22/05	SB-39 45 - 47 03/10/05	SB-39 65 - 67 03/12/05	SB-40 28 - 30 04/05/05	SB-40 46 - 48 04/05/05	SB-41 13 - 14 12/06/06	SB-41 24 - 25 12/06/06	SB-42 13 - 14 12/06/06	SB-42 24 - 25 12/06/06	SB-42 27 - 28 12/06/06	SB-43 16 - 17 12/05/06	SB-43 28 - 29 12/05/06	SB-43 28 - 29 12/05/06	SB-44 14 - 15 12/05/06	SB-44 19 - 20 12/05/06
2,2- dichloropropane	--	--	--	mg/kg	NA														
cis- 1,3- dichloropropane	--	--	--	mg/kg	NA														
1,1- dichloropropene	--	--	--	mg/kg	0.02	U	18	U	0.034	U	0.006	U	1.5	U	NA	NA	NA	NA	
trans- 1,3- dichloropropene	--	--	--	mg/kg	0.02	U	18	U	0.034	U	0.006	U	1.5	U	0.0011	U	0.0013	U	
Ethylbenzene	41	390	1	mg/kg	0.005	J	49	0.1	0.006	U	0.7	J	0.001	J	0.041	0.00094	U	0.065	
Ethylene dibromide	--	--	--	mg/kg	0.02	U	18	U	0.034	U	0.006	U	1.5	U	NA	NA	NA	NA	
Freon 12	--	--	--	mg/kg	0.02	U	18	U	0.034	U	0.006	U	1.5	U	NA	NA	NA	NA	
Hexachlorobutadiene	--	--	--	mg/kg	0.02	U	18	U	0.034	U	0.006	U	1.5	U	NA	NA	NA	NA	
2- hexanone	--	--	--	mg/kg	0.02	U	18	U	0.034	U	0.006	U	1.5	U	0.0029	U	0.0037	U	
Iodomethane (methyl iodide)	--	--	--	mg/kg	0.02	U	18	U	0.034	U	0.006	U	1.5	U	NA	NA	NA	NA	
Isopropylbenzene	--	--	--	mg/kg	NA														
4- isopropyltoluene	--	--	--	mg/kg	NA														
4- methyl- 2- pentanone	--	--	--	mg/kg	NA														
Methyl isobutyl ketone	--	--	--	mg/kg	0.02	U	18	U	0.034	U	0.006	U	1.5	U	0.0014	U	0.0017	U	
Methyl tert-butyl ether	100	500	0.93	mg/kg	0.02	U	18	U	0.034	U	0.006	U	1.5	U	NA	NA	NA	NA	
Methylene bromide	--	--	--	mg/kg	0.02	U	18	U	0.034	U	0.006	U	1.5	U	NA	NA	NA	NA	
Methylene chloride	--	--	--	mg/kg	NA														
2,2- oxybis (1-chloropropane)	--	--	--	mg/kg	0.51	U	2.3	U	0.44	U	0.44	U	0.51	U	NA	NA	NA	NA	
n- propylbenzene	100	500	3.9	mg/kg	0.02	U	18	U	0.034	U	0.006	U	1.5	U	NA	NA	NA	NA	
Styrene	--	--	--	mg/kg	0.02	U	18	U	0.034	U	0.006	U	1.5	U	0.0012	U	0.0016	U	
Tetrachloroethylene	19	150	1.3	mg/kg	0.02	U	18	U	0.034	U	0.006	U	1.5	U	NA	NA	NA	NA	
1,1,1,2- tetrachloroethane	--	--	--	mg/kg	0.02	U	18	U	0.034	U	0.006	U	1.5	U	NA	NA	NA	NA	
1,1,2,2- tetrachloroethane	--	--	--	mg/kg	0.02	U	18	U	0.034	U	0.006	U	1.5	U	0.00081	U	0.001	U	
Toluene	100	500	0.7	mg/kg	0.006	J	100	0.12	0.006	U	0.31	J	0.0024	J	0.0012	U	0.0015	J	
1,2,3- trichlorobenzene	--	--	--	mg/kg	0.02	U	18	U	0.034	U	0.006	U	1.5	U	NA	NA	NA	NA	
1,2,4- trichlorobenzene	--	--	--	mg/kg	0.02	U	18	U	0.034	U	0.006	U	1.5	U	NA	NA	NA	NA	
1,1,1- trichloroethane (methyl chloroform)	100	500	0.68	mg/kg	0.02	U	18	U	0.034	U	0.006	U	1.5	U	0.00097	U	0.0012	U	
1,1,2- trichloroethane	--	--	--	mg/kg	0.02	U	18	U	0.034	U	0.006	U	1.5	U	0.0012	U	0.0015	U	
Trichloroethylene (trichloroethylene)	21	200	0.47	mg/kg	0.02	U	18	U	0.034	U	0.006	U	1.5	U	0.00079	U	0.001	U	
Trichlorofluoromethane (freon 11)	--	--	--	mg/kg	0.02	U	18	U	0.034	U	0.006	U	1.5	U	NA	NA	NA	NA	
1,2,3 - trichloropropane	--	--	--	mg/kg	0.02	U	18	U	0.034	U	0.006	U	1.5	U	NA	NA	NA	NA	
1,2,4- trimethylbenzene	52	190	3.6	mg/kg	0.007	J	34	0.16	0.001	J	0.46	J	NA	NA	NA	NA	NA	NA	
1,3,5- trimethylbenzene	52	190	8.4	mg/kg	0.02	U	14	J	0.054	0.006	U	1.5	U	NA	NA	NA	NA	NA	
Vinyl acetate	--	--	--	mg/kg	0.02	U	18	U	0.034	U	0.006	U	1.5	U	NA	NA	NA	NA	
Vinyl chloride (chloroethene)	0.9	13	0.02	mg/kg	0.02	U	18	U	0.034	U	0.006	U	1.5	U	0.001	U	0.0013	U	
Total xylenes	100	500	0.26	mg/kg	0.016	J	110	0.33	0.006	U	1.8	0.0023	U	0.088	0.0023	U	0.97	0.093	0.0028
<b>Total BTEX</b>	--	--	--	mg/kg	0.037		399.000		0.690	ND	3.910		0.035		0.129		0.21	2.369	0.161
<b>Total VOCs</b>	--	--	--	mg/kg	0.097		447		0.959	0.048	4.77		0.1194		0.16		0.07604	2.5357	0.2418
																	0.1625	0.1625	
																	0.0569	0.0474	
																		0.056	

See notes on page 9.

**Table 2**  
**Soil Analytical Results - Volatile Organic Compounds**

**Remedial Action Work Plan  
Consolidated Edison Company of New York, Inc.  
West 42nd Street Former MGP Site  
New York, New York**

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**Soil Analytical Results - Volatile Organic Compounds**

**Remedial Action Work Plan**  
**Consolidated Edison Company of New York, Inc.**  
**West 42nd Street Former MGP Site**  
**New York, New York**

Location ID: Sample Depth (feet): Date Collected: Sample Name:	SCO Restricted – Residential (bold)	SCO Restricted – Commercial (italics)	SCO – Unrestricted Use (shade)	Units	SB-44 21 - 22 12/05/06	SB-44-DUP 21 - 22 12/05/06	SB-46 25 - 28 06/12/08	SB-47 5 - 7 06/12/08	SB-47 23 03/26/08	SB-48 12 07/24/10	SB-48 18.5 - 19 07/24/10	SB-48-DUP 18.5 - 19 07/24/10	SB-49 9.5 07/25/10	SB-49 12 07/25/10	SB-50 9 02/26/11	SB-50	SB-51 14.5 02/27/11	SB-51 14.5 02/27/11	SB-51-DUP
2,2- dichloropropane	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
cis- 1,3- dichloropropane	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
1,1- dichloropropene	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
trans- 1,3- dichloropropene	--	--	--	mg/kg	0.0015	U	0.0014	U	7.6	U	7.9	U	0.0059	U	0.0076	U	58	U	
Ethylbenzene	41	390	1	mg/kg	0.0013	U	0.019		130		97		0.0059	UJ	0.27	D	110		
Ethylene dibromide	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Freon 12	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Hexachlorobutadiene	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
2- hexanone	--	--	--	mg/kg	0.0041	U	0.0039	U	7.6	U	7.9	U	0.012	U	0.015	U	58	U	
Iodomethane (methyl iodide)	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Isopropylbenzene	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
4- isopropyltoluene	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
4- methyl- 2- pentanone	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Methyl isobutyl ketone	--	--	--	mg/kg	0.0019	U	0.0018	U	7.6	U	7.9	U	0.0059	U	0.0076	U	58	U	
Methyl tert-butyl ether	100	500	0.93	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Methylene bromide	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Methylene chloride	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
2,2- oxyblis (1-chloropropane)	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
n- propylbenzene	100	500	3.9	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Styrene	--	--	--	mg/kg	0.0017	U	0.0016	U	110		36		0.0059	UJ	0.0076	U	14	J	
Tetrachloroethylene	19	150	1.3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
1,1,1,2- tetrachloroethane	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
1,1,2,2- tetrachloroethane	--	--	--	mg/kg	0.0011	U	0.0011	U	7.6	U	7.9	U	0.0059	U	0.0011	J	58	U	
Toluene	100	500	0.7	mg/kg	0.0014	U	0.0013	U	350	D	200		0.0059	U	0.011	J	75		
1,2,3- trichlorobenzene	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
1,2,4- trichlorobenzene	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
1,1,1- trichloroethane (methyl chloroform)	100	500	0.68	mg/kg	0.0014	U	0.0013	U	7.6	U	7.9	U	0.0059	U	0.0076	U	58	U	
1,1,2- trichloroethane	--	--	--	mg/kg	0.0017	U	0.0016	U	7.6	U	7.9	U	0.0059	U	0.0076	U	58	U	
Trichloroethylene (trichloroethylene)	21	200	0.47	mg/kg	0.0011	U	0.001	U	7.6	U	7.9	U	0.0059	U	0.0076	U	58	U	
Trichlorofluoromethane (freon 11)	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
1,2,3 - trichloropropane	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
1,2,4- trimethylbenzene	52	190	3.6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
1,3,5- trimethylbenzene	52	190	8.4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Vinyl acetate	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Vinyl chloride (chloroethene)	0.9	13	0.02	mg/kg	0.0014	U	0.0013	U	7.6	U	7.9	U	0.0059	U	0.0076	U	58	U	
Total xylenes	100	500	0.26	mg/kg	0.0045	J	0.017		600		330		0.0059	UJ	0.12	D	280	J	
<b>Total BTEX</b>	--	--	--	mg/kg	0.007		0.038		1340.000		757.000		ND		0.439		496.000		
<b>Total VOCs</b>	--	--	--	mg/kg	0.2099		0.1906		1450		793		0.0021		0.5793		510		

See notes on page 9.

**Table 2**  
**Soil Analytical Results - Volatile Organic Compounds**

**Remedial Action Work Plan**  
**Consolidated Edison Company of New York, Inc.**  
**West 42nd Street Former MGP Site**  
**New York, New York**

**Notes:**

Italicized result exceeds SCO for Restricted – Commercial use.

Bolded result exceeds SCO Restricted – Residential use.

Shaded result exceeds SCO Unrestricted use.

1. Qualifiers are as follows:

B Analyte was also detected in the associated method blank.

D The reported concentration is based on a diluted sample analysis.

E Analyte exceeded calibration range.

J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

M Indicates manually integrated compound.

N Indicates spike sample recovery is not within the quality control limits.

P Indicates an estimated value between the instrument detection limit and practical quantitation limit (PQL).

R The reported concentration was rejected.

U The analyte was analyzed for, but not detected. The associated value is the analyte quantitation limit.

2. Screening levels were provided in New York State Department of Environmental Conservation 6 New York Codes, Rules and Regulations Subpart 375.6: Remedial Program Soil Cleanup Objectives.

3. Duplicate samples are indicated by location ID ending in DUP.

BTEX = benzene, toluene, ethylbenzene and xylene

mg/kg = milligrams per kilogram

NA = not analyzed for

ND = not detected

% = percent

PAHs = polycyclic aromatic hydrocarbons

SCO = Soil cleanup objective

VOCs = volatile organic compounds

- - = criteria not indicated

**Table 3**  
**Soil Analytical Results - Semivolatile Organic Compounds**

Remedial Action Work Plan  
 Consolidated Edison Company of New York, Inc.  
 West 42nd Street Former MGP Site  
 New York, New York

Location ID: Sample Depth: Date: Sample Name:	SCO –			Units	SB-09	SB-09	SB-20	SB-20	SB-21	SB-21	SB-22	SB-22	SB-23	SB-23	SB-24	SB-24	SB-24							
	SCO Restricted- Residential	SCO Restricted- Commercial	Unrestricted Use		11-15	31-33.5	12-16	16-20	12-16	36-38.9	12-16	36-44	20-24	52-54.5	30-32	34-36	36-38							
	(bold)	(italics)	(shaded)		37869	37869	37896	37896	37894	37894	37893	37893	37894	37894	37897	37897	37896							
Acenaphthene	100	500	20	mg/kg	0.086	J	U	3.4	1.4	11	1.2	6.9	0.094	J	220	D	19	4400	1	7000				
Acenaphthylene	100	500	100	mg/kg		U	U	U	U	4.3	0.44	1.7		U	250	D	15	7900	1.9	12000				
Anthracene	100	500	100	mg/kg	0.16	J	U	1.8	0.26	J	9.5	1.4	6.6	0.081	J	330	D	24	7600	2.2	11000			
Benzo (a) anthracene	1	5.6	1	mg/kg	0.42		U	5.4	0.171	J	19	2.2	9.1	D	0.089	J	280	D	24	6900	2.1	12000		
Benzo (a) pyrene	1	1	1	mg/kg	0.52		U	5.4	0.17	J	18	1.7	8.2	D	0.069	J	240	D	19	5300	1.6	8600		
Benzo (b) fluoranthene	1	5.6	1	mg/kg	0.61		U	3.8	0.12	J	15	1.8	8.4	D	0.074	J	270	D	22	6200	1.8	10000		
Benzo (g,h,l) perylene	100	500	100	mg/kg	0.36	J	U	2.7	0.093	J	9.8	0.93	4.3	0.046	J	74		8	2200	0.5	3200			
Benzo (k) fluoranthene	3.9	56	0.8	mg/kg	0.22	J	U	1.2		U	5.3	0.54	4.1		U	120	D	9.3	2700	0.81	4300			
Benzyl alcohol	--	--	--	mg/kg		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
Bis (2- chloroethoxy) methane	--	--	--	mg/kg		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		
Bis (2- Chloroethyl) ether	--	--	--	mg/kg		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U			
Bis (2- ethylhexyl) phthalate	--	--	--	mg/kg	2.2		0.3	J	U	U	U	U	U	U	U	U	0.45	J	U	U	U			
4- Bromofluorobenzene	--	--	--	mg/kg		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
4- Bromophenyl- phenylether	--	--	--	mg/kg		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U			
Butylbenzylphthalate	--	--	--	mg/kg	0.044	J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U			
Carbazole	--	--	--	mg/kg	0.091	J	U	U	U	U	0.083	J	2.5		U	140	D	12	3200	0.96	5400			
4- Chloro- 3- methylphenol	--	--	--	mg/kg		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U			
4- Chloroaniline	--	--	--	mg/kg		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U			
2- Chloronaphthalene	--	--	--	mg/kg		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U			
2- Chlorophenol	--	--	--	mg/kg		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U			
4- Chlorophenyl- phenylether	--	--	--	mg/kg		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U			
Chrysene	3.9	56	1	mg/kg	0.44		U	5.2	0.172	J	18	2.4	7.7	D	0.075	J	260	D	22	5700	1.7	9200		
Dibenzo (a,h) anthracene	0.33	0.56	0.33	mg/kg	0.071	J	U	0.49	J	U	2.1	0.2	J	1.1		U	21	2.4	700	J	0.16	J	1000	J
Dibenzofuran	59	350	7	mg/kg	0.06	J	U	1.4	0.086	J	1.9	J	0.27	J	4.8	0.062	J	280	D	20	7500	2	12000	
Dibutyl phthalate	--	--	--	mg/kg		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U			
1,2- Dichlorobenzene	100	500	1.1	mg/kg		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U			
1,3- Dichlorobenzene	49	280	2.4	mg/kg		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U			
1,4- Dichlorobenzene	13	130	1.8	mg/kg		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U			
3,3'- Dichlorobenzidine	--	--	--	mg/kg		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U			
2,4- Dichlorophenol	--	--	--	mg/kg		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U			
Diethyl phthalate	--	--	--	mg/kg		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U			
2,4- Dimethylphenol	--	--	--	mg/kg		U	U	U	U	U	U	U	U	U	U	39		1.8	J	200	J	U	360	J
Dimethyl phthalate	--	--	--	mg/kg		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		
4,6- Dinitro- 2- methylphenol	--	--	--	mg/kg		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		

**Table 3**  
**Soil Analytical Results - Semivolatile Organic Compounds**

Remedial Action Work Plan  
 Consolidated Edison Company of New York, Inc.  
 West 42nd Street Former MGP Site  
 New York, New York

Location ID: Sample Depth: Date: Sample Name:	SCO –			Units	SB-09	SB-09	SB-20	SB-20	SB-21	SB-21	SB-22	SB-22	SB-23	SB-23	SB-24	SB-24	SB-24
	SCO Restricted- Residential	SCO Restricted- Commercial	Unrestricted Use		11-15	31-33.5	12-16	16-20	12-16	36-38.9	12-16	36-44	20-24	52-54.5	30-32	34-36	36-38
	(bold)	(italics)	(shaded)		37869	37869	37896	37896	37894	37894	37893	37893	37894	37894	37897	37897	37896
2,4- Dinitrophenol	--	--	--	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U
2,4- Dinitrotoluene	--	--	--	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U
2,6- Dinitrotoluene	--	--	--	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U
Diethyl phthalate	--	--	--	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U
Fluoranthene	100	500	100	mg/kg	0.76	U	6.1	0.3	J	22	3.2	20	D	0.21	J	<b>600 D</b>	58 D
Fluorene	100	500	30	mg/kg	0.077	J	U	U	1.1	7.7	1.9	6.2	0.088	J	<b>360 D</b>	24	<b>9200</b>
Hexachlorobenzene	1.2	6	0.33	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U
Hexachlorobutadiene	--	--	--	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U
Hexachlorocyclopentadiene	--	--	--	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U
Hexachloroethane	--	--	--	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U
Indeno (1,2,3- cd) pyrene	0.5	5.6	0.5	mg/kg	0.34	J	U	<b>1.5</b>		U	<b>6.4</b>	<b>0.59</b>	<b>3.5</b>		U	<b>64</b>	<b>7.7</b>
Isophorone	--	--	--	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U
2- Methylnaphthalene	--	--	--	mg/kg	0.089	J	0.2	J	U	3.2	1.3	J	0.68	5.8	0.085	J	460 D
2- Methylphenol	100	500	0.33	mg/kg	U	U	U	U	U	U	U	U	0.066	J	U	2.3 J	32
4- Methylphenol	100	500	0.33	mg/kg	U	U	U	U	U	U	U	U	0.2	J	U	8.1	1
Naphthalene	100	500	12	mg/kg	0.99	4.4		0.11	JB	6 B	3.1	B	2.3	B	<b>22 D</b>	<b>1300 DB</b>	<b>110 DB</b>
2- Nitroaniline	--	--	--	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U
3- Nitroaniline	--	--	--	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U
4- Nitroaniline	--	--	--	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U
Nitrobenzene	--	--	--	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U
2- Nitrophenol	--	--	--	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U
4- Nitrophenol	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N- Nitrosodi- n- propylamine	--	--	--	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U
N- Nitrosodiphenylamine	--	--	--	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U
2,2- Oxybis (1-Chloropropane)	--	--	--	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U
Pentachlorophenol	6.7	6.7	0.8	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U
Phenanthrene	100	500	100	mg/kg	0.61	U	U	1.4		11	5.2	30	D	0.33	J	<b>820 D</b>	85 D
Phenol	100	500	0.33	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U
Pyrene	100	500	100	mg/kg	0.75	U	18	D	0.59	53	D	6.2	20	D	0.18	J	<b>520 D</b>
1,2,4- Trichlorobenzene	--	--	--	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U
2,4,5- Trichlorophenol	--	--	--	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U
2,4,6- Trichlorophenol	--	--	--	mg/kg	U	U	U	U	U	U	U	U	U	U	U	U	U
<b>Total PAHs</b>	--	--	--	mg/kg	6.503	4.6	55.1	14.976	216.5	32.88	165.6	3.921	6189	535.4	156900	38.88	246700
<b>Total SVOCs</b>	--	--	--	mg/kg	8.898	4.9	56.5	15.062	218.4	33.233	173.166	3.983	6658.4	570.96	167800	41.84	264460

See notes on page 11.

**Table 3**  
**Soil Analytical Results - Semivolatile Organic Compounds**

**Remedial Action Work Plan**  
**Consolidated Edison Company of New York, Inc.**  
**West 42nd Street Former MGP Site**  
**New York, New York**

Location ID: Sample Depth: Date: Sample Name:	SCO –			Units	SB-25	SB-25	SB-26	SB-26	SB-30	SB-30	SB-30	SB-31	SB-31	SB-32	SB-32	SB-33		
	SCO Restricted- SCO Restricted- Unrestricted				12-16 37895	24-28 37895	9-13 9/29/2003	16-19 10/1/2003	10 - 14 02/20/05	10 - 14 02/20/05	34 - 36 02/20/05	7 - 11 03/06/05	7 - 11 03/06/05	9 - 11 03/02/05	9 - 11 03/02/05	35 - 39 03/02/05	5 - 7 02/27/05	
	(bold)	(italics)	(shaded)		SB-25	SB-25	SB-26	SB-26	SB-30	SB-30 DL	SB-30	SB-31	SB-31 DL	SB-32	SB-32 DL	SB-32		
Acenaphthene	100	500	20	mg/kg	28	0.17 J	24	160 DJ	90	90 D	0.45 J	4.8	3.7 DJ	3.7	3.5 DJ	0.5 U 0.11 J		
Acenaphthylene	100	500	100	mg/kg	13	U	19	430 D	31	27 DJ	0.12 J	0.099 J	4.1 U	1.4 J	0.87 DJ	0.5 U 0.32 J		
Anthracene	100	500	100	mg/kg	46	0.38 J	81 D	380 D	170 D	170 D	0.7	9.4 E	11 D	5.7	5 D	0.21 J 0.41		
Benzo (a) anthracene	1	5.6	1	mg/kg	45	0.16 J	100 D	320 D	120	120 D	0.44 J	30 E	24 D	21	18 D	0.43 J 2		
Benzo (a) pyrene	1	1	1	mg/kg	39	0.13 J	93	260 DJ	100	100 D	0.35 J	23 E	20 D	29	27 D	0.45 J 2.6		
Benzo (b) fluoranthene	1	5.6	1	mg/kg	46	0.15 J	110 D	250 DJ	110	98 D	0.38 J	35 E	22 D	29	25 D	0.59 3.2		
Benzo (g,h,l) perylene	100	500	100	mg/kg	19	U	41 D	48	52	51 D	0.17 J	5.8	9.4 D	13	15 D	0.12 J 0.8		
Benzo (k) fluoranthene	3.9	56	0.8	mg/kg	18	0.065 J	32	130 DJ	42	48 D	0.18 J	14 E	10 D	9.9	8.8 D	0.25 J 1.4		
Benzyl alcohol	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Bis (2- chloroethoxy) methane	--	--	--	mg/kg	U	U	U	U	10 U	41 U	0.52 U	0.41 U	4.1 U	2.2 U	4.3 U	0.5 U 0.4 U		
Bis (2- Chloroethyl) ether	--	--	--	mg/kg	U	U	U	U	10 U	41 U	0.52 U	0.41 U	4.1 U	2.2 U	4.3 U	0.5 U 0.4 U		
Bis (2- ethylhexyl) phthalate	--	--	--	mg/kg	U	U	U	U	10 U	41 U	0.52 U	0.32 J	4.1 U	2.2 U	4.3 U	0.17 J 0.4 U		
4- Bromofluorobenzene	--	--	--	mg/kg	NA	NA	NA	NA	10 U	41 U	0.52 U	0.41 U	4.1 U	2.2 U	4.3 U	0.5 U 0.4 U		
4- Bromophenyl- phenylether	--	--	--	mg/kg	U	U	U	U	NA	NA	NA	NA	NA	NA	NA	NA		
Butylbenzylphthalate	--	--	--	mg/kg	U	U	U	U	10 U	41 U	0.52 U	0.41 U	4.1 U	2.2 U	4.3 U	0.5 U 0.4 U		
Carbazole	--	--	--	mg/kg	18	0.13 J	29	180 DJ	39	38 DJ	0.22 J	3.2	2.4 DJ	2.4	4.3 U	0.5 U 0.4 U		
4- Chloro- 3- methylphenol	--	--	--	mg/kg	U	U	U	U	10 U	41 U	0.52 U	0.41 U	4.1 U	2.2 U	4.3 U	0.5 U 0.4 U		
4- Chloroaniline	--	--	--	mg/kg	U	U	U	U	10 U	41 U	0.52 U	0.41 U	4.1 U	2.2 U	4.3 U	0.5 U 0.4 U		
2- Chloronaphthalene	--	--	--	mg/kg	U	U	U	U	2 J	10 U	41 U	0.52 U	0.41 U	4.1 U	2.2 U	4.3 U	0.5 U 0.4 U	
2- Chlorophenol	--	--	--	mg/kg	U	U	U	U	10 U	41 U	0.52 U	0.41 U	4.1 U	2.2 U	4.3 U	0.5 U 0.4 U		
4- Chlorophenyl- phenylether	--	--	--	mg/kg	U	U	U	U	10 U	41 U	0.52 U	0.41 U	4.1 U	2.2 U	4.3 U	0.5 U 0.4 U		
Chrysene	3.9	56	1	mg/kg	42	0.16 J	92 D	240 DJ	120	120 D	0.47 J	24 E	23 D	22	22 D	0.45 J 2.1		
Dibenzo (a,h) anthracene	0.33	0.56	0.33	mg/kg	5.1	U	9	13	15	16 DJ	0.52 U	1.8	2.6 DJ	3.6	4 DJ	0.5 U 0.22 J		
Dibenzofuran	59	350	7	mg/kg	31	0.16 J	32	350 D	86	85 D	0.34 J	2.6	2.1 DJ	0.8 J	0.78 DJ	0.11 J 0.12 J		
Dibutyl phthalate	--	--	--	mg/kg	U	U	U	U	10 U	41 U	0.14 J	0.41 U	4.1 U	2.2 U	4.3 U	0.5 U 0.26 J		
1,2- Dichlorobenzene	100	500	1.1	mg/kg	U	U	U	U	10 U	41 U	0.52 U	0.41 U	4.1 U	2.2 U	4.3 U	0.5 U 0.4 U		
1,3- Dichlorobenzene	49	280	2.4	mg/kg	U	U	U	U	10 U	41 U	0.52 U	0.41 U	4.1 U	2.2 U	4.3 U	0.5 U 0.4 U		
1,4- Dichlorobenzene	13	130	1.8	mg/kg	U	U	U	U	10 U	41 U	0.52 U	0.41 U	4.1 U	2.2 U	4.3 U	0.5 U 0.4 U		
3,3'- Dichlorobenzidine	--	--	--	mg/kg	U	U	U	U	10 U	41 U	0.52 U	0.41 U	4.1 U	2.2 U	4.3 U	0.5 U 0.4 U		
2,4- Dichlorophenol	--	--	--	mg/kg	U	U	U	U	10 U	41 U	0.52 U	0.41 U	4.1 U	2.2 U	4.3 U	0.5 U 0.4 U		
Diethyl phthalate	--	--	--	mg/kg	U	U	U	U	10 U	41 U	0.52 U	0.41 U	4.1 U	2.2 U	4.3 U	0.5 U 0.4 U		
2,4- Dimethylphenol	--	--	--	mg/kg	U	U	U	U	0.91 J	29	10 U	41 U	0.52 U	0.41 U	4.1 U	2.2 U	4.3 U	0.5 U 0.4 U
Dimethyl phthalate	--	--	--	mg/kg	U	U	U	U	U	41 U	0.52 U	0.41 U	4.1 U	2.2 U	4.3 U	0.5 U 0.4 U		
4,6- Dinitro- 2- methylphenol	--	--	--	mg/kg	U	U	U	U	U	21 U	84 U	1 U	0.83 U	8.3 U	4.4 U	8.8 U	1 U 0.81 U	

**Table 3**  
**Soil Analytical Results - Semivolatile Organic Compounds**

**Remedial Action Work Plan**  
**Consolidated Edison Company of New York, Inc.**  
**West 42nd Street Former MGP Site**  
**New York, New York**

Location ID: Sample Depth: Date: Sample Name:	SCO – SCO Restricted- Residential SCO Restricted- Commercial Unrestricted Use			Units	SB-25 12-16 37895	SB-25 24-28 37895	SB-26 9-13 9/29/2003	SB-26 16-19 10/1/2003	SB-30 10 - 14 02/20/05	SB-30 10 - 14 02/20/05	SB-30 34 - 36 02/20/05	SB-31 7 - 11 03/06/05	SB-31 7 - 11 03/06/05	SB-31 7 - 11 03/06/05	SB-32 9 - 11 03/02/05	SB-32 9 - 11 03/02/05	SB-32 35 - 39 03/02/05	SB-33 5 - 7 02/27/05
	(bold)	(italics)	(shaded)		SB-25	SB-25	SB-26	SB-26	SB-30	SB-30 DL	SB-30	SB-31	SB-31 DL	SB-32	SB-32 DL	SB-32	SB-33	
					mg/kg	U	U	U	U	21 U	84 U	1 U	0.83 U	8.3 U	4.4 U	8.8 U	1 U	0.81 U
2,4- Dinitrophenol	--	--	--	mg/kg	U	U	U	U	21 U	84 U	1 U	0.83 U	8.3 U	4.4 U	8.8 U	1 U	0.81 U	
2,4- Dinitrotoluene	--	--	--	mg/kg	U	U	U	U	10 U	41 U	0.52 U	0.41 U	4.1 U	2.2 U	4.3 U	0.5 U	0.4 U	
2,6- Dinitrotoluene	--	--	--	mg/kg	U	U	U	U	10 U	41 U	0.52 U	0.41 U	4.1 U	2.2 U	4.3 U	0.5 U	0.4 U	
Diethyl phthalate	--	--	--	mg/kg	U	U	U	U	10 U	41 U	0.52 U	0.41 U	4.1 U	2.2 U	4.3 U	0.5 U	0.4 U	
Fluoranthene	100	500	100	mg/kg	92 D	0.46 J	<b>190 D</b>	<b>790 D</b>	<b>290 D</b>	<b>290 D</b>	1.1	23 E	<b>54 D</b>	25	26 D	0.87	3.2	
Fluorene	100	500	30	mg/kg	36	0.18 J	80 D	<b>420 D</b>	<b>110 D</b>	<b>110 D</b>	0.45 J	3.6	2.8 DJ	1.2 J	1 DJ	0.1 J	0.14 J	
Hexachlorobenzene	1.2	6	0.33	mg/kg	U	U	U	U	10 U	41 U	0.52 U	0.41 U	4.1 U	2.2 U	4.3 U	0.5 U	0.4 U	
Hexachlorobutadiene	--	--	--	mg/kg	U	U	U	U	10 U	41 U	0.52 U	0.41 U	4.1 U	2.2 U	4.3 U	0.5 U	0.4 U	
Hexachlorocyclopentadiene	--	--	--	mg/kg	U	U	U	U	10 U	41 U	0.52 U	0.41 U	4.1 U	2.2 U	4.3 U	0.5 U	0.4 U	
Hexachloroethane	--	--	--	mg/kg	U	U	U	U	10 U	41 U	0.52 U	0.41 U	4.1 U	2.2 U	4.3 U	0.5 U	0.4 U	
Indeno (1,2,3- cd) pyrene	0.5	5.6	0.5	mg/kg	<b>17</b>	0.053 J	<b>31</b>	<b>44</b>	<b>46</b>	<b>46 D</b>	0.16 J	<b>5.8</b>	<b>8.7 D</b>	<b>11</b>	<b>12 D</b>	0.12 J	<b>0.77</b>	
Isophorone	--	--	--	mg/kg	U	U	U	U	10 U	41 U	0.52 U	0.41 U	4.1 U	2.2 U	4.3 U	0.5 U	0.4 U	
2- Methylnaphthalene	--	--	--	mg/kg	15	0.19 J	71 D	660 D	87	85 D	0.37 J	0.26 J	4.1 U	0.31 J	4.3 U	0.12 J	0.065 J	
2- Methylphenol	100	500	0.33	mg/kg	U	U	U	U	10 U	41 U	0.52 U	0.41 U	4.1 U	2.2 U	4.3 U	0.5 U	0.4 U	
4- Methylphenol	100	500	0.33	mg/kg	U	U	U	U	10 U	41 U	0.52 U	0.41 U	4.1 U	2.2 U	4.3 U	0.5 U	0.4 U	
Naphthalene	100	500	12	mg/kg	<b>61 B</b>	1.5 B	<b>270 DB</b>	<b>3700 D</b>	<b>300 D</b>	<b>300 D</b>	1.2	0.31 J	4.1 U	1 J	0.97 DJ	0.48 J	0.4 U	
2- Nitroaniline	--	--	--	mg/kg	U	U	U	U	21 U	84 U	1 U	0.83 U	8.3 U	4.4 U	8.8 U	1 U	0.81 U	
3- Nitroaniline	--	--	--	mg/kg	U	U	U	U	21 U	84 U	1 U	0.83 U	8.3 U	4.4 U	8.8 U	1 U	0.81 U	
4- Nitroaniline	--	--	--	mg/kg	U	U	U	U	21 U	84 U	1 U	0.83 U	8.3 U	4.4 U	8.8 U	1 U	0.81 U	
Nitrobenzene	--	--	--	mg/kg	U	U	U	U	10 U	41 U	0.52 U	0.41 U	4.1 U	2.2 U	4.3 U	0.5 U	0.4 U	
2- Nitrophenol	--	--	--	mg/kg	U	U	U	U	10 U	41 U	0.52 U	0.41 U	4.1 U	2.2 U	4.3 U	0.5 U	0.4 U	
4- Nitrophenol	--	--	--	mg/kg	NA	NA	NA	NA	21 U	84 U	1 U	0.83 U	8.3 U	4.4 U	8.8 U	1 U	0.81 U	
N- Nitrosodi- n- propylamine	--	--	--	mg/kg	U	U	U	U	10 U	NA	0.52 U	0.41 U	4.1 U	2.2 U	4.3 U	0.5 U	0.4 U	
N- Nitrosodiphenylamine	--	--	--	mg/kg	U	U	U	U	10 U	41 U	0.52 U	0.41 U	4.1 U	2.2 U	4.3 U	0.5 U	0.4 U	
2,2- Oxybis (1-Chloropropane)	--	--	--	mg/kg	U	U	U	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Pentachlorophenol	6.7	6.7	0.8	mg/kg	U	U	U	U	21 U	84 U	1 U	0.83 U	8.3 U	4.4 U	8.8 U	1 U	0.81 U	
Phenanthren	100	500	100	mg/kg	<b>110 D</b>	0.7 D	<b>200 D</b>	<b>1300 D</b>	<b>450 D</b>	<b>450 D</b>	1.7	22 E	43 D	10	9.4 D	0.7	1.3	
Phenol	100	500	0.33	mg/kg	U	U	U	U	10 U	41 U	0.52 U	0.41 U	4.1 U	2.2 U	4.3 U	0.5 U	0.4 U	
Pyrene	100	500	100	mg/kg	88 D	0.36 J	<b>180 D</b>	<b>580 D</b>	<b>260 D</b>	<b>260 D</b>	0.95	33 E	49 D	38 E	42 D	0.81	3.5	
1,2,4- Trichlorobenzene	--	--	--	mg/kg	U	U	U	U	10 U	41 U	0.52 U	0.41 U	4.1 U	2.2 U	4.3 U	0.5 U	0.4 U	
2,4,5- Trichlorophenol	--	--	--	mg/kg	U	U	U	U	10 U	41 U	0.52 U	0.41 U	4.1 U	2.2 U	4.3 U	0.5 U	0.4 U	
2,4,6- Trichlorophenol	--	--	--	mg/kg	U	U	U	U	21 U	84 U	1 U	0.83 U	8.3 U	4.4 U	8.8 U	1 U	0.81 U	
<b>Total PAHs</b>	--	--	--	mg/kg	720.1	4.658	1623	9725	2393	2381	9.19	235.869	283.2	224.81	220.54	5.7	22.135	
<b>Total SVOCs</b>	--	--	--	mg/kg	769.1	4.948	1684.91	10286	2518	2504	9.89	241.989	287.7	228.01	221.32	5.98	22.515	

See notes on page 11.

