

**City of New York
Department of Environmental Protection**

**Emily Lloyd
Commissioner**



**PHASE I ENVIRONMENTAL SITE ASSESSMENT
FOR
SHAFT 33B – WATER MAIN ROUTE**

**OCTOBER 2004
Revised DECEMBER 2005**

Prepared By: Malcolm Pirnie, Inc.

CONTRACT: 561 (No. 20000030105)

New York City Department of Environmental Protection

ENVIRONMENTAL SITE ASSESSMENT REPORT
Shaft 33B – Water Main Route
New York, New York

TABLE OF CONTENTS

	Starting on <u>Page</u>
Limitations	1
1. Introduction	3
1.1. Scope of Services.....	3
1.2. Relationship to ASTM Standard Practice E1527	3
2. Site Description	5
2.1. Site Reconnaissance.....	5
2.2. General Site Information	5
2.3. Observations of Current Site Conditions	6
2.4. Description of Adjacent Lands and Vicinity Land Uses	6
2.5. Physical Environmental Setting.....	7
2.6. Site and Vicinity Photographs	7
2.7. Site Geology and Hydrogeology.....	7
3. Records Review	9
3.1. Government Environmental Databases	9
3.2. Historical Uses of Site and Adjacent Properties.....	26
3.2.1. EDR Sanborn/ Fire Insurance Maps	26
3.2.2. Aerial Photographs.....	29
3.2.3. NYC Building Department Records	29
4. Conclusions and Recommendations	30
4.1. Conclusions – Environmental Site Assessment.....	30
4.2. Recommendations – Environmental Site Assessment.....	32

FIGURES

Figure 1 – Site Location Map

APPENDICES

Appendix A – Site Topographic Map

Appendix B – Site and Vicinity Photographs and Photograph Key

Appendix C – FirstSearch Electronic Database Report

Appendix D – Aerial Photograph

ENVIRONMENTAL SITE ASSESSMENT REPORT
Shaft 33B – Water Main Route
New York, New York

LIMITATIONS

This Environmental Site Assessment (ESA) Report [**Report**] has been prepared for the sole use of Malcolm Pirnie, Inc.'s Client, the New York City Department of Environmental Protection (NYCDEP). The purpose of this Report is to provide information to the Client on the environmental conditions of the subject route bordered by E. 61st Street to the north, E. 53rd Street to the south, Sutton Place to the east, and Lexington Avenue to the west in New York, New York, as shown in the topographic map provided in Appendix A.¹

The use of and reliance on this Report by any person or entity other than the Client is not authorized without an agreement between the user and Malcolm Pirnie, Inc. Without an agreement with Malcolm Pirnie, Inc., the use of this report by an unauthorized user is for their information only and *shall be solely at the unauthorized user's risk*.

Malcolm Pirnie's work presented in this Report was performed pursuant to the Professional Services Contract between Malcolm Pirnie, Inc. and the NYCDEP, dated January 1, 2002, and the scope of work as described in Malcolm Pirnie's proposal to the Client: A500203 Tunnel 3 DSC. Any modifications, deviations or exceptions to the services proposed or limitations in the scope of the ESA arising out of site access issues and the actual availability of data and information related to the Site are as described in Section 1.2 of this Report.

An ESA can reduce but not wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with the Site. The conclusions in this Report have been based, in part, on information obtained from third parties including environmental agency records, and other public records regarding the Site obtained from various sources. Unless

¹ This ESA was previously submitted in October 2005 and was later revised for consistency in presentation and to clarify the results. Database results are based on the original FirstSearch database search conducted in March 2005.

ENVIRONMENTAL SITE ASSESSMENT REPORT
Shaft 33B – Water Main Route
New York, New York

noted, Malcolm Pirnie, Inc. has not independently evaluated or verified the accuracy or completeness of such third party information. Visual observations of the Site only represent conditions at the time of the site visit. Malcolm Pirnie, Inc. makes no warranties that the on-site observations made during the Environmental Site Assessment are representative of historical or future conditions at the Site. Malcolm Pirnie, Inc. performed its services and prepared this Report at the level customary for other prudent and competent professional engineers performing such services at the time and place where the services are provided. The Report shall be construed neither as a legal opinion nor as compliance with any environmental law. *Malcolm Pirnie, Inc. makes no other warranty, expressed or implied.*

ENVIRONMENTAL SITE ASSESSMENT REPORT
Shaft 33B – Water Main Route
New York, New York

1. INTRODUCTION

1.1 Scope of Services

An ESA is a due diligence process to identify *recognized environmental conditions* on a property.² This ESA Report provides factual information about the Site in support of the Client's "all appropriate inquiry" into the previous ownership and uses of property consistent with good commercial or customary practices. The Report may not address all requirements to qualify for an innocent landowner defense commonly associated with the Comprehensive Environmental Response Compensation and Liability Act (see 42 USC § 9601(35)(B), the "Superfund" law). The Client's knowledge and experience may also be factors in determining the extent of an "all appropriate inquiry," and only legal counsel is competent to determine the legal implications of the information or conclusions in this Report.

1.2 Relationship to ASTM Standard Practice E 1527

The current ASTM Standard E 1527 *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* provides guidelines for conducting an ESA. However, in the performance of this Assessment, as with any professional service, modifications or exceptions to, or deviations from such guidelines may occur because of factors including but not limited to instructions from the client, site conditions, the availability of records, or scheduling and timing issues. The scope of services Malcolm Pirnie developed for this ESA and accepted by Client is controlling.

² The definition of "recognized environmental conditions" is provided in the conclusion section of this Report.

ENVIRONMENTAL SITE ASSESSMENT REPORT
Shaft 33B – Water Main Route
New York, New York

It is standard procedure to review certain items when developing Phase I ESA reports. However, Bureau of Environmental Planning and Assessment (BEPA) has instructed Malcolm Pirnie not to include the following items in this ESA:

- Interviews with site occupants, and past/present owners of the site and adjacent sites
- City Directories and Title boundaries

ENVIRONMENTAL SITE ASSESSMENT REPORT
Shaft 33B – Water Main Route
New York, New York