**Table 3**  
**Soil Analytical Results - Semivolatile Organic Compounds**

**Remedial Action Work Plan**  
**Consolidated Edison Company of New York, Inc.**  
**West 42nd Street Former MGP Site**  
**New York, New York**

Location ID: Sample Depth: Date: Sample Name:	SCO – Unrestricted Use			Units	SB-34 13 - 17 02/23/05	SB-34 13 - 17 02/23/05	SB-34 37 - 39 02/24/05	SB-38 25 - 27 02/22/05	SB-38 25 - 27 02/22/05	SB-38 43 - 45 02/22/05	SB-39 45 - 47 03/10/05	SB-39 45 - 47 03/10/05	SB-39 65 - 67 03/12/05	SB-39 65 - 67 03/12/05	SB-40 28 - 30 04/05/05	SB-40 28 - 30 04/05/05	SB-40 28 - 30 04/05/05	SB-40 46 - 48 04/05/05
	(bold)	(italics)	(shaded)		SB-34 SB-34 DL	SB-34 SB-34	SB-38 SB-38	SB-38 SB-38 DL	SB-38 SB-38	SB-39 SB-39	SB-39 SB-39 DL	SB-39 SB-39	SB-40 SB-40 DL	SB-40 SB-40	SB-40 SB-40 DL	SB-40 SB-40		
Acenaphthene	100	500	20	mg/kg	44	46 DJ	0.52 U	490	470 DJ	0.76	190 DJ	190 DJ	11 D	11 D	1.2	1.7 DJ	3.8	
Acenaphthylene	100	500	100	mg/kg	120 D	120 D	0.52 U	2200	2200 DJ	0.36 J	370 D	370 D	24 D	24 D	0.21 J	0.33 DJ	14 E	
Anthracene	100	500	100	mg/kg	540 D	540 D	0.12 J	2400	2400 DJ	1.1	340 D	340 D	20 D	20 D	1.5	1.9 D	11 E	
Benzo (a) anthracene	1	5.6	1	mg/kg	680 D	680 D	0.13 J	1600	1600 DJ	1	260 D	260 D	19 D	19 D	2.9	2.9 D	7.2	
Benzo (a) pyrene	1	1	1	mg/kg	600 D	600 D	0.11 J	1300	1300 DJ	0.88	230 DJ	230 DJ	18 D	18 D	2.5	2.6 D	13 E	
Benzo (b) fluoranthene	1	5.6	1	mg/kg	610 D	610 D	0.12 J	1300	1300 DJ	1.1	240 D	240 D	18 D	18 D	4.5	3.7 D	18 E	
Benzo (g,h,i) perylene	100	500	100	mg/kg	320 D	320 D	0.52 U	550	690 DJ	0.22 J	120 DJ	120 DJ	4.5	8.9 DJ	0.52	1.3 DJ	2.7	
Benzo (k) fluoranthene	3.9	56	0.8	mg/kg	230 D	230 D	0.52 U	560	660 DJ	0.43 J	100 DJ	100 DJ	8.7 DJ	8.7 DJ	1.5	1.4 DJ	4.9	
Benzyl alcohol	--	--	--	mg/kg	NA													
Bis (2- chloroethoxy) methane	--	--	--	mg/kg	5.3	U	110 U	0.52 U	54 U	2700 U	0.51 U	2.3 U	230 U	0.44 U	8.9 U	0.44 U	1.8 U	0.51 U
Bis (2-Chloroethyl) ether	--	--	--	mg/kg	5.3	U	110 U	0.52 U	54 U	2700 U	0.51 U	2.3 U	230 U	0.44 U	8.9 U	0.44 U	1.8 U	0.51 U
Bis (2-ethylhexyl) phthalate	--	--	--	mg/kg	5.3	U	110 U	0.13 J	54 U	2700 U	0.51 U	2.3 U	230 U	0.19 J	8.9 U	0.44 U	1.8 U	0.51 U
4-Bromofluorobenzene	--	--	--	mg/kg	5.3	U	110 U	0.52 U	54 U	2700 U	0.51 U	2.3 U	230 U	0.44 U	8.9 U	0.44 U	1.8 U	0.51 U
4-Bromophenyl- phenylether	--	--	--	mg/kg	NA													
Butylbenzylphthalate	--	--	--	mg/kg	5.3	U	110 U	0.52 U	54 U	2700 U	0.51 U	2.3 U	230 U	0.44 U	8.9 U	0.44 U	1.8 U	0.51 U
Carbazole	--	--	--	mg/kg	7.7		110 U	0.52 U	740	2700 U	0.37 J	130 DJ	130 DJ	9.2 D	9.2 D	0.44 J	0.42 DJ	2.7
4-Chloro- 3- methylphenol	--	--	--	mg/kg	5.3	U	110 U	0.52 U	54 U	2700 U	0.51 U	2.3 U	230 U	0.44 U	8.9 U	0.44 U	1.8 U	0.51 U
4-Chloroaniline	--	--	--	mg/kg	5.3	U	110 U	0.52 U	54 U	2700 U	0.51 U	2.3 U	230 U	0.44 U	8.9 U	0.44 U	1.8 U	0.51 U
2-Chloronaphthalene	--	--	--	mg/kg	5.3	U	110 U	0.52 U	54 U	2700 U	0.51 U	2.3 U	230 U	0.44 U	8.9 U	0.44 U	1.8 U	0.51 U
2-Chlorophenol	--	--	--	mg/kg	5.3	U	110 U	0.52 U	54 U	2700 U	0.51 U	2.3 U	230 U	0.44 U	8.9 U	0.44 U	1.8 U	0.51 U
4-Chlorophenyl- phenylether	--	--	--	mg/kg	5.3	U	110 U	0.52 U	54 U	2700 U	0.51 U	2.3 U	230 U	0.44 U	8.9 U	0.44 U	1.8 U	0.51 U
Chrysene	3.9	56	1	mg/kg	650 D	650 D	0.15 J	1800 DJ	1800 DJ	0.89	240 D	240 D	16 D	16 D	2.2	3.4 D	6.6	
Dibenzo (a,h) anthracene	0.33	0.56	0.33	mg/kg	38	73 DJ	0.52 U	140	2700 U	0.068 J	20	230 U	1.1	2 DJ	0.12 J	1.8 U	0.74	
Dibenzofuran	59	350	7	mg/kg	12		110 U	0.52 U	1500 DJ	1500 DJ	0.71	310 D	310 D	21 D	21 D	0.64	1 DJ	13 E
Dibutyl phthalate	--	--	--	mg/kg	5.3	U	110 U	0.34 J	54 U	2700 U	0.2 J	2.3 U	230 U	0.44 U	8.9 U	0.44 U	1.8 U	0.51 U
1,2-Dichlorobenzene	100	500	1.1	mg/kg	5.3	U	110 U	0.52 U	54 U	2700 U	0.51 U	2.3 U	230 U	0.44 U	8.9 U	0.44 U	1.8 U	0.51 U
1,3-Dichlorobenzene	49	280	2.4	mg/kg	5.3	U	110 U	0.52 U	54 U	2700 U	0.51 U	2.3 U	230 U	0.44 U	8.9 U	0.44 U	1.8 U	0.51 U
1,4-Dichlorobenzene	13	130	1.8	mg/kg	5.3	U	110 U	0.52 U	54 U	2700 U	0.51 U	2.3 U	230 U	0.44 U	8.9 U	0.44 U	1.8 U	0.51 U
3,3'-Dichlorobenzidine	--	--	--	mg/kg	5.3	U	110 U	0.52 U	54 U	2700 U	0.51 U	2.3 U	230 U	0.44 U	8.9 U	0.44 U	1.8 U	0.51 U
2,4-Dichlorophenol	--	--	--	mg/kg	5.3	U	110 U	0.52 U	54 U	2700 U	0.51 U	2.3 U	230 U	0.44 U	8.9 U	0.44 U	1.8 U	0.51 U
Diethyl phthalate	--	--	--	mg/kg	5.3	U	110 U	0.52 U	54 U	2700 U	0.51 U	2.3 U	230 U	0.44 U	8.9 U	0.44 U	1.8 U	0.51 U
2,4-Dimethylphenol	--	--	--	mg/kg	5.3	U	110 U	0.52 U	180	2700 U	0.51 U	110 DJ	110 DJ	3.9	2 DJ	0.44 U	1.8 U	0.51 U
Dimethyl phthalate	--	--	--	mg/kg	5.3	U	110 U	0.52 U	54 U	2700 U	0.51 U	2.3 U	230 U	0.44 U	8.9 U	0.44 U	1.8 U	0.51 U
4,6-Dinitro- 2- methylphenol	--	--	--	mg/kg	11	U	220 U	1 U	110 U	5500 U	1 U	4.8 U	480 U	0.9 U	18 U	0.9 U	3.6 U	1 U

**Table 3**  
**Soil Analytical Results - Semivolatile Organic Compounds**

**Remedial Action Work Plan  
Consolidated Edison Company of New York, Inc.  
West 42nd Street Former MGP Site  
New York, New York**

Location ID: Sample Depth: Date:	SCO –			Units	SB-34	SB-34	SB-34	SB-38	SB-38	SB-38	SB-39	SB-39	SB-39	SB-39	SB-40	SB-40	SB-40		
	SCO Restricted-	SCO Restricted-	Unrestricted		13 - 17	13 - 17	37 - 39	25 - 27	25 - 27	43 - 45	45 - 47	45 - 47	65 - 67	65 - 67	28 - 30	28 - 30	46 - 48		
	Residential	Commercial	Use		02/23/05	02/23/05	02/24/05	02/22/05	02/22/05	02/22/05	03/10/05	03/10/05	03/12/05	03/12/05	04/05/05	04/05/05	04/05/05		
Sample Name:	(bold)	(italics)	(shaded)	Units	SB-34	SB-34 DL	SB-34	SB-38	SB-38 DL	SB-38	SB-39	SB-39 DL	SB-39	SB-39 DL	SB-40	SB-40 DL	SB-40		
2,4- Dinitrophenol	--	--	--	mg/kg	11	U	220	U	1	U	110	U	5500	U	1	U	4.8	U	
2,4- Dinitrotoluene	--	--	--	mg/kg	5.3	U	110	U	0.52	U	54	U	2700	U	0.51	U	2.3	U	
2,6- Dinitrotoluene	--	--	--	mg/kg	5.3	U	110	U	0.52	U	54	U	2700	U	0.51	U	2.3	U	
Diocyl phthalate	--	--	--	mg/kg	5.3	U	110	U	0.52	U	54	U	2700	U	0.51	U	2.3	U	
Fluoranthene	100	500	100	mg/kg	1600	D	1600	D	0.31	J	4500	D	4500	D	2.7	820	D	820	
Fluorene	100	500	30	mg/kg	10		110	U	0.52	U	1800	DJ	1800	DJ	0.8	340	D	340	
Hexachlorobenzene	1.2	6	0.33	mg/kg	5.3	U	110	U	0.52	U	54	U	2700	U	0.51	U	2.3	U	
Hexachlorobutadiene	--	--	--	mg/kg	5.3	U	110	U	0.52	U	54	U	2700	U	0.51	U	2.3	U	
Hexachlorocyclopentadiene	--	--	--	mg/kg	5.3	U	110	U	0.52	U	54	U	2700	U	0.51	U	2.3	U	
Hexachloroethane	--	--	--	mg/kg	5.3	U	110	U	0.52	U	54	U	2700	U	0.51	U	2.3	U	
Indeno (1,2,3- cd) pyrene	0.5	5.6	0.5	mg/kg	270	D	270	D	0.52	U	530		620	DJ	0.22	J	100	DJ	
Isophorone	--	--	--	mg/kg	5.3	U	110	U	0.52	U	54	U	2700	U	0.51	U	2.3	U	
2- Methylnaphthalene	--	--	--	mg/kg	4.2	J	110	U	0.52	U	2700	D	2700	D	0.86	460	D	460	
2- Methylphenol	100	500	0.33	mg/kg	5.3	U	110	U	0.52	U	54	U	2700	U	0.51	U	47	DJ	
4- Methylphenol	100	500	0.33	mg/kg	5.3	U	110	U	0.52	U	240		2700	U	0.51	U	220	DJ	
Naphthalene	100	500	12	mg/kg	25		110	U	0.3	J	16000	D	16000	D	4.2	3200	D	3200	
2- Nitroaniline	--	--	--	mg/kg	11	U	220	U	1	U	110	U	5500	U	1	U	4.8	U	
3- Nitroaniline	--	--	--	mg/kg	11	U	220	U	1	U	110	U	5500	U	1	U	4.8	U	
4- Nitroaniline	--	--	--	mg/kg	11	U	220	U	1	U	110	U	5500	U	1	U	4.8	U	
Nitrobenzene	--	--	--	mg/kg	5.3	U	110	U	0.52	U	54	U	2700	U	0.51	U	2.3	U	
2- Nitrophenol	--	--	--	mg/kg	5.3	U	110	U	0.52	U	54	U	2700	U	0.51	U	2.3	U	
4- Nitrophenol	--	--	--	mg/kg	11	U	220	U	1	U	110	U	5500	U	1	U	4.8	U	
N- Nitrosodi- n- propylamine	--	--	--	mg/kg	5.3	U	NA	NA	0.52	U	54	U	NA	0.51	U	2.3	U	230	
N- Nitrosodiphenylamine	--	--	--	mg/kg	5.3	U	110	U	0.52	U	54	U	2700	U	0.51	U	2.3	U	
2,2- Oxybis (1-Chloropropane)	--	--	--	mg/kg	NA		NA	NA			NA		NA		NA	NA	NA	NA	
Pentachlorophenol	6.7	6.7	0.8	mg/kg	11	U	220	U	1	U	110	U	5500	U	1	U	4.8	U	
Phenanthere	100	500	100	mg/kg	170	D	170	D	0.18	J	7100	D	7100	D	3.7	1200	D	1200	
Phenol	100	500	0.33	mg/kg	5.3	U	110	U	0.52	U	54	U	2700	U	0.51	U	100	DJ	
Pyrene	100	500	100	mg/kg	1500	D	1500	D	0.32	J	3900	D	3900	D	2.4	640	D	640	
1,2,4- Trichlorobenzene	--	--	--	mg/kg	5.3	U	110	U	0.52	U	54	U	2700	U	0.51	U	2.3	U	
2,4,5- Trichlorophenol	--	--	--	mg/kg	5.3	U	110	U	0.52	U	54	U	2700	U	0.51	U	2.3	U	
2,4,6- Trichlorophenol	--	--	--	mg/kg	11	U	220	U	1	U	110	U	5500	U	1	U	4.8	U	
<b>Total PAHs</b>	--	--	--	mg/kg	7411.2		7409	1.74			48870		49040	21.688		8870	8850	517.5	526.6
<b>Total SVOCs</b>	--	--	--	mg/kg	7430.9		7409	2.21			51530		50540	22.968		9787	9767	559.89	566.2

See notes on page 11.

**Table 3**  
**Soil Analytical Results - Semivolatile Organic Compounds**

**Remedial Action Work Plan**  
**Consolidated Edison Company of New York, Inc.**  
**West 42nd Street Former MGP Site**  
**New York, New York**

Location ID: Sample Depth: Date: Sample Name:	SCO –			Units	SB-40	SB-41	SB-41	SB-42	SB-42	SB-42	SB-43	SB-43	SB-44	SB-44	SB-44	SB-44-DUP	
	SCO Restricted- SCO Restricted- Unrestricted				46 - 48 04/05/05	13 - 14 12/06/06	24 - 25 12/06/06	13 - 14 12/06/06	24 - 25 12/06/06	27 - 28 12/06/06	16 - 17 12/05/06	28 - 29 12/05/06	14 - 15 12/05/06	19 - 20 12/05/06	21 - 22 12/05/06	21 - 22 12/05/06	
	(bold)	(italics)	(shaded)		SB-40 DL	SB-41	SB-41	SB-42	SB-42	SB-42	SB-43	SB-43	SB-44	SB-44	SB-44	SB-44-DUP	
Acenaphthene	100	500	20	mg/kg	3.9 DJ	0.35 J	0.08 U	0.46 J	0.082 U	0.59 J	0.16 U	0.063 U	0.062 U	0.14 U	0.18 U	0.083 U	
Acenaphthylene	100	500	100	mg/kg	10 DJ	0.093 U	0.059 U	0.56 J	0.061 U	0.12 U	0.12 U	0.047 U	0.046 U	0.11 U	0.13 U	0.062 U	
Anthracene	100	500	100	mg/kg	13 DJ	0.12 U	0.08 U	1.1 J	0.082 U	0.16 U	0.16 U	0.063 U	0.062 U	0.14 U	0.18 U	0.083 U	
Benzo (a) anthracene	1	5.6	1	mg/kg	9.6 DJ	0.1 U	0.065 U	5.8	0.067 U	0.13 U	0.13 U	0.052 U	0.17 J	0.16 J	0.21 J	0.068 U	
Benzo (a) pyrene	1	1	1	mg/kg	8.2 DJ	0.093 U	0.059 U	10	0.061 U	0.12 U	0.12 U	0.047 U	0.12 J	0.11 J	0.13 U	0.062 U	
Benzo (b) fluoranthene	1	5.6	1	mg/kg	11 DJ	0.21 U	0.13 U	8.4 M	0.14 U	0.27 U	0.26 U	0.11 U	0.1 U	0.24 U	0.3 U	0.14 U	
Benzo (g,h,l) perylene	100	500	100	mg/kg	3.5 DJ	0.084 U	0.054 U	18	0.055 U	0.11 U	0.1 U	0.042 U	0.042 U	0.095 U	0.12 U	0.056 U	
Benzo (k) fluoranthene	3.9	56	0.8	mg/kg	3.7 DJ	0.084 U	0.054 U	5.9 M	0.055 U	0.11 U	0.1 U	0.042 U	0.082 J	0.095 U	0.12 U	0.056 U	
Benzyl alcohol	--	--	--	mg/kg	NA	0.14 U	0.091 U	0.29 U	0.094 U	0.19 U	0.18 U	0.072 U	0.071 U	0.16 U	0.2 U	0.095 U	
Bis (2- chloroethoxy) methane	--	--	--	mg/kg	20 U	0.13 U	0.082 U	0.26 U	0.085 U	0.17 U	0.16 U	0.065 U	0.064 U	0.15 U	0.18 U	0.086 U	
Bis (2- Chloroethyl) ether	--	--	--	mg/kg	20 U	0.1 U	0.065 U	0.21 U	0.067 U	0.13 U	0.13 U	0.052 U	0.051 U	0.12 U	0.14 U	0.068 U	
Bis (2- ethylhexyl) phthalate	--	--	--	mg/kg	20 U	0.1 UB	0.11 JB	0.2 UB	0.09 JB	0.16 JB	0.18 JB	0.12 JB	0.086 JB	0.13 JB	0.15 JB	0.097 JB	
4- Bromofluorobenzene	--	--	--	mg/kg	20 U	NA											
4- Bromophenyl- phenylether	--	--	--	mg/kg	NA	0.12 U	0.074 U	0.23 U	0.076 U	0.15 U	0.14 U	0.059 U	0.057 U	0.13 U	0.16 U	0.077 U	
Butylbenzylphthalate	--	--	--	mg/kg	20 U	0.098 U	0.062 U	0.2 U	0.064 U	0.13 U	0.12 U	0.049 U	0.048 U	0.11 U	0.14 U	0.065 U	
Carbazole	--	--	--	mg/kg	3 DJ	0.11 U	0.071 U	0.41 J	0.073 U	1	0.14 U	0.056 U	0.055 U	0.13 U	0.16 U	0.074 U	
4- Chloro- 3- methylphenol	--	--	--	mg/kg	20 U	0.26 U	0.16 U	0.52 U	0.17 U	0.33 U	0.32 U	0.13 U	0.13 U	0.29 U	0.36 U	0.17 U	
4- Chloroaniline	--	--	--	mg/kg	20 U	0.24 U	0.15 U	0.49 U	0.16 U	0.32 U	0.3 U	0.12 U	0.12 U	0.28 U	0.34 U	0.16 U	
2- Chloronaphthalene	--	--	--	mg/kg	20 U	0.11 U	0.071 U	0.22 U	0.073 U	0.14 U	0.14 U	0.056 U	0.055 U	0.13 U	0.16 U	0.074 U	
2- Chlorophenol	--	--	--	mg/kg	20 U	0.2 U	0.12 U	0.39 U	0.13 U	0.25 U	0.24 U	0.099 U	0.097 U	0.22 U	0.28 U	0.13 U	
4- Chlorophenyl- phenylether	--	--	--	mg/kg	20 U	0.1 U	0.067 U	0.21 U	0.069 U	0.14 U	0.13 U	0.053 U	0.052 U	0.12 U	0.15 U	0.069 U	
Chrysene	3.9	56	1	mg/kg	11 DJ	0.095 U	0.061 U	5.8	0.063 U	0.12 U	0.12 U	0.048 U	0.16 J	0.14 J	0.36 J	0.063 U	
Dibenzo (a,h) anthracene	0.33	0.56	0.33	mg/kg	20 U	0.084 U	0.054 U	4.3 M	0.055 U	0.11 U	0.1 U	0.042 U	0.042 U	0.095 U	0.12 U	0.056 U	
Dibenzofuran	59	350	7	mg/kg	8.8 DJ	0.12 U	0.077 U	0.35 J	0.079 U	0.42 J	0.15 U	0.061 U	0.06 U	0.14 U	0.17 U	0.08 U	
Dibutyl phthalate	--	--	--	mg/kg	20 U	0.1 U	0.064 U	0.2 U	0.066 U	0.13 U	0.12 U	0.05 U	0.05 U	0.11 U	0.14 U	0.066 U	
1,2- Dichlorobenzene	100	500	1.1	mg/kg	20 U	0.13 U	0.081 U	0.26 U	0.084 U	0.16 U	0.16 U	0.064 U	0.063 U	0.14 U	0.18 U	0.084 U	
1,3- Dichlorobenzene	49	280	2.4	mg/kg	20 U	0.12 U	0.074 U	0.23 U	0.076 U	0.15 U	0.14 U	0.059 U	0.057 U	0.13 U	0.16 U	0.077 U	
1,4- Dichlorobenzene	13	130	1.8	mg/kg	20 U	0.12 U	0.077 U	0.24 U	0.079 U	0.16 U	0.15 U	0.061 U	0.06 U	0.14 U	0.17 U	0.08 U	
3,3'- Dichlorobenzidine	--	--	--	mg/kg	20 U	0.2 U	0.13 U	0.41 U	0.13 U	0.26 U	0.25 U	0.1 U	0.1 U	0.23 U	0.29 U	0.13 U	
2,4- Dichlorophenol	--	--	--	mg/kg	20 U	0.25 U	0.16 U	0.5 U	0.16 U	0.32 U	0.31 U	0.13 U	0.12 U	0.28 U	0.35 U	0.16 U	
Diethyl phthalate	--	--	--	mg/kg	20 U	0.11 U	0.071 U	0.22 U	0.073 U	0.14 U	0.14 U	0.056 U	0.055 U	0.13 U	0.16 U	0.074 U	
2,4- Dimethylphenol	--	--	--	mg/kg	20 U	0.39 U	0.25 U	0.79 U	0.26 U	0.51 U	0.49 U	0.2 U	0.19 U	0.44 U	0.55 U	0.26 U	
Dimethyl phthalate	--	--	--	mg/kg	20 U	0.12 U	0.074 U	0.23 U	0.076 U	0.15 U	0.14 U	0.059 U	0.057 U	0.13 U	0.16 U	0.077 U	
4,6- Dinitro- 2- methylphenol	--	--	--	mg/kg	41 U	0.54 U	0.35 U	1.1 U	0.36 U	0.7 U	0.68 U	0.27 U	0.27 U	0.62 U	0.77 U	0.36 U	

**Table 3**  
**Soil Analytical Results - Semivolatile Organic Compounds**

**Remedial Action Work Plan**  
**Consolidated Edison Company of New York, Inc.**  
**West 42nd Street Former MGP Site**  
**New York, New York**

Location ID: Sample Depth: Date: Sample Name:	SCO –			Units	SB-40	SB-41	SB-41	SB-42	SB-42	SB-43	SB-43	SB-44	SB-44	SB-44	SB-44-DUP													
	SCO Restricted- SCO Restricted- Unrestricted				46 - 48 04/05/05	13 - 14 12/06/06	24 - 25 12/06/06	13 - 14 12/06/06	24 - 25 12/06/06	27 - 28 12/06/06	16 - 17 12/05/06	28 - 29 12/05/06	14 - 15 12/05/06	19 - 20 12/05/06	21 - 22 12/05/06	21 - 22 12/05/06												
	(bold)	(italics)	(shaded)		SB-40 DL	SB-41	SB-41	SB-42	SB-42	SB-42	SB-43	SB-43	SB-44	SB-44	SB-44-DUP													
2,4- Dinitrophenol	--	--	--	mg/kg	41	U	0.26	U	0.17	U	0.34	U	0.33	U	0.13	U	0.37	U	0.17	U								
2,4- Dinitrotoluene	--	--	--	mg/kg	20	U	0.14	U	0.087	U	0.27	U	0.089	U	0.18	U	0.17	U	0.069	U	0.068	U	0.15	U	0.19	U	0.09	U
2,6- Dinitrotoluene	--	--	--	mg/kg	20	U	0.14	U	0.088	U	0.28	U	0.091	U	0.18	U	0.17	U	0.07	U	0.069	U	0.16	U	0.2	U	0.092	U
Diocyl phthalate	--	--	--	mg/kg	20	U	0.08	U	0.051	U	0.16	U	0.052	U	0.1	U	0.099	U	0.04	U	0.039	U	0.09	U	0.11	U	0.053	U
Fluoranthene	100	500	100	mg/kg	26	D	0.14	J	0.061	U	6.5		0.063	U	0.25	J	0.12	U	0.048	U	0.11	J	0.23	J	0.3	J	0.063	U
Fluorene	100	500	30	mg/kg	9.2	DJ	0.11	J	0.062	U	0.31	J	0.064	U	0.62	J	0.12	U	0.049	U	0.048	U	0.11	U	0.14	U	0.065	U
Hexachlorobenzene	1.2	6	0.33	mg/kg	20	U	0.11	U	0.071	U	0.22	U	0.073	U	0.14	U	0.14	U	0.056	U	0.055	U	0.13	U	0.16	U	0.074	U
Hexachlorobutadiene	--	--	--	mg/kg	20	U	0.15	U	0.098	U	0.31	U	0.1	U	0.2	U	0.19	U	0.078	U	0.077	U	0.18	U	0.22	U	0.1	U
Hexachlorocyclopentadiene	--	--	--	mg/kg	20	U	0.56	U	0.36	U	1.1	U	0.37	U	0.73	U	0.7	U	0.28	U	0.28	U	0.64	U	0.8	U	0.37	U
Hexachloroethane	--	--	--	mg/kg	20	U	0.13	U	0.085	U	0.27	U	0.088	U	0.17	U	0.17	U	0.068	U	0.066	U	0.15	U	0.19	U	0.089	U
Indeno (1,2,3- cd) pyrene	0.5	5.6	0.5	mg/kg	3.7	DJ	0.077	U	0.049	U	16		0.051	U	0.1	U	0.096	U	0.039	U	0.038	U	0.088	U	0.11	U	0.051	U
Isophorone	--	--	--	mg/kg	20	U	0.14	U	0.087	U	0.27	U	0.089	U	0.18	U	0.17	U	0.069	U	0.068	U	0.15	U	0.19	U	0.09	U
2- Methylnaphthalene	--	--	--	mg/kg	11	DJ	0.16	J	0.077	U	0.29	J	0.079	U	1.3		0.22	J	0.061	U	0.06	U	0.14	U	0.17	U	0.08	U
2- Methylphenol	100	500	0.33	mg/kg	20	U	0.2	U	0.13	U	0.41	U	0.13	U	0.26	U	0.25	U	0.1	U	0.1	U	0.23	U	0.29	U	0.13	U
4- Methylphenol	100	500	0.33	mg/kg	20	U	0.41	U	0.26	U	0.82	U	0.27	U	0.53	U	0.51	U	0.21	U	0.2	U	0.46	U	0.58	U	0.27	U
Naphthalene	100	500	12	mg/kg	70	D	3.2		0.24	J	1.2	J	6		12		11		0.065	U	2.2		0.15	U	0.18	U	0.68	
2- Nitroaniline	--	--	--	mg/kg	41	U	0.095	U	0.061	U	0.19	U	0.063	U	0.12	U	0.12	U	0.048	U	0.047	U	0.11	U	0.14	U	0.063	U
3- Nitroaniline	--	--	--	mg/kg	41	U	0.16	U	0.1	U	0.32	U	0.1	U	0.2	U	0.2	U	0.079	U	0.078	U	0.18	U	0.22	U	0.1	U
4- Nitroaniline	--	--	--	mg/kg	41	U	0.11	U	0.069	U	0.22	U	0.072	U	0.14	U	0.14	U	0.055	U	0.054	U	0.12	U	0.15	U	0.072	U
Nitrobenzene	--	--	--	mg/kg	20	U	0.091	U	0.058	U	0.18	U	0.06	U	0.12	U	0.11	U	0.046	U	0.045	U	0.1	U	0.13	U	0.06	U
2- Nitrophenol	--	--	--	mg/kg	20	U	0.26	U	0.17	U	0.53	U	0.17	U	0.34	U	0.33	U	0.13	U	0.13	U	0.3	U	0.37	U	0.17	U
4- Nitrophenol	--	--	--	mg/kg	41	U	0.32	U	0.21	U	0.65	U	0.21	U	0.42	U	0.4	U	0.16	U	0.16	U	0.37	U	0.46	U	0.21	U
N- Nitrosodi- n- propylamine	--	--	--	mg/kg	20	U	0.11	U	0.072	U	0.23	U	0.075	U	0.15	U	0.14	U	0.057	U	0.056	U	0.13	U	0.16	U	0.075	U
N- Nitrosodiphenylamine	--	--	--	mg/kg	20	U	0.1	U	0.065	U	0.21	U	0.067	U	0.13	U	0.13	U	0.052	U	0.051	U	0.12	U	0.14	U	0.068	U
2,2- Oxybis (1-Chloropropane)	--	--	--	mg/kg	NA		0.11	U	0.068	U	0.21	U	0.07	U	0.14	U	0.13	U	0.054	U	0.053	U	0.12	U	0.15	U	0.071	U
Pentachlorophenol	6.7	6.7	0.8	mg/kg	41	U	0.65	U	0.42	U	1.3	U	0.43	U	0.85	U	0.82	U	0.33	U	0.32	U	0.74	U	0.93	U	0.43	U
Phenanthere	100	500	100	mg/kg	41	D	0.17	J	0.056	U	3.9		0.058	U	0.78	J	0.11	U	0.045	U	0.044	U	0.22	J	0.22	J	0.059	U
Phenol	100	500	0.33	mg/kg	20	U	0.22	U	0.14	U	0.44	U	0.14	U	0.29	U	0.27	U	0.11	U	0.25	U	0.31	U	0.15	U		
Pyrene	100	500	100	mg/kg	26	D	0.14	J	0.067	U	7.8		0.069	U</td														

**Table 3**  
**Soil Analytical Results - Semivolatile Organic Compounds**

**Remedial Action Work Plan**  
**Consolidated Edison Company of New York, Inc.**  
**West 42nd Street Former MGP Site**  
**New York, New York**

Location ID: Sample Depth: Date: Sample Name:	SCO –			Units	SB-46	SB-46	SB-47	SB-47	SB-48	SB-48	SB-48-DUP	SB-49	SB-49	SB-50	SB-51	SB-51-DUP	
	SCO Restricted- Residential				25 - 28 06/12/08	28 - 30 06/12/08	5 - 7 03/26/08	23 03/26/08	12 07/24/10	18.5 - 19 07/24/10	18.5 - 19 07/24/10	9.5 07/25/10	12 07/25/10	9 02/26/11	14.5 02/27/11	14.5 02/27/11	
	(bold)	(italics)	(shaded)		SB-46	SB-46	SB-47	SB-47	SB-48	SB-48	SB-48-DUP	SB-49	SB-49	SB-50	SB-51	SB-51-DUP	
Acenaphthene	100	500	20	mg/kg	49	84	0.66	47 D	35	0.32 U	0.32 U	24	0.73	0.32 U	0.033 J	0.32 U	
Acenaphthylene	100	500	100	mg/kg	250 D	370	3.2	2.5	5 J	0.32 U	0.32 U	2.4 J	0.38 U	0.32 U	0.32 U	0.32 U	
Anthracene	100	500	100	mg/kg	130	290	3.7	26 D	40	0.32 U	0.32 U	52	1.2	0.32 U	0.055 J	0.32 U	
Benzo (a) anthracene	1	5.6	1	mg/kg	130	220	11 D	20 D	27	0.32 U	0.32 U	66 J	2.1	0.32 U	0.039 J	0.32 U	
Benzo (a) pyrene	1	1	1	mg/kg	95	160	13 D	16 D	26	0.32 U	0.32 U	62	2.1	0.32 U	0.02 J	0.32 U	
Benzo (b) fluoranthene	1	5.6	1	mg/kg	91	150	13 D	17 D	20	0.32 U	0.32 U	59	1.9	0.32 U	0.021 J	0.32 U	
Benzo (g,h,i) perylene	100	500	100	mg/kg	62	110	12 D	8.8 DJ	16	0.32 U	0.32 U	31	1.3	0.32 U	0.32 U	0.32 U	
Benzo (k) fluoranthene	3.9	56	0.8	mg/kg	40	67	5.6 D	6.3 DJ	9.6	0.32 U	0.32 U	25	0.69	0.32 U	0.32 U	0.32 U	
Benzyl alcohol	--	--	--	mg/kg	12	U	26	U	0.38 U	0.5 U	6.2 U	0.32 U	14	U	0.38 U	0.32 U	0.32 U
Bis (2- chloroethoxy) methane	--	--	--	mg/kg	12	U	26	U	0.38 U	0.5 U	6.2 U	0.32 U	14	U	0.38 U	0.32 U	0.32 U
Bis (2- Chloroethyl) ether	--	--	--	mg/kg	12	U	26	U	0.38 U	0.5 U	6.2 U	0.32 U	14	U	0.38 U	0.32 U	0.32 U
Bis (2- ethylhexyl) phthalate	--	--	--	mg/kg	12	U	26	U	0.98	1.4	6.2 U	0.32 U	14 UJ	0.059 J	0.32 UB	0.32 UB	0.32 UB
4- Bromofluorobenzene	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
4- Bromophenyl- phenylether	--	--	--	mg/kg	12	U	26	U	0.38 U	0.5 U	6.2 U	0.32 U	14	U	0.38 U	0.32 U	0.32 U
Butylbenzylphthalate	--	--	--	mg/kg	12	U	26	U	0.38 U	0.5 U	6.2 U	0.32 U	14 UJ	0.38 U	0.32 U	0.32 U	0.022 J
Carbazole	--	--	--	mg/kg	57	100	0.65	11 D	17	0.32 U	0.32 U	19	0.5 J	0.32 U	0.32 U	0.32 U	
4- Chloro- 3- methylphenol	--	--	--	mg/kg	12	U	26	U	0.38 U	0.5 U	6.2 U	0.32 U	14	U	0.38 U	0.32 U	0.32 U
4- Chloroaniline	--	--	--	mg/kg	12	U	26	U	0.38 U	0.5 U	6.2 U	0.32 U	14	U	0.38 U	0.32 UJ	0.32 U
2- Chloronaphthalene	--	--	--	mg/kg	12	U	26	U	0.38 U	0.5 U	6.2 U	0.32 U	14	U	0.38 U	0.32 U	0.32 U
2- Chlorophenol	--	--	--	mg/kg	12	U	26	U	0.38 U	0.5 U	6.2 U	0.32 U	14	U	0.38 U	0.32 U	0.32 U
4- Chlorophenyl- phenylether	--	--	--	mg/kg	12	U	26	U	0.38 U	0.5 U	6.2 U	0.32 U	14	U	0.38 U	0.32 U	0.32 U
Chrysene	3.9	56	1	mg/kg	91	200	11 D	18 D	28	0.32 U	0.32 U	62 J	2	0.32 U	0.047 J	0.32 U	
Dibenzo (a,h) anthracene	0.33	0.56	0.33	mg/kg	18	30	2.6 D	1.9 DJ	3.8 J	0.32 U	0.32 U	9 J	0.25 J	0.32 U	0.32 U	0.32 U	
Dibenzofuran	59	350	7	mg/kg	150	260	0.5	25 D	22	0.32 U	0.32 U	20	0.44	0.32 U	0.32 U	0.32 U	
Dibutyl phthalate	--	--	--	mg/kg	12	U	26	U	0.38 U	0.5 U	6.2 U	0.32 U	14	U	0.38 U	0.32 U	0.32 U
1,2- Dichlorobenzene	100	500	1.1	mg/kg	12	U	26	U	0.38 U	0.5 U	6.2 U	0.32 U	14	U	0.38 U	0.32 U	0.32 U
1,3- Dichlorobenzene	49	280	2.4	mg/kg	12	U	26	U	0.38 U	0.5 U	6.2 U	0.32 U	14	U	0.38 U	0.32 U	0.32 U
1,4- Dichlorobenzene	13	130	1.8	mg/kg	12	U	26	U	0.38 U	0.5 U	6.2 U	0.32 U	14	U	0.38 U	0.32 U	0.32 U
3,3'- Dichlorobenzidine	--	--	--	mg/kg	25	U	52	U	0.76 U	1 U	7.6 U	0.39 U	17 UJ	0.46 U	R	0.39 U	0.39 U
2,4- Dichlorophenol	--	--	--	mg/kg	12	U	26	U	0.38 U	0.5 U	6.2 U	0.32 U	14	U	0.38 U	0.32 U	0.32 U
Diethyl phthalate	--	--	--	mg/kg	12	U	26	U	0.38 U	0.5 U	6.2 U	0.32 U	14	U	0.38 U	0.32 U	0.32 U
2,4- Dimethylphenol	--	--	--	mg/kg	15	26	U	0.38 U	0.5 U	6.2 U	0.32 U	14 U	0.38 U	0.32 U	0.32 U	0.32 U	
Dimethyl phthalate	--	--	--	mg/kg	12	U	23	J	0.38 U	0.5 U	6.2 U	0.32 U	14 U	0.38 U	0.32 U	0.32 U	0.32 U
4,6- Dinitro- 2- methylphenol	--	--	--	mg/kg	61	U	130	U	1.9 U	2.4 U	39 U	2 U	87 U	2.4 UJ	2 U	2 U	2 U