2. SITE DESCRIPTION

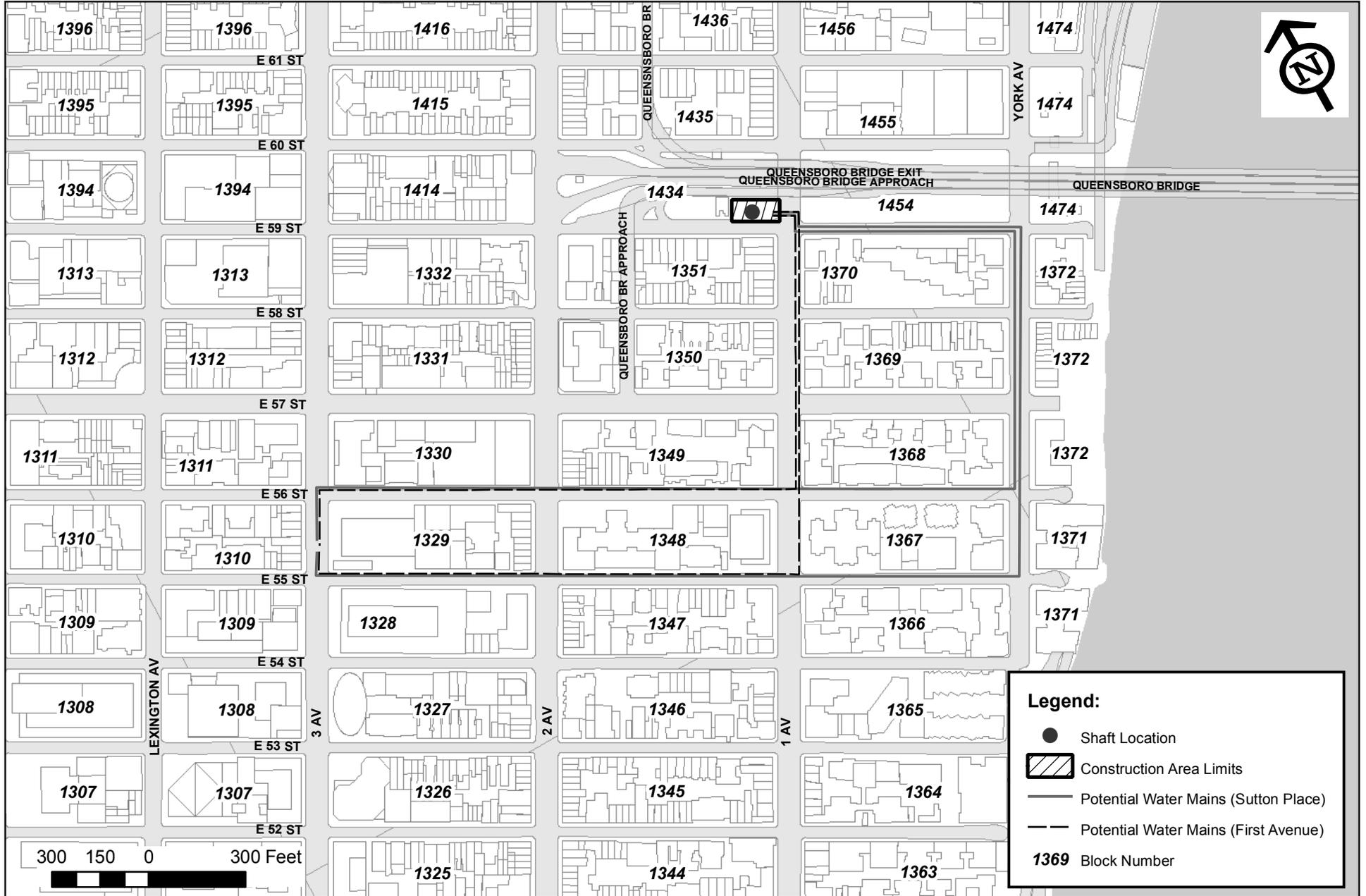
This Report presents the findings of the ESA for the preferred Shaft 33B Site Water Main Route corridor bordered by E. 61st Street to the north, E. 53rd Street to the south, Sutton Place to the east, and Lexington Avenue to the west in New York, New York (Site). The ESA was commissioned by the NYCDEP and was conducted by Malcolm Pirnie, Inc. pursuant to an Agreement, under Contract 561 (No. 20000030105) and a scope of services first described in Malcolm Pirnie's proposal to the NYCDEP: A500203 Tunnel 3 DSC.

2.1 Site Reconnaissance

Warren Riznychok (Malcolm Pirnie) performed a site reconnaissance on March 18th, 2005. This reconnaissance included a general observation of the site and the surrounding buildings, properties, and neighborhoods.

2.2 General Site Information

The Route, as shown in Figure 1, consists of a corridor of land encompassing adjacent properties at a distance of ¼ mile from the water main route in New York, New York. The area around the Site is zoned for a variety of uses, including residential development, commercial uses, infrastructure, and open space. Occupied commercial space consists predominantly of small, independently-owned businesses at ground level with residential space above. The Site is bordered by E. 61st Street to the north, E. 53rd Street to the south, Sutton Place to the east, and Lexington Avenue to the west.



Map Document: (S:\Projects\2175158\GIS_Figures\Shaft_33\BEIS_Field_Work\WaterMains(1st_Ave_Sutton_Place).mxd) 12/8/2005 -- 11:39:22 AM



NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
PROPOSED SHAFT 33B TO CITY TUNNEL NO. 3
STAGE 2 - MANHATTAN LEG
WATER MAIN CONNECTIONS
FIRST AVENUE AND SUTTON PLACE ROUTES SITE LOCATION MAP

FIGURE 1

ENVIRONMENTAL SITE ASSESSMENT REPORT
Shaft 33B – Water Main Route
New York, New York

2.3 Observations of Current Site Conditions

A site walk on March 18th, 2005 identified the following existing conditions of the water main route Study Area:

- The area surrounding the Site consists of a wide range of ground level commercial establishments with residential units above, high-rise apartment buildings, open space, parking garages and other retail and commercial establishments typical of New York City.
- The Site is paved with asphalt and is heavily traveled and often congested with traffic because of its proximity to the Queensboro Bridge.
- The Site is also used daily by delivery vehicles providing a wide array of supplies to retail establishments along the water main connections route.

2.4 Description of Adjacent Lands and Vicinity Land Uses

The Site is located in a mixed business, commercial, residential, and public transportation area. There are eight buildings listed in the national register of historic buildings within ½ mile of the Site, and one receptor site within ½ mile of the Site. Although the environmental database indicates that there is one receptor site, it did not identify the name or location of this site.

The following are descriptions of current land uses immediately adjacent to the Site as observed during site reconnaissance:

- North: E. 61st Street with ground level commercial establishments and residential units above, and the Queensboro Bridge.
- South: E. 53rd Street with ground level commercial establishments and residential units above.
- West: Lexington Avenue with a variety of commercial establishments and residential uses.
- East: Sutton Place with a variety of commercial establishments and residential uses.

ENVIRONMENTAL SITE ASSESSMENT REPORT
Shaft 33B – Water Main Route
New York, New York

2.5 Physical Environmental Setting

Land in the vicinity of the Site is relatively flat, and areas within ½ mile of the Site along the East River are located within the 100- and 500-year flood plains. There are no wetlands listed in the U.S. Fish and Wildlife Service’s National Wetlands Inventory where the water main route would be located. There are also no water bodies along the water main route itself. The nearest water body is the East River, approximately ¼ mile to the east of the water main route.

There are four federal USGS wells within ¼ mile of the Site and one additional well within ½ mile of the Site. Based on database information, out of these five wells, only one is still active.

2.6 Site and Vicinity Photographs

Photographs taken during the Site reconnaissance are provided in Appendix B. The photographs show the following features:

- The Site is in a general state of “good repair.”
- The Site and surrounding area is predominantly covered by asphalt, pavement, curbs and concrete, and possesses a variety of vehicles and equipment related to vehicular traffic deliveries to commercial establishments, maintenance activities of utilities servicing the surrounding structures, and general activities related to sanitation for refuse and other domestic and commercial needs.

2.7. Site Geology and Hydrogeology

Recent geotechnical borings at the preferred Shaft 33B Site located at the north end of the water main route are likely representative of conditions along the length of the water main route. The recent borings at preferred Shaft 33B Site showed bedrock to be approximately 22 feet below

ENVIRONMENTAL SITE ASSESSMENT REPORT
Shaft 33B – Water Main Route
New York, New York

grade. Groundwater was encountered from 10 to 15 feet below grade and the general direction of groundwater flow was from west to east towards the East River. Based on topographic maps of the area around the Site, the overland flow of water (i.e. storm water and environmental releases) would also flow in a west to east direction.

ENVIRONMENTAL SITE ASSESSMENT REPORT
Shaft 33B – Water Main Route
New York, New York

3. RECORDS REVIEW

Malcolm Pirnie reviewed records from reasonably ascertainable sources, which were publicly available and obtained within the time and budget constraints of this ESA, but did not require an extraordinary review of irrelevant data in the process. This record review was conducted to obtain information regarding the Site's recognized environmental conditions.

3.1 Government Environmental Databases

Malcolm Pirnie obtained a listing of federal and state environmental enforcement sites from a private database management firm, FirstSearch Technology Corporation, for the area in which the Site is located. This firm organizes government agency list sources in a consolidated format. Malcolm Pirnie makes no representation about the reliability and accuracy of the information contained within the lists. The complete database report, as Appendix C, is available at Malcolm Pirnie Inc.'s New York City Office located at:

Malcolm Pirnie Inc
75-20 Astoria Boulevard, Suite 350
Jackson Heights, New York 11370

The lists and the geographic area included in the search are presented below. **Please note, the list names for which the search returned positive findings are noted in bold letters and highlighted.**

ENVIRONMENTAL SITE ASSESSMENT REPORT
Shaft 33B – Water Main Route
New York, New York

Government Database List	Distance From Site (miles)
<i>Federal</i>	
NPL	National Priority List 0.25
CERCLIS	Comprehensive Environmental Response, Compensation and Liability Information System 0.25
CERCLIS-NFRAP	CERCLIS – No Further Remedial Action Planned 0.25
RCRIS-TSD	Resource Conservation and Recovery Information System –Treatment, Storage, Disposal 0.25
RCRIS-COR	RCRIS – Corrective Action Sites 0.25
RCRIS-GEN	RCRIS – Hazardous Waste Generator 0.25
RCRIS-NLR	RCRIS – No Longer Regulated 0.25
ERNS	Emergency Response Notification System 0.25
NPDES	National Pollution Discharge Elimination System 0.25
FINDS	Facility Index System 0.25
TRIS	Toxic Release Inventory System 0.25
HMIRS	Hazardous Material Incident Reporting System 0.25
NCDB	National Compliance Database 0.25
PADS	PCB Administrative Database System 0.25
Wetlands	National Wetlands Inventory 0.25
Floodplains	Flood Zone Boundaries 0.25
Nuclear Permits	Nuclear Regulatory Commission Permits 0.25
Historic/ Landmark	National Register of Historic Places 0.25
Federal Land Use	Federal Land Use Restricted Areas 0.25
Federal Wells	Federal Wells List 0.25

ENVIRONMENTAL SITE ASSESSMENT REPORT
Shaft 33B – Water Main Route
New York, New York

Government Database List	Distance From Site (miles)
<i>Federal Cont.</i>	
Receptors	1990 Census Bureau Listing
Soils	USGS Soil Data
Federal Other	0.25
<i>State</i>	
State Sites	State Sites List
Spills – 1990	State Spills List
Spills – 1980	State Spills List
SWL	Solid Waste Landfills
Permits	Permitted Facilities
REG UST/ AST	Registered Underground Storage Tanks/ Aboveground Storage Tanks
LUST	Leaking Underground Storage Tanks
State Wells	State Wells List
State Other	0.25
<i>Federal and State</i>	
Aquifers	Water Related GIS Data Layers
ACEC	Areas of Critical Environmental Concern
Releases (Air/Water)	0.25
Towers	0.25
Misc.	0.25

Of the positive database findings, the following items may represent an environmental condition as related to the Site. Detailed information regarding these items can be found within the FirstSearch data report, which is available at:

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Jackson Heights, New York 11370

ENVIRONMENTAL SITE ASSESSMENT REPORT
Shaft 33B – Water Main Route
New York, New York

Within ¼ mile of the Site, there are 247 Registered Underground Storage Tanks (USTs) / Aboveground Storage Tanks (ASTs). In addition, the following are present:

- 29 RCRIS Large Quantity Generators
- 27 RCRIS Small Quantity Generators
- 25 RCRIS Conditionally Exempt Small Quantity Generators
- 4 RCRIS Transporters
- 2 RCRIS Treatment, Storage, Disposal Facilities
- 63 RCRIS No Longer Regulated

There are 30 Emergency Response Notification System (ERNS) sites within ¼ mile of the Site.

The following materials were reported:

- #2 and #6 Fuel Oils
- Gasoline
- Jet Fuel
- Non-PCB Containing Transformer Oil
- PCB-Containing Transformer Oil
- Hydraulic Oil
- Unknown Oil
- Dielectric Fluid
- Natural Gas
- Hydrochloric Acid
- Asbestos
- Smoke
- Unknown Material

There is one Toxic Release Inventory System (TRIS) site within ¼ mile of the Site. The TRIS site has an “open” status and reports having 1,1,1-Trichloroethane between 1987 and 1993.