**Table 3**  
**Soil Analytical Results - Semivolatile Organic Compounds**

**Remedial Action Work Plan**  
**Consolidated Edison Company of New York, Inc.**  
**West 42nd Street Former MGP Site**  
**New York, New York**

Location ID: Sample Depth: Date: Sample Name:	SCO –			Units	SB-46	SB-46	SB-47	SB-47	SB-48	SB-48	SB-48-DUP	SB-49	SB-49	SB-50	SB-51	SB-51-DUP	
	SCO Restricted- SCO Restricted- Unrestricted				25 - 28 06/12/08	28 - 30 06/12/08	5 - 7 03/26/08	23 03/26/08	12 07/24/10	18.5 - 19 07/24/10	18.5 - 19 07/24/10	9.5 07/25/10	12 07/25/10	9 02/26/11	14.5 02/27/11	14.5 02/27/11	
	Residential	Commercial	(shaded)		SB-46	SB-46	SB-47	SB-47	SB-48	SB-48	SB-48-DUP	SB-49	SB-49	SB-50	SB-51	SB-51-DUP	
2,4- Dinitrophenol	--	--	--	mg/kg	61	U	130	U	1.9	U	2.4	U	39	U	2	UJ	
2,4- Dinitrotoluene	--	--	--	mg/kg	12	U	26	U	0.38	U	0.5	U	6.2	U	0.32	U	
2,6- Dinitrotoluene	--	--	--	mg/kg	12	U	26	U	0.38	U	0.5	U	6.2	U	0.32	U	
Dioctyl phthalate	--	--	--	mg/kg	12	U	26	U	0.049	J	0.5	U	6.2	U	0.32	U	
Fluoranthene	100	500	100	mg/kg	380	D	580	D	18	D	58	D	67	J	0.32	U	
Fluorene	100	500	30	mg/kg	180		300		0.72		26	D	27	U	0.32	U	
Hexachlorobenzene	1.2	6	0.33	mg/kg	12	U	26	U	0.38	U	0.5	U	6.2	U	0.32	U	
Hexachlorobutadiene	--	--	--	mg/kg	12	U	26	U	0.38	U	0.5	U	6.2	U	0.32	U	
Hexachlorocyclopentadiene	--	--	--	mg/kg	25	U	26	U	0.76	U	1	U	15	U	0.79	UJ	
Hexachloroethane	--	--	--	mg/kg	12	U	52	U	0.38	U	0.5	U	6.2	U	0.32	U	
Indeno (1,2,3- cd) pyrene	0.5	5.6	0.5	mg/kg	78		130		12	D	9.1	DJ	18		0.32	U	
Isophorone	--	--	--	mg/kg	12	U	26	U	0.38	U	0.5	U	6.2	U	0.32	U	
2- Methylnaphthalene	--	--	--	mg/kg	300	D	450	D	0.33	J	13	D	3.7	J	0.32	U	
2- Methylphenol	100	500	0.33	mg/kg	12	U	26	U	0.38	U	0.5	U	6.2	U	0.32	U	
4- Methylphenol	100	500	0.33	mg/kg	12	U	26	U	0.077	J	0.62		6.2	U	0.32	U	
Naphthalene	100	500	12	mg/kg	1400	D	2300	D	0.94		56	D	76		0.11	J	
2- Nitroaniline	--	--	--	mg/kg	61	U	130	U	1.9	U	2.4	U	15	U	0.78	U	
3- Nitroaniline	--	--	--	mg/kg	61	U	130	U	1.9	U	2.4	U	15	U	0.79	U	
4- Nitroaniline	--	--	--	mg/kg	25	U	52	U	0.76	U	1	U	6.2	U	0.32	U	
Nitrobenzene	--	--	--	mg/kg	12	U	26	U	0.38	U	0.5	U	6.2	U	0.32	U	
2- Nitrophenol	--	--	--	mg/kg	12	U	26	U	0.38	U	0.5	U	6.2	U	0.32	U	
4- Nitrophenol	--	--	--	mg/kg	61	U	130	U	1.9	U	2.4	U	39	U	2	U	
N- Nitrosodi- n- propylamine	--	--	--	mg/kg	12	U	26	U	0.38	U	0.5	U	6.2	U	0.32	U	
N- Nitrosodiphenylamine	--	--	--	mg/kg	12	U	26	U	0.38	U	0.5	U	6.2	U	0.32	U	
2,2- Oxybis (1-Chloropropane)	--	--	--	mg/kg	12	U	26	U	0.38	U	0.5	U	6.2	U	0.32	U	
Pentachlorophenol	6.7	6.7	0.8	mg/kg	61	U	130	U	1.9	U	2.4	U	15	U	0.79	U	
Phenanthrene	100	500	100	mg/kg	680	D	1000	D	9.1	D	110	D	120		0.069	J	
Phenol	100	500	0.33	mg/kg	12	U	26	U	0.38	U	0.5	U	6.2	U	0.32	U	
Pyrene	100	500	100	mg/kg	300	D	420		19	D	53	D	63		0.32	U	
1,2,4- Trichlorobenzene	--	--	--	mg/kg	12	U	26	U	0.38	U	0.5	U	6.2	U	0.32	U	
2,4,5- Trichlorophenol	--	--	--	mg/kg	12	U	130	U	0.38	U	0.5	U	6.2	U	0.32	U	
2,4,6- Trichlorophenol	--	--	--	mg/kg	61	U	26	U	1.9	U	2.4	U	39	U	2	U	
<b>Total PAHs</b>	--	--	--	mg/kg	4274		6861		135.85		488.6		585.1		0.429		
<b>Total SVOCs</b>	--	--	--	mg/kg	4496		7244		138.106		526.62		624.1		0.429		

See notes on page 11.

**Table 3**  
**Soil Analytical Results - Semivolatile Organic Compounds**

**Remedial Action Work Plan**  
**Consolidated Edison Company of New York, Inc.**  
**West 42nd Street Former MGP Site**  
**New York, New York**

**Notes:**

Italicized result exceeds SCO for Restricted – Commercial use.

Bolded result exceeds SCO Restricted – Residential use.

Shaded result exceeds SCO Unrestricted use.

1. Qualifiers are as follows:

B Analyte was also detected in the associated method blank.

D The reported concentration is based on a diluted sample analysis.

E Analyte exceeded calibration range.

J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

M Indicates manually integrated compound.

R The reported concentration was rejected.

U The analyte was analyzed for, but not detected. The associated value is the analyte quantitation limit.

2. Screening levels were provided in New York State Department of Environmental Conservation 6 New York Codes, Rules and Regulations Subpart 375.6: Remedial Program Soil Cleanup Objectives.

3. Duplicate samples are indicated by location ID ending in DUP.

mg/kg = milligrams per kilogram

NA = not analyzed for

ND = not detected

PAHs = polycyclic aromatic hydrocarbons

SCO = Soil cleanup objective

SVOCS = Semi-volatile organic compounds

Total PAHs = represents the summation of 17 Target Compound List PAHs.

-- = criteria not indicated

**Table 4**  
**Soil Analytical Results - Metals and Cyanide**

Remedial Action Work Plan  
Consolidated Edison Company of New York, Inc.  
West 42nd Street Former MGP Site  
New York, New York

Location ID: Sample Depth (feet): Date Collected: Sample Name:	SCO Restricted – Residential <b>(bold)</b>	SCO Restricted – Commercial <i>(italics)</i>	SCO Unrestricted Use <i>(shaded)</i>	Units	SB-09 11-15 9/5/2003 SB-09	SB-09 31-33.5 9/5/2003 SB-09	SB-20 12-16 10/2/2003 SB-20	SB-20 16-20 10/2/2003 SB-20	SB-21 12-16 9/30/2003 SB-21	SB-21 36-38.9 9/30/2003 SB-21	SB-22 12-16 9/29/2003 SB-22	SB-22 36-44 9/29/2003 SB-22	SB-23 20-24 9/30/2003 SB-23	SB-23 52-54.5 9/30/2003 SB-23	SB-24 30-32 10/3/2003 SB-24
Aluminum	--	--	--	mg/kg	10800	4990	6980	10800	9830	11100	9260	4430	13700	7660	3850
Antimony	--	--	--	mg/kg	5.1	3	U	U	U	U	0.3	B	U	U	U
Arsenic	16	16	13	mg/kg	2	2.6	9.9	8.1	6.8	7	24.2	2.9	10.1	2.4	9.2
Barium	400	400	350	mg/kg	153	44.9	232	38.2	168	60.9	160	12.8	60.8	60.3	11.2 B
Beryllium	72	590	7.2	mg/kg	1.1	0.44	0.3	B	0.36	0.27	0.37	0.35	0.084	B	0.47
Cadmium	4.3	9.3	2.5	mg/kg	U	U	0.47	1.1	0.69	0.87	1.8	0.33	1.2	0.59	5.1
Calcium	--	--	--	mg/kg	4980	1980	10500	2810	4790	8050	13300	936	11800	1470	4470
Chromium	--	--	--	mg/kg	26.1	14.6	13.7	20.9	15	17.8	15.7	9.7	21.8	18.4	65.8
Cobalt	--	--	--	mg/kg	8.8	3.9	5.4	8.3	6.5	7.5	18	3.4	9	5.9	3.5
Copper	270	270	50	mg/kg	34.9	8.5	26.8	16.6	39.8	20.8	99.1	5.8	33.2	17	59.5
Iron	--	--	--	mg/kg	23400	12600	10400	22600	14300	19300	37400	8320	24900	13900	92900
Lead	400	1,000	63	mg/kg	46.4	6.4	467	20.8	109	112	164	3.2	212	12	6
Magnesium	--	--	--	mg/kg	5050	2540	1810	5200	2970	4380	2760	2320	5740	4030	1550
Manganese	2,000	10,000	1,600	mg/kg	243	196	224	555	187	339	417	84.9	426	247	653
Mercury	0.81	2.8	0.18	mg/kg	0.29	0.026	B	0.22	0.045	B	0.27	0.097	0.57	U	0.94
Nickel	310	310	30	mg/kg	25.6	11	13.2	18.2	13.6	16	24.7	9.1	22.8	13.9	21.2
Potassium	--	--	--	mg/kg	4280	908	1270	1960	1070	2030	1390	988	2460	1930	481
Selenium	180	1,500	3.9	mg/kg	U	U	2.9	4.3	3.3	3.4	6.8	2.2	4.9	3.1	6.2
Silver	180	1,500	2	mg/kg	U	0.96	B	1.4	B	2.2	1.6	1.9	3.3	0.99	B
Sodium	--	--	--	mg/kg	194	584	622	609	336	717	425	1370	2860	1420	1070
Thallium	--	--	--	mg/kg	4.2	2.9	1.4	1.2	B	0.46	B	1.1	B	1.8	0.86
Vanadium	--	--	--	mg/kg	33.6	18.5	20.9	26.4	24.1	24.1	26.4	14.5	30.2	22.8	7.3
Zinc	10,000	10,000	109	mg/kg	61.1	30.3	44.8	56.2	61.6	67.8	136	19.1	74.8	33.1	77.8
Total Cyanide	27	27	27	mg/kg	1.2	B	U	6.7	U	6.5	0.78	B	U	U	2
<b>Miscellaneous</b>															
Percent moisture	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Percent solids	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See notes on page 6.

**Table 4**  
**Soil Analytical Results - Metals and Cyanide**

**Remedial Action Work Plan**  
**Consolidated Edison Company of New York, Inc.**  
**West 42nd Street Former MGP Site**  
**New York, New York**

Location ID: Sample Depth (feet): Date Collected: Sample Name:	SCO Restricted – Residential <b>(bold)</b>	SCO Restricted – Commercial <i>(italics)</i>	SCO Unrestricted Use <i>(shaded)</i>	Units	SB-24 34-36 10/3/2003 SB-24	SB-24 36-38 10/2/2003 SB-24	SB-25 12-16 10/1/2003 SB-25	SB-25 24-28 10/1/2003 SB-25	SB-26 9-13 9/29/2003 SB-26	SB-26 16-19 10/1/2003 SB-26	SB-30 10 - 14 02/20/05 SB-30	SB-30 34 - 36 02/20/05 SB-30	SB-31 7 - 11 03/06/05 SB-31	SB-32 9 - 11 03/02/05 SB-32	SB-32 35 - 39 03/02/05 SB-32
Aluminum	--	--	--	mg/kg	12200	291	9980	15200	8290	13100	4360	10200	9060	6140	13400
Antimony	--	--	--	mg/kg	U	U	U	0.33 B	0.37 B	1.7 B	2.3 N	3.1 N	0.91 BN	3.9 N*	2.2 N*
Arsenic	16	16	13	mg/kg	10.8	5.2	3.5	11.3	4.3	6.7	5.8 N	3.6 N	4.2 N*	31.6 N*	5.9 N*
Barium	400	400	350	mg/kg	24.7	1.7 B	82.1	34	81.8	103	84.1	20.8	123 *E	72.1 *E	32.3 *E
Beryllium	72	590	7.2	mg/kg	0.43	U	0.098 B	0.55	U	0.095 B	0.49 E	0.74 E	0.39	0.35 B	0.61
Cadmium	4.3	9.3	2.5	mg/kg	1.3	0.068 B	0.78	1.5	1.1	0.91	2.8 E	3 E	2.1 N*	5.2 N*	3.8 N*
Calcium	--	--	--	mg/kg	3630	191	4610	6330	9740	2150	6110	6400	12700	2310	7820
Chromium	--	--	--	mg/kg	20.6	0.86 B	14.4	25.2	16.6	24.8	15.5 N	19.2 N	16 *	8.7 *	22.8 *
Cobalt	--	--	--	mg/kg	9.4	0.35 B	7	11	6.2	11.5	5.1 E	7.6 E	7.5	4.3	9
Copper	270	270	50	mg/kg	14	0.94 B	20.5	17.1	34.3	40.2	57.6 N	9.9 N	57.7 *	59.2 *	25.4 *
Iron	--	--	--	mg/kg	27600	987	18300	33200	23200	24200	15200	51200	17200	37900	30600
Lead	400	1,000	63	mg/kg	9.6	2.9	112	12.1	55.6	94.2	215 E	9.2 E	134 NE	37.9 NE	11.6 NE
Magnesium	--	--	--	mg/kg	6740	168	3480	7440	5070	5580	2040	5870	4850 *E	1000 *E	6810 *E
Manganese	2,000	10,000	1,600	mg/kg	675	30	236	571	236	198	84.5 E	669 E	168 E	58.9 E	714 E
Mercury	0.81	2.8	0.18	mg/kg	0.032 B	0.04 B	<b>0.96</b>	0.039 B	0.33	0.3	<b>2.2</b> *	0.029 B*	0.61	0.5	0.05
Nickel	310	310	30	mg/kg	19.4	0.79 B	14	23.5	13.6	22.7	14.5 E	18.1 E	17.7 *	16.7 *	21.4 *
Potassium	--	--	--	mg/kg	2550	116	2300	2970	4060	4540	1550 E	2350 E	4240 E	673 E	3020 E
Selenium	180	1,500	3.9	mg/kg	4.8	U	4.4	5.4	5.1	5.5	0.093 UN	0.092 UN	0.066 UN	8.1 N*	0.098 UN
Silver	180	1,500	2	mg/kg	2.5	U	1.9	2.6	2.4	0.34 B	5.2 E	6.7 E	6.5 *E	14.6 *E	11.5 *E
Sodium	--	--	--	mg/kg	3980	257	475	2720	304	788	2390 E	3890 E	764	1720	5070
Thallium	--	--	--	mg/kg	1.2 B	0.21 B	1.8	1.7	2.2	4.4	0.11 UN	0.11 UN	0.078 U	0.093 U	0.12 U
Vanadium	--	--	--	mg/kg	26	7	19.2	31.8	19.9	25.4	13.3	23.8	22.1 *	12.6 *	27.6 *
Zinc	10,000	10,000	109	mg/kg	62.1	4.2	46.7	74.1	53.4	69	188 NE	56.6 NE	112	24.2	66.7
Total Cyanide	27	27	27	mg/kg	U	3.8	0.6 B	U	7.3	4.4	2.6 N	0.26 BN	4.1	1.6	0.21 B
<b>Miscellaneous</b>															
Percent moisture	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Percent solids	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See notes on page 6.

**Table 4**  
**Soil Analytical Results - Metals and Cyanide**

**Remedial Action Work Plan**  
**Consolidated Edison Company of New York, Inc.**  
**West 42nd Street Former MGP Site**  
**New York, New York**

Location ID: Sample Depth (feet): Date Collected: Sample Name:	SCO Restricted – Residential <b>(bold)</b>	SCO Restricted – Commercial <i>(italics)</i>	SCO Unrestricted Use <i>(shaded)</i>	Units	SB-33 5 - 7 02/27/05 SB-33	SB-34 13 - 17 02/23/05 SB-34	SB-34 37 - 39 02/24/05 SB-34	SB-38 25 - 27 02/22/05 SB-38	SB-38 43 - 45 02/22/05 SB-38	SB-39 45 - 47 03/10/05 SB-39	SB-39 65 - 67 03/12/05 SB-39	SB-40 28 - 30 04/05/05 SB-40	SB-40 46 - 48 04/05/05 SB-40	SB-41 13 - 14 12/06/06 SB-41	SB-41 24 - 25 12/06/06 SB-41
Aluminum	--	--	--	mg/kg	9540	9050	14200	12400	10600	5520	10400	6390 E	11400 E	NA	NA
Antimony	--	--	--	mg/kg	1.8 N	1.4 BN	3.5 N	3.4 N	2.4 N	1.3	0.26 B	0.77 BN	1.1 BN	2 UN	3.4 UN
Arsenic	16	16	13	mg/kg	1.8 N	4.4 N	5.5 N	19.3 N	4.8 N	12	6.2	4.6 *	7.8 *	4.8 BN	9.7 BN
Barium	400	400	350	mg/kg	106	109	28.6	143	21.8	94.5	37.6	167 *E	23.7 *E	NA	NA
Beryllium	72	590	7.2	mg/kg	0.54 E	1.3 E	1 E	0.82 E	0.75 E	0.31 B	0.48	0.19 B	0.45 B	0.58 U	0.96 U
Cadmium	4.3	9.3	2.5	mg/kg	1.6 E	1.1 E	3.8 E	3.6 E	3.1 E	0.53	0.0065 U	1 *E	0.0082 U*	1 UN	1.7 UN
Calcium	--	--	--	mg/kg	2980	5570	6260	7280	3670	5360	4790	10700 E	4490 E	NA	NA
Chromium	--	--	--	mg/kg	15.2 N	14.4 N	27.1 N	38.7 N	19.1 N	20	19.4	17.9 *E	21.3 *E	5.8	21.1
Cobalt	--	--	--	mg/kg	4.8 E	5.5 E	10.1 E	8.4 E	7.7 E	4.8	8.1	7.3 E	10.2 E	NA	NA
Copper	270	270	50	mg/kg	22.4 N	78.8 N	14.7 N	86.7 N	10.6 N	83.5	23.2	128 NE	19.4 NE	22 *	12.2 *
Iron	--	--	--	mg/kg	13500	9240	61000	49900	51300	14600	27900	12500 *E	27700 *E	NA	NA
Lead	400	1,000	63	mg/kg	100 E	115 E	12.5 E	353 E	9 E	284	11.5	211 *E	11.2 *E	150 *	12.4 B*
Magnesium	--	--	--	mg/kg	3340	1990	7660	5510	6190	3140	6700	3880 E	7170 E	NA	NA
Manganese	2,000	10,000	1,600	mg/kg	114 E	118 E	802 E	338 E	594 E	201	340	380 E	689 E	NA	NA
Mercury	0.81	2.8	0.18	mg/kg	0.47 *	4 *	0.04 B*	10.6 *	0.038 B*	3.7	0.034 B	5.8	0.035 B	0.061 *	0.032 B*
Nickel	310	310	30	mg/kg	15.1 E	11.8 E	24.7 E	21.7 E	18.9 E	13.5	16.2	21.3 E	24.8 E	8.5	20.6
Potassium	--	--	--	mg/kg	979 E	1600 E	3370 E	2570 E	2720 E	1210	2470	2180	2460	NA	NA
Selenium	180	1,500	3.9	mg/kg	0.072 UN	0.093 UN	0.096 UN	0.092 UN	0.094 UN	3.3	3.5	0.082 U	0.1 U	2.1 UN	3.4 UN
Silver	180	1,500	2	mg/kg	6.3 E	5.9 E	9.1 E	9.7 E	7.2 E	0.021 U	0.023 U	8.3 *E	3.1 *E	0.3 U	0.5 U
Sodium	--	--	--	mg/kg	942 E	2820 E	5400 E	4820 E	4630 E	3250	3460	2140	4770	NA	NA
Thallium	--	--	--	mg/kg	0.085 UN	0.11 UN	0.11 UN	0.11 UN	0.11 UN	2	3.8	1.9	3.9	3.6 U	6 U
Vanadium	--	--	--	mg/kg	17.1	19	34.4	26.1	23.2	15.6	27.7	23 E	25.5 E	NA	NA
Zinc	10,000	10,000	109	mg/kg	89 NE	154 NE	75.6 NE	245 NE	58 NE	267	55.8	373 N*	69.4 N*	65.4	54.1
Total Cyanide	27	27	27	mg/kg	0.25 BN	0.36 BN	0.3 BN	15.6 N	0.34 BN	0.76 B	0.15 U	0.15 U	0.17 U	0.308 B	0.1 U
<b>Miscellaneous</b>															
Percent moisture	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	13.7	31.8
Percent solids	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	86.3	68.2

See notes on page 6.

**Table 4**  
**Soil Analytical Results - Metals and Cyanide**

Remedial Action Work Plan  
Consolidated Edison Company of New York, Inc.  
West 42nd Street Former MGP Site  
New York, New York

Location ID: Sample Depth (feet): Date Collected: Sample Name:	SCO Restricted – Residential <b>(bold)</b>	SCO Restricted – Commercial <i>(italics)</i>	SCO Unrestricted Use <i>(shaded)</i>	Units	SB-42 13 - 14 12/06/06 SB-42	SB-42 24 - 25 12/06/06 SB-42	SB-42 27 - 28 12/06/06 SB-42	SB-43 16 - 17 12/05/06 SB-43	SB-43 28 - 29 12/05/06 SB-43	SB-44 14 - 15 12/05/06 SB-44	SB-44 19 - 20 12/05/06 SB-44	SB-44 21 - 22 12/05/06 SB-44	SB-44-DUP 21 - 22 12/05/06 SB-44-DUP	SB-46 25 - 28 06/12/08 SB-46	SB-46 28 - 30 06/12/08 SB-46												
Aluminum	--	--	--	mg/kg	NA	NA	9840	12700																			
Antimony	--	--	--	mg/kg	2.4	UN	2.8	UN	3.5	UN	3.1	UN	2.5	UN	2.2	UN	2.8	UN	2.9	UN	3.5	UN	18.8	U	19.6	U	
Arsenic	16	16	13	mg/kg	4.3	BN	11.2	BN	3.7	BN	9.2	BN	2.7	BN	2.1	UN	3.1	BN	9.6	BN	12.8	BN	9.7		12.2		
Barium	400	400	350	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	41.7		31.2									
Beryllium	72	590	7.2	mg/kg	0.69	U	0.81	U	1	U	0.88	U	0.71	U	0.62	U	0.8	U	1.1	B	1	U	0.73	J	0.89	J	
Cadmium	4.3	9.3	2.5	mg/kg	1.2	UN	1.4	UN	1.8	UN	1.6	UN	1.3	UN	1.1	UN	1.4	UN	1.5	UN	1.8	UN	9.4	U	9.8	U	
Calcium	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21400		3680									
Chromium	--	--	--	mg/kg	20.5		27.9		23.1		20.1		10.4		18.2		13.2		35.5		30.6		22.5		26.3		
Cobalt	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.3		10.7									
Copper	270	270	50	mg/kg	30.2	*	17.2	*	29.4	*	27	*	6.5	*	18.2	*	23	*	36.6	*	21.2	*	30.3		15		
Iron	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	23300		30800									
Lead	400	1,000	63	mg/kg	72.3	*	14	*	162	*	196	*	5.7	B*	43.1	*	87.6	*	65.5	*	18.4	*	64.8		14.9		
Magnesium	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	15900		7030									
Manganese	2,000	10,000	1,600	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	461		697									
Mercury	0.81	2.8	0.18	mg/kg	0.057	*	0.033	B*	0.12	*	0.12	*	0.015	U*	0.17	*	0.068	*	0.16	*	0.15	*	0.25		0.039	J	
Nickel	310	310	30	mg/kg	18.2		25.5		16.9		21		23.7		18.4		14.7		34.2		24.8		19.8		24.1		
Potassium	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2250	J	2810	J								
Selenium	180	1,500	3.9	mg/kg	2.5	UN	2.9	UN	3.6	UN	3.1	UN	2.5	UN	2.2	UN	2.9	UN	2.9	UN	3.6	UN	18.8	U	19.6	U	
Silver	180	1,500	2	mg/kg	0.36	U	0.42	U	0.52	U	0.46	U	0.37	U	0.32	U	0.42	U	0.43	U	0.52	U	5.7	U	5.9	U	
Sodium	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2620	J	4220	J								
Thallium	--	--	--	mg/kg	4.3	U	5	U	6.3	U	5.5	U	4.4	U	3.9	U	5	U	5.1	U	6.2	U	13.2	U	13.7	U	
Vanadium	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	27.7		32.9									
Zinc	10,000	10,000	109	mg/kg	70.4		69.7		53.4		76.2		9.5	B	37.4		45.4		98.7		60.6		68.6	J	71.4	J	
Total Cyanide	27	27	27	mg/kg	13.3		0.111	U	0.108	U	0.106	U	0.085	U	0.085	U	0.0965	U	0.12	U	0.113	U	0.76	U	0.79	U	
<b>Miscellaneous</b>																											
Percent moisture	--	--	--	mg/kg	16.4		34.7		34.7		30.3		14.6		16.3		23.3		38.7		34.5		34.3		36.9		
Percent solids	--	--	--	mg/kg	83.6		65.3		65.3		69.7		85.4		83.7		76.7		61.3		65.5		65.7		63.1		

See notes on page 6.

**Table 4**  
**Soil Analytical Results - Metals and Cyanide**

**Remedial Action Work Plan**  
**Consolidated Edison Company of New York, Inc.**  
**West 42nd Street Former MGP Site**  
**New York, New York**

Location ID: Sample Depth (feet): Date Collected: Sample Name:	SCO Restricted – Residential	SCO Restricted – Commercial	SCO Unrestricted Use	Units	SB-47 5 - 7 03/26/08	SB-47 23 03/26/08	SB-48 12 07/24/10	SB-48 18.5 - 19 07/24/10	SB-48-DUP 18.5 - 19 07/24/10	SB-49 9.5 07/25/10	SB-49 12 07/25/10	SB-50 9 02/26/11	SB-51 14.5 02/27/11	SB-51-DUP 14.5 02/27/11
	(bold)	(italics)	(shaded)		SB-47	SB-48	SB-48	SB-48-DUP	SB-49	SB-49	SB-50	SB-51	SB-51-DUP	
Aluminum	--	--	--	mg/kg	4580	7920	5340	8330	5690	2110	3300	9880	10700	11300
Antimony	--	--	--	mg/kg	1.8 J	12.8 U	4.7 UJ	4.8 UJ	4.7 UJ	5 UJ	5.7 UJ	4.7 UJ	4.6 UJ	4.8 UJ
Arsenic	16	16	13	mg/kg	7.9	10.5	6 UJ	2.2 J	5.9 UJ	2.9 J	7.2 U	2.9 J	3.5 J	2.6 J
Barium	400	400	350	mg/kg	97	207	53.7	40.3	28.9	35.5	40.6	69.5	185	197
Beryllium	72	590	7.2	mg/kg	1.6 U	1.8 U	0.15 J	0.33 J	0.24 J	0.1 J	0.18 J	0.51 J	0.57 J	0.61 J
Cadmium	4.3	9.3	2.5	mg/kg	5.8	6.4 U	1.4 UJ	1.5 UJ	1.4 UJ	1.5 UJ	1.7 UJ	1.4 U	1.4 U	1.5 U
Calcium	--	--	--	mg/kg	31400	18600	7090 J	316 J	392 J	834 J	746 J	1270	689	644
Chromium	--	--	--	mg/kg	14.2	23.2	9.8 J	16 J	11.6 J	13 J	11.3 J	15.9 J	24.9 J	25.7 J
Cobalt	--	--	--	mg/kg	5.7	7.4	4.6 J	4.7 J	3.4 J	2.9 J	2.6 J	7	4.6	5.6
Copper	270	270	50	mg/kg	66.6	111	13.9 J	7.4 J	5.2 J	17.9 J	12.4 J	18.5	12.2	13.1
Iron	--	--	--	mg/kg	16400	23600	9480	10400	7290	14600	7750	15600	14600	12300
Lead	400	1,000	63	mg/kg	696	1150	11.5 J	6.3 J	3.7 J	83 J	59.5 J	18.4 J	9.2 J	5.8 J
Magnesium	--	--	--	mg/kg	4320	4170	3110	2120	1550	862	1450	3300	2550	2590
Manganese	2,000	10,000	1,600	mg/kg	245	235	98.6	58.1	58.3	65.9	59.6	165	86.5	75.6
Mercury	0.81	2.8	0.18	mg/kg	0.74	3.5	0.097	0.03 J	0.034 J	5.1	0.32	0.35 J	0.019 J	0.02 J
Nickel	310	310	30	mg/kg	14.1	19	9.7 J	11.7 J	8.2 J	7.9 J	7.2 J	14.5	16.8	18.8
Potassium	--	--	--	mg/kg	825	1810	2440 J	831 J	559 J	425 J	654 J	1810 J	1290 J	1350 J
Selenium	180	1,500	3.9	mg/kg	11.6 U	12.8 U	10.7 UJ	10.9 UJ	10.6 UJ	11.4 UJ	12.9 UJ	10.8 UJ	10.6 UJ	10.9 UJ
Silver	180	1,500	2	mg/kg	3.5 U	3.6 J	0.17 J	0.23 J	0.17 J	0.54 J	0.27 J	0.25 J	0.23 J	0.15 J
Sodium	--	--	--	mg/kg	879	2770	88.9 J	633 J	467 J	69.1 J	207 J	487	459	457
Thallium	--	--	--	mg/kg	8.1 U	9 U	1.2 J	4.4 UJ	4.2 UJ	4.6 UJ	5.1 UJ	1 J	2.1 J	1.5 J
Vanadium	--	--	--	mg/kg	18.6	23	11.3 J	17.9 J	13.3 J	8.6 J	11.3 J	18.9 J	23.2 J	24.4 J
Zinc	10,000	10,000	109	mg/kg	253	512	36.6	19.5	16.9	71.3	37.6	52	23.1	23.5
Total Cyanide	27	27	27	mg/kg	3.8	0.45 J	0.578 U	0.589 U	0.586 U	0.64 U	0.696 UJ	0.596 U	0.591 U	0.585 U
<b><i>Miscellaneous</i></b>														
Percent moisture	--	--	--	mg/kg	15.4	34.2	13.5	15.1	14.7	21.8	28.2	16	15.4	14.5
Percent solids	--	--	--	mg/kg	84.6	65.8	86.5	84.9	85.3	78.2	71.8	84	84.6	85.5

See notes on page 6.

**Table 4**  
**Soil Analytical Results - Metals and Cyanide**

**Remedial Action Work Plan**  
**Consolidated Edison Company of New York, Inc.**  
**West 42nd Street Former MGP Site**  
**New York, New York**

**Notes:**

Italicized result exceeds SCO for Restricted – Commercial use.

Bolded result exceeds SCO Restricted – Residential use.

Shaded result exceeds SCO Unrestricted use.

Qualifiers are as follows:

B The reported value was obtained from a reading less than the CRDL but greater than or equal to the IDL.

D The reported concentration is based on a diluted sample analysis.

E Estimated due to interference presence.

J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

N Indicates spike sample recovery is not within the quality control limits.

U The analyte was analyzed for, but not detected. The associated value is the instrument detection limit.

\* Indicates analysis is not within the quality control limits.

Screening levels were provided in New York State Department of Environmental Conservation 6 New York Codes, Rules and Regulations Subpart 375.6: Remedial Program Soil Cleanup Objectives.