ENVIRONMENTAL SITE ASSESSMENT REPORT
Shaft 33B – Water Main Route
New York, New York

There were 15 spills reported within ¼ mile of the Water Main route as identified in the 1980 database and there were 366 spills reported within ¼ mile of the Water Main route as identified in the 1990 database. Groundwater hydrogeology at the Site flows from west to east towards the East River. Area topography based on USGS mapping of the water main route area also suggest that spills which are west of the Site would flow in an eastwardly direction and therefore represent incidents most likely to impact Site groundwater or soils. Additional details regarding all spills can be found in the environmental database search report in Appendix C which is located in Malcolm Pirnie Inc.’s New York City office at:

Malcolm Pirnie Inc.
 75-20 Astoria Boulevard, Suite 350
 Jackson Heights, New York 11370

The following table lists the 1980 database spills located immediately to the west or within one block north or south of the water main route and are the spills most likely to have had any impact on the site:

Search ID No.	Location	Material Spilled	Media Affected	Quantity	Status/ Closure Date
832	Department of Sanitation Garage 8	Diesel	Groundwater	>1 Liter	Active
837	400 E. 56 th Street	#6 Fuel Oil	Land	Unknown	Active
829	400 E. 62 nd Street @ First Avenue	Gasoline	Land	>1 (Unknown)	11/21/1994
827	348 E. 58 th Street	#2 Fuel Oil	Groundwater	>1 (Unknown)	11/04/1993
831	50 Sutton Place	#6 Fuel Oil	Land	100 Gal.	12/04/1992

ENVIRONMENTAL SITE ASSESSMENT REPORT
Shaft 33B – Water Main Route
New York, New York

Search ID No.	Location	Material Spilled	Media Affected	Quantity	Status/ Closure Date
826	First Avenue @ E. 62 nd Street	Gasoline	Air	>1 (Unknown)	12/11/1989
834	E. 55 th Street @ Park Avenue	#2 Fuel Oil	Sewer	100 Gal.	05/26/1989
830	407 E. 61 st Street	Gasoline	Air	>1 (Unknown)	06/15/1988
825	First Avenue between E. 58 th and 62 nd Streets	Gasoline	Air	>1 (Unknown)	08/31/1987
824	First Avenue between E. 53 rd and 57 th Streets.	Gasoline	Air	>1 (Unknown)	12/11/1986

The following table lists the 1990 database spills located immediately to the west or within one block north or south of the water main route and are the spills most likely to have had any impact on the site:

Search ID No.	Location	Material Spilled	Media Affected	Quantity	Status/ Closure Date
513	350 E. 60 th Street	Gasoline	Land	>1 (Unknown)	Active
716	E. 57 th Street @ Lexington Avenue	Cable Oil	Sewer	1 Gal.	Active
705	E. 57 th Street @ First Avenue	Dielectric Fluid	Groundwater	1 Gal.	Active
722	E. 54 th Street @ Lexington Avenue	Dielectric Fluid	Land	1 Gal.	Active
710	E. 59 th Street @ First Avenue	Unknown Petroleum	Land	1 Gal.	Active
692	E. 58 th Street between Lexington and Park Avenues	Unknown Petroleum	Land	1 Gal.	Active

ENVIRONMENTAL SITE ASSESSMENT REPORT
Shaft 33B – Water Main Route
New York, New York

Search ID No.	Location	Material Spilled	Media Affected	Quantity	Status/ Closure Date
715	E. 57 th Street @ Lexington Avenue	Dielectric Fluid	Land	2 Gal.	Active
504	333 E. 55 th Street	#6 Fuel Oil	Groundwater	200 Gal.	Active
561	130 E. 57 th Street	#4 Fuel Oil	Unknown	250 Gal.	Active
802	130 E. 57 th Street	#4 Fuel Oil	Land	250 Gal.	Active
788	214 E. 54 th Street	Transformer Oil	Soil	5 Gal.	Active
782	125-137 E. 57 th Street	Transformer Oil	Land	5 Gal.	Active
785	209 E. 55 th Street	Transformer Oil (PCB)	Sewer	60 Gal.	Active
819	401 E. 58 th Street	#2 Fuel Oil	Land	Unknown	Active
552	340 E. 58 th Street	#4 Fuel Oil	Land	Unknown	Active
550	135 E. 54 th Street	#6 Fuel Oil	Unknown	Unknown	Active
585	E. 56 th Street @ Third Avenue	Asbestos	Air	Unknown	Active
673	350 E. 60 th Street	Gasoline	Land	Unknown	Active
548	421 E. 60 th Street	Jet Fuel	Land	Unknown	Active
787	137 E. 58 th Street @ Lexington Avenue	Unknown Petroleum	Land	Unknown	Active
470	E. 60 th Street @ York Avenue	Unknown Petroleum	Groundwater	100 Gal.	Active
549	346 E. 62 nd Street	Unknown Petroleum	Land	Unknown	Active
553	321 E. 52 nd Street	#2 Fuel Oil	Land	50 Gal.	Active
562	308-310 E. 53 rd Street	Unknown Petroleum	Groundwater	Unknown	Active
581	E. 53 rd Street @ Lexington Avenue	Unknown Petroleum	Land	1 Gal.	Active
666	50 Sutton Place	#6 Fuel Oil	Land	5 Gal.	Active
669	253 E. 62 nd Street	Unknown Petroleum	Land	Unknown	Active
678	E. 55 th Street @ Sutton Place	Transformer Oil	Soil	Unknown	Active
698	E. 52 nd Street and Third Avenue	Dielectric Fluid	Land	1 Gal.	Active
701	E.57 th Street @ Sutton Place	Unknown	Soil	1 Gal.	Active

ENVIRONMENTAL SITE ASSESSMENT REPORT
Shaft 33B – Water Main Route
New York, New York

Search ID No.	Location	Material Spilled	Media Affected	Quantity	Status/ Closure Date
730	1132 York Avenue	Gasoline	Land	Unknown	Active
742	328 E. 53 rd Street	#2 Fuel Oil	Land	Unknown	Active
762	135 E. 59 th Street	Transformer Oil	Sewer	5 Gal.	Active
764	25 Sutton Place	Transformer Oil (10 ppm PBCs)	Land	20 Gal.	Active
765	E. 61 st Street @ Second Avenue	Dielectric Fluid	Land	4 Gal.	Active
773	E. 60 th Street @ York Avenue	Diesel	Land	2 Gal.	Active
776	107 E. 59 th Street	Unknown Petroleum	Land	1 Gal.	Active
800	E. 60 th Street @ York Avenue	Transmission Fluid	Land	Unknown	Active
814	403 E. 58 th Street	Unknown Petroleum	Land	Unknown	Active
821	1176 Second Avenue	Hydraulic Oil	Unknown	Unknown	Active
661	214 E. 52 nd Street	Hydraulic Acid	Soil	1 Gal.	10/19/2004
763	109 E. 58 th Street	Transformer Oil	Soil	100 Gal.	09/28/2004
741	E. 59 th St. @ Second Avenue	Unknown Petroleum	Soil	Unknown	08/25/2004
740	Queensboro Bridge between York and First Avenues	Dielectric Fluid	Land	1 Gal.	08/17/2004
566	144 E. 60 th Street	Kerosene	Land	1 Gal.	07/16/2004
712	E. 58 th Street @ First Avenue	Unknown Petroleum	Land	2 Gal.	06/03/2004
754	419 E. 60 th Street	Diesel	Land	300 Gal.	05/03/2004
736	909 Third Avenue	Diesel	Soil	70 Gal.	04/26/2004
695	E. 57 th Street @ Lexington Avenue.	Dielectric Fluid	Land	1 Gal.	04/20/2004
725	E. 57 th Street @ First Avenue	Unknown Petroleum	Land	1 Gal.	04/08/2004