Duplicate samples are indicated by location ID ending in DUP.

mg/kg = milligrams per kilogram

NA = not analyzed

% = percent

SCO = Soil cleanup objective

-- = criteria not indicated

**Table 5**  
**Well Construction Details**

**Remedial Action Work Plan**  
**Consolidated Edison Company of New York, Inc.**  
**West 42nd Street Former MGP Site**  
**New York, New York**

Monitoring Well ID	Approximate Ground Elevation (feet <sup>1</sup> )	Elevation of Top of Well (feet <sup>1</sup> )	Screen Interval Depth		Hydrostratigraphic Unit Screened	Subsurface Materials Observed in Screened Interval
			(feet bgs)	(feet <sup>1</sup> )		
MW-07	2.03	1.49	5 - 15	-3.0 - -13.0	Fill Unit	Fill/Sand/gravel
MW-08	2.15	1.57	5 - 15	-2.9 - -12.9	Fill Unit	Fill/Sand/gravel
MW-09	2.20	1.48	5 - 15	-2.8 - -12.8	Fill Unit	Fill/Sand/gravel
MW-10	2.08	1.92	5 - 15	-2.9 - -12.9	Fill Unit	Fill/Sand/gravel
MW-11	13.28	13.00	7 - 17	6.3 - -3.7	Fill Unit	Fill/Sand

**Notes:**

1. MW-08 to MW-10 elevations in NGVD 1929; MW-11 elevations in NAVD 1988
2. Installation of monitoring wells were performed by the following:
  - ADT on February 20-27, 2005 (Borings MW-07, MW-08, MW-09 and MW-10).
  - NYEG Drilling LLC on July 23, 2010 (Borings MW-11).

bgs = below ground surface

**Table 6**  
**Groundwater Analytical Results – Volatile Organic Compounds**

**Remedial Action Work Plan**  
**Consolidated Edison Company of New York, Inc.**  
**West 42nd Street Former MGP Site**  
**New York, New York**

Location ID: Date Collected: Sample Name:	NYSDEC GA	Units	MW-03 10/08/03 MW-03	MW-03 10/08/03 MW-03 DL	MW-07 03/19/05 MW-07	MW-07 03/07/11 MW-07	MW-08 03/19/05 MW-08	MW-08 03/05/11 MW-08	MW-09 03/18/05 MW-09	MW-09 03/18/05 MW-09 DL	MW-09 03/01/11 MW-09	MW-09-DUF 03/01/11 REP 3-1-11	MW-10 03/18/05 MW-10	MW-10 03/18/05 MW-10	MW-10 03/01/11 MW-10	MW-11 07/29/10 MW-11	
Acetone (2- propanone, dimethyl ketone)	50	µg/L	5 U	10 U	40 U	2.7 UB	5 U	1.3 J	5 U	40 U	2 U	2 U	5 U	15 U	2 U	3 UBJ	
Benzene	1	µg/L	280 E	220 D	80	25 J	5 U	0.5 U	78	61 D	35	41	69	50 D	1.4	0.23 J	
Bromobenzene	--	µg/L	5 U	10 U	40 U		NA	5 U	NA	40 U		NA	NA	5 U	15 U	NA	
Bromoform	--	µg/L	5 U	10 U	40 U	0.5 U	5 U	0.5 U	5 U	40 U	0.5 U	0.5 U	5 U	15 U	0.5 U	0.5 U	
Bromomethane/ methyl bromide	--	µg/L	5 U	10 U	40 U	1 U	5 U	1 U	5 U	40 U	1 U	1 U	5 U	15 U	1 U	1 U	
2- butanone (methyl ethyl ketone)	--	µg/L	5 U	10 U	40 U	2 U	5 U	2 U	5 U	40 U	2 U	2 U	5 U	15 U	2 U	2 U	
n- butylbenzene	5	µg/L	5 U	10 U	40 U		NA	5 U	NA	5 U	40 U		NA	5 U	15 U	NA	
sec- butylbenzene	5	µg/L	5 U	10 U	40 U		NA	5 U	NA	1 J	40 U		NA	5 U	15 U	NA	
tert- butylbenzene	5	µg/L	5 U	10 U	40 U		NA	5 U	NA	6	40 U		NA	5 U	15 U	NA	
Carbon disulfide	--	µg/L	5 U	10 U	40 U	0.5 U	5 U	0.5 U	5 U	40 U	0.5 U	0.5 U	5 U	15 U	0.5 U	0.24 J	
Carbon tetrachloride	5	µg/L	5 U	10 U	40 U	0.5 U	5 U	0.5 U	5 U	40 U	0.5 U	0.5 U	5 U	15 U	0.5 U	0.5 U	
Chlorobenzene	5	µg/L	5 U	10 U	40 U	0.5 U	5 U	0.5 U	5 U	40 U	0.5 U	0.5 U	5 U	15 U	0.5 U	0.5 U	
Chloroethane	5	µg/L	5 U	10 U	40 U	1 U	5 U	1 U	5 U	40 U	1 U	1 U	5 U	15 U	1 U	1 U	
Chloroform	7	µg/L	5 U	10 U	40 U	0.5 U	5 U	0.5 U	5 U	40 U	0.5 U	0.5 U	5 U	15 U	0.5 U	0.5 U	
Chloromethane (methyl chloride)	--	µg/L	5 U	10 U	40 U	0.5 U	5 U	0.5 U	5 U	40 U	0.5 U	0.5 U	5 U	15 U	0.5 U	0.5 U	
2- Chlorotoluene	5	µg/L	5 U	10 U	40 U		NA	5 U	NA	5 U	40 U		NA	5 U	15 U	NA	
4- Chlorotoluene	5	µg/L	5 U	10 U	40 U		NA	5 U	NA	5 U	40 U		NA	5 U	15 U	NA	
Cumene	5	µg/L	2 J	10 U	9 J		NA	5 U	NA	29	20 DJ		NA	NA	2 J	15 U	NA
1,2- Dibromo- 3- chloropropane	--	µg/L	5 U	10 U	40 U		NA	5 U	NA	5 U	40 U		NA	5 U	15 U	NA	
Dibromochloromethane	--	µg/L	5 U	10 U	40 U	0.5 U	5 U	0.5 U	5 U	40 U	0.5 U	0.5 U	5 U	15 U	0.5 U	0.5 U	
cis- 1,3- Dichloro, 1- propene	--	µg/L	5 U	10 U	40 U	0.5 U	5 U	0.5 U	5 U	40 U	0.5 U	0.5 U	5 U	15 U	0.5 U	0.5 U	
1,2- Dichlorobenzene	3	µg/L	5 U	10 U	40 U		NA	5 U	NA	5 U	40 U		NA	5 U	15 U	NA	
1,3- Dichlorobenzene	3	µg/L	5 U	10 U	40 U		NA	5 U	NA	5 U	40 U		NA	5 U	15 U	NA	
1,4- Dichlorobenzene	3	µg/L	5 U	10 U	40 U		NA	5 U	NA	5 U	40 U		NA	5 U	15 U	NA	
Dichlorobromomethane	--	µg/L	5 U	10 U	40 U	0.5 U	5 U	0.5 U	5 U	40 U	0.5 U	0.5 U	5 U	15 U	0.5 U	0.5 U	
1,1- Dichloroethane	5	µg/L	5 U	10 U	40 U	0.5 U	5 U	0.5 U	5 U	40 U	0.5 U	0.5 U	5 U	15 U	0.5 U	0.5 U	
1,2- Dichloroethane	0.6	µg/L	5 U	10 U	40 U	0.5 U	5 U	0.5 U	5 U	40 U	0.5 U	0.5 U	5 U	15 U	0.5 U	0.5 U	
cis- 1,2- Dichloroethene	5	µg/L	5 U	10 U	40 U	0.5 U	5 U	0.5 U	5 U	40 U	0.5 U	0.5 U	5 U	15 U	0.5 U	0.5 U	
trans- 1,2- Dichloroethene	5	µg/L	5 U	10 U	40 U	0.5 U	5 U	0.5 U	5 U	40 U	0.5 U	0.5 U	5 U	15 U	0.5 U	0.5 U	
1,1- Dichloroethylene	--	µg/L	5 U	10 U	40 U	0.5 U	5 U	0.5 U	5 U	40 U	0.5 U	0.5 U	5 U	15 U	0.5 U	0.5 U	
Dichloromethane	5	µg/L	5 U	10 U	40 U	2 UJ	5 U	2 UB	5 U	40 U	2 UBJ	2 UBJ	5 U	15 U	2 UJ	2 UJ	
1,2- Dichloropropane	1	µg/L	5 U	10 U	40 U	0.5 U	5 U	0.5 U	5 U	40 U	0.5 U	0.5 U	5 U	15 U	0.5 U	0.5 U	

**Table 6**  
**Groundwater Analytical Results – Volatile Organic Compounds**

**Remedial Action Work Plan**  
**Consolidated Edison Company of New York, Inc.**  
**West 42nd Street Former MGP Site**  
**New York, New York**

Location ID: Date Collected: Sample Name:	NYSDEC GA	Units	MW-03 10/08/03 MW-03	MW-03 10/08/03 MW-03 DL	MW-07 03/19/05 MW-07	MW-07 03/07/11 MW-07	MW-08 03/19/05 MW-08	MW-08 03/05/11 MW-08	MW-09 03/18/05 MW-09	MW-09 03/18/05 MW-09 DL	MW-09 03/01/11 MW-09	MW-09-DUF 03/01/11 REP 3-1-11	MW-10 03/18/05 MW-10	MW-10 03/18/05 MW-10	MW-10 03/01/11 MW-10	MW-11 07/29/10 MW-11
1,3- Dichloropropane	5	µg/L	5 U	10 U	40 U	NA	5 U	NA	5 U	40 U	NA	NA	5 U	15 U	NA	NA
1,1- Dichloropropene	5	µg/L	5 U	10 U	40 U	NA	5 U	NA	5 U	40 U	NA	NA	5 U	15 U	NA	NA
trans- 1,3- Dichloropropene	0.4	µg/L	5 U	10 U	40 U	0.5 U	5 U	0.5 U	5 U	40 U	0.5 U	0.5 U	5 U	15 U	0.5 U	0.5 U
Ethylbenzene	5	µg/L	5 U	10 U	63	9.5	5 U	0.5 U	130	160 D	53	57	25	20 D	0.59	0.5 U
Ethylene dibromide	6.00E-04	µg/L	5 U	10 U	40 U	NA	5 U	NA	5 U	40 U	NA	NA	5 U	15 U	NA	NA
Freon 12	5	µg/L	5 U	10 U	40 U	NA	5 U	NA	5 U	40 U	NA	NA	5 U	15 U	NA	NA
Hexachlorobutadiene	0.5	µg/L	5 U	10 U	40 U	NA	5 U	NA	5 U	40 U	NA	NA	5 U	8 DJ	NA	NA
2- Hexanone	--	ug/L	5 U	10 U	40 U	2 U	5 U	2 U	5 U	40 U	2 U	2 U	5 U	15 U	2 U	2 U
Iodomethane (methyl iodide)	5	µg/L	5 U	10 U	40 U	NA	5 U	NA	5 U	40 U	NA	NA	5 U	15 U	NA	NA
Methyl isobutyl ketone	--	µg/L	5 U	10 U	40 U	0.71 J	5 U	2 U	5 U	40 U	2 UJ	2 UJ	5 U	15 U	2 UJ	2 U
Methyl tert-butyl ether	10	µg/L	2 J	2 DJ	40 U	NA	5 U	NA	5 U	40 U	NA	NA	5 U	15 U	NA	NA
Methylene bromide	--	µg/L	5 U	10 U	40 U	NA	5 U	NA	5 U	40 U	NA	NA	5 U	15 U	NA	NA
n- propylbenzene	5	µg/L	5 U	10 U	40 U	NA	5 U	NA	12	9 DJ	NA	NA	5 U	15 U	NA	NA
Styrene	5	µg/L	5 U	10 U	40 U	0.5 U	5 U	0.5 U	5 U	40 U	0.5 U	0.5 U	5 U	15 U	0.5 U	0.5 U
1,1,1,2- Tetrachloroethane	5	µg/L	5 U	10 U	40 U	NA	5 U	NA	5 U	40 U	NA	NA	5 U	15 U	NA	NA
1,1,2,2- Tetrachloroethane	5	µg/L	5 U	10 U	40 U	0.5 U	5 U	0.5 U	5 U	40 U	0.5 U	0.5 U	5 U	15 U	0.5 U	0.5 UJ
Tetrachloroethylene	5	µg/L	5 U	10 U	40 U	0.5 U	5 U	0.5 U	5 U	40 U	0.5 U	0.5 U	5 U	15 U	0.5 U	0.5 U
Toluene	5	µg/L	5 U	10 U	28 J	2.4	5 U	0.5 U	62	42 D	4.6	5.2	37	25 D	0.5 U	0.5 UB
1,2,3- Trichlorobenzene	5	µg/L	5 U	10 U	40 U	NA	5 U	NA	5 U	40 U	NA	NA	5 U	15 U	NA	NA
1,2,4- Trichlorobenzene	5	µg/L	5 U	10 U	40 U	NA	5 U	NA	5 U	40 U	NA	NA	5 U	15 U	NA	NA
1,1,1- Trichloroethane (methyl chloroform)	5	µg/L	5 U	10 U	40 U	0.5 U	5 U	0.5 U	5 U	40 U	0.5 U	0.5 U	5 U	15 U	0.5 U	0.5 U
1,1,2- Trichloroethane	--	µg/L	5 U	10 U	40 U	0.5 U	5 U	0.5 U	5 U	40 U	0.5 U	0.5 U	5 U	15 U	0.5 U	0.5 U
Trichloroethylene (trichloroethylene)	5	µg/L	5 U	10 U	40 U	0.5 U	5 U	0.5 U	5 U	40 U	0.5 U	0.5 U	5 U	15 U	0.5 U	0.42 J
Trichlorofluoromethane (freon 11)	5	µg/L	5 U	10 U	40 U	NA	5 U	NA	5 U	40 U	NA	NA	5 U	15 U	NA	NA
1,2,3 - Trichloropropane	0.04	µg/L	5 U	10 U	40 U	NA	5 U	NA	5 U	40 U	NA	NA	5 U	15 U	NA	NA
1,2,4- Trimethylbenzene	5	µg/L	5 U	10 U	42	NA	5 U	NA	53	44 D	NA	NA	11	10 DJ	NA	NA
1,3,5- Trimethylbenzene	5	µg/L	5 U	10 U	11 J	NA	5 U	NA	12	10 DJ	NA	NA	6	6 DJ	NA	NA
Vinyl acetate	--	µg/L	5 U	10 U	40 U	NA	5 U	NA	5 U	40 U	NA	NA	5 U	15 U	NA	NA
Vinyl chloride (chloroethene)	2	µg/L	5 U	10 U	40 U	0.5 U	5 U	0.5 U	5 U	40 U	0.5 UJ	0.5 UJ	5 U	15 U	0.5 UJ	0.5 U
Total xylenes	5	µg/L	5 U	10 U	110	12	5 U	1 U	180	140 D	27	31	53	41 D	1 U	1 U
<b>Total BTEX</b>	--	µg/L	280	NA	148 J	J	ND	ND	77	162	5	6	52	63	1	0.66
<b>Total VOCs</b>			284	222	343	49.61	0	1.3	550	477	119.6	134.2	203	152	1.99	0.89

See notes on page 3.

**Table 6**  
**Groundwater Analytical Results – Volatile Organic Compounds**

**Remedial Action Work Plan**  
**Consolidated Edison Company of New York, Inc.**  
**West 42nd Street Former MGP Site**  
**New York, New York**

**Notes:**

Bold and shaded values exceed NYSDEC GA screening criteria.

1. Qualifiers are as follows:

B Analyte was also detected in the associated method blank.

D The reported concentration is based on a diluted sample analysis.

J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

N Indicates that spike sample recovery is not within the quality control limits.

U The analyte was analyzed for, but not detected. The associated value is the analyte quantitation limit.

2. Screening levels for class GA groundwater were provided in NYSDEC Technical and Operational Guidance Series 1.1.1 for Groundwater.

3. Sample IDs that end in the letters DL indicate that the original sample extraction was diluted to be able to report a value for one or more constituents being analyzed for.

BTEX = benzene, toluene, ethylbenzene, and xylene

µg/L = micrograms per liter

NA = Not analyzed

NYSDEC = New York State Department of Environmental Conservation

PAH = polycyclic aromatic hydrocarbon

- - = criteria not identified

**Table 7**  
**Groundwater Analytical Results – Semivolatile Organic Compounds**

**Remedial Action Work Plan**  
**Consolidated Edison Company of New York, Inc.**  
**West 42nd Street Former MGP Site**  
**New York, New York**

Location ID: Date Collected: Sample Name:	NYSDEC GA	Units	MW-07 03/19/05 MW-07	MW-07 38430 MW-07 DL	MW-07 03/07/11 MW-07	MW-08 03/19/05 MW-08	MW-08 03/05/11 MW-08	MW-09 03/18/05 MW-09	MW-09 03/18/05 MW-09 DL	MW-09 03/01/11 MW-09	MW-09-DUP 03/01/11 REP 3-1-11	MW-10 03/18/05 MW-10	MW-10 03/01/11 MW-10	MW-11 07/29/10 MW-11
Acenaphthene	20	µg/L	73	78 DJ	30	10 U	4.2 U	63	57 DJ	41	48	23	28	4.2 U
Acenaphthylene	--	µg/L	4 J	100 U	1.1 J	10 U	4.2 U	41	36 DJ	15	20	2 J	1.8 J	4.2 U
Anthracene	50	µg/L	19	24 DJ	9.2	10 U	4.2 U	32	28 DJ	15	15	8 J	5.7	4.2 U
Benzo (a) anthracene	0.002	µg/L	8 J	13 DJ	4.7	10 U	4.2 U	13	200 U	2.9 J	2.4 J	10	7.5	4.2 U
Benzo (a) pyrene	0	µg/L	5 J	100 U	3.5 J	10 U	4.2 U	10	200 U	2.1 J	1.6 J	8 J	7.9	4.2 U
Benzo (b) fluoranthene	0.002	µg/L	6 J	100 U	3.4 J	10 U	4.2 U	10	200 U	1.9 J	1.5 J	9 J	7.7	4.2 U
Benzo (g,h,l) perylene	--	µg/L	3 J	100 U	5.4 J	10 U	4.2 U	7 J	200 U	6.6 J	6.2 J	6 J	6.4	4.2 UJ
Benzo (k) fluoranthene	0.002	µg/L	2 J	100 U	1.7 J	10 U	4.2 U	4 J	200 U	8.5 U	8.5 U	4 J	3.6 J	4.2 U
Benzyl alcohol		µg/L	NA	NA	NA	NA	NA	NA						
Bis (2- chloroethoxy) methane	5	µg/L	10 U	100 U	4.2 U	10 U	4.2 U	10 U	200 U	8.5 U	8.5 U	10 U	4 U	4.2 U
Bis (2-Chloroethyl) ether	1	µg/L	10 U	100 U	4.2 U	10 U	4.2 U	10 U	200 U	8.5 U	8.5 U	10 U	4 U	4.2 U
Bis (2- ethylhexyl) phthalate	5	µg/L	10 U	100 U	3.3 J	10 U	4.2 U	10 U	200 U	8.5 UB	8.5 UB	10 U	4 UB	4.2 U
4- Bromofluorobenzene	--	µg/L	10 U	100 U	NA	10 U	NA	10 U	200 U	NA	NA	10 U	NA	NA
4- Bromophenyl- phenylether	--	µg/L	NA	NA	4.2 U	NA	4.2 U	NA	NA	8.5 U	8.5 U	NA	4 U	4.2 U
Butylbenzylphthalate	50	µg/L	10 U	100 U	4.2 U	10 U	4.2 U	10 U	200 U	8.5 U	8.5 U	10 U	4 U	4.2 U
Carbazole	--	µg/L	99	120 D	11	10 U	4.2 U	76	65 DJ	10	13	10 U	1 J	4.2 U
4- Chloro- 3- methylphenol	--	µg/L	10 U	100 U	5.2 U	10 U	5.2 U	10 U	200 U	11 U	11 U	10 U	5 U	5.3 U
4- Chloroaniline	--	µg/L	10 U	100 U	4.2 U	10 U	4.2 U	10 U	200 U	8.5 U	8.5 U	10 U	4 U	4.2 U
2- Chloronaphthalene	10	µg/L	10 U	100 U	4.2 U	10 U	4.2 U	10 U	200 U	8.5 U	8.5 U	10 U	4 U	4.2 U
2- Chlorophenol	--	µg/L	10 U	100 U	4.2 U	10 U	4.2 U	10 U	200 U	8.5 U	8.5 U	10 U	4 U	4.2 U
4- Chlorophenyl- phenylether	--	µg/L	10 U	100 U	4.2 U	10 U	4.2 U	10 U	200 U	8.5 U	8.5 U	10 U	4 U	4.2 U
Chrysene	0.002	µg/L	8 J	11 DJ	4.6	10 U	4.2 U	18	200 U	4.1 J	3.2 J	6 J	6	4.2 U
Dibenzo (a,h) anthracene	--	µg/L	10 U	100 U	3.7 J	10 U	4.2 U	1 J	200 U	5.8 J	8.5 U	10 U	3.2 J	4.2 UJ
Dibenzofuran	--	µg/L	52	60 DJ	18	10 U	4.2 U	37	36 DJ	13	16	16	10	4.2 U
Dibutyl phthalate	50	µg/L	10 U	100 U	0.43 J	10 U	4.2 U	10 U	200 U	8.5 U	8.5 U	10 U	0.43 J	4.2 U
1,2- Dichlorobenzene	3	µg/L	10 U	100 U	4.2 U	10 U	4.2 U	10 U	200 U	8.5 U	8.5 U	10 U	4 U	4.2 U
1,3- Dichlorobenzene	3	µg/L	10 U	100 U	4.2 U	10 U	4.2 U	10 U	200 U	8.5 U	8.5 U	10 U	4 U	4.2 U
1,4- Dichlorobenzene	3	µg/L	10 U	100 U	4.2 U	10 U	4.2 U	10 U	200 U	8.5 U	8.5 U	10 U	4 U	4.2 U
3,3'- Dichlorobenzidine	5	µg/L	10 U	100 U	4.2 U	10 U	4.2 U	10 U	200 U	8.5 U	8.5 U	10 U	4 U	4.2 U
2,4- Dichlorophenol	5	µg/L	10 U	100 U	4.2 U	10 U	4.2 U	10 U	200 U	8.5 U	8.5 U	10 U	4 U	4.2 U
Diethyl phthalate	50	µg/L	10 U	100 U	4.2 U	10 U	4.2 U	10 U	200 U	8.5 U	8.5 U	10 U	4 U	4.2 UB
2,4- Dimethylphenol	1	µg/L	8 J	100 U	0.93 J	10 U	4.2 U	8 J	200 U	2 J	2.4 J	18	4 U	4.2 U
Dimethyl phthalate	50	µg/L	10 U	100 U	4.2 U	10 U	4.2 U	10 U	200 U	8.5 U	8.5 U	10 U	4 U	4.2 U
4,6- Dinitro- 2- methylphenol	--	µg/L	20 U	200 U	R	20 U	26 U	20 U	400 U	53 U	53 U	20 U	25 U	26 U

**Table 7**  
**Groundwater Analytical Results – Semivolatile Organic Compounds**

**Remedial Action Work Plan**  
**Consolidated Edison Company of New York, Inc.**  
**West 42nd Street Former MGP Site**  
**New York, New York**

Location ID: Date Collected: Sample Name:	NYSDEC GA	Units	MW-07 03/19/05 MW-07	MW-07 38430 MW-07 DL	MW-07 03/07/11 MW-07	MW-08 03/19/05 MW-08	MW-08 03/05/11 MW-08	MW-09 03/18/05 MW-09	MW-09 03/18/05 MW-09 DL	MW-09 03/01/11 MW-09	MW-09-DUP 03/01/11 REP 3-1-11	MW-10 03/18/05 MW-10	MW-10 03/01/11 MW-10	MW-11 07/29/10 MW-11		
2,4- Dinitrophenol	*	µg/L	20	U	200	U	R	20	U	26	U	20	U	400	U	
2,4- Dinitrotoluene	5	µg/L	10	U	100	U	4.2	U	10	U	4.2	U	10	U	200	U
2,6- Dinitrotoluene	5	µg/L	10	U	100	U	4.2	U	10	U	4.2	U	10	U	200	U
Dioctyl phthalate	50	µg/L	10	U	100	U	4.2	U	10	U	4.2	U	10	U	200	U
Fluoranthene	50	µg/L	31		38	DJ	13		10	U	4.2	U	45		39	DJ
Fluorene	50	µg/L	41		48	DJ	3.9	J	10	U	4.2	U	28		28	DJ
Hexachlorobenzene	0.04	µg/L	10	U	100	U	4.2	U	10	U	4.2	U	10	U	200	U
Hexachlorobutadiene	0.5	µg/L	10	U	100	U	4.2	U	10	U	4.2	U	10	U	200	U
Hexachlorocyclopentadiene	--	µg/L	10	U	100	U	4.2	UJ	10	U	4.2	U	10	U	200	U
Hexachloroethane	5	µg/L	10	U	100	U	4.2	U	10	U	4.2	U	10	U	200	U
Indeno (1,2,3- cd) pyrene	0.002	µg/L	2	J	100	U	4.9	J	10	U	4.2	U	5	J	200	U
Isophorone	50	µg/L	10	U	100	U	4.2	U	10	U	4.2	U	10	U	200	U
2- Methylnaphthalene	--	µg/L	78		92	DJ	1.9	J	10	U	4.2	U	75		71	DJ
2- Methylphenol	1	µg/L	2	J	100	U	0.35	J	10	U	4.2	U	1	J	200	U
4- Methylphenol	1	µg/L	2	J	100	U	0.42	J	10	U	4.2	U	7	J	200	U
Naphthalene	10	µg/L	1,100	E	1400	D	40		10	U	4.2	U	1,100	E	1,300	D
2- Nitroaniline	5	µg/L	20	U	200	U	4.2	U	20	U	4.2	U	20	U	400	U
3- Nitroaniline	5	µg/L	20	U	200	U	4.2	U	20	U	4.2	U	20	U	400	U
4- Nitroaniline	5	µg/L	20	U	200	U	4.2	U	20	U	4.2	U	20	U	400	U
Nitrobenzene	0.4	µg/L	10	U	100	U	4.2	U	10	U	4.2	U	10	U	200	U
2- Nitrophenol	--	µg/L	10	U	100	U	4.2	U	10	U	4.2	U	10	U	200	U
4- Nitrophenol	--	µg/L	20	U	200	U	10	U	20	U	10	U	20	U	400	U
N- Nitrosodi- n- propylamine	--	µg/L	10	U	100	U	4.2	U	10	U	4.2	U	10	U	200	U
N- Nitrosodiphenylamine	--	µg/L	10	U	100	U	4.2	U	10	U	4.2	U	10	U	200	U
2,2- Oxybis (1-Chloropropane)	--	µg/L	NA		NA	NA	4.2	U	NA		4.2	U	NA		NA	
Pentachlorophenol	*	µg/L	20	U	200	U	26	U	20	U	26	U	20	U	400	U
Phenanthrene	50	µg/L	110		110	D	20		10	U	4.2	U	85		71	DJ
Phenol	1	µg/L	1	J	100	U	0.34	J	10	U	4.2	U	2	J	200	U
Pyrene	50	µg/L	29		32	DJ	16	J	10	U	4.2	U	48		38	DJ
1,2,4- Trichlorobenzene	5	µg/L	10	U	100	U	4.2	U	10	U	4.2	U	10	U	200	U
2,4,5-trichlorophenol	--	µg/L	20	U	200	U	10	U	20	U	10	U	20	U	400	U
2,4,6- Trichlorophenol	--	µg/L	10	U	100	U	4.2	U	10	U	4.2	U	10	U	200	U
<b>Total PAHs</b>	--	µg/L	1519	J	1846	DJ	167	J	ND		ND	ND	1585	J	1668	J
<b>Total SVOCs</b>	--	µg/L	1683		2026		201.77		ND		ND		1716		1769	

See notes on page 3.

**Table 7**  
**Groundwater Analytical Results – Semivolatile Organic Compounds**

**Remedial Action Work Plan  
Consolidated Edison Company of New York, Inc.  
West 42nd Street Former MGP Site  
New York, New York**

**Notes:**

Bold and shaded values exceed NYSDEC GA screening criteria.

1. Qualifiers are as follows:

- B Analyte was also detected in the associated method blank.
- D The reported concentration is based on a diluted sample analysis.
- E Indicates a value estimated or not reported due to the presence of interferences.
- J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.
- N Indicates that spike sample recovery is not within the quality control limits.
- R The reported concentration was rejected.
- U The analyte was analyzed for, but not detected. The associated value is the analyte quantitation limit.

2. Screening levels for class GA groundwater were provided in NYSDEC Technical and Operational Guidance Series 1.1.1 for Groundwater.

3. Sample IDs that end in the letters DL indicate that the original sample extraction was diluted to be able to report a value for one or more constituents being analyzed for.

µg/L = micrograms per liter

NA = Not analyzed

NYSDEC = New York State Department of Environmental Conservation

PAHs = polycyclic aromatic hydrocarbons

SVOCs = Semi-volatile organic compounds

Total PAHs = represents the summation of 17 Target Compound List PAHs.

SVOCs = Semivolatile organic compounds

**Table 8**  
**Groundwater Analytical Results – Metals and Cyanide**

**Remedial Action Work Plan**  
**Consolidated Edison Company of New York, Inc.**  
**West 42nd Street Former MGP Site**  
**New York, New York**

Location ID: Date Collected: Sample Name:	NYSDE C GA	Units	MW-07 03/19/05 MW-07	MW-07 03/07/11 MW-07	MW-08 03/19/05 MW-08	MW-08 03/05/11 MW-08	MW-09 03/18/05 MW-09	MW-09 03/01/11 MW-09	MW-09-DUP 03/01/11 REP 3-1-11	MW-10 03/18/05 MW-10	MW-10 03/01/11 MW-10	MW-11 07/29/10 MW-11
<b>Metals</b>												
Aluminum	--	µg/L	NA	769 J	NA	127 J	NA	199 J	205 J	NA	327	101 J
Antimony	3	µg/L	NA	75 U	NA	10 J	NA	15 U	15 U	NA	15 U	15 U
Arsenic	25	µg/L	6.8 B	75 U	1.6 U	9.1 J	8.6 B	15 U	15 U	2.6 B	15 U	15 U
Barium	1,000	µg/L	216	801	164 B	190	72 B	94.3	93.6	60.9 B	72.3	422
Beryllium	3	µg/L	NA	25 U	NA	5 U	NA	5 U	5 U	NA	5 U	5 U
Cadmium	5	µg/L	0.1 U	25 U	0.1 U	5 U	0.1 U	5 U	5 U	0.1 U	5 U	5 U
Calcium	--	µg/L	NA	692,000	NA	375,000	NA	187,000	184,000	NA	185,000	287,000
Chromium	50	µg/L	3.4 B	25 U	0.38 U	1.3 J	2 B	5 U	5 U	1.1 B	5 U	5 U
Cobalt	--	µg/L	NA	25 UB	NA	5 UB	NA	2.4 J	1.2 J	NA	1.2 J	5 U
Copper	--	µg/L	NA	21.2 J	NA	14.6	NA	7.9 J	6.3 J	NA	12.2	2.4 J
Iron	300	µg/L	NA	4,060	NA	356	NA	956	929	NA	455	11,100
Lead	25	µg/L	12.7	75 U	29.9	13.1 J	36.1	15 U	15 U	20.8	9.8 J	15 U
Magnesium	35,000	µg/L	NA	168,000	NA	43,700	NA	362,000	357,000	NA	329,000	39,100
Manganese	300	µg/L	NA	471	NA	15.5	NA	65.6	69.6	NA	124	1,330
Mercury	0.7	µg/L	NA	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U
Nickel	100	µg/L	NA	7.4 J	NA	3.3 J	NA	5 U	1.8 J	NA	4.5 J	5 U
Potassium	--	µg/L	NA	102,000	NA	30,800	NA	176,000	173,000	NA	159,000	59,400
Selenium	10	µg/L	NA	190 UJ	NA	28.8 J	NA	38 U	38 U	NA	38 U	38 U
Silver	50	µg/L	NA	25 U	NA	5 U	NA	5 U	5 U	NA	5 U	5 U
Sodium	20,000	µg/L	NA	9,660,000	NA	612,000	NA	3,920,000	3,820,000	NA	3,520,000	842,000
Thallium	1	µg/L	NA	75 UJ	NA	15 U	NA	15 U	15 U	NA	15 U	15 U
Vanadium	--	µg/L	NA	23 J	NA	1.9 J	NA	5 U	5 U	NA	15.4	3.9 J
Zinc	2,000	µg/L	NA	125 U	NA	24 J	NA	25 U	25 U	NA	28.5	25 U
<b>Dissolved Metals</b>												
Aluminum	--	µg/L	1,740	NA	115 B	NA	687	NA	NA	300	NA	NA
Antimony	3	µg/L	11.6 B	NA	4 B	NA	16.5 B	NA	NA	14.3 B	NA	NA
Beryllium	3	µg/L	0.15 U	NA	0.15 U	NA	0.15 U	NA	NA	0.15 U	NA	NA
Calcium	--	µg/L	189,000 E	NA	232,000 E	NA	160,000 E	NA	NA	144,000 E	NA	NA
Cobalt	--	µg/L	1.2 B	NA	0.97 B	NA	0.61 B	NA	NA	0.33 B	NA	NA
Copper	200	µg/L	6.3 U	NA	12.1 B	NA	6.3 U	NA	NA	6.3 U	NA	NA
Iron	300	µg/L	3,630	NA	791	NA	1,500	NA	NA	558	NA	NA
Magnesium	35,000	µg/L	228,000 E	NA	32,000 E	NA	367,000 E	NA	NA	353,000 E	NA	NA
Manganese	300	µg/L	226 E	NA	214 E	NA	133 E	NA	NA	91.6 E	NA	NA
Mercury	0.7	µg/L	0.066 U	NA	0.076 B	NA	0.19 B	NA	NA	0.064 U	NA	NA
Nickel	100	µg/L	2.7 B	NA	2.7 B	NA	0.92 B	NA	NA	2.8 B	NA	NA
Potassium	--	µg/L	108,000 E	NA	31,400 E	NA	169,000 E	NA	NA	161,000 E	NA	NA
Selenium	10	µg/L	0.98 U	NA	0.98 U	NA	0.98 U	NA	NA	0.98 U	NA	NA
Silver	50	µg/L	23.8 B	NA	16.2 B	NA	19.9 B	NA	NA	19.1 B	NA	NA
Sodium	20,000	µg/L	3,760,000 E	NA	1,110,000 E	NA	6,530,000 E	NA	NA	4,220,000 E	NA	NA
Thallium	1	µg/L	1.2 UN	NA	1.2 UN	NA	1.2 UN	NA	NA	1.2 UN	NA	NA
Vanadium	--	µg/L	4.2 B	NA	1.6 B	NA	1.5 B	NA	NA	5.7 B	NA	NA
Zinc	2,000	µg/L	87	NA	8.4 B	NA	2.3 U	NA	NA	2.3 U	NA	NA
<b>Total Cyanide</b>												
Cyanide – total	200	µg/L	39.9	63.6	298	194	9.1 U	11.3	12.3	9.1 U	10	37.6

See notes on page 2.

**Table 8**  
**Groundwater Analytical Results – Metals and Cyanide**

**Remedial Action Work Plan**  
**Consolidated Edison Company of New York, Inc.**  
**West 42nd Street Former MGP Site**  
**New York, New York**

**Notes:**

Bold and shaded values exceed NYSDEC GA screening criteria.

1. Qualifiers are as follows:

- B Indicates an estimated value between the instrument detection limit and practical quantitation limit.
- D The reported concentration is based on a diluted sample analysis.
- E Indicates a value estimated or not reported due to the presence of interferences.
- J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.
- N Indicates that spike sample recovery is not within the quality control limits.
- U The analyte was analyzed for, but not detected. The associated value is the analyte quantitation limit.
- \* Indicates analysis is not within the quality control limits.

2. Screening levels for class GA groundwater were provided in NYSDEC Technical and Operational Guidance Series 1.1.1 for Groundwater.

3. Sample IDs that end in the letters DL indicate that the original sample extraction was diluted to be able to report a value for one or more constituents being analyzed for.

µg/L = micrograms per liter

NA = Not analyzed

NYSDEC = New York State Department of Environmental Conservation

-- = criteria not identified

**Table 9**  
**Sediment Analytical Results – Volatile Organic Compounds**

**Remedial Action Work Plan**  
**Consolidated Edison Company of New York, Inc.**  
**West 42nd Street Former MGP Site**  
**New York, New York**

Location ID: Sample Depth (feet): Date Collected:	Units	Benthic Aquatic Life	Benthic Aquatic Life	SD-01 0 - 0.5 02/27/08	SD-02 0 - 0.5 02/29/08	SD-02A 6 - 9.5 02/29/08	SD-02A 0 - 0.5 02/29/08	SD-02A 5 - 6 02/29/08	SD-02A 10 - 11 02/29/08	SD-03 0 - 0.5 03/03/08	SD-03 8 - 12 03/03/08	SD-04 0 - 0.5 02/28/08	SD-05 0 - 0.5 02/28/08	SD-06 0 - 0.5 02/28/08	SD-06-DUP 0 - 0.5 02/28/08
Acetone (2-propanone, dimethyl ketone)	mg/kg	--	--	0.052 UJ	0.048 UJ	0.1 J	0.053 UJ	0.047 UJ	0.078 J	0.038 UJ	0.077 UJ	0.053 UJ	0.091 J	0.13 J	0.092 J
Benzene	mg/kg	0.09	0.026	0.0088 U	0.011 U	0.012	0.011 U	0.011 U	0.011 U	0.0094 U	0.011 U	0.013 U	0.012 U	0.01 U	0.01 U
4-bromofluorobenzene	mg/kg	--	--	0.021	0.024	0.033	0.023	0.023	0.038	0.058	0.032	0.033	0.036	0.032	0.039
Bromoform	mg/kg	--	--	0.0088 UJ	0.011 UJ	0.011 UJ	0.011 UJ	0.011 UJ	0.011 UJ	0.0094 U	0.011 U	0.013 UJ	0.012 UJ	0.01 UJ	0.01 UJ
Bromomethane/methyl bromide	mg/kg	--	--	0.0088 UJ	0.011 UJ	0.011 UJ	0.011 UJ	0.011 UJ	0.011 UJ	0.0094 U	0.011 U	0.013 UJ	0.012 UJ	0.01 UJ	0.01 UJ
2-butanone (methyl ethyl ketone)	mg/kg	--	--	0.018 U	0.023 U	0.028 U	0.021 U	0.022 U	0.021 J	0.019 UJ	0.021 UJ	0.026 U	0.023 U	0.028 U	0.02 U
Carbon disulfide	mg/kg	--	--	0.0088 UJ	0.011 UJ	0.0035 J	0.0028 J	0.011 UJ	0.0031 J	0.0094 U	0.011 UJ	0.013 UJ	0.012 U	0.01 U	0.01 U
Carbon tetrachloride	mg/kg	--	--	0.0088 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.0094 U	0.011 U	0.013 U	0.012 U	0.01 U	0.01 U
Chlorobenzene	mg/kg	0.0346	0.0035	0.0088 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.0094 U	0.011 U	0.013 U	0.012 U	0.01 U	0.01 U
Chlorodibromomethane	mg/kg	--	--	0.0088 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.0094 U	0.011 U	0.013 U	0.012 U	0.01 U	0.01 U
Chloroethane	mg/kg	--	--	0.0088 UJ	0.011 UJ	0.011 UJ	0.011 UJ	0.011 UJ	0.011 UJ	0.0094 U	0.011 UJ	0.013 UJ	0.012 UJ	0.01 UJ	0.01 UJ
Chloroform	mg/kg	--	--	0.0088 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.0094 U	0.011 U	0.013 U	0.012 U	0.01 U	0.01 U
Chloromethane (methyl chloride)	mg/kg	--	--	0.0088 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.0094 U	0.011 U	0.013 U	0.012 U	0.01 U	0.01 U
cis-1,3-dichloro, 1-propene	mg/kg	--	--	0.0088 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.0094 U	0.011 U	0.013 U	0.012 U	0.01 U	0.01 U
Dichlorobromomethane	mg/kg	--	--	0.0088 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.0094 U	0.011 U	0.013 U	0.012 U	0.01 U	0.01 U
1,1-dichloroethane	mg/kg	--	--	0.0088 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.0094 U	0.011 U	0.013 U	0.012 U	0.01 U	0.01 U
1,2-Dichloroethane	mg/kg	--	--	0.0088 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.0094 U	0.011 U	0.013 U	0.012 U	0.01 U	0.01 U
cis-1,2-dichloroethene	mg/kg	--	--	0.0088 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.0094 U	0.011 U	0.013 U	0.012 U	0.01 U	0.01 U
trans-1,2-dichloroethene	mg/kg	--	--	0.0088 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.0094 U	0.011 U	0.013 U	0.012 U	0.01 U	0.01 U
1,1-dichloroethylene	mg/kg	--	--	0.0088 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.0094 U	0.011 U	0.013 U	0.012 U	0.01 U	0.01 U
Dichloromethane	mg/kg	--	--	0.035 U	0.046 U	0.043 U	0.042 U	0.045 U	0.046 U	0.038 U	0.043 UJ	0.053 U	0.046 U	0.04 U	0.041 U
1,2-dichloropropane	mg/kg	--	--	0.0088 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.0094 U	0.011 U	0.013 U	0.012 U	0.01 U	0.01 U
trans-1,3-dichloropropene	mg/kg	--	--	0.0088 UJ	0.011 UJ	0.011 UJ	0.011 UJ	0.011 UJ	0.011 UJ	0.0094 U	0.011 U	0.013 UJ	0.012 UJ	0.01 UJ	0.01 UJ
Ethyl benzene	mg/kg	0.058	0.0064	0.0088 U	0.011 U	0.0045 J	0.011 U	0.011 U	0.011 U	0.0094 U	0.011 U	0.013 U	0.012 U	0.01 U	0.01 U
Methyl isobutyl ketone	mg/kg	--	--	0.0088 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.0094 U	0.011 U	0.013 U	0.012 U	0.01 U	0.01 U
Styrene	mg/kg	--	--	0.0088 UJ	0.011 UJ	0.011 UJ	0.011 UJ	0.011 UJ	0.011 UJ	0.0094 U	0.011 U	0.013 UJ	0.012 UJ	0.01 UJ	0.01 UJ
1,1,2,2-tetrachloroethane	mg/kg	--	--	0.0088 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.0094 U	0.011 U	0.013 U	0.012 U	0.01 U	0.01 U
Tetrachloroethene (perchloroethylene)	mg/kg	--	--	0.0088 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.0094 U	0.011 U	0.013 U	0.012 U	0.01 U	0.01 U
Toluene	mg/kg	0.211	0.045	0.0088 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.0094 U	0.011 U	0.013 U	0.012 U	0.01 U	0.01 U
1,1,1-trichloroethane (methyl chloroform)	mg/kg	--	--	0.0088 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.0094 U	0.011 U	0.013 U	0.012 U	0.01 U	0.01 U
1,1,2-trichloroethane	mg/kg	--	--	0.0088 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.0094 U	0.011 U	0.013 U	0.012 U	0.01 U	0.01 U
Trichloroethylene (trichloroethylene)	mg/kg	--	--	0.0088 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.0094 U	0.011 U	0.013 U	0.012 U	0.01 U	0.01 U
Vinyl chloride (chloroethylene)	mg/kg	--	--	0.0088 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.0094 U	0.011 U	0.013 U	0.012 U	0.01 U	0.01 U
Xylene, total	mg/kg	0.24	0.027	0.0088 U	0.011 U	0.012	0.011 U	0.011 U	0.011 U	0.0056 J	0.011 U	0.013 U	0.012 U	0.01 U	0.01 U
Total BTEX	mg/kg				ND	ND	0.029	ND	ND	ND	0.0056	ND	ND	ND	ND
Total VOCS	mg/kg				ND	ND	0.132	0.003	ND	0.102	0.0056	ND	ND	0.091	0.13

**Notes:**

1. Screening levels are Benthic aquatic life criteria from Table 1 of the NYSDEC (1999) guidance (criteria in ug/gOC).

2. Results for duplicate samples are presented in brackets.

3. Qualifiers are as follows:

D = compound quantitated using a secondary dilution

J = estimated value

U = compound was analyzed for but not detected; the associated value is the compound quantitation limit.

mg/kg = milligrams per kilogram

NYSDEC = New York State Department of Environmental Conservation

-- = not applicable.

BTEX= benzene, toluene, ethylbenzene, and xylenes

ND= Not detected

**Table 10**  
**Sediment Analytical Results – Semivolatile Organic Compounds**

**Remedial Action Work Plan**  
**Consolidated Edison Company of New York, Inc.**  
**West 42nd Street Former MGP Site**  
**New York, New York**

Location ID: Sample Depth(Feet): Date Collected:	Units	NYSDEC ER-L <b>(Bold)</b>	NYSDEC ER-M <b>(Shade)</b>	SD-01 0 - 0.5 02/27/08	SD-02 0 - 0.5 02/29/08	SD-02 6 - 9.5 02/29/08	SD-02A 0 - 0.5 02/29/08	SD-02A 5 - 6 02/29/08	SD-02A 10 - 11 02/29/08	SD-03 0 - 0.5 03/03/08	SD-03 8 - 12 03/03/08	SD-04 0 - 0.5 02/28/08	SD-05 0 - 0.5 02/28/08	SD-06 0 - 0.5 02/28/08	SD-06-DUP 0 - 0.5 02/28/08
Acenaphthene	mg/kg	0.016	0.5	0.58 U	0.72 U	<b>4.6</b>	0.69 U	0.73 U	0.72 U	0.62 U	<b>0.13 J</b>	<b>0.34 J</b>	0.75 U	0.64 U	0.64 U
Acenaphthylene	mg/kg	0.044	0.64	<b>0.16 J</b>	<b>0.23 J</b>	3.6	<b>0.36 J</b>	<b>0.24 J</b>	<b>0.21 J</b>	<b>0.18 J</b>	<b>0.17 J</b>	<b>0.32 J</b>	<b>0.15 J</b>	<b>0.17 J</b>	<b>0.14 J</b>
Anthracene	mg/kg	0.0853	1.1	<b>0.2 J</b>	<b>0.27 J</b>	<b>9.8</b>	<b>0.41 J</b>	<b>0.32 J</b>	<b>0.3 J</b>	<b>0.2 J</b>	<b>0.33 J</b>	<b>0.41 J</b>	<b>0.23 J</b>	<b>0.22 J</b>	<b>0.27 J</b>
Benzo (a) anthracene	mg/kg	0.261	1.6	<b>0.47 J</b>	<b>0.83</b>	<b>13 D</b>	<b>0.92</b>	<b>0.63 J</b>	<b>0.53 J</b>	<b>0.52 J</b>	<b>0.7</b>	<b>0.94</b>	<b>0.48 J</b>	<b>0.47 J</b>	<b>0.6 J</b>
Benzo (a) pyrene	mg/kg	0.43	1.6	<b>0.51 J</b>	<b>0.86</b>	<b>11 D</b>	<b>0.87</b>	<b>0.66 J</b>	<b>0.54 J</b>	<b>0.53 J</b>	<b>0.61 J</b>	<b>0.85</b>	0.43 J	<b>0.49 J</b>	<b>0.58 J</b>
Benzo (b) fluoranthene	mg/kg	--	--	0.59	0.91	11 D	0.95	0.74	0.6 J	0.61 J	0.73	0.97	0.52 J	0.52 J	0.66
Benzo (g,h,i) perylene	mg/kg	--	--	0.42 J	0.64 J	5.8	0.51 J	0.43 J	0.35 J	0.46 J	0.64 J	0.55 J	0.35 J	0.38 J	0.38 J
Benzo (k) fluoranthene	mg/kg	--	--	0.2 J	0.3 J	4.3	0.31 J	0.26 J	0.2 J	0.27 J	0.29 J	0.31 J	0.15 J	0.2 J	0.18 J
Benzyl alcohol	mg/kg	--	--	0.58 U	0.72 U	0.69 U	0.69 U	0.73 U	0.72 U	0.62 U	0.68 U	0.85 U	0.75 U	0.64 U	0.64 U
Bis-(2-chloroethoxy) methane	mg/kg	--	--	0.58 U	0.72 U	0.69 U	0.69 U	0.73 U	0.72 U	0.62 U	0.68 U	0.85 U	0.75 U	0.64 U	0.64 U
Bis-(2-chloroethyl) ether	mg/kg	--	--	0.58 U	0.72 U	0.69 U	0.69 U	0.73 U	0.72 U	0.62 U	0.68 U	0.85 U	0.75 U	0.64 U	0.64 U
Bis-(2-ethylhexyl) phthalate	mg/kg	--	--	0.69	0.87	2.9	1.3	2.6	4	1.2 U	5.4 U	1.1	0.76	0.64 J	0.71
4-bromophenyl phenyl ether	mg/kg	--	--	0.58 U	0.72 U	0.69 U	0.69 U	0.73 U	0.72 U	0.62 U	0.68 U	0.85 U	0.75 U	0.64 U	0.64 U
Butylbenzylphthalate	mg/kg	--	--	0.58 U	0.1 J	0.14 J	0.098 J	0.11 J	0.12 J	0.62 U	0.13 J	0.85 U	0.75 U	0.64 U	0.64 U
Carbazole	mg/kg	--	--	0.58 U	0.72 U	0.66 J	0.69 U	0.73 U	0.72 U	0.62 U	0.68 U	0.85 U	0.75 U	0.64 U	0.64 U
4-chloro-3-methylphenol	mg/kg	--	--	0.58 U	0.72 U	0.69 U	0.69 U	0.73 U	0.72 U	0.62 U	0.68 U	0.85 U	0.75 U	0.64 U	0.64 U
4-chloroaniline	mg/kg	--	--	0.58 U	0.72 U	0.25 J	0.11 J	0.17 J	0.44 J	0.62 U	0.16 J	0.85 U	0.75 U	0.64 U	0.64 U
2-chloronaphthalene	mg/kg	--	--	0.58 U	0.72 U	0.69 U	0.69 U	0.73 U	0.72 U	0.62 U	0.68 U	0.85 U	0.75 U	0.64 U	0.64 U
2-chlorophenol	mg/kg	--	--	0.58 U	0.72 U	0.69 U	0.69 U	0.73 U	0.72 U	0.62 U	0.68 U	0.85 U	0.75 U	0.64 U	0.64 U
4-chlorophenyl-phenylether	mg/kg	--	--	0.58 U	0.72 U	0.69 U	0.69 U	0.73 U	0.72 U	0.62 U	0.68 U	0.85 U	0.75 U	0.64 U	0.64 U
Chrysene	mg/kg	0.384	2.8	<b>0.54 J</b>	<b>0.81</b>	<b>11 D</b>	<b>0.87</b>	<b>0.69 J</b>	<b>0.55 J</b>	<b>0.53 J</b>	<b>0.68 J</b>	<b>0.98</b>	<b>0.47 J</b>	<b>0.48 J</b>	<b>0.62 J</b>
Dibenzo (a,h) anthracene	mg/kg	0.0634	0.26	<b>0.33 J</b>	<b>0.44 J</b>	<b>1.5</b>	<b>0.47 J</b>	<b>0.4 J</b>	<b>0.38 J</b>	<b>0.11 J</b>	<b>0.14 J</b>	<b>0.49 J</b>	<b>0.38 J</b>	<b>0.34 J</b>	<b>0.36 J</b>
Dibenzofuran	mg/kg	--	--	0.58 U	0.72 U	2.1	0.69 U	0.73 U	0.72 U	0.62 U	0.68 U	0.85 U	0.75 U	0.64 U	0.64 U
Dibutyl phthalate	mg/kg	--	--	0.58 U	0.72 U	0.13 J	0.69 U	0.73 U	0.15 J	0.62 U	0.68 U	0.85 U	0.75 U	0.64 U	0.64 U
1,2-dichlorobenzene	mg/kg	--	--	0.58 U	0.72 U	0.69 U	0.69 U	0.73 U	0.72 U	0.62 U	0.68 U	0.85 U	0.75 U	0.64 U	0.64 U
1,3-dichlorobenzene	mg/kg	--	--	0.58 U	0.72 U	0.69 U	0.69 U	0.73 U	0.72 U	0.62 U	0.68 U	0.85 U	0.75 U	0.64 U	0.64 U
1,4-dichlorobenzene	mg/kg	--	--	0.58 U	0.72 U	0.14 J	0.69 U	0.73 U	0.72 U	0.62 U	0.68 U	0.85 U	0.75 U	0.64 U	0.64 U
3,3'-dichlorobenzidine	mg/kg	--	--	1.2 U	1.4 U	1.4 U	1.4 U	1.5 U	1.4 U	1.2 U	1.4 U	1.7 U	1.5 U	1.3 U	1.3 U
2,4-dichlorophenol	mg/kg	--	--	0.58 U	0.72 U	0.69 U	0.69 U	0.73 U	0.72 U	0.62 U	0.68 U	0.85 U	0.75 U	0.64 U	0.64 U
Diethylphthalate	mg/kg	--	--	0.58 U	0.72 U	0.69 U	0.69 U	0.73 U	0.72 U	0.62 U	0.68 U	0.85 U	0.75 U	0.64 U	0.64 U
2,4-dimethylphenol	mg/kg	--	--	0.58 U	0.72 U	0.69 U	0.69 U	0.73 U	0.72 U	0.62 U	0.68 U	0.85 U	0.75 U	0.64 U	0.64 U
Dimethylphthalate	mg/kg	--	--	0.58 U	0.72 U	0.69 U	0.69 U	0.73 U	0.72 U	0.62 U	0.68 U	0.85 U	0.75 U	0.64 U	0.64 U
4,6-dinitro-2-methylphenol	mg/kg	--	--	2.8 U	3.5 U	3.3 U	3.3 U	3.6 U	3.5 U	3 U	3.3 U	4.1 U	3.6 U	3.1 U	3.1 U
2,4-dinitrophenol	mg/kg	--	--	2.8 U	3.5 U	3.3 U	3.3 U	3.6 U	3.5 U	3 U	3.3 U	4.1 U	3.6 U	3.1 U	3.1 U
2,4-dinitrotoluene	mg/kg	--	--	0.58 U	0.72 U	0.69 U	0.69 U	0.73 U	0.72 U	0.62 U	0.68 U	0.85 U	0.75 U	0.64 U	0.64 U
2,6-dinitrotoluene	mg/kg	--	--	0.58 U	0.72 U	0.69 U	0.69 U	0.73 U	0.72 U	0.62 U	0.68 U	0.85 U	0.75 U	0.64 U	0.64 U
dioctyl phthalate	mg/kg	--	--	0.58 U	0.72 U	0.69 U	0.69 U	0.73 U	0.72 U	0.62 U	0.68 U	0.85 U	0.75 U	0.64 U	0.64 U
Fluoranthene	mg/kg	0.6	5.1	<b>0.65</b>	<b>1</b>	<b>28 D</b>	<b>1.3</b>	<b>0.91</b>	<b>0.76</b>	<b>0.7</b>	<b>1</b>	<b>1.9</b>	<b>1.1</b>	<b>0.66</b>	<b>0.84</b>
Fluorene	mg/kg	0.019	0.54	0.58 U	0.72 U	<b>3.6</b>	0.69 U	0.73 U	0.72 U	0.62 U	<b>0.14 J</b>	<b>0.17 J</b>	0.75 U	0.64 U	0.64 U

**Table 10**  
**Sediment Analytical Results – Semivolatile Organic Compounds**

**Remedial Action Work Plan**  
**Consolidated Edison Company of New York, Inc.**  
**West 42nd Street Former MGP Site**  
**New York, New York**

Location ID: Sample Depth(Feet): Date Collected:	Units	NYSDEC ER-L (Bold)	NYSDEC ER-M (Shade)	SD-01 0 - 0.5 02/27/08	SD-02 0 - 0.5 02/29/08	SD-02 6 - 9.5 02/29/08	SD-02A 0 - 0.5 02/29/08	SD-02A 5 - 6 02/29/08	SD-02A 10 - 11 02/29/08	SD-03 0 - 0.5 03/03/08	SD-03 8 - 12 03/03/08	SD-04 0 - 0.5 02/28/08	SD-05 0 - 0.5 02/28/08	SD-06 0 - 0.5 02/28/08	SD-06-DUP 0 - 0.5 02/28/08
Hexachlorobenzene	mg/kg	--	--	0.58 U	0.72 U	0.69 U	0.69 U	0.73 U	0.72 U	0.62 U	0.68 U	0.85 U	0.75 U	0.64 U	0.64 U
Hexachlorobutadiene	mg/kg	--	--	0.58 U	0.72 U	0.69 U	0.69 U	0.73 U	0.72 U	0.62 U	0.68 U	0.85 U	0.75 U	0.64 U	0.64 U
Hexachloroethane	mg/kg	--	--	0.58 U	0.72 U	0.69 U	0.69 U	0.73 U	0.72 U	0.62 U	0.68 U	0.85 U	0.75 U	0.64 U	0.64 U
Hexachlorocyclopentadiene	mg/kg	--	--	0.58 U	0.72 U	0.69 U	0.69 U	0.73 U	0.72 U	0.62 U	0.68 U	0.85 U	0.75 U	0.64 U	0.64 U
Indeno (1,2,3-cd)pyrene	mg/kg	--	--	0.75	1.1	6.7	1	0.86	0.78	0.5 J	0.7	1.1	0.78	0.73	0.77
Isophorone	mg/kg	--	--	0.58 U	0.72 U	0.69 U	0.69 U	0.73 U	0.72 U	0.62 U	0.68 U	0.85 U	0.75 U	0.64 U	0.64 U
2-methyl phenol	mg/kg	--	--	0.58 U	0.72 U	0.69 U	0.69 U	0.73 U	0.72 U	0.62 U	0.68 U	0.85 U	0.75 U	0.64 U	0.64 U
2-methylnaphthalene	mg/kg	0.07	0.67	0.58 U	0.72 U	2	0.69 U	0.73 U	0.14 J	0.62 U	0.13 J	0.85 U	0.75 U	0.64 U	0.64 U
4-methylphenol (p-cresol)	mg/kg	--	--	0.58 U	0.72 U	0.64 J	0.69 U	0.73 U	0.72 U	0.62 U	0.68 U	0.85 U	0.75 U	0.64 U	0.64 U
Naphthalene	mg/kg	0.16	2.1	0.09 J	0.14 J	4.9	0.69 U	0.16 J	0.18 J	0.098 J	0.2 J	0.85 U	0.75 U	0.64 U	0.64 U
3-nitroaniline	mg/kg	--	--	2.8 U	3.5 U	3.3 U	3.3 U	3.6 U	3.5 U	3 U	3.3 U	4.1 U	3.6 U	3.1 U	3.1 U
3-nitroaniline	mg/kg	--	--	2.8 U	3.5 U	3.3 U	3.3 U	3.6 U	3.5 U	3 U	3.3 U	4.1 U	3.6 U	3.1 U	3.1 U
4-nitroaniline	mg/kg	--	--	1.2 U	1.4 U	1.4 U	1.4 U	1.5 U	1.4 U	1.2 U	1.4 U	1.7 U	1.5 U	1.3 U	1.3 U
Nitrobenzene	mg/kg	--	--	0.58 U	0.72 U	0.69 U	0.69 U	0.73 U	0.72 U	0.62 U	0.68 U	0.85 U	0.75 U	0.64 U	0.64 U
3-nitrophenol	mg/kg	--	--	0.58 U	0.72 U	0.69 U	0.69 U	0.73 U	0.72 U	0.62 U	0.68 U	0.85 U	0.75 U	0.64 U	0.64 U
4-nitrophenol	mg/kg	--	--	2.8 U	3.5 U	3.3 U	3.3 U	3.6 U	3.5 U	3 U	3.3 U	4.1 U	3.6 U	3.1 U	3.1 U
N-nitrosodi-n-propylamine	mg/kg	--	--	0.58 U	0.72 U	0.69 U	0.69 U	0.73 U	0.72 U	0.62 U	0.68 U	0.85 U	0.75 U	0.64 U	0.64 U
N-nitrosodi-phenylamine	mg/kg	--	--	0.58 U	0.72 U	0.69 U	0.69 U	0.73 U	0.72 U	0.62 U	0.68 U	0.85 U	0.75 U	0.64 U	0.64 U
2,2-oxybis (1-chloropropane)	mg/kg	--	--	0.58 U	0.72 U	0.69 U	0.69 U	0.73 U	0.72 U	0.62 U	0.68 U	0.85 U	0.75 U	0.64 U	0.64 U
Pentachlorophenol	mg/kg	--	--	2.8 U	3.5 U	3.3 U	3.3 U	3.6 U	3.5 U	3 U	3.3 U	4.1 U	3.6 U	3.1 U	3.1 U
Phenanthrene	mg/kg	0.24	1.5	0.32 J	0.44 J	26 D	0.49 J	0.4 J	0.45 J	0.33 J	0.5 J	0.49 J	0.36 J	0.26 J	0.38 J
Phenol	mg/kg	--	--	0.58 U	0.72 U	0.14 J	0.69 U	0.73 U	0.72 U	0.62 U	0.68 U	0.85 U	0.75 U	0.64 U	0.64 U
Pyrene	mg/kg	0.665	2.6	0.75	1.3	26 D	1.2	0.92	0.78	0.87	1.1	1.5	0.9	0.73	0.8
1,2,4-trichlorobenzene	mg/kg	--	--	0.58 U	0.72 U	0.69 U	0.69 U	0.73 U	0.72 U	0.62 U	0.68 U	0.85 U	0.75 U	0.64 U	0.64 U
2,4,5-trichlorophenol	mg/kg	--	--	2.8 U	3.5 U	3.3 U	3.3 U	3.6 U	3.5 U	3 U	3.3 U	4.1 U	3.6 U	3.1 U	3.1 U
2,4,6-trichlorophenol	mg/kg	--	--	0.58 U	0.72 U	0.69 U	0.69 U	0.73 U	0.72 U	0.62 U	0.68 U	0.85 U	0.75 U	0.64 U	0.64 U
Total PAHs	mg/kg	4.022	44.792	5.98 J	9.27 J	172.8	9.66 J	7.62 J	6.75 J	5.9 J	8.19 J	11.3 J	6.30 J	5.65 J	6.58 J
Total SVOCs	mg/kg			6.67	10.24	179.9	11.17	10.5	11.46	5.9	8.48	12.4	7.06	6.29	7.29

**Notes:**

1. Screening levels are E-RL (chronic criteria) and ER-M (acute criteria) from Table 4 of the NYSDEC (1999) Technical Guidance for Screening

2. Results for duplicate samples are presented in brackets.

3. Qualifiers are as follows:

D = compound quantitated using a secondary dilution

J = estimated value

U = compound was analyzed for but not detected; the associated value is the compound quantitation limit.

ER-L = effects range-low

ER-M = effects range-median

LEL = lowest effect level

mg/kg = milligrams per kilogram

NYSDEC = New York State Department of Environmental Conservation

-- = not applicable.

PAH = polycyclic aromatic hydrocarbon

Total PAHs = represents the summation of 17 TCL PAHs

**Table 11**  
**Sediment Analytical Results – Metals and Cyanide**

**Remedial Action Work Plan**  
**Consolidated Edison Company of New York, Inc.**  
**West 42nd Street Former MGP Site**  
**New York, New York**

Location ID: Sample Depth (feet): Date Collected:	Units	NYSDEC LEL (Bold)	NYSDEC SEL (Shaded)	SD-01 0 - 0.5 02/27/08	SD-02 0 - 0.5 02/29/08	SD-02 6 - 9.5 02/29/08	SD-02A 0 - 0.5 02/29/08	SD-02A 5 - 6 02/29/08	SD-02A 10 - 11 02/29/08	SD-03 0 - 0.5 03/03/08	SD-03 8 - 12 03/03/08	SD-04 0 - 0.5 02/28/08	SD-05 0 - 0.5 02/28/08	SD-06 0 - 0.5 02/28/08	SD-06-DUP 0 - 0.5 02/28/08
<b>Metals</b>															
Aluminum	mg/kg	--	--	9,110	12,800	17,100	15,900	19,100	19,800	9,930	16,300	18,200	17,400	13,100	13,300
Antimony	mg/kg	2	25	16.7 U	21.9 U	21.9 U	24.3 U	20.5 U	23.4 U	17.8 U	20 U	22.8 U	19.9 U	17.5 U	22.2 U
Arsenic	mg/kg	6	33	<b>6.5 J</b>	<b>10.1 J</b>	<b>38.5</b>	<b>13</b>	<b>15.1</b>	<b>17.6</b>	4.4 J	<b>12</b>	<b>14.5</b>	<b>12</b>	<b>9.4</b>	<b>10 J</b>
Barium	mg/kg	--	--	48.5	70.8	369	79.4	98.3	116	49.6	85.2	76	74.7	55.1	56.8
Beryllium	mg/kg	--	--	2.3 U	3.1 U	1.1 J	3.4 U	1.1 J	1.1 J	2.5 U	2.8 U	1.1 J	1 J	2.4 U	3.1 U
Cadmium	mg/kg	0.6	9	8.4 U	11 U	<b>7.4 J</b>	12.2 U	<b>2.7 J</b>	<b>4.9 J</b>	8.9 U	10 U	11.4 U	10 U	8.7 U	11.1 U
Calcium	mg/kg	--	--	4,420	6,450	7,250	6,490	5,710	6,880	4,850	5,980	5,410	7,230	5,350	5,130
Chromium	mg/kg	26	110	<b>40.4 J</b>	<b>78.5</b>	<b>143</b>	<b>84.1</b>	<b>142</b>	<b>221</b>	<b>47.1</b>	<b>145</b>	<b>83.5</b>	<b>80.6 J</b>	<b>54.2 J</b>	<b>50</b>
Cobalt	mg/kg	--	--	8.8 J	14.4	13.6	11.8	13.9	14.2	8.8	14	13.2	14 J	11.1 J	10.7
Copper	mg/kg	16	110	<b>48.6</b>	<b>93.6</b>	<b>413</b>	<b>118</b>	<b>195</b>	<b>292</b>	<b>57.7</b>	<b>177</b>	<b>117</b>	<b>101</b>	<b>65.9</b>	<b>61.6</b>
Iron	mg/kg	2%	4%	19,900	<b>28,200</b>	<b>43,000</b>	<b>32,600</b>	<b>38,200</b>	<b>39,200</b>	<b>23,100</b>	<b>37,600</b>	<b>36,800</b>	<b>34,900</b>	<b>27,400</b>	<b>28,400</b>
Lead	mg/kg	31	110	<b>53.4</b>	<b>108</b>	<b>668</b>	<b>118</b>	<b>187</b>	<b>230</b>	<b>61.9</b>	<b>166</b>	<b>105</b>	<b>107</b>	<b>65.1</b>	<b>64.8</b>
Magnesium	mg/kg	--	--	5,570	8,040	8,700	8,360	9,450	9,520	6,180	8,630	9,130	8,930	7,120	7,120
Manganese	mg/kg	460	1100	352	<b>551</b>	450	<b>616</b>	<b>689</b>	<b>671</b>	404	<b>677</b>	<b>975</b>	<b>914</b>	<b>612</b>	<b>671</b>
Mercury	mg/kg	0.15	1.3	<b>0.6</b>	<b>0.85</b>	<b>29.9</b>	<b>0.83</b>	1.4	2	<b>0.54</b>	<b>1.6</b>	<b>0.98</b>	<b>0.71</b>	<b>0.61</b>	<b>3</b>
Nickel	mg/kg	16	50	<b>21</b>	<b>31</b>	<b>53.4</b>	<b>32.9</b>	<b>40.4</b>	<b>46.1</b>	<b>25.6</b>	<b>39.1</b>	<b>34.4</b>	<b>34.7</b>	<b>27.3</b>	<b>26.2</b>
Potassium	mg/kg	--	--	1,680	2,660	3,400	3,070	3,720	4,000	1,830	3,240	3,520	3,570	2,520	2,380
Selenium	mg/kg	--	--	16.7 U	21.9 U	4.3 J	24.3 U	20.5 U	23.4 U	17.8 U	20 U	22.8 U	19.9 U	17.5 U	22.2 U
Silver	mg/kg	1	2.2	<b>1.5 J</b>	<b>3.8 J</b>	<b>122</b>	<b>4.6 J</b>	<b>10.2</b>	<b>20.2</b>	<b>2 J</b>	<b>9.1</b>	<b>3.8 J</b>	<b>3.5 J</b>	<b>1.9 J</b>	<b>1.8 J</b>
Sodium	mg/kg	--	--	3,920 J	6,340 J	7,670 J	6,730 J	7,980 J	9,490 J	4,570	8,490	9,980 J	8,730 J	6,550 J	5,830 J
Thallium	mg/kg	--	--	11.7 U	15.3 U	15.3 U	17 U	14.4 U	16.4 U	5.3 J	6 J	16 U	13.9 U	12.2 U	15.6 U
Vanadium	mg/kg	--	--	21.9	38.2	53.6	38.2	48.3	54.2	23.8	45.2	41.7	43.2	30.1	29
Zinc	mg/kg	120	270	<b>130 J</b>	<b>214</b>	<b>889</b>	<b>226</b>	<b>311</b>	<b>373</b>	<b>148</b>	<b>289</b>	<b>236</b>	<b>219 J</b>	<b>166 J</b>	<b>159</b>
<b>Total Cyanide</b>															
Total Cyanide	mg/kg	--	--	0.88 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.94 U	1.1 U	1.3 U	1.2 U	1 U	1 U
<b>Total Petroleum Hydrocarbon</b>															
Diesel range organics [c10-c28]	mg/kg	--	--	69	210	2,600	230	700	730	180	710	310	150	140 J	45 J
<b>Miscellaneous</b>															
Percent moisture	%	--	--	43.4	56.1	53.1	52.8	55.2	56.2	46.8	53.3	61.9	56.7	49.9	51.1
Solids, percent	%	--	--	56.6	43.9	46.9	47.2	44.8	43.8	53.2	46.7	38.1	43.3	50.1	48.9
Total organic carbon	mg/kg	--	--	16,500	29,300	74,600	32,100	43,700	43,700	17,900	40,300	47,500	31,600	29,200	27,000

**Notes:**

Constituents detected above LEL are bolded.  
Constituents detected above SEL are shaded.

1. Screening levels are Contaminated Sediments or LEL and SEL from Table 2 of the NYSDEC (1999) guidance.

2. Results for duplicate samples are presented in brackets.

3. Qualifiers are as follows:

D = compound quantitated using a secondary dilution

J = estimated value

U = compound was analyzed for but not detected; the associated value is the compound quantitation limit.

LEL = lowest effect level

mg/kg = milligrams per kilogram

NYSDEC = New York State Department of Environmental Conservation

% = percent

-- = not applicable.

SEL = severe effect level

**Table 12**  
**Surface Water Analytical Results – Volatile Organic Compounds**

**Remedial Action Work Plan**  
**Consolidated Edison Company of New York, Inc.**  
**West 42nd Street Former MGP Site**  
**New York, New York**

Location ID: Date Collected:	State of New York Surface-Water Guidelines	Units	SW-01 03/04/08	SW-02 03/04/08	SW-03 03/04/08	SW-04 03/04/08	SW-05 03/04/08
1,2-dichloroethane	0.6	µg/L	5 U [5 U]	5 U	5 U	5 U	5 U
Acetone (2-propanone, dimethyl ketone)	50 (G)	µg/L	10 UJ [10 UJ]	10 UJ	10 UJ	10 UJ	10 UJ
Benzene	1	µg/L	5 U [5 U]	5 U	5 U	5 U	5 U
Bromoform	50 (G)	µg/L	5 UJ [5 UJ]	5 UJ	5 UJ	5 UJ	5 UJ
Bromomethane/methyl bromide	5	µg/L	5 UJ [5 UJ]	5 UJ	5 UJ	5 UJ	5 UJ
2-butanone (methyl ethyl ketone)	50 (G)	µg/L	10 UJ [10 UJ]	10 U	10 U	10 U	10 UJ
Carbon disulfide	--	µg/L	5 U [5 UJ]	5 U	5 U	5 U	5 UJ
Carbon tetrachloride	5	µg/L	5 U [5 U]	5 U	5 U	5 U	5 U
Chlorobenzene	5	µg/L	5 U [5 UJ]	5 U	5 U	5 U	5 UJ
Chlorodibromomethane	5	µg/L	5 U [5 U]	5 U	5 U	5 U	5 U
Chloroethane	5 (G)	µg/L	5 UJ [5 U]	5 UJ	5 UJ	5 UJ	5 U
Chloroform	7	µg/L	5 U [5 U]	5 U	5 U	5 U	5 U
Chloromethane (methyl chloride)	5	µg/L	5 UJ [5 UJ]	5 U	5 U	5 U	5 UJ
cis-1,3-dichloro, 1-propene	0.4	µg/L	5 U [5 U]	5 U	5 U	5 U	5 U
Dichlorobromomethane	--	µg/L	5 U [5 U]	5 U	5 U	5 U	5 U
1,1-dichloroethane	5	µg/L	5 U [5 U]	5 U	5 U	5 U	5 U
cis-1,2-dichloroethene	5	µg/L	5 U [5 U]	5 U	5 U	5 U	5 U
trans-1,2-dichloroethene	5	µg/L	5 U [5 U]	5 U	5 U	5 U	5 U
1,1-dichloroethylene	5	µg/L	5 U [5 U]	5 U	5 U	5 U	5 U
Dichloromethane	5	µg/L	5 U [5 U]	5 U	5 U	5 U	5 U
1,2-dichloropropane	1	µg/L	5 U [5 U]	5 U	5 U	5 U	5 U
trans-1,3-dichloropropene	0.4	µg/L	5 UJ [5 UJ]	5 UJ	5 UJ	5 UJ	5 UJ
Ethyl benzene	5	µg/L	5 U [5 U]	5 U	5 U	5 U	5 U
2-hexanone	50 (G)	µg/L	10 UJ [10 UJ]	10 UJ	10 UJ	10 UJ	10 UJ
Methyl isobutyl ketone	--	µg/L	10 U [10 U]	10 U	10 U	10 U	10 U
Styrene	5	µg/L	5 UJ [5 UJ]	5 UJ	5 UJ	5 UJ	5 UJ
1,1,2,2-tetrachloroethane	5	µg/L	5 UJ [5 UJ]	5 U	5 U	5 U	5 UJ
Tetrachloroethene (perchloroethylene)	5	µg/L	5 U [5 U]	5 U	5 U	5 U	5 U
Toluene	5	µg/L	5 U [5 U]	5 U	5 U	5 U	5 U
1,1,1-trichloroethane (methyl chloroform)	5	µg/L	5 U [5 U]	5 U	5 U	5 U	5 U
1,1,2-trichloroethane	1	µg/L	5 U [5 U]	5 U	5 U	5 U	5 U
Trichloroethene (trichloroethylene)	5	µg/L	5 U [5 U]	5 U	5 U	5 U	0.32 J
Vinyl chloride (chloroethylene)	2	µg/L	5 UJ [5 U]	5 U	5 U	5 U	5 U
Xylene, total	5	µg/L	5 UJ [5 U]	5 U	5 U	5 U	5 U
Total BTEX	--	µg/L	ND	ND	ND	ND	ND
Total VOCs	--	µg/L	ND	ND	ND	ND	0.32

**Notes:**

Constituents detected above screening levels are shaded.

1. Qualifiers are as follows:

J = estimated value

ND = Indicates analyte was analyzed for, but not detected at or above the reporting limit.

U = compound was analyzed for but not detected; the associated value is the compound quantitation limit.

-- = criteria not applicable.