ENVIRONMENTAL SITE ASSESSMENT REPORT
Shaft 33B – Water Main Route
New York, New York

Search ID No.	Location	Material Spilled	Media Affected	Quantity	Status/ Closure Date
727	E. 54 th Street @ Second Avenue	Unknown Petroleum	Land	1 Gal.	04/08/2004
707	E. 54 th Street @ Second Avenue	Unknown Material	Land	5 Gal.	04/08/2004
684	E. 61 st Street @ Second Avenue	Unknown Non-Petroleum	Land	5 Gal.	03/24/2004
786	130 E. 54 th Street	Unknown Petroleum	Land	2 Gal.	03/18/2004
721	1133 York Avenue	#2 Fuel Oil	Land	Unknown	03/18/2004
808	E. 54 th Street @ Second Avenue	Unknown Petroleum	Land	1 Gal.	03/17/2004
781	201-213 E. 58 th Street	Unknown Petroleum	Land	4 Gal.	03/17/2004
711	E. 62 nd Street @ Second Avenue	Unknown Petroleum	Land	20 Gal.	03/15/2004
804	966 First Avenue	Unknown Petroleum	Soil	Unknown	03/11/2004
803	316 E. 55 th Street	Unknown Petroleum	Soil	Unknown	02/13/2004
723	878 Third Avenue	Dielectric Fluid	Land	1 Gal.	02/12/2004
659	82 E. 56 th Street	Transformer Oil	Land	100 Gal.	02/10/2004
777	410 E. 58 th Street	Dielectric Fluid	Land	1 Gal.	02/10/2004
671	157 E. 59 th Street	Transformer Oil	Land	20 Gal.	02/09/2004
768	200 E. 55 th Street	Dielectric Fluid	Land	10 Gal.	02/06/2004
706	E. 61 st Street @ First Avenue	Unknown Petroleum	Land	1 Gal.	02/05/2004
508	342 E. 53 rd Street	#2 Fuel Oil	Land	Unknown	02/04/2004
679	E. 60 th Street @ Lexington Avenue	Unknown Petroleum	Land	1 Gal.	02/03/2004

ENVIRONMENTAL SITE ASSESSMENT REPORT
Shaft 33B – Water Main Route
New York, New York

Search ID No.	Location	Material Spilled	Media Affected	Quantity	Status/ Closure Date
688	E. 57 th Street @ Lexington Avenue	Dielectric Fluid	Land	1 Gal.	02/03/2004
714	E. 60 th Street @ Lexington Avenue	Unknown Petroleum	Land	1 Gal.	02/03/2004
652	1132 York Avenue	Unknown Petroleum	Groundwater	Unknown	02/02/2004
813	E. 57 th Street @ First Avenue	Unknown Petroleum	Land	8 Gal.	01/29/2004
789	228 E. 58 th Street	#6 Fuel Oil	Land	Unknown	01/05/2004
506	339 E. 58 th Street	#6 Fuel Oil	Land	10 Gal.	12/22/2003
755	440 Park Avenue	#6 Fuel Oil	Land	900 Gal.	12/10/2003
662	E. 60 th Street Generating Station	Kerosene	Land	1 Gal.	11/17/2003
584	E. 56 th St. @ Third Avenue	Unknown Material	Land	Unknown	11/14/2003
668	111 E. 56 th Street	Motor Oil	Land	Unknown	11/10/2003
667	E. 60 th Street @ Lexington Avenue	Dielectric Fluid	Land	1 Gal.	11/05/2003
747	127 E. 55 th Street	Unknown Petroleum	Land	1 Gal.	11/05/2003
471	200 E. 55 th Street	Dielectric Fluid	Land	1 Gal.	11/04/2003
700	E. 57 th Street @ Third Avenue	Unknown Material	Sewer	5 Gal.	11/04/2003
780	45 Sutton Place	Transformer Oil	Land	1 Gal.	11/04/2003
546	992 Second Avenue	Waste Oil	Land	Unknown	10/27/2003
639	1132 York Avenue	Gasoline	Sewer	11 Gal.	10/09/2003
640	1132 York Avenue	Gasoline	Land	Unknown	09/11/2003
651	1132 York Avenue	Gasoline	Groundwater	Unknown	09/11/2003
731	1132 York Avenue	Gasoline	Land	Unknown	09/11/2003
744	E. 55 th Street @ First Avenue	Diesel	Land	100 Gal.	08/29/2003
686	E. 60 th Street @ First Avenue	Unknown Petroleum	Land	9 Gal.	08/27/2003

ENVIRONMENTAL SITE ASSESSMENT REPORT
Shaft 33B – Water Main Route
New York, New York