2. Screening levels were provided in NYSDEC 6 NYCRR Part 703 Surface Water and Groundwater Quality Standards.

3. Results for duplicate samples are presented in brackets.

G = guidance value

BTEX = benzene, toluene, ethylbenzene and xylene

µg/L = micrograms per liter

NA = not analyzed

NYSDEC = New York State Department of Environmental Conservation

**Table 13**  
**Surface Water Analytical Results – Semivolatile Organic Compounds**

**Remedial Action Work Plan**  
**Consolidated Edison Company of New York, Inc.**  
**West 42nd Street Former MGP Site**  
**New York, New York**

Location ID: Date Collected:	State of New York Surface-Water Guidelines	Units	SW-01	SW-02	SW-03	SW-04	SW-05
			03/04/08	03/04/08	03/04/08	03/04/08	03/04/08
Acenaphthene	5.3 (G)	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
Acenaphthylene	--	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
Anthracene	50 (G)	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
Benzo (a) anthracene	0.002 (G)	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
Benzo (a) pyrene	0.002 (G)	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
Benzo (b) fluoranthene	0.002 (G)	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
Benzo (g,h,i) perylene	--	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
Benzo (k) fluoranthene	0.002 (G)	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
Benzyl alcohol	--	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
4-bromophenyl phenyl ether	--	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
Butylbenzylphthalate	50 (G)	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
Carbazole	--	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
4-chloro-3-methylphenol	--	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
4-Chloroaniline	5	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
Bis-(2-chloroethoxy) methane	5	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
Bis-(2-chloroethyl) ether	0.03 (G)	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
2-chloronaphthalene	10	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
2-chlorophenol	1	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
4-chlorophenyl-phenylether	--	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
Chrysene	0.002 (G)	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
Dibenzo (a,h) anthracene	--	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
Dibenzofuran	--	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
Dibutyl phthalate	50	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
1,2-dichlorobenzene	3	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
1,3-dichlorobenzene	3	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
1,4-dichlorobenzene	3	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
3,3'-dichlorobenzidine	5	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
2,4-dichlorophenol	1	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
Diethylphthalate	--	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
2,4-dimethylphenol	1	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
Dimethylphthalate	50 (G)	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
4,6-dinitro-2-methylphenol	1	µg/L	56 U [54 U]	54 U	50 U	50 U	50 U
2,4-dinitrophenol	1	µg/L	56 U [54 U]	54 U	50 U	50 U	50 U
2,4-dinitrotoluene	5	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U

**Table 13**  
**Surface Water Analytical Results – Semivolatile Organic Compounds**

**Remedial Action Work Plan**  
**Consolidated Edison Company of New York, Inc.**  
**West 42nd Street Former MGP Site**  
**New York, New York**

Location ID: Date Collected:	State of New York Surface-Water Guidelines	Units	SW-01	SW-02	SW-03	SW-04	SW-05
			03/04/08	03/04/08	03/04/08	03/04/08	03/04/08
2,6-dinitrotoluene	5	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
Diethyl phthalate	50 (G)	µg/L	11 UJ [11 UJ]	11 UJ	10 UJ	10 UJ	10 UJ
Bis-(2-ethylhexyl) phthalate	5	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
Fluoranthene	50 (G)	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
Fluorene	50 (G)	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
Hexachlorobenzene	0.04	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
Hexachlorobutadiene	0.5	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
Hexachloroethane	5	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
Hexaacylclopentadiene	5	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
Indeno (1,2,3-cd)pyrene	0.002 (G)	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
Isophorone	50 (G)	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
2-methyl phenol	1	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
2-methylnaphthalene	4.7 (G)	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
4-methylphenol (p-cresol)	1	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
Naphthalene	13 (G)	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
2-nitroaniline	5	µg/L	56 U [54 U]	54 U	50 U	50 U	50 U
3-nitroaniline	5	µg/L	56 U [54 U]	54 U	50 U	50 U	50 U
4-nitroaniline	5	µg/L	22 U [22 U]	22 U	20 U	20 U	20 U
Nitrobenzene	0.4	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
2-nitrophenol	1	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
4-nitrophenol	1	µg/L	56 U [54 U]	54 U	50 U	50 U	50 U
N-nitroso-di-phenylamine	--	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
N-nitrosodi-n-propylamine	50 (G)	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
2,2-oxybis (1-chloropropane)	5	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
Pentachlorophenol	1	µg/L	56 U [54 U]	54 U	50 U	50 U	50 U
Phenanthrene	50 (G)	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
Phenol	1	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
Pyrene	50 (G)	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
1,2,4-trichlorobenzene	5	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
2,4,5-trichlorophenol	1	µg/L	56 U [54 U]	54 U	50 U	50 U	50 U
2,4,6-trichlorophenol	1	µg/L	11 U [11 U]	11 U	10 U	10 U	10 U
Total PAHs	--	µg/L	ND	ND	ND	ND	ND
Total SVOCs	--	µg/L	ND	ND	ND	ND	ND

**Notes:**

Constituents detected above screening levels are shaded.

1. Qualifiers are as follows:

J = estimated value

ND = Indicates analyte was analyzed for, but not detected at or above the reporting limit.

U = compound was analyzed for but not detected; the associated value is the compound quantitation limit.

-- = criteria not applicable.

2. Screening levels were provided in NYSDEC 6 NYCRR Part 703 Surface Water and Groundwater Quality Standards.

3. Results for duplicate samples are presented in brackets.

G = guidance value

µg/L = micrograms per liter

NA = not analyzed

NYSDEC = New York State Department of Environmental Conservation

PAH = polycyclic aromatic hydrocarbon

SVOCs = semi-volatile organic compounds

Total PAHs = represents the summation of 17 TCL PAHs

**Table 14**  
**Surface Water Analytical Results - Metals and Cyanide**

**Remedial Action Work Plan**  
**Consolidated Edison Company of New York, Inc.**  
**West 42nd Street Former MGP Site**  
**New York, New York**

Location ID: Date Collected:	State of New York Surface Water Guidelines	Units	SW-01 03/04/08	SW-02 03/04/08	SW-03 03/04/08	SW-04 03/04/08	SW-05 03/04/08
<b>Metals</b>							
Aluminum	--	µg/L	300 J [250 J]	270 J	180 J	280 J	150 J
Antimony	3	µg/L	20 U [20 U]	20 U	20 U	20 U	20 U
Arsenic	50	µg/L	20 U [20 U]	20 U	20 U	20 U	20 U
Barium	1,000	µg/L	16 [15]	15	16	16	14
Beryllium	3	µg/L	3 U [3 U]	3 U	3 U	3 U	3 U
Cadmium	5	µg/L	5 U [5 U]	5 U	5 U	5 U	5 U
Calcium	--	µg/L	121,000 [117,000]	127,000	132,000	122,000	124,000
Chromium	50	µg/L	10 U [10 U]	10 U	10 U	10 U	10 U
Cobalt	5	µg/L	10 U [10 U]	10 U	10 U	10 U	10 U
Copper	200	µg/L	10 U [10 U]	10 U	7.3 J	10 U	10 U
Iron	300	µg/L	420 [420]	440	300	420	260
Lead	25	µg/L	10 U [10 U]	10 U	10 U	10 U	10 U
Magnesium	35,000	µg/L	339,000 [323,000]	362,000	374,000	345,000	351,000
Manganese	300	µg/L	27 [27]	28	27	26	24
Mercury	0.7	µg/L	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	100	µg/L	10 U [10 U]	10 U	10 U	10 U	10 U
Potassium	--	µg/L	200,000 [190,000]	217,000	223,000	208,000	208,000
Selenium	10	µg/L	30 U [30 U]	30 U	30 U	30 U	30 U
Silver	50	µg/L	5 U [5 U]	5 U	5 U	5 U	5 U
Sodium	20,000	µg/L	394,000 [379,000 J]	371,000 J	377,000 J	371,000 J	374,000 J
Thallium	0.5	µg/L	30 UJ [8.6 J]	30 UJ	30 UJ	8.3 J	30 UJ
Vanadium	14	µg/L	5 U [5 U]	5 U	5 U	5 U	5 U
Zinc	2,000	µg/L	50 U [50 U]	50 U	50 U	50 U	50 U
<b>Total Cyanide</b>							
Total Cyanide	200	µg/L	10 U [10 U]	10 U	10 U	10 U	10 U
<b>Total Petroleum Hydrocarbon</b>							
Diesel range organics [c10-c28]	--	µg/L	500 U [500 U]	500 U	500 U	500 U	500 U
Total SVOCs	--	µg/L	ND	ND	ND	ND	ND

**Notes:**

Constituents detected above screening levels are shaded.

1. Qualifiers are as follows:

J = estimated value

ND = Indicates analyte was analyzed for, but not detected at or above the reporting limit.

U = compound was analyzed for but not detected; the associated value is the compound quantitation limit.

-- = criteria not applicable.

2. Screening levels were provided in NYSDEC 6 NYCRR Part 703 Surface Water and Groundwater Quality Standards.

3. Results for duplicate samples are presented in brackets.

G = guidance value

µg/L = micrograms per liter

NA = not analyzed

NYSDEC = New York State Department of Environmental Conservation

SVOCs = Semi-volatile organic compounds

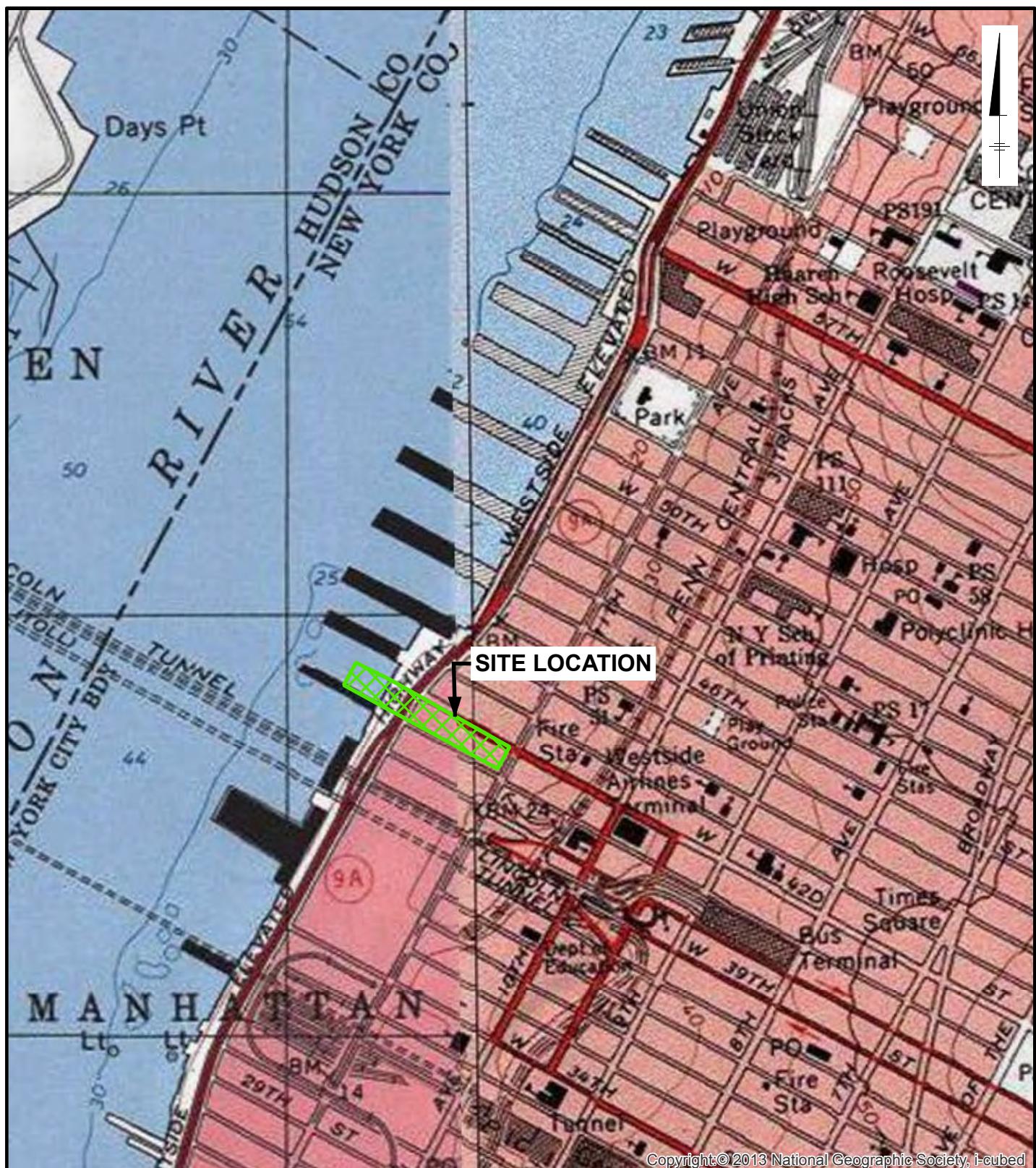
**Table 15**  
**Standards, Criteria and Guidance (SCGs)**

**Remedial Action Work Plan**  
**Consolidated Edison Company of New York, Inc.**  
**West 42<sup>nd</sup> Street, Former MGP Site**  
**New York, New York**

Regulation	Citation	Summary of Requirements	Applicability to the Remedial Action
<b>New York State</b>			
NYSDEC Guidance on Remedial Program Soil Cleanup Objectives	6 NYCRR Part 375	Provides an outline for the development and execution of the soil remedial programs. Includes soil cleanup objective tables.	These guidance values are applicable in evaluating soil quality.
NYSDEC Ambient Water Quality Standards and Guidance Values	Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1 (6/98)	Provides a compilation of ambient water quality standards and guidance values for toxic and non-conventional pollutants for use in the NYSDEC programs.	These standards are applicable in evaluating groundwater quality.
Groundwater Quality Standards and Guidance Values	6 NYCRR Parts 700-705	Establishes quality standards for groundwater.	These standards are applicable in evaluating groundwater quality standards.

# FIGURES





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**NOTE:**

1. BASE MAP SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP IMAGES ENTITLED CENTRAL PARK AND WEEHAWKEN PROVIDED BY THE NEW YORK STATE GIS CLEARINGHOUSE.

A horizontal scale bar labeled "Feet" at the right end. Tick marks are present at 0, 1,000, and 2,000. The distance between 0 and 1,000 is represented by two black segments, while the distance from 1,000 to 2,000 is represented by one black segment.

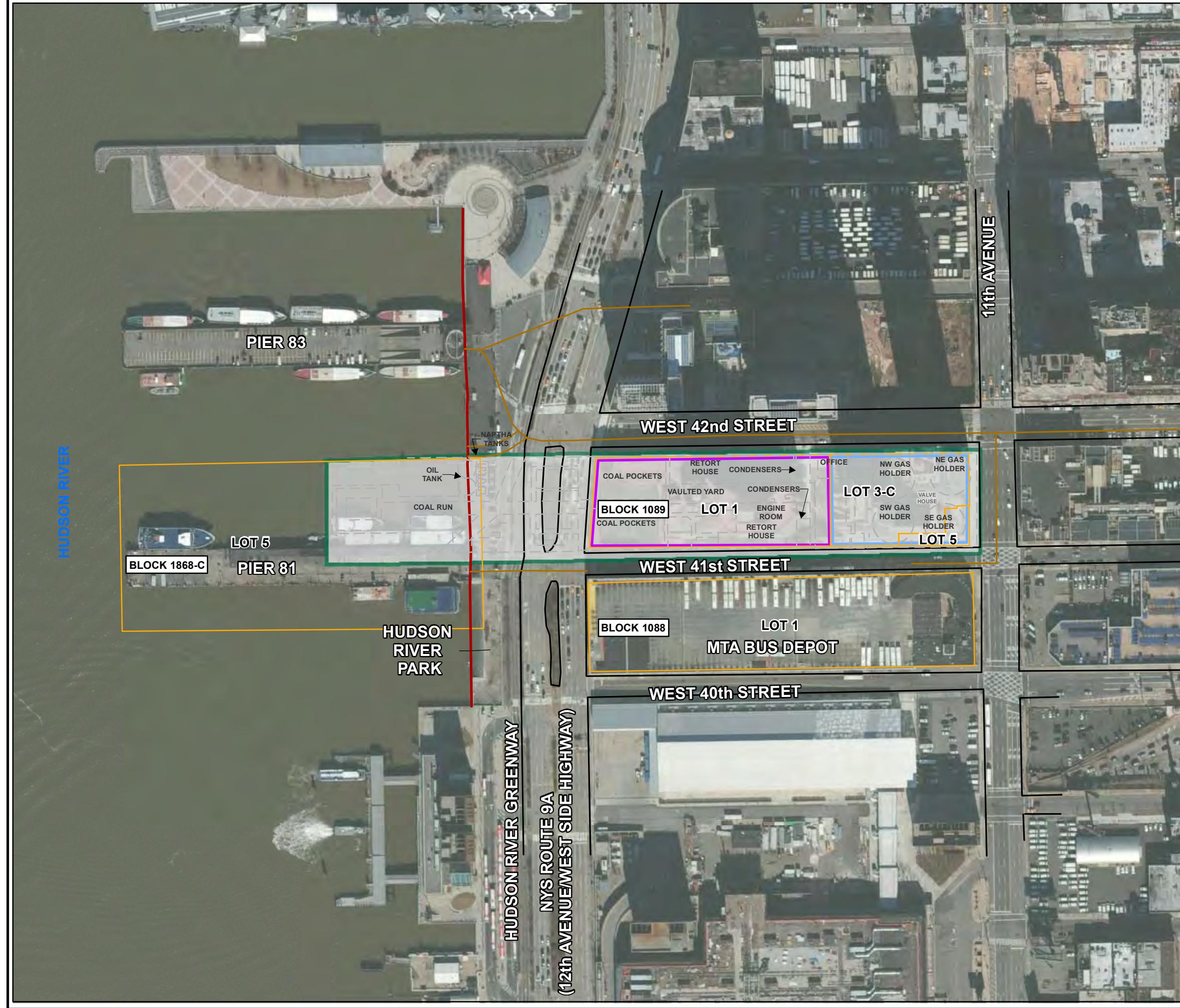
**CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.  
FORMER WEST 42ND STREET MGP**

## **REMEDIAL ACTION WORK PLAN**

## SITE LOCATION MAP

 ARCADIS | Design & Consultancy  
for natural and  
built assets

# **FIGURE 1**



#### LEGEND:

- HISTORIC STRUCTURE
- BULKHEAD
- COMBINED SEWER OVERFLOWS (CSOs)
- RIVER PLACE I FOOTPRINT
- RIVER PLACE II FOOTPRINT
- REMEDIAL INVESTIGATION SITE BOUNDARY
- TAX PARCEL BOUNDARY

0 200 400  
Feet  
GRAPHIC SCALE

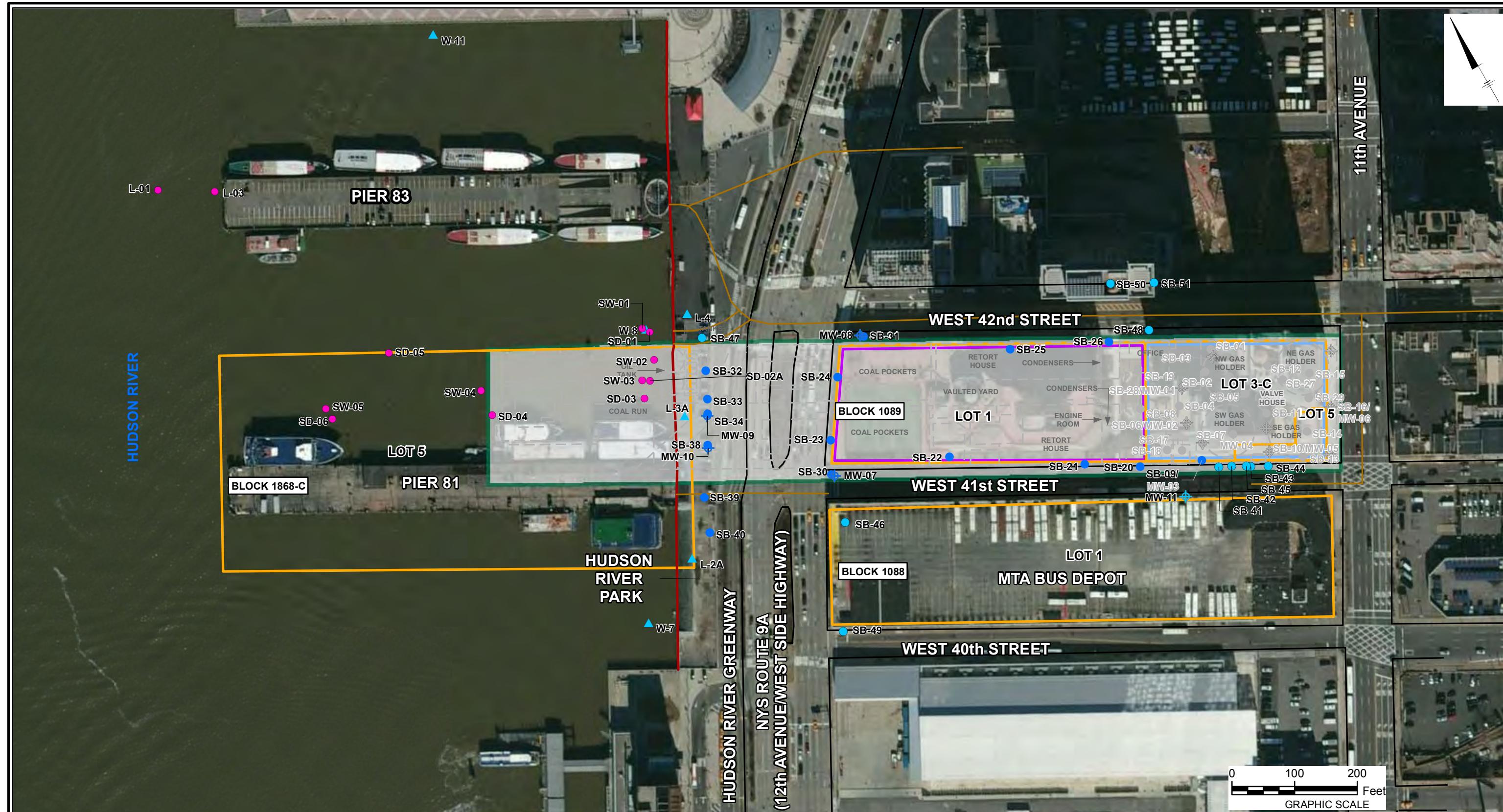
#### NOTES:

1. 2015 IMAGERY OBTAINED FROM ESRI IMAGE SERVICE.
2. HISTORIC STRUCTURES PROVIDED BY DVIRKA AND BARTILUCCI ENGINEERING (D & B). THE LOCATIONS OF ALL STRUCTURES ARE APPROXIMATE.
3. 2016 TAX PARCEL BOUNDARY OBTAINED FROM THE CITY OF NEW YORK DEPARTMENT OF FINANCE - DIGITAL TAX MAP.

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.  
FORMER WEST 42nd STREET MGP

#### REMEDIAL ACTION WORK PLAN

#### SITE PLAN AND HISTORIC MGP STRUCTURES



**LEGEND:**

ARCADIS BORINGS COMPLETED BETWEEN 2006 TO 2011:

- SOIL BORING
- ◆ MW-11 - MONITORING WELL LOCATION
- SEDIMENT AND SURFACE WATER SAMPLE LOCATIONS
- D & B (2004, 2005) SAMPLES:
- ◆ MW-06 - MONITORING WELL
- SB-32 - SOIL BORING
- ▲ W-7, L-2a - HRTP SOIL BORING

— HISTORIC STRUCTURE

— BULKHEAD

— COMBINED SEWER OVERFLOWS (CSOs)

— RIVER PLACE I FOOTPRINT

— RIVER PLACE II FOOTPRINT

— TAX PARCEL BOUNDARY

— REMEDIAL INVESTIGATION SITE BOUNDARY

**NOTES:**

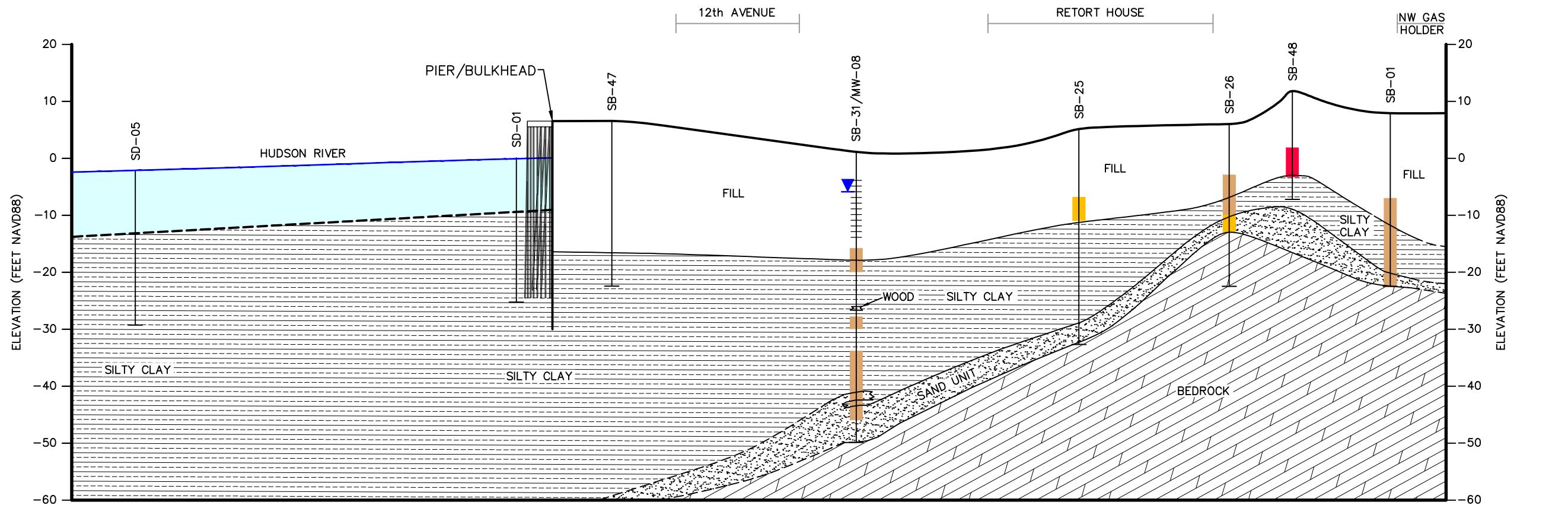
1. THE LOCATIONS AND ELEVATIONS OF SB-46 THROUGH SB-49, AND MW-11 WERE SURVEYED BY MUÑOZ ENGINEERING IN JULY 2010. HORIZONTAL COORDINATES ARE IN NYS COORDINATE SYSTEM (EAST) NAD83 AS DERIVED FROM GPS. ALL ELEVATIONS REFER TO NAVD 88 VERTICAL DATUM AS DERIVED FROM GPS.
2. HISTORIC STRUCTURES PROVIDED BY DVIRKA AND BARTILUCCI ENGINEERING (D & B). THE LOCATIONS OF ALL STRUCTURES ARE APPROXIMATE.
3. 2015 IMAGERY FROM ESRI IMAGE SERVICE.
4. 2016 TAX PARCEL BOUNDARY OBTAINED FROM THE CITY OF NEW YORK DEPARTMENT OF FINANCE - DIGITAL TAX MAP.
5. SEDIMENT CORE LOCATIONS WERE SURVEYED BY ARCADIS IN MARCH 2008.

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.  
FORMER WEST 42nd STREET MGP

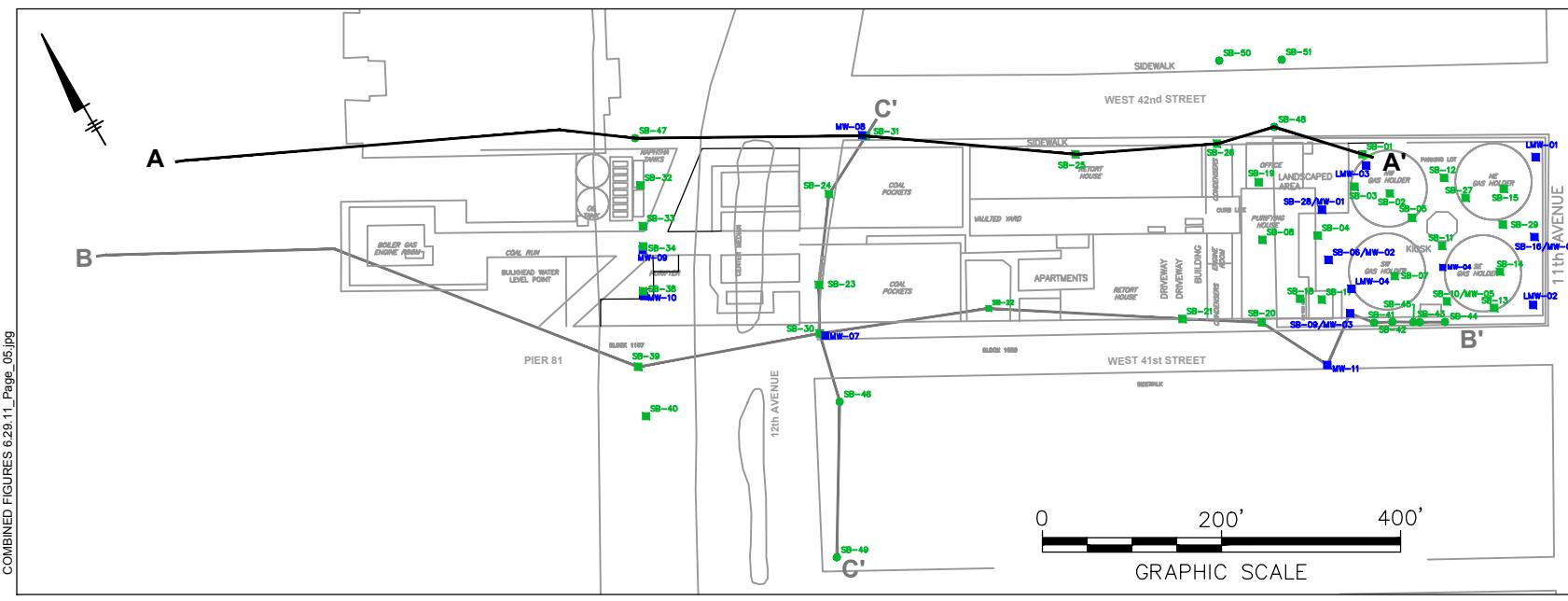
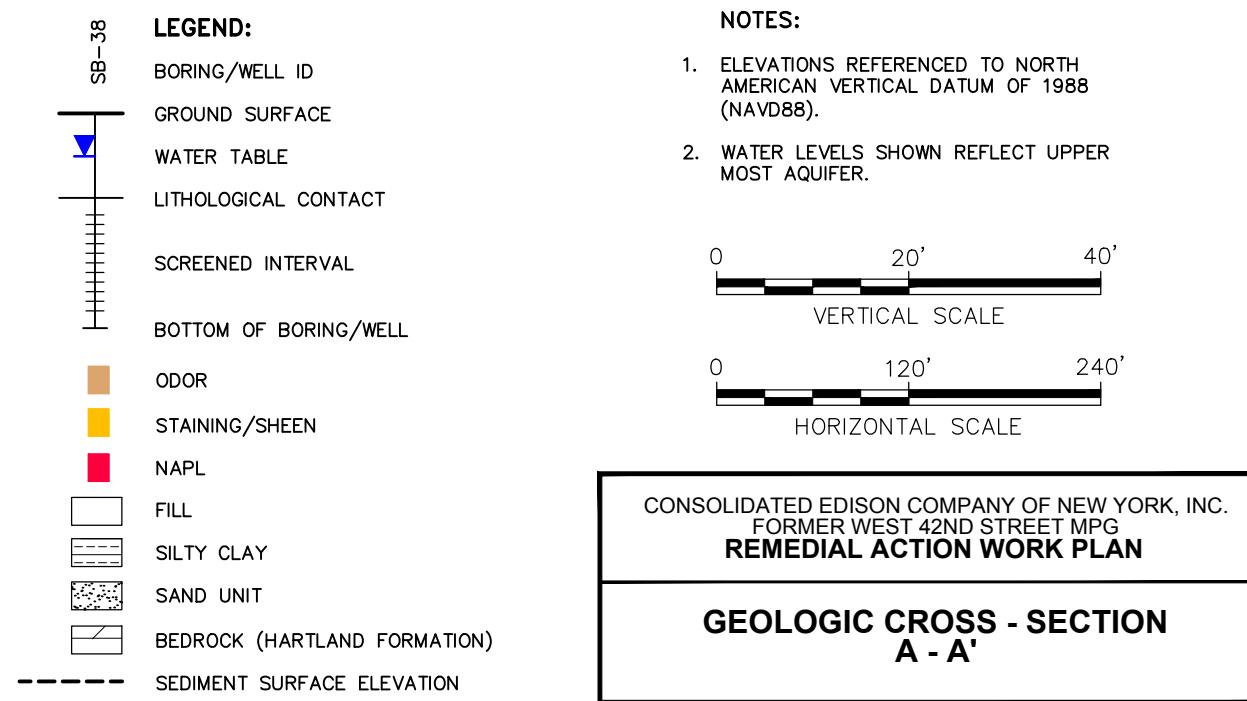
**REMEDIAL ACTION WORK PLAN**

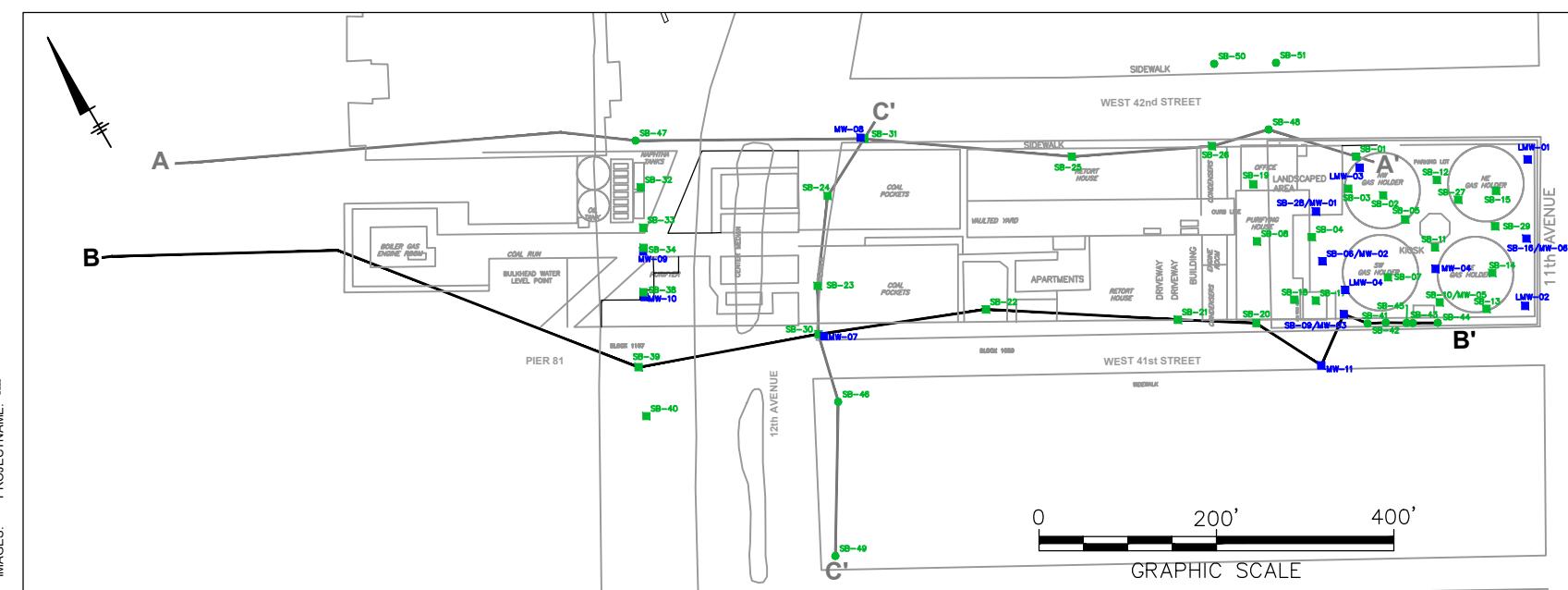
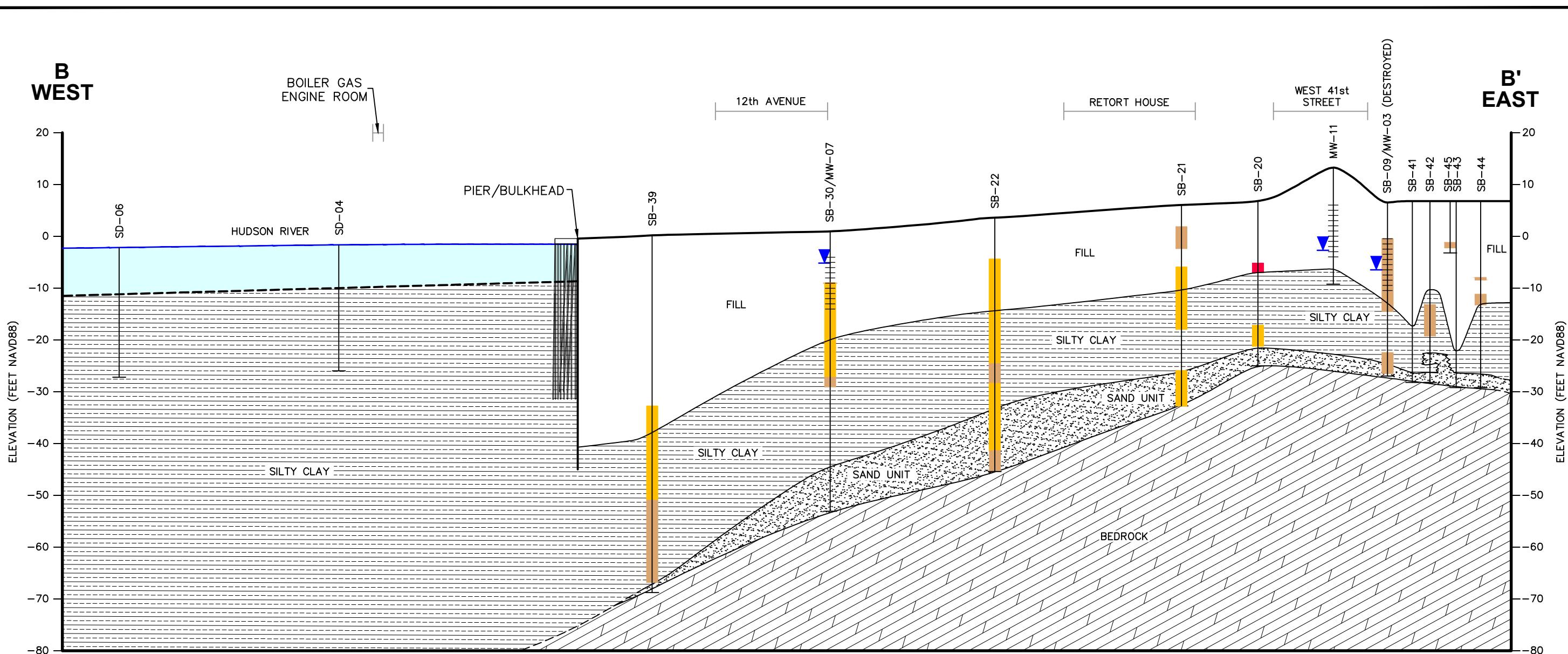
**SAMPLE LOCATION MAP**

**A  
WEST**



**A'  
EAST**



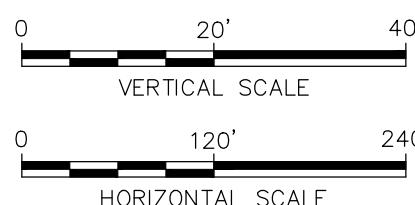


38 **LEGEND:**

- A vertical geological log for borehole B-1. The top section shows the surface with a dashed line labeled 'SEDIMENT SURFACE ELEVATION'. Below this is a thin layer of 'BEDROCK (HARTLAND FOR...)'. The main section is labeled 'BORING/WELL ID' at the top. It includes several layers: 'SAND UNIT', 'SILTY CLAY', 'FILL', 'NAPL', 'STAINING/SHEEN', 'ODOR', 'SCREENED INTERVAL', 'LITHOLOGICAL CONTACT', 'WATER TABLE', 'GROUND SURFACE', and 'BORING/WELL ID' again at the bottom. A legend on the left identifies symbols: a blue square for 'WATER TABLE', a black line with a cross for 'LITHOLOGICAL CONTACT', a vertical line with horizontal dashes for 'SCREENED INTERVAL', a brown square for 'ODOR', a yellow square for 'STAINING/SHEEN', a red square for 'NAPL', a white box for 'FILL', a wavy line for 'SILTY CLAY', a dotted pattern for 'SAND UNIT', and a diagonal hatching for 'BEDROCK (HARTLAND FOR...)'. A scale bar at the bottom indicates distances from 0 to 10 meters.

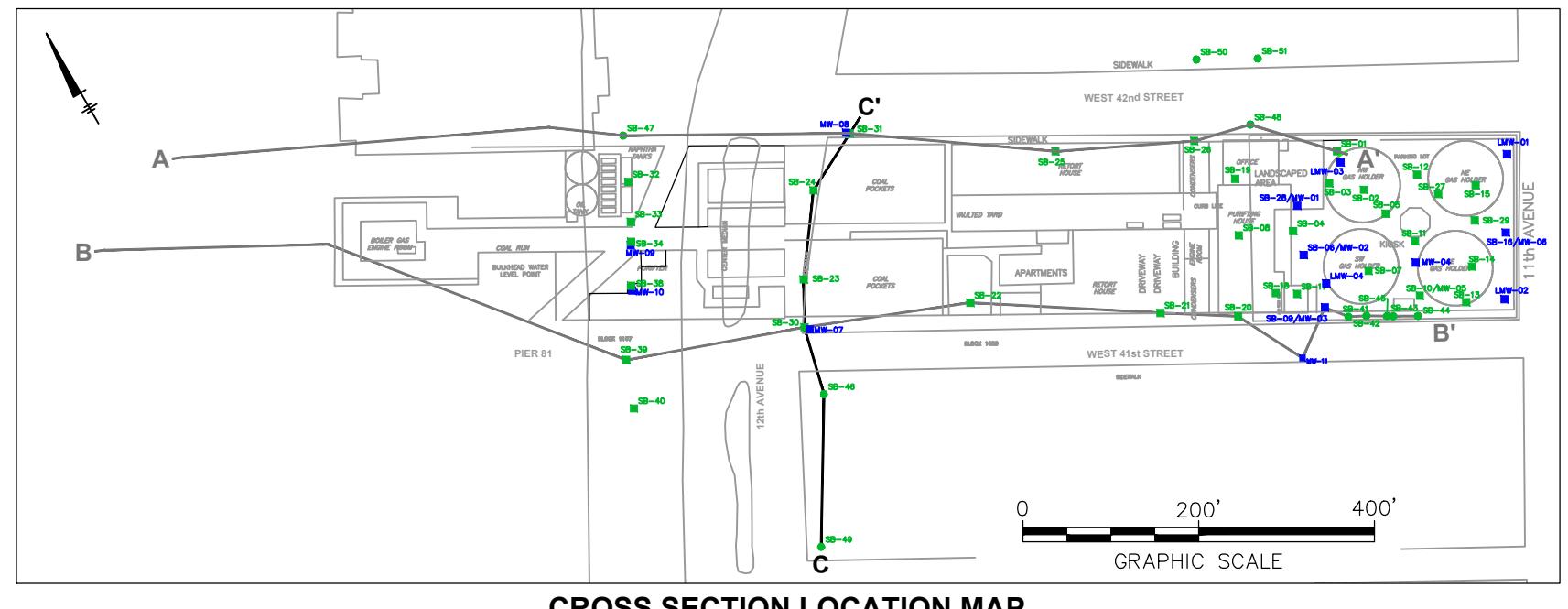
## NOTES:

1. ELEVATIONS REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
  2. WATER LEVELS SHOWN REFLECT UPPER MOST AQUIFER.

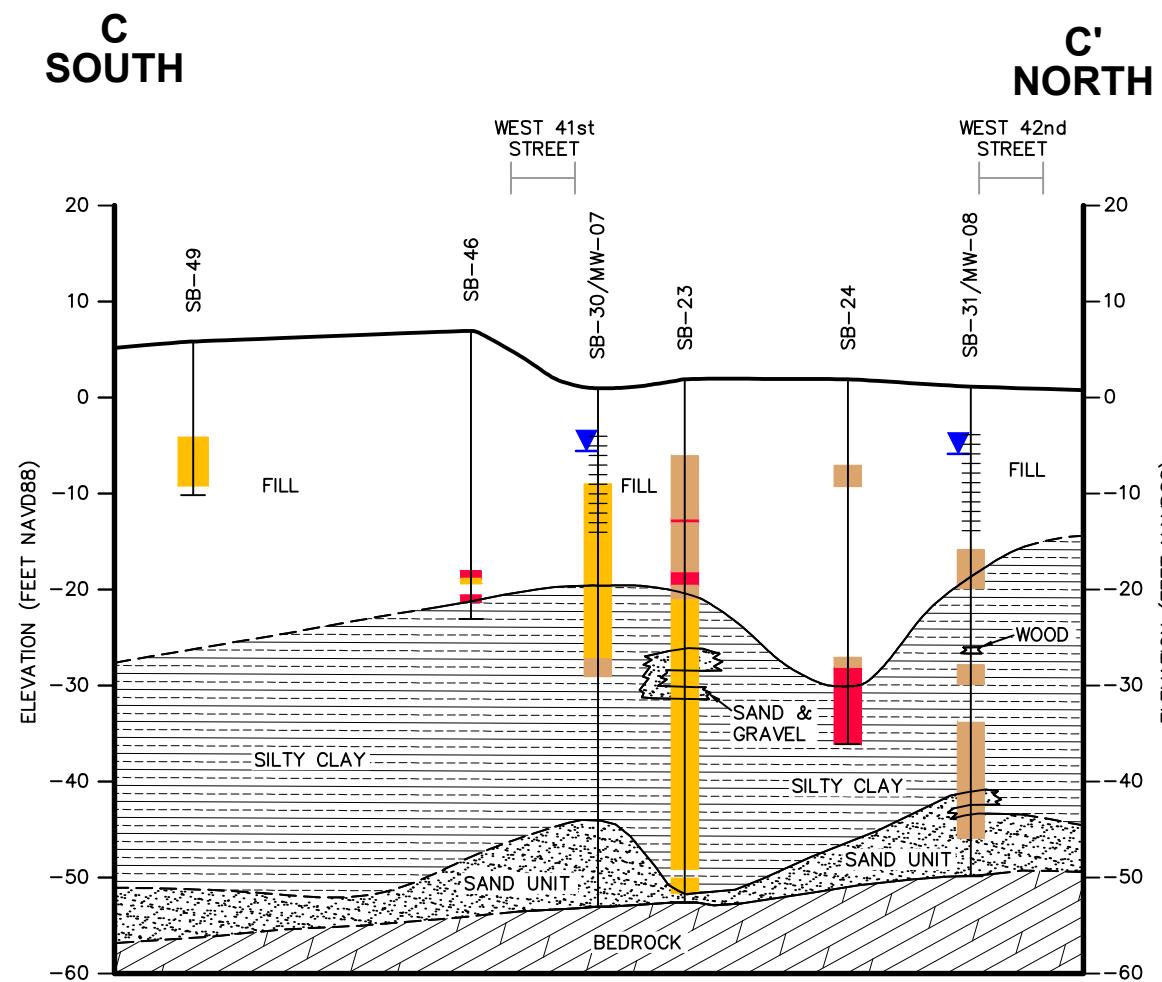


CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.  
FORMER WEST 42ND STREET MPG  
**REMEDIAL ACTION WORK PLAN**

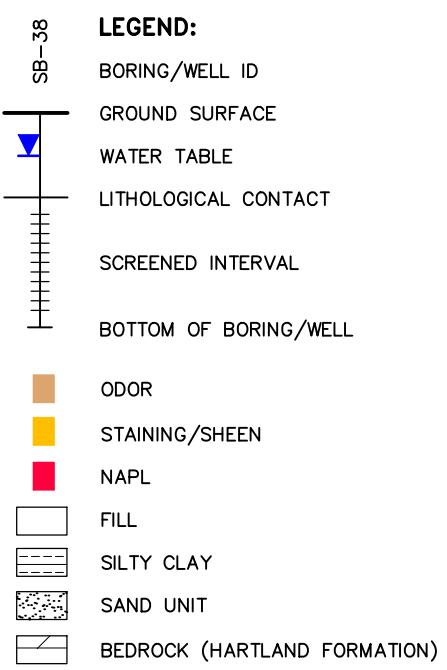
## **GEOLOGIC CROSS - SECTION B - B'**



CROSS SECTION LOCATION MAP

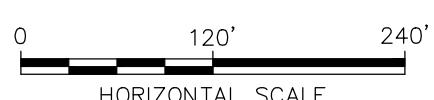
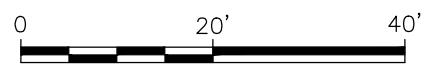


C'  
NORTH



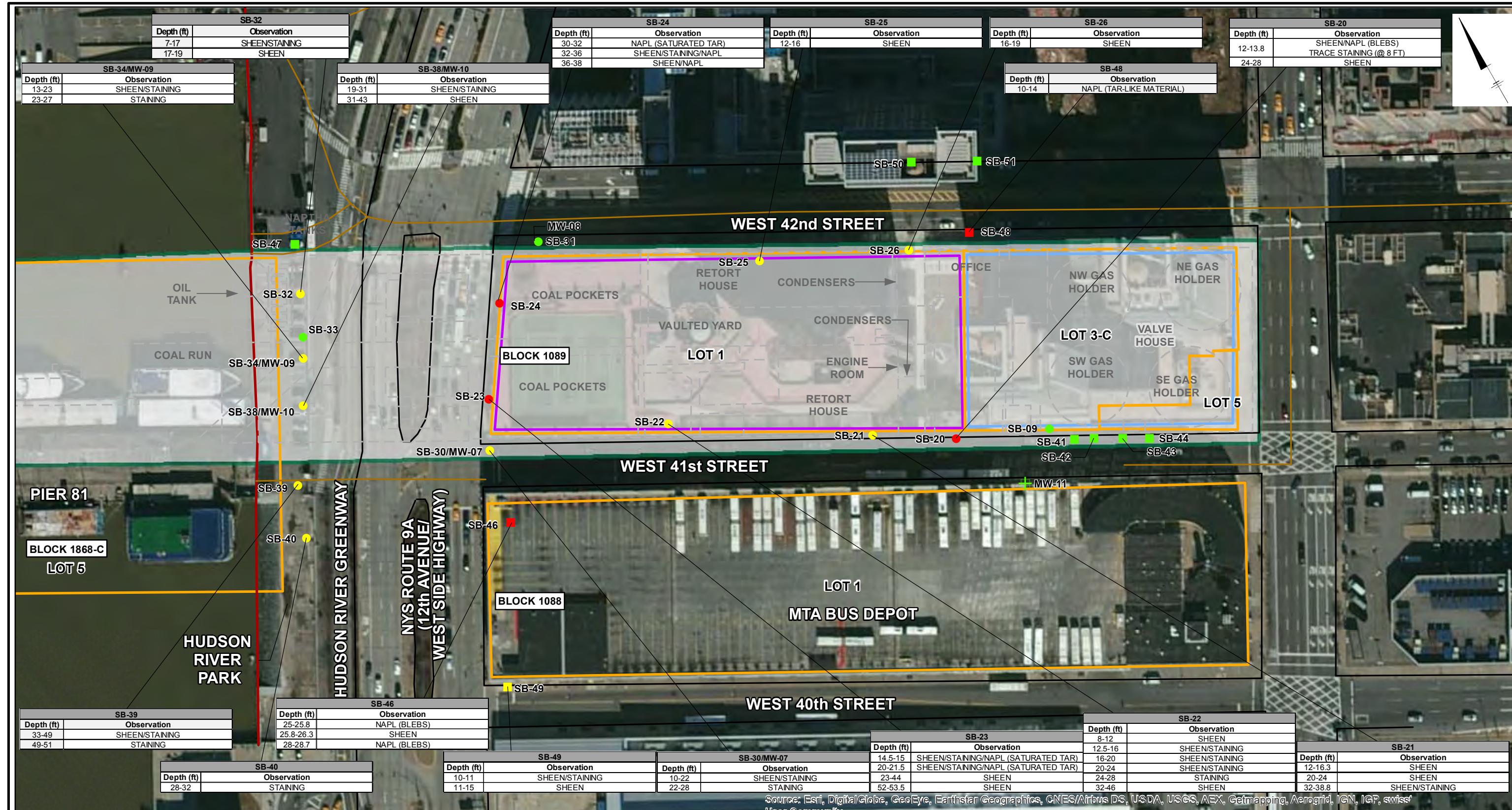
NOTES:

- ELEVATIONS REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- WATER LEVELS SHOWN REFLECT UPPER MOST AQUIFER.



CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.  
FORMER WEST 42ND STREET MPG  
**REMEDIAL ACTION WORK PLAN**

**GEOLOGIC CROSS - SECTION  
C - C'**



## LEGEND:

**ARCADIS BORINGS COMPLETED BETWEEN 2006 TO 2011: D & B (2004, 2005) SAMPLES**

- SOIL BORING - NO SHEEN/STAIN OR NAPL PRESENT
  - + MW-11 - MONITORING WELL
  - SOIL BORING - NAPL PRESENT
  - SOIL BORING - SHEEN/STAIN PRESENT

A horizontal graphic scale bar representing distance. It features a thick black line with tick marks at 0, 100, and 200. The word "Feet" is written vertically next to the 200 mark.

- HISTORIC STRUCTURE
- BULKHEAD
- COMBINED SEWER OVERFLOWS
- (CSOs)
- REMEDIAL INVESTIGATION
- SITE BOUNDARY
- RIVER PLACE I FOOTPRINT
- RIVER PLACE II FOOTPRINT
- TAX PARCEL BOUNDARY

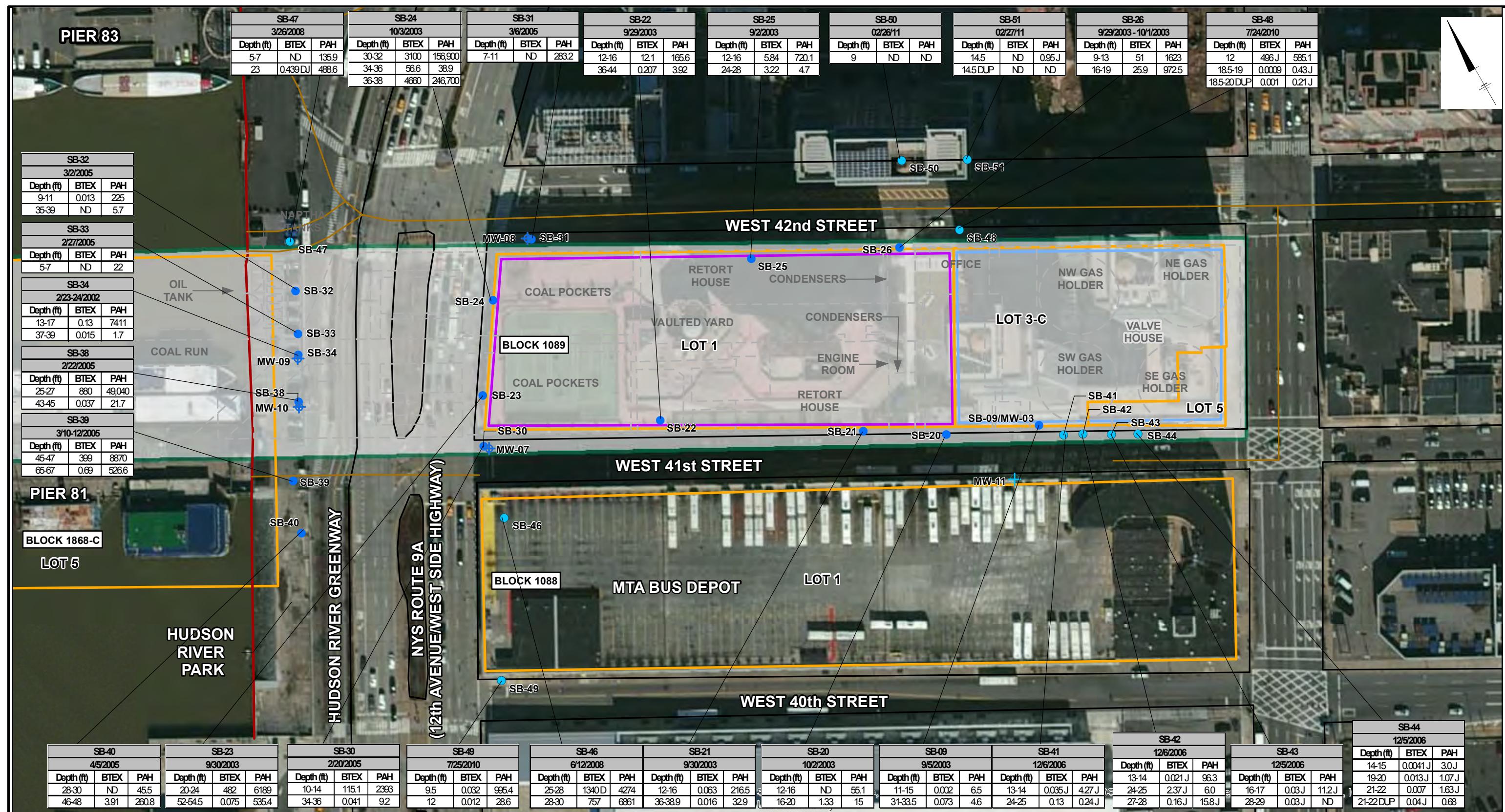
## NOTE

1. THE LOCATIONS AND ELEVATIONS OF SB-46 THROUGH SB-49, AND MW-11 WERE SURVEYED BY MUÑOZ ENGINEERING IN JULY 2010. HORIZONTAL COORDINATES ARE IN NYS COORDINATE SYSTEM (EAST) NAD83 AS DERIVED FROM GPS. ALL ELEVATIONS REFER TO NAVD 88 VERTICAL DATUM AS DERIVED FROM GPS.
  2. HISTORIC STRUCTURES PROVIDED BY DVIRKA AND BARTILUCCI ENGINEERING (D & B). THE LOCATIONS OF ALL STRUCTURES ARE APPROXIMATE.
  3. 2015 IMAGERY OBTAINED FROM ESRI IMAGE SERVICE.
  4. 2016 TAX PARCEL BOUNDARY OBTAINED FROM THE CITY OF NEW YORK DEPARTMENT OF FINANCE - DIGITAL TAX MAP

**CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.  
FORMER WEST 42nd STREET MGP**

# **REMEDIAL ACTION WORK PLAN**

## **OCCURRENCE OF NAPL/STAINING/ SHEEN IN SOILS**



## LEGEND:

ARCADIS (2011) SAMPLING

- SOIL BORING
  - + MW-11 - MONITORING WELL LOCATION
  - D & B (2004, 2005) SAMPLES:
  - ◆ MW-06 - MONITORING WELL
  - SB-32 - SOIL BORING

— — HISTORIC STRUCTURE

- BULKHEAD
  - COMBINED SEWER OVERFLOWS (CSOs)
  - RIVER PLACE I FOOTPRINT
  - RIVER PLACE II FOOTPRINT
  - TAX PARCEL BOUNDARY
  - REMEDIAL INVESTIGATION SITE BOUNDARY

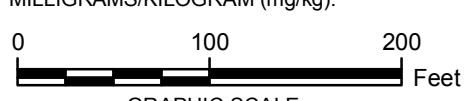
## NOTES:

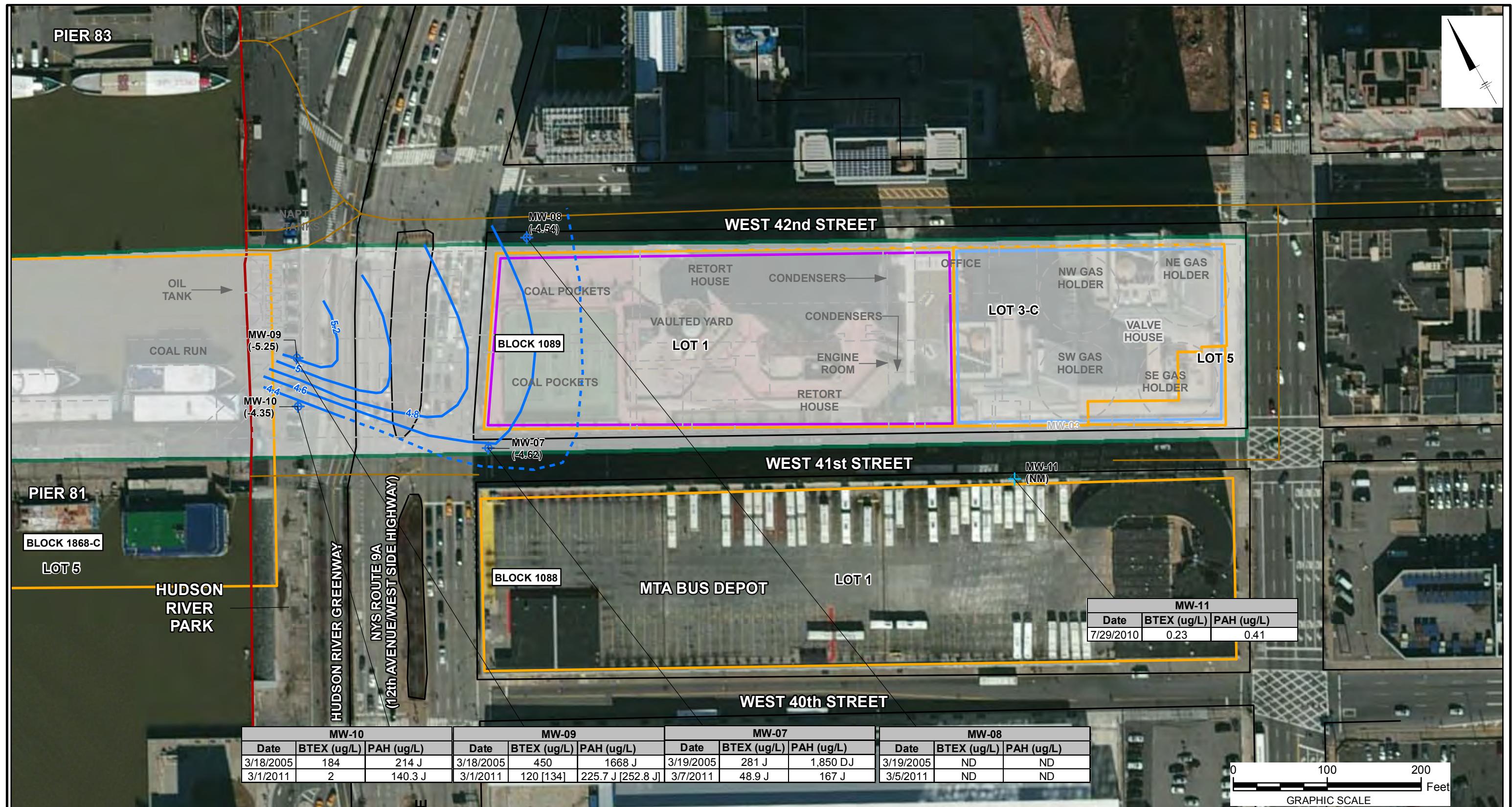
1. THE LOCATIONS AND ELEVATIONS OF SB-46 THROUGH SB-49 WERE SURVEYED BY MUÑOZ ENGINEERING IN JULY 2010. HORIZONTAL COORDINATES ARE IN NYS COORDINATE SYSTEM (EAST) NAD83 AS DERIVED FROM GPS. ALL ELEVATIONS REFER TO NAVD 88 VERTICAL DATUM AS DERIVED FROM GPS.
  2. HISTORIC STRUCTURES PROVIDED BY DVIRKA AND BARTILUCCI ENGINEERING (D & B). THE LOCATIONS OF ALL STRUCTURES ARE APPROXIMATE.
  3. 2015 IMAGERY OBTAINED FROM ESRI IMAGE SERVICE.
  4. 2016 TAX PARCEL BOUNDARY OBTAINED FROM THE CITY OF NEW YORK DEPARTMENT OF FINANCE - DIGITAL TAX MAP.
  5. PAH IS THE SUM OF THE 17 TCL PAHS.
  6. BTEX IS THE SUM OF BENZENE, TOLUENE, ETHYLBENZENE AND TOTAL XYLENES.
  7. ALL RESULTS ARE PRESENTED IN MILLIGRAMS/KILOGRAM (mg/kg).

**CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.  
FORMER WEST 42nd STREET MGP**

## **REMEDIAL ACTION WORK PLAN**

# OCCURRENCE OF TOTAL BTEX AND TOTAL PAH IN SOIL





**LEGEND:**

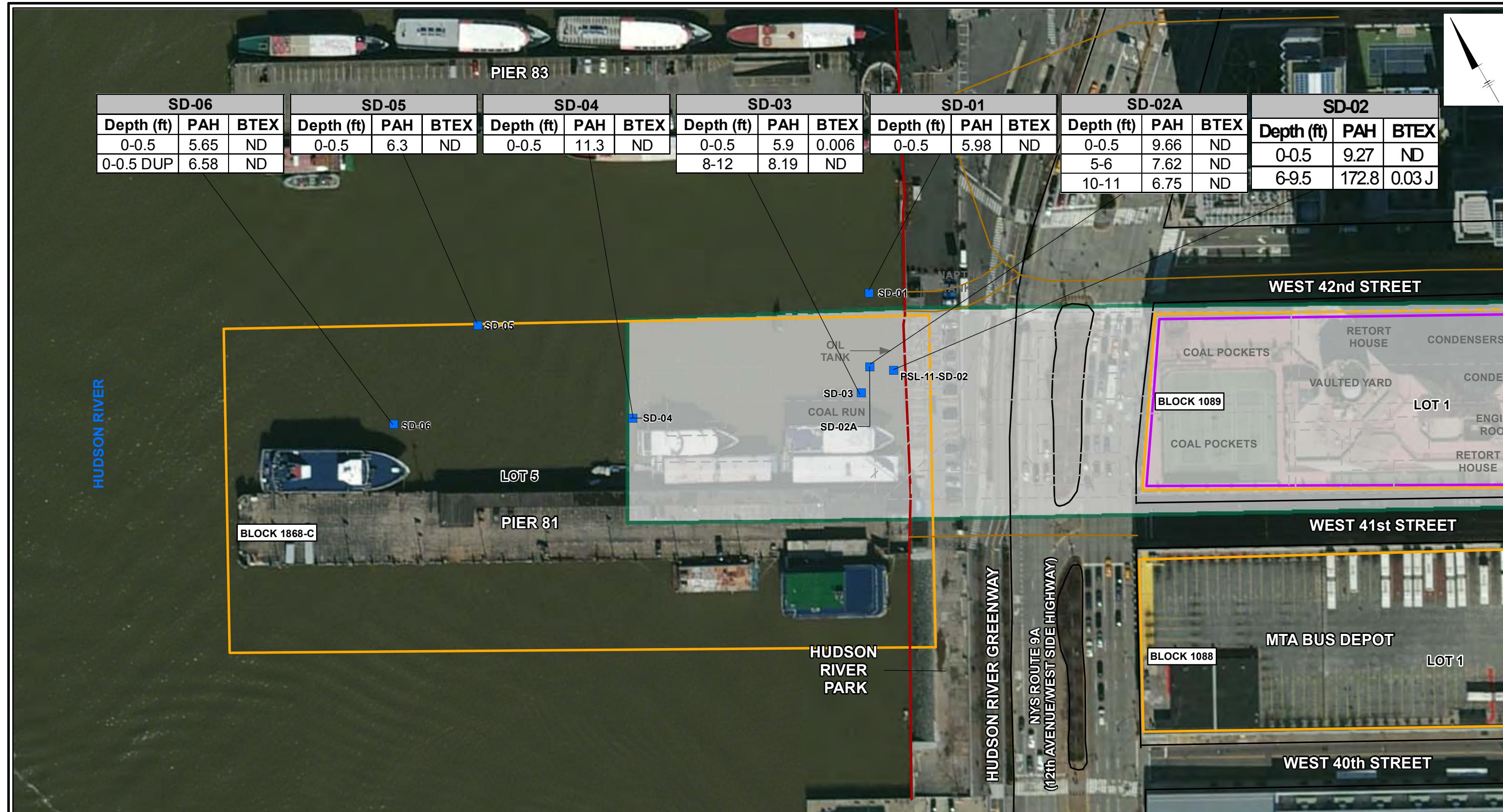
- MW-11 - ARCADIS (2011) MONITORING WELL
- MW-06 - D & B (2004, 2005) MONITORING WELL
- HISTORIC STRUCTURE
- BULKHEAD
- COMBINED SEWER OVERFLOWS (CSOs)
- GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- (5.0) GROUNDWATER ELEVATION

**NOTES:**

- THE LOCATIONS AND ELEVATIONS OF MW-11 WERE SURVEYED BY MUÑOZ ENGINEERING IN JULY 2010. HORIZONTAL COORDINATES ARE IN NYS COORDINATE SYSTEM (EAST) NAD83 AS DERIVED FROM GPS. ALL ELEVATIONS REFER TO NAVD 88 VERTICAL DATUM AS DERIVED FROM GPS.
- HISTORIC STRUCTURES PROVIDED BY DVIRKA AND BARTIUCCI ENGINEERING (D & B). THE LOCATIONS OF ALL STRUCTURES ARE APPROXIMATE.
- 2015 IMAGERY OBTAINED FROM ESRI SERVICE.
- PAH IS THE SUM OF THE 17 TCL PAHS.
- BTEX IS THE SUM OF BENZENE, TOLUENE, ETHYLBENZENE AND TOTAL XYLENES.
- DUPLICATE SAMPLE RESULTS ARE PRESENTED IN BRACKETS.
- GROUNDWATER CONTOUR MAP IS APPROXIMATE AND WAS PREPARED USING GROUNDWATER ELEVATION DATA FROM MONITORING WELLS MW-07 TO MW-10, WHICH WERE MEASURED BETWEEN MARCH 1, 2011 AND MARCH 7, 2011. GROUNDWATER ELEVATION DATA FROM MONITORING WELL MW-11 WAS NOT USED BECAUSE MW-11 WAS MEASURED ONLY IN 2010 DUE TO ACCESS CONSTRAINTS.
- VERTICAL DATUM IS BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929. ELEVATIONS PROVIDED IN FEET.
- DATA QUALIFIERS:  
J: THE ANALYTE WAS POSITIVELY IDENTIFIED; HOWEVER, THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED CONCENTRATION ONLY.  
D: THE REPORTED CONCENTRATION IS BASED ON A DILUTED SAMPLE ANALYSIS.
- ND - NOT DETECTED  
NM - NOT MEASURED

**CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.**  
**FORMER WEST 42nd STREET MGP**  
**REMEDIAL ACTION WORK PLAN**

## OCCURRENCE OF TOTAL BTEX AND TOTAL PAH IN GROUNDWATER



LEGEND:  
■ SEDIMENT CORE LOCATION  
— — HISTORIC STRUCTURE

- BULKHEAD
- COMBINED SEWER OVERFLOWS (CSOs)
- TAX PARCEL BOUNDARY
- REMEDIAL INVESTIGATION SITE BOUNDARY
- RIVER PLACE FOOTPRINT

A horizontal graphic scale with tick marks at 0, 100, and 200. The word "Feet" is written at the end of the scale.