Search ID No.	Location	Material Spilled	Media Affected	Quantity	Status/ Closure Date
531	E. 60 th Street @ York Avenue	Diesel	Sewer	Unknown	08/08/2003
792	470 Park Avenue	#6 Fuel Oil	Land	4 Gal.	07/09/2003
727	1132 York Avenue	Gasoline	Groundwater	Unknown	07/02/2003
728	1132 York Avenue	Gasoline	Air	Unknown	07/02/2003
729	1132 York Avenue	Gasoline	Groundwater	Unknown	07/02/2003
820	E. 57 th Street @ First Avenue.	Dielectric Fluid	Land	1 Gal.	06/02/2003
672	E. 60 th Street @ Lexington Avenue	Unknown Petroleum	Sewer	8 Gal.	04/21/2003
522	419 Park Avenue	#2 Fuel Oil	Sewer	Unknown	04/15/2003
823	405 E. 54 th Street	#6 Fuel Oil	Land	20 Gal.	03/21/2003
560	246 E. 53 rd Street	#2 Fuel Oil	Land	Unknown	03/18/2003
559	20 Sutton Place	#2 Fuel Oil	Groundwater	<1 Unknown	03/07/2003
541	880 Third Avenue	Mercury	Land	10 lbs.	03/04/2003
655	First Avenue @ E. 61 st Street	#2 Fuel Oil	Land	Unknown	03/03/2003
464	142-148 E. 57 th Street	Diesel	Land	Unknown	03/03/2003
539	686 Lexington Avenue	#2 Fuel Oil	Land	Unknown	02/28/2003
809	149 E. 60 th Street	#2 Fuel Oil	Land	5 Gal.	02/24/2003
807	347 E. 54 th Street	#2 Fuel Oil	Land	10 Gal.	02/19/2003
492	310 E. 55 th Street	#6 Fuel Oil	Land	5 Gal.	02/13/2003
481	245 E. 58 th Street	Ethylene Glycol	Land	1 Gal.	10/28/2002
703	York Avenue @ E. 62 nd Street	Motor Oil	Land	1 Gal.	10/16/2002
674	E. 58 th Street @ Lexington Avenue	Unknown Material	Land	Unknown	10/15/2002
793	420 E. 61 st Street	Gasoline	Land	Unknown	10/08/2002
689	Lexington Avenue @ E. 57 th Street	Unknown Petroleum	Land	1 Gal.	08/23/2002
806	252 E. 61 st Street	#6 Fuel Oil	Land	20 Gal.	05/10/2002
734	680 Lexington Avenue	#2 Fuel Oil	Land	10 Gal.	04/04/2002
756	440 Park Avenue	#6 Fuel Oil	Groundwater	Unknown	03/17/2002
778	E. 57 th Street @ Second Avenue	Transformer Oil	Land	8 Gal.	12/14/2001

ENVIRONMENTAL SITE ASSESSMENT REPORT
Shaft 33B – Water Main Route
New York, New York

Search ID No.	Location	Material Spilled	Media Affected	Quantity	Status/ Closure Date
719	163-165 E. 52 nd Street	Unknown Petroleum	Land	5 Gal.	11/27/2001
676	E. 57 th Street @ Second Avenue	Unknown Petroleum	Land	1 Gal.	11/26/2001
519	410 E. 57 th Street	#6 Fuel Oil	Land	200 Gal.	11/06/2001
694	E. 56 th Street @ Lexington Avenue	Dielectric Fluid	Land	1 Gal.	10/17/2001
582	E. 55 th Street @ First Avenue	Diesel	Land	150 Gal.	08/27/2001
693	208 E. 58 th Street	Unknown Petroleum	Land	8 Gal.	08/07/2001
718	E. 60 th Street @ Lexington Avenue	Unknown Petroleum	Land	1 Gal.	07/13/2001
708	E. 54 th Street @ Second Avenue	Unknown Petroleum	Land	1 Gal.	07/11/2001
653	First Avenue between E. 54 th and E. 55 th Streets	Diesel	Land	Unknown	06/29/2001
680	E. 52 nd Street and Third Avenue	Cable Oil	Land	Unknown	06/05/2001
717	E. 57 th Street @ Lexington Avenue	Unknown Petroleum	Land	1 Gal.	04/26/2001
677	E. 57 th Street @ Second Avenue	Unknown Petroleum	Land	1 Gal.	04/12/2001
675	E. 56 th Street @ Second Avenue	Unknown Petroleum	Land	1 Gal.	04/11/2001
681	E. 59 th Street @ Sutton Place	Unknown Petroleum	Land	1 Gal.	12/14/2000
498	321 E. 54 th Street	#6 Fuel Oil	Land	Unknown	11/28/2000
810	117 E. 60 th Street	#2 Fuel Oil	Land	100 Gal.	10/05/2000
690	E. 59 th Street @ York Avenue	Unknown Petroleum	Land	4 Gal.	05/19/2000
670	E. 61 st Street @ First Avenue	Unknown Petroleum	Land	1 Gal.	05/18/2000
630	1102-1106 First Avenue	Gasoline	Land	Unknown	03/28/2000
783	409-415 E. 60 th Street	Unknown Petroleum	Land	Unknown	02/23/2000

ENVIRONMENTAL SITE ASSESSMENT REPORT
Shaft 33B – Water Main Route
New York, New York

Search ID No.	Location	Material Spilled	Media Affected	Quantity	Status/ Closure Date
699	E. 55 th Street @ Third Avenue	Unknown Petroleum	Land	1 Gal.	12/02/1999
775	101 E. 56 th Street	Transmission Fluid	Sewer	100 Gal.	11/08/1999
696	E. 60 th Street @ Lexington Avenue	Unknown Petroleum	Land	10 Gal.	11/05/1999
586	E. 60 th Street between First and York Avenues	Diesel	Sewer	50 Gal.	10/30/1999
697	E. 61 st Street @ Lexington Avenue	Dielectric Fluid	Land	1 Gal.	05/18/1999
702	York Avenue @ E. 61 st Street	Unknown Petroleum	Land	Unknown	05/18/1999
816	351 E. 61 st Street	#2 Fuel Oil	Land	Unknown	05/14/1999
682	E. 57 th Street @ First Avenue	Unknown Petroleum	Land	1 Gal.	05/11/1999
704	E. 57 th Street @ First Avenue	Unknown Petroleum	Sewer	1 Gal.	05/11/1999
748	129 E. 55 th Street	Unknown Material	Land	1 Gal.	03/31/1999
540	866 Third Avenue	Transformer Oil	Land	1 Gal.	11/30/1998
565	440 Park Avenue	#6 Fuel Oil	Land	50 Gal.	10/08/1998
484	Second Avenue between E. 59 th and E. 60 th Streets	Motor Oil	Sewer	25 Gal.	08/04/1998
514	352 E. 52 nd Street	Transformer Oil	Land	Unknown	07/28/1998
467	165 E. 60 th Street	Asbestos	Land	Unknown	05/27/1998
530	E. 59 th Street @ York Avenue	Dielectric Fluid	Land	1 Gal.	05/04/1998
563	124 E. 57 th Streets @ Lexington Avenue	Hydraulic Oil	Sewer	400 Gal.	04/08/1998
771	311 E. 54 th Street	Antifreeze	Land	30 Gal.	03/19/1998
478	234 E. 52 nd Street	#2 Fuel Oil	Land	3 Gal.	02/04/1998
507	340 E. 55 th Street	Asbestos	Land	Unknown	01/16/1998
472	21 Sutton Place	Antifreeze	Land	1 Gal.	01/08/1998

ENVIRONMENTAL SITE ASSESSMENT REPORT
Shaft 33B – Water Main Route
New York, New York

Search ID No.	Location	Material Spilled	Media Affected	Quantity	Status/ Closure Date
641	1132 York Avenue	Gasoline	Land	10 Gal.	12/31/1997
483	247 E. 62 nd Street	#2 Fuel Oil	Land	15 Gal.	11/28/1997
460	130 E. 57 th Street	#2 Fuel Oil	Land	Unknown	07/16/1997
556	York Avenue between E. 59 th and E. 60 th Streets	Dielectric Fluid	Land	30 Gal.	07/16/1997
485	E. 59 th Street @ Second Avenue	Diesel	Land	Unknown	06/20/1997
487	300 E. 52 nd Street	#4 Fuel Oil	Land	15 Gal.	04/25/1997
486	300 E. 52 nd Street	#4 Fuel Oil	Land	5 Gal.	04/03/1997
735	400 E. 56 th Street	#6 Fuel Oil	Land	5 Gal.	02/20/1997
510	345 E. 59 th Street	Gasoline	Air/Soil	>1 Liter	02/18/1997
532	E. 62 nd Street @ York Avenue	Unknown Petroleum	Land	Unknown	01/30/1997
757	440 Park Avenue	#6 Fuel Oil	Land	200 Gal.	11/22/1996
459	130 E. 56 th Street	Gasoline	Sewer	Unknown	11/22/1996
503	333 E. 53 rd Street	#6 Fuel Oil	Land	10 Gal.	11/13/1996
543	954 Third Avenue @ E. 57 th Street	Antifreeze	Land	1 Gal.	08/29/1996
544	976 Third Avenue @ E. 57 th Street	Antifreeze	Land	1 Gal.	08/22/1996
583	E. 55 th Street @ Lexington Avenue	Antifreeze	Land	1 Gal.	08/22/1996
517	400 E. 54 th Street	Unknown Petroleum	Land	Unknown	08/22/1996
520	410 E. 57 th Street	#6 Fuel Oil	Land	7 Gal.	08/14/1996
465	153 E. 57 th Street	#6 Fuel Oil	Land	5 Gal.	06/12/1996
528	E. 55 th Street @ Lexington Avenue	Antifreeze	Land	1 Gal.	05/24/1996
509	345 E. 54 th Street	#4 Fuel Oil	Land	4 Gal.	02/20/1996
521	417 Park Avenue	#6 Fuel Oil	Land	20 Gal.	11/21/1995
495	315 E. 56 th Street	Unknown Petroleum	Air	>1 (Unknown)	08/07/1995
642	1132 York Avenue	Gasoline	Air	<1 Gal.	08/07/1995
453	1102 First Avenue	Gasoline	Land	>1 (Unknown)	07/26/1995
631	1132 York Avenue	Gasoline	Land	20 Gal.	06/07/1995

ENVIRONMENTAL SITE ASSESSMENT REPORT
Shaft 33B – Water Main Route
New York, New York

Search ID No.	Location	Material Spilled	Media Affected	Quantity	Status/ Closure Date
527	E. 53 rd Street @ Sutton Place	Unknown Petroleum	Air	<1 Unknown	03/31/1995
638	1132 York Avenue	Gasoline	Land	<1 Unknown	03/29/1995
635	1132 York Avenue	Gasoline	Land	<1 Gal.	03/22/1995
634	1132 York Avenue	Gasoline	Land	5 Gal.	02/22/1995
455	1123 First Avenue	#2 Fuel Oil	Land	10 Gal.	02/14/1995
547	237 E. 53 rd Street	#2 Fuel Oil	Land	35 Gal.	02/06/1995
726	York Avenue between E. 61 st and E. 62 nd Streets	Gasoline	Land	>1 Gal.	02/02/1995
523	420 E. 54 th Street	#6 Fuel Oil	Land	20 Gal.	01/03/1995
488	300 E. 57 th Street	#6 Fuel Oil	Land	20 Gal.	11/23/1994
645	1132 York Avenue	Gasoline	Land	Unknown	08/23/1994
486	E. 60 th Street @ First Avenue	Gasoline	Land	<1 Unknown	08/01/1994
468	E. 60 th Street @ First Avenue	Gasoline	Land	>1 (Unknown)	08/01/1994
656	1102 First Avenue	Gasoline	Land	Unknown	08/01/1994
643	1132 York Avenue	Gasoline	Land	3 Gal.	07/06/1994
564	398 E. 58 th Street	#2 Fuel Oil	Land	1 Gal.	04/21/1994
461	135 E. 54 th Street	Unknown Petroleum	Air	<1 (Unknown)	03/20/1994
555	140-150 E. 56 th Street	Unknown Petroleum	Land	15 Gal.	03/10/1994
477	220-224 E. 52 nd Street	#2 Fuel Oil	Land	20 Gal.	03/02/1994
526	444 E. 52 nd Street	#6 Fuel Oil	Land	40 Gal.	02/25/1994
511	346 E. 56 th Street	#4 Fuel Oil	Land	50 Gal.	02/21/1994
525	440 Park Avenue	Unknown Petroleum	Land	>1 (Unknown)	02/06/1994
462	136 E. 57 th Street	#6 Fuel Oil	Land	100 Gal.	11/02/1993
474	217 E. 61 st Street	#2 Fuel Oil	Land	Unknown	10/22/1993
491	306 E. 61 st Street	#6 Fuel Oil	Land	50 Gal.	10/20/1993
463	136 E. 57 th Street	#6 Fuel Oil	Land	50 Gal.	10/11/1993
529	E. 57 th @ Lexington Avenue	Unknown Petroleum	Land	Unknown	10/11/1993
644	1132 York Avenue	Gasoline	Land	Unknown	10/08/1993
496	316 E. 55 th Street	#6 Fuel Oil	Land	10 Gal.	03/11/1993

ENVIRONMENTAL SITE ASSESSMENT REPORT
Shaft 33B – Water Main Route
New York, New York

Search ID No.	Location	Material Spilled	Media Affected	Quantity	Status/ Closure Date
646	1132 York Avenue	Gasoline	Land	5 Gal.	02/08/1993
518	401 E. 54 th Street	#6 Fuel Oil	Land	5 (Unknown)	12/19/1992
637	1132 York Avenue	Gasoline	Land	2 Gal.	12/05/1992
647	1132 York Avenue	Gasoline	Land	1 Gal.	09/24/1992
745	E. 59 th Street @ South Tramway Station	Unknown Petroleum/ Paint Chips	Groundwater	<1 (Unknown)	10/08/1992
500	326 E. 58 th Street	#4 Fuel Oil	Land	5 Gal.	07/16/1992
648	1132 York Avenue	Unknown Petroleum	Sewer	<1 Unknown	04/11/1992
633	1132 York Avenue	Gasoline	Land	15 Gal.	04/10/1992
545	992 Second Avenue	Hydraulic Oil	Sewer	100 Gal.	01/06/1992
654	First Avenue @ E. 62 nd Street	Gasoline	Land	5 Unknown	12/31/1991
650	1132 York Avenue	Gasoline	Land	15 Gal.	12/30/1991
632	1132 York Avenue	Gasoline	Land	5 Gal.	12/21/1991
649	1132 York Avenue	Gasoline	Land	10 Gal.	12/16/1991
512	350 E. 56 th Street	#2 Fuel Oil	Land	1 Gal.	05/01/1991
533	E. 62 nd Street @ York Avenue	Gasoline	Land	Unknown	02/26/1991
454	1121 First Avenue	Gasoline	Land	5 Gal.	02/05/1991
476	219 E. 58 th Street	Asbestos	Air	>1 (Unknown)	02/01/1991
637	1132 York Avenue	Gasoline	Land	3 Gal.	01/29/1991
502	328 E. 53 rd Street	#2 Fuel Oil	Land	5 Gal.	01/14/1991