#### NOTES:

1. 2015 IMAGERY OBTAINED FROM ESRI SERVICE..
  2. HISTORIC STRUCTURES PROVIDED BY DVIRKA AND BARTILUCCI ENGINEERING (D & B). THE LOCATIONS OF ALL STRUCTURES ARE APPROXIMATE.
  3. 2015 IMAGERY OBTAINED FROM ESRI IMAGE SERVICE.
  4. SEDIMENT CORES WERE COLLECTED BY ARCADIS IN FEBRUARY 2008.
  5. 2016 TAX PARCEL BOUNDARY OBTAINED FROM THE CITY OF NEW YORK DEPARTMENT OF FINANCE - DIGITAL TAX MAP.
  5. PAH IS THE SUM OF THE 17 TCL PAHS.
  6. BTEX IS THE SUM OF BENZENE, TOLUENE, ETHYLBENZENE AND TOTAL XYLEMES.
  7. DATA QUALIFIERS:  
J: THE ANALYTE WAS POSITIVELY IDENTIFIED; HOWEVER, THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED CONCENTRATION ONLY.  
D: THE REPORTED CONCENTRATION IS BASED ON A DILUTED SAMPLE ANALYSIS.
  8. ND – NOT DETECTED

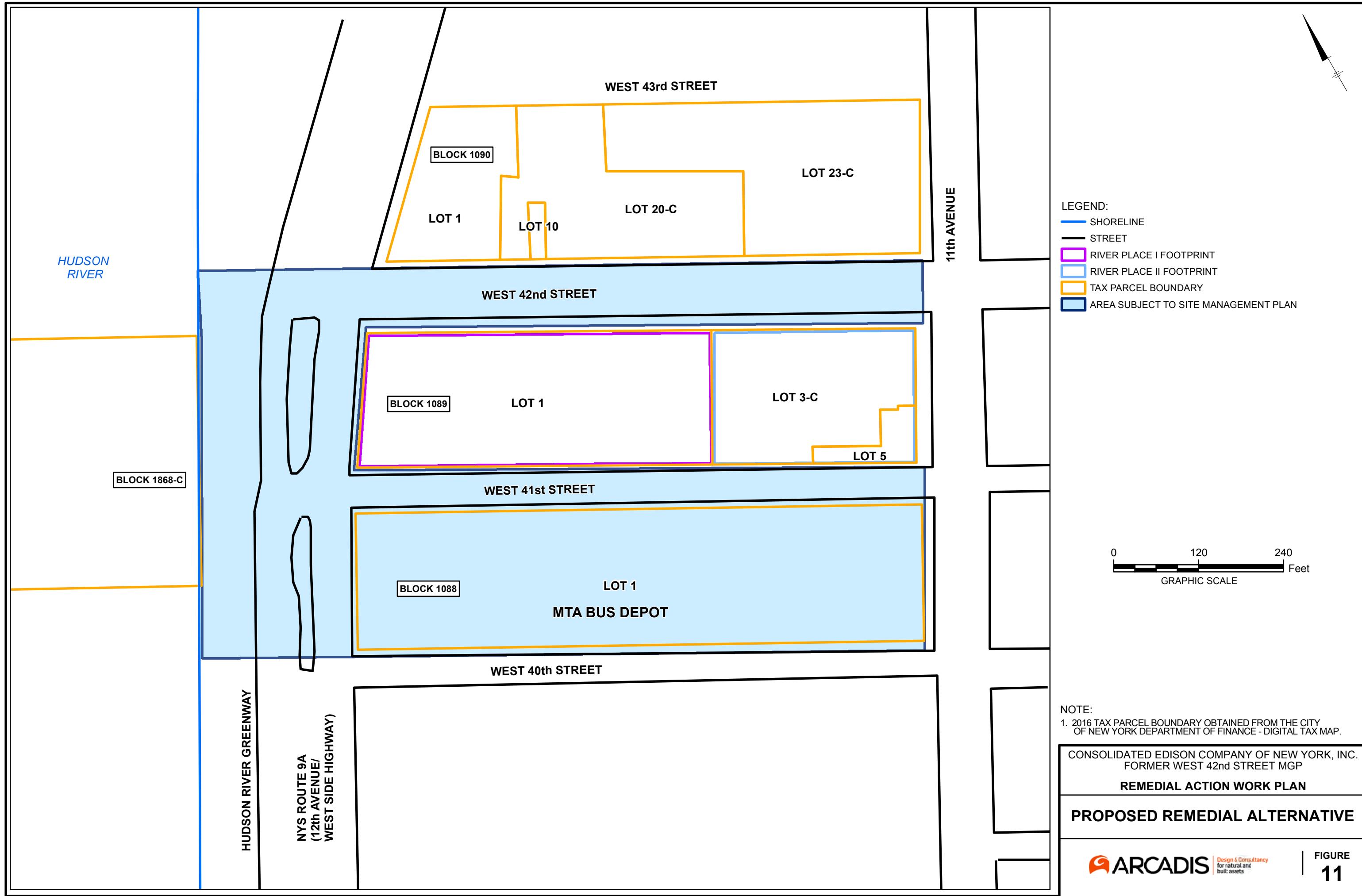
CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.  
FORMER WEST 42nd STREET MGP

## **REMEDIAL ACTION WORK PLAN**

# OCCURRENCE OF TOTAL BTEX AND TOTAL PAH IN SEDIMENT

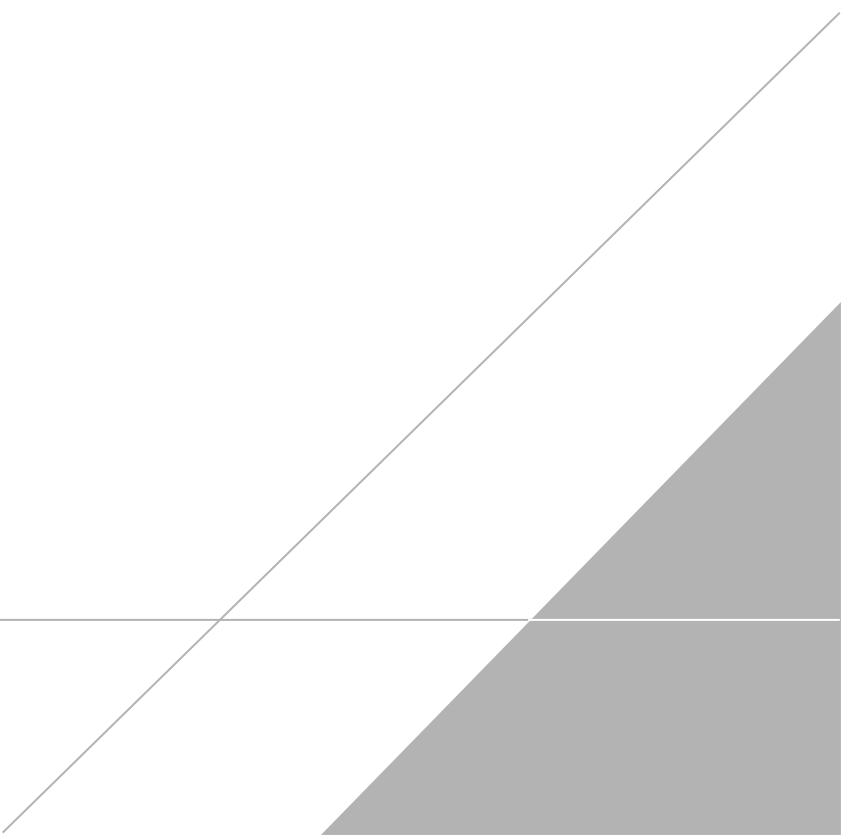
 ARCADIS | Design & Consultancy for natural and built assets

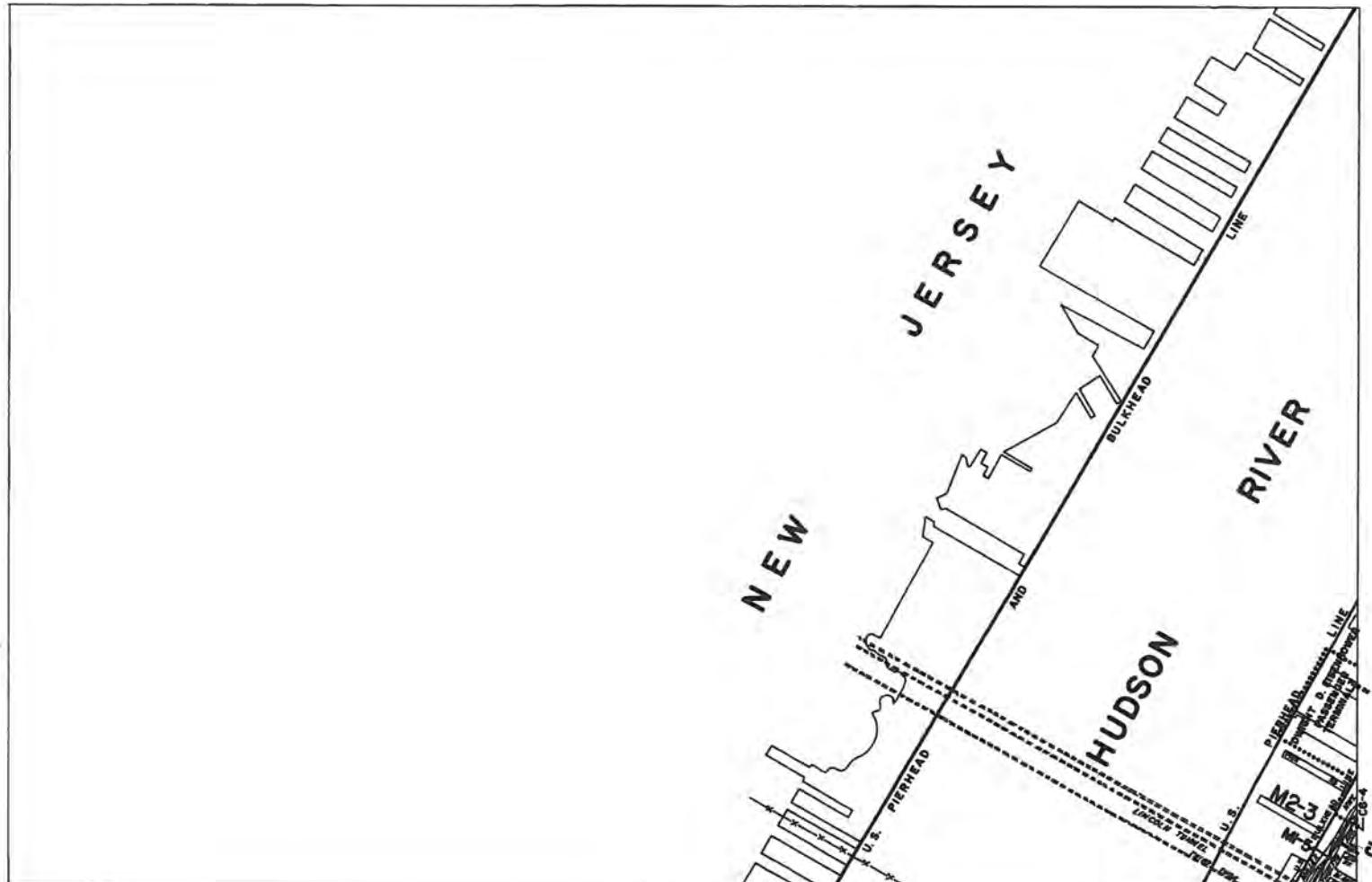
## **FIGURE 10**



# APPENDIX A

## NYC DOB Zoning Map





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

## ZONING MAP

THE NEW YORK CITY PLANNING COMMISSION

### Major Zoning Classifications:

The number(s) and/or letter(s) that follows an R, C or M District designation indicates use, bulk and other controls as described in the text of the Zoning Resolution.

**R** - RESIDENTIAL DISTRICT

**C** - COMMERCIAL DISTRICT

**M** - MANUFACTURING DISTRICT

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

**AREA(S) REZONED**

### Effective Date(s) of Rezoning:

02-22-1990 C 900052 ZMM

### Special Requirements:

For a list of lots subject to CEQR environmental requirements, see APPENDIX C.

For a list of lots subject to "D" restrictive declarations, see APPENDIX D.

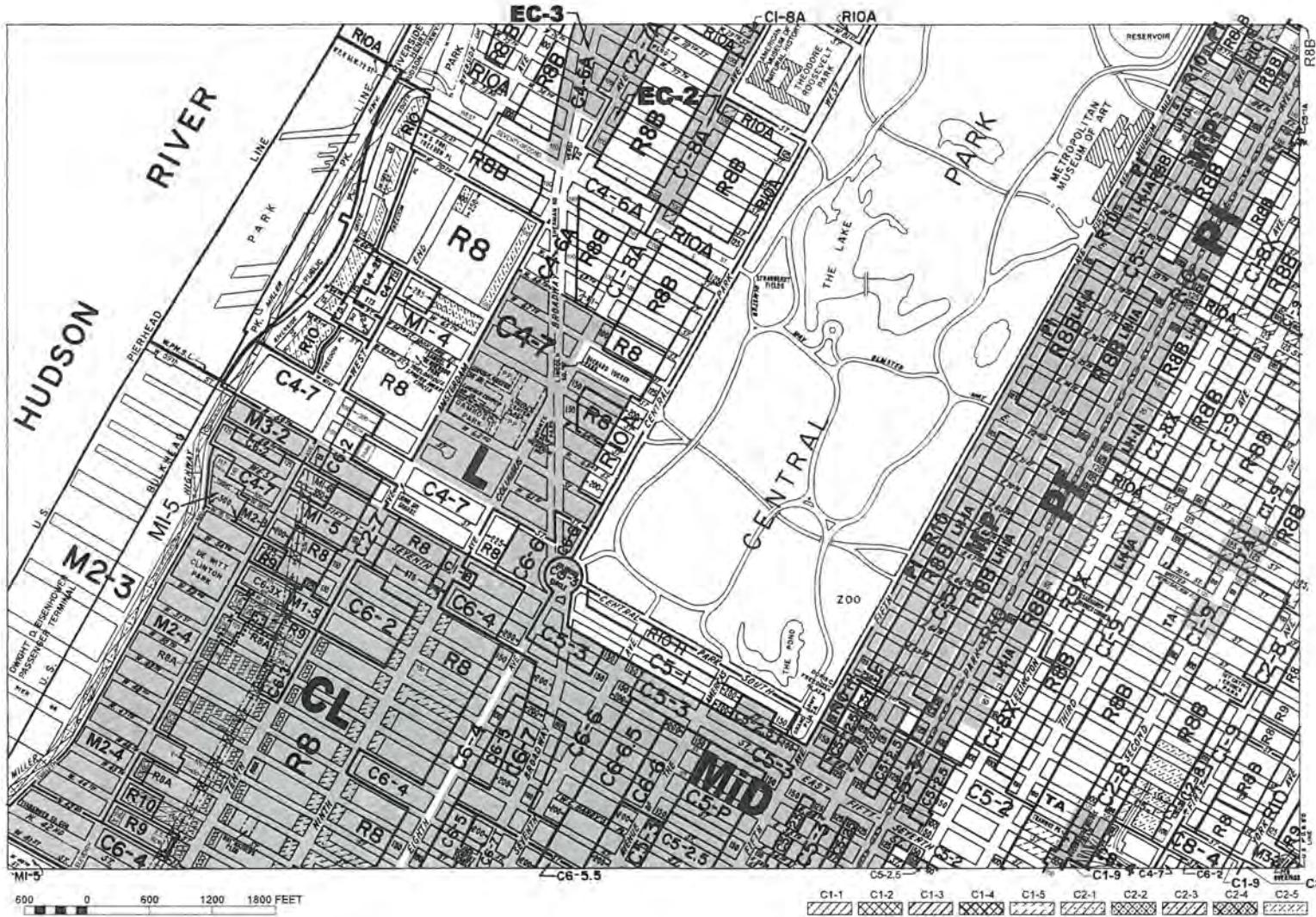
For Inclusionary Housing designated areas on this map, see APPENDIX F.

ZONING  
MAP 8a

	5d
8a	8c
8b	8d

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



## ZONING MAP

THE NEW YORK CITY PLANNING COMMISSION

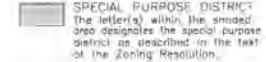
#### **Major Zoning Classifications:**

The number(s) and/or letter(s) that follows an R, C or M District designation indicates uses, bulk and other controls as described in the text of the Zoning Resolution.

R - RESIDENTIAL DISTRICT

C - COMMERCIAL DISTRICT

M - MANUFACTURING DISTRICT



**AREA(S) REZONED**

**Effective Date(s) of Rezoning**

### **Special Requirements**

For a list of lots subject to QEDR environmental requirements, see APPENDIX C.

For a list of lots subject to "D" restrictive declarations, see APPENDIX D.

APPENDIX B  
For Inclusionary Housing  
designated areas on this map.  
See APPENDIX E

1000

	5d	6b
8a	<b>8c</b>	9a
8b	8d	9b

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



## ZONING MAP

THE NEW YORK CITY PLANNING COMMISSION

### Major Zoning Classifications:

The number(s) and/or letter(s) that follows on R, C or M District designation indicates use, bulk and other controls as described in the text of the Zoning Resolution.

R — RESIDENTIAL DISTRICT

C — COMMERCIAL DISTRICT

M — MANUFACTURING DISTRICT

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

**AREA(S) REZONED**

### Effective Date(s) of Rezoning:

\*10-30-2013 C 130235 ZMM  
05-08-2013 C 130076 ZMM

### Special Requirements:

For a list of lots subject to CEQR environmental requirements, see APPENDIX C.

For a list of lots subject to "D" restrictive declarations, see APPENDIX D.

For Inclusionary Housing designated areas on this map, see APPENDIX F.

CITY MAP CHANGE(S):

▲ 04-11-2014 C 110253 MMQ  
▲ 10-12-2013 C 130007 MMM

N

### MAP KEY

8a	8c	9a
8b	<b>8d</b>	9b
12a	12c	13a

ZONING  
MAP

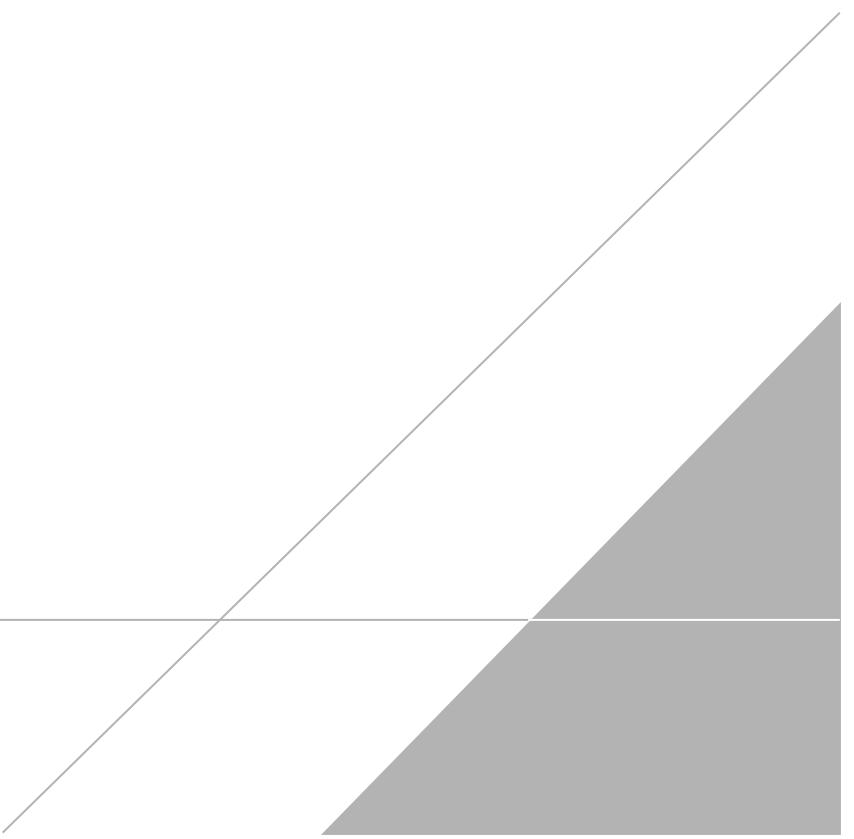
**8d**

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

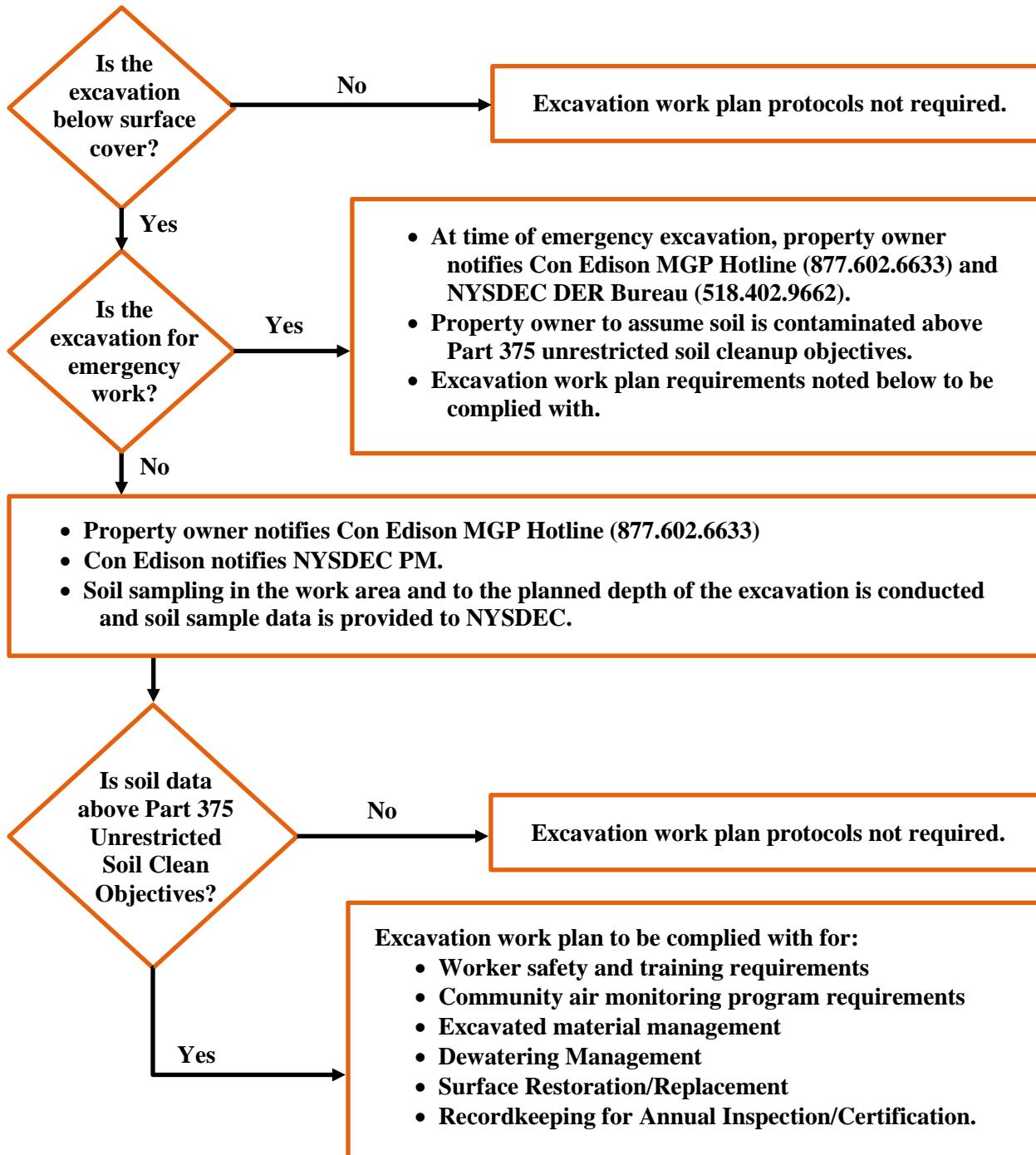
## **APPENDIX B**

### **Intrusive Activities Guidelines**



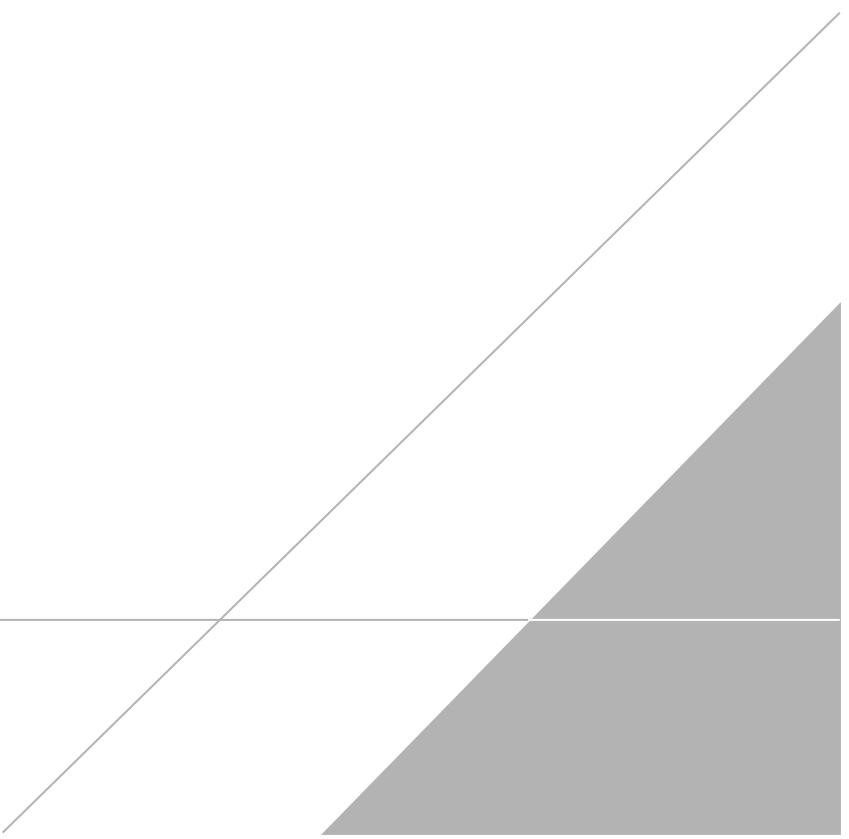
**APPENDIX B**  
**Remedial Action Work Plan**  
**Consolidated Edison Company of New York, Inc.**  
**West 42nd Street Former MGP Site**  
**New York, New York**

**INTRUSIVE ACTIVITIES GUIDELINES**



## **APPENDIX C**

### **NYSDOH Generic Community Air Monitoring Plan**



**Appendix 1A**  
**New York State Department of Health**  
**Generic Community Air Monitoring Plan**

Overview

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical- specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate DEC/NYSDOH staff.

**Continuous monitoring** will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

**Periodic monitoring** for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. “Periodic” monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or

overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

### VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

1. If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

2. If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

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

4. All 15-minute readings must be recorded and be available for State (DEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

### Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter ( $\text{mcg}/\text{m}^3$ ) 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  $\text{mcg}/\text{m}^3$  above the upwind level and provided that no visible dust is migrating from the work area.
2. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150  $\text{mcg}/\text{m}^3$  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  $\text{mcg}/\text{m}^3$  of the upwind level and in preventing visible dust migration.
3. All readings must be recorded and be available for State (DEC and NYSDOH) and County Health personnel to review.

December 2009

## **Appendix 1B**

### **Fugitive Dust and Particulate Monitoring**

A program for suppressing fugitive dust and particulate matter monitoring at hazardous waste sites is a responsibility on the remedial party performing the work. These procedures must be incorporated into appropriate intrusive work plans. The following fugitive dust suppression and particulate monitoring program should be employed at sites during construction and other intrusive activities which warrant its use:

1. Reasonable fugitive dust suppression techniques must be employed during all site activities which may generate fugitive dust.
2. Particulate monitoring must be employed during the handling of waste or contaminated soil or when activities on site may generate fugitive dust from exposed waste or contaminated soil. Remedial activities may also include the excavation, grading, or placement of clean fill. These control measures should not be considered necessary for these activities.
3. Particulate monitoring must be performed using real-time particulate monitors and shall monitor particulate matter less than ten microns (PM10) with the following minimum performance standards:
  - (a) Objects to be measured: Dust, mists or aerosols;
  - (b) Measurement Ranges: 0.001 to 400 mg/m<sup>3</sup> (1 to 400,000 :ug/m<sup>3</sup>);
  - (c) Precision (2-sigma) at constant temperature: +/- 10 :g/m<sup>3</sup> for one second averaging; and +/- 1.5 g/m<sup>3</sup> for sixty second averaging;
  - (d) Accuracy: +/- 5% of reading +/- precision (Referred to gravimetric calibration with SAE fine test dust (mmd= 2 to 3 :m, g= 2.5, as aerosolized);
  - (e) Resolution: 0.1% of reading or 1g/m<sup>3</sup>, whichever is larger;
  - (f) Particle Size Range of Maximum Response: 0.1-10;
  - (g) Total Number of Data Points in Memory: 10,000;
  - (h) Logged Data: Each data point with average concentration, time/date and data point number
  - (i) Run Summary: overall average, maximum concentrations, time/date of maximum, total number of logged points, start time/date, total elapsed time (run duration), STEL concentration and time/date occurrence, averaging (logging) period, calibration factor, and tag number;
  - (j) Alarm Averaging Time (user selectable): real-time (1-60 seconds) or STEL (15 minutes), alarms required;
  - (k) Operating Time: 48 hours (fully charged NiCd battery); continuously with charger;
  - (l) Operating Temperature: -10 to 50° C (14 to 122° F);
  - (m) Particulate levels will be monitored upwind and immediately downwind at the working site and integrated over a period not to exceed 15 minutes.
4. In order to ensure the validity of the fugitive dust measurements performed, there must be appropriate Quality Assurance/Quality Control (QA/QC). It is the responsibility of the remedial party to adequately supplement QA/QC Plans to include the following critical features: periodic instrument calibration, operator training, daily instrument performance (span) checks, and a record keeping plan.
5. The action level will be established at 150 ug/m<sup>3</sup> (15 minutes average). While conservative,

this short-term interval will provide a real-time assessment of on-site air quality to assure both health and safety. If particulate levels are detected in excess of 150 ug/m<sup>3</sup>, the upwind background level must be confirmed immediately. If the working site particulate measurement is greater than 100 ug/m<sup>3</sup> above the background level, additional dust suppression techniques must be implemented to reduce the generation of fugitive dust and corrective action taken to protect site personnel and reduce the potential for contaminant migration. Corrective measures may include increasing the level of personal protection for on-site personnel and implementing additional dust suppression techniques (see paragraph 7). Should the action level of 150 ug/m<sup>3</sup> continue to be exceeded work must stop and DER must be notified as provided in the site design or remedial work plan. The notification shall include a description of the control measures implemented to prevent further exceedances.

6. It must be recognized that the generation of dust from waste or contaminated soil that migrates off-site, has the potential for transporting contaminants off-site. There may be situations when dust is being generated and leaving the site and the monitoring equipment does not measure PM10 at or above the action level. Since this situation has the potential to allow for the migration of contaminants off-site, it is unacceptable. While it is not practical to quantify total suspended particulates on a real-time basis, it is appropriate to rely on visual observation. If dust is observed leaving the working site, additional dust suppression techniques must be employed. Activities that have a high dusting potential--such as solidification and treatment involving materials like kiln dust and lime--will require the need for special measures to be considered.

7. The following techniques have been shown to be effective for the controlling of the generation and migration of dust during construction activities:

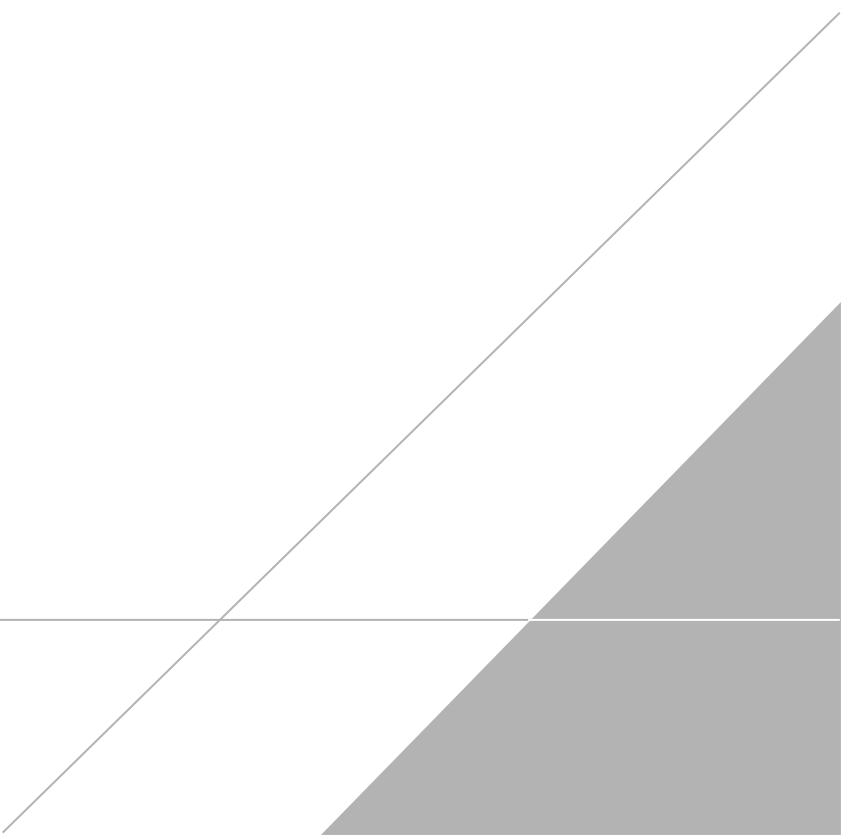
- (a) Applying water on haul roads;
- (b) Wetting equipment and excavation faces;
- (c) Spraying water on buckets during excavation and dumping;
- (d) Hauling materials in properly tarped or watertight containers;
- (e) Restricting vehicle speeds to 10 mph;
- (f) Covering excavated areas and material after excavation activity ceases; and
- (g) Reducing the excavation size and/or number of excavations.

Experience has shown that the chance of exceeding the 150ug/m<sup>3</sup> action level is remote when the above-mentioned techniques are used. When techniques involving water application are used, care must be taken not to use excess water, which can result in unacceptably wet conditions. Using atomizing sprays will prevent overly wet conditions, conserve water, and provide an effective means of suppressing the fugitive dust.

8. The evaluation of weather conditions is necessary for proper fugitive dust control. When extreme wind conditions make dust control ineffective, as a last resort remedial actions may need to be suspended. There may be situations that require fugitive dust suppression and particulate monitoring requirements with action levels more stringent than those provided above. Under some circumstances, the contaminant concentration and/or toxicity may require additional monitoring to protect site personnel and the public. Additional integrated sampling and chemical analysis of the dust may also be in order. This must be evaluated when a health and safety plan is developed and when appropriate suppression and monitoring requirements are established for protection of health and the environment.

## **APPENDIX D**

### **Institutional and Engineering Controls Inspection Checklist**



**APPENDIX D**  
**Remedial Action Work Plan**  
**Consolidated Edison Company of New York, Inc.**  
**West 42nd Street Former MGP Site**  
**New York, New York**

**INSTITUTIONAL AND ENGINEERING CONTROL (IC/EC) CERTIFICATION CHECKLIST**

**Site No.** V00531

**Site Name:** West 42<sup>nd</sup> Street Former MGP Site

**Site Location:** West 42<sup>nd</sup> Street, Manhattan, New York

**Reporting Period:**

**Certification Checklist**

#	Item	Yes	No
1	Is the information above correct?  If NO, include handwritten update above or on a separate sheet.		
2	Has any or all of the site property been sold, subdivided, merged or undergone a tax map amendment during this Reporting Period?		
3	Have any federal, state, and/or local permits (e.g., building permit) been issued at the MTA Bus Depot (Tax Block 1088 Lot 1) property, NYS Route 9A or Hudson River Greenway during this Reporting Period?		
4	Has there been any actual or pending zoning or land-use changes to the Site Management Plan area during this Reporting Period?		
5	Has the periodic site inspection identified any excavation or other disturbance activities that have taken place within the Site Management Plan area during this Reporting Period?		
6	Is any or all of the site currently undergoing development?		
7	Is the current site uses for each of the site properties consistent with the use(s) listed below?  A.MTA Bus Depot: <u>Industrial</u> B.Hudson River Park, Hudson River Greenway, NYS Route 9A, and West 41 <sup>st</sup> : <u>Public Right-of-Way</u>		
8	Are all ICs/ECs in place and functioning as designed?		

**Notes:**

- A.If you answered Yes to questions 2 thru 5 above, include documentation or evidence that documentation has been previously submitted included with this certification form.
- B.A Corrective Measures Work Plan must be submitted along with this form to address any issues identified.

### Control Certification Statement

For each Institutional or Engineering Control listed above, I certify by checking "Yes" below that all of the following statements are true:

A. The institutional and/or engineering controls employed at the site are:

- i. Unchanged since the date that the control was put in place, or was last approved by the Department;
- ii. In place and effective;
- iii. Performing as designed;
- iv. Nothing has occurred that would impair the ability of the controls to protect public health and environment; and
- v. Nothing has occurred that constitutes a violation or failure to comply with any operation and maintenance plan for such controls.

B. Access to the site will be provided to the Department to evaluate the remedy and verify continued maintenance of such controls.

Yes      No

**IC/EC CERTIFICATIONS**  
**Site No. V00531****SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE**

I \_\_\_\_\_ at \_\_\_\_\_  
(print name) (print business address)

am certifying as Owner (Owner or Remedial Party) for the Site named in the Site Information Section of this form

---

Signature of Owner or Remedial Party Rendering Certification

---

Date**QUALIFIED ENVIRONMENTAL PROFESSIONAL (QEP) SIGNATURE**

I \_\_\_\_\_ at \_\_\_\_\_  
(print name) (print business address)

am certifying as a Qualified Environmental Professional for the

---

(Owner or Remedial Party)

for the Site named in the Site Information Section of this form.

---

Signature of Qualified Environmental Professional,  
Owner or Remedial Party, Rendering Certification

---

Stamp (if Required)

---

Date

Arcadis of New York, Inc.

655 Third Avenue, 12<sup>th</sup> Floor

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