There are 29 LUST sites within ¼ mile of the Site. Six of these sites are active.

There are 19 reported release sites within ¼ miles of the Site. The following table lists the releases located west or within one block north or south of the water main route:

ENVIRONMENTAL SITE ASSESSMENT REPORT
Shaft 33B – Water Main Route
New York, New York

Search ID No.	Location	Material Spilled	Media Affected	Quantity	Release Date
1258	135 E.59 th Street	Transformer Oil	Sewer	5 Gal.	10/13/2004
1255	409-415 E. 60 th Street	Dielectric Fluid	Sewer	Unknown	12/23/1999
1270	419 E. 60 th St. between York and First Avenues.	Diesel	Sewer	50 Gal.	09/27/1999
1268	101 E. 56 th Street	Transformer Oil	Sewer	100 Gal.	08/17/1999
1267	234 E. 57 th Street	Asbestos	Air	Unknown	05/18/1996
1256	209 E. 55 th Street between Second and Third Avenues	Transformer Oil	Sewer	60 Gal.	02/28/1996
1264	164-166 E. 56 th Street	Smoke	Air	Unknown	01/17/1996
1248	135 E. 55 th Street between Park and Lexington Avenues (Citicorp Building)	Unknown Material	Air	Unknown	03/19/1994
1263	E. 61 st Street @ York Avenue	Gasoline	Surface Water	Unknown	04/11/1992
1266	992 Second Avenue between E. 53 rd and E. 52 nd Streets	Hydraulic Oil	Sewer	Unknown	01/03/1992
1260	E. 58 th Street between Third and Lexington Avenues	Asbestos	Air	Unknown	03/26/1991
1261	219 E. 58 th Street	Asbestos	Air	Unknown	02/01/1991

There are two nuclear permitted sites within ¼ mile of the Site. Both are at 450 Park Avenue and are registered to Alfred Dunhill (North American) LTD.

The following two receptor sites are within ¼ mile of the Site:

- Public School 59 (west of the Site)
- Public School 167 (south of the Site)

ENVIRONMENTAL SITE ASSESSMENT REPORT
Shaft 33B – Water Main Route
New York, New York

The following historical sites are listed in the National Register and are within ¼ mile of the Site:

- Smith, Abigail Adams Museum (421 E. 61st Street)
- Central Synagogue (646-652 Lexington Avenue)
- Houses (311-313 E. 58th Street)
- Public School 35 (931 1st Avenue)
- Lever House (390 Park Avenue)
- Racquet and Tennis Club Building (370 Park Avenue)
- Sutton Place Historic District (1-20 Sutton Place and 4-16 Sutton Square)
- City and Suburban Homes Company (1168-1200 First Avenue and 401-429 E. 64th Street)

Based on the number of spills, permitted RCRIS generators, regulated USTs and ASTs, LUST sites and environmental releases in the vicinity of the site, there exists the potential for soil and groundwater contamination from off-site sources that may have migrated onto the site.

3.2 Historical Uses of Site and Adjacent Properties

Malcolm Pirnie reviewed the following reasonably ascertainable historical sources to obtain information on Site's history. This information provides historical information from 1892 to the present and were obtained from:

- EDR Sanborn / Fire Insurance Maps
- Aerial Photographs
- NYC Building Department Records

3.2.1 EDR Sanborn/ Fire Insurance Maps

Malcolm Pirnie obtained Sanborn Maps from Environmental Data Resources, Inc. Copies of these maps have not been included in this ESA, but have been kept on file at Malcolm Pirnie.

ENVIRONMENTAL SITE ASSESSMENT REPORT
Shaft 33B – Water Main Route
New York, New York

These maps are available for review by the Client at their request. A total of 17 maps were obtained. The earliest of these maps dates from 1892 and the most recent map dates from 2003.

In 1892, the area of the proposed water main route was a mix of low-rise residential, commercial, and industrial buildings accompanied by horse stables at various locations between the buildings. A few of the significant businesses located in the area included the following:

- A “marble works” was located on the east end of block #1330.
- A dog biscuit factory was located on the east end of block #1330.
- A brewery encompassed block #1328, #1366, and #1367.
- A coal plant was located on Sutton Place between E. 57th and E. 56th Streets.
- A lumber yard covered most of block #1365.
- Another brewery was located on block #1349.
- A paper box factory was located on the west end of block #1346.
- A coffin factory was located on the east end of block #1346.

By 1907, much of the land use along the water main route had remained the same – a mix of low-rise residential, commercial, and industrial buildings. Observations of the area included the following:

- A brewery still encompassed block #1328, #1366, and #1367, with an additional expansion now present in block #1329.
- A paper box factory was still present on the west end of block #1346.
- A coffin factory was still present on the east end of block #1346.
- An automobile repair shop is located on block #1309.
- A “livery” repair shop is located on block #1308.
- Another automobile repair shop is located on block #1311.

ENVIRONMENTAL SITE ASSESSMENT REPORT
Shaft 33B – Water Main Route
New York, New York

By 1951, the area has experienced a great deal of commercial and residential development. Industrial operations were no longer as prominent as they once were and high-rise buildings were being built. The Queensboro Bridge and the Bridge approaches represent the most significant construction project, which first appeared on the 1951 map. Prior to 1951, the maps show city block #1434 (bordered by E. 59th and E. 60th Streets and First and Second Avenues) consisting primarily of small, residential/commercial buildings. This block was demolished to construct the Queensboro Bridge. As part of the Bridge construction activities, open space was preserved along the E. 59th Street side of the Bridge. Although the Queensboro Bridge was built in the early 1900's Sanborn maps between 1907 and 1951 were not available to show the construction activity and changes in neighborhood characteristics resulting from the Bridge construction. Other observations of the area in 1951 included the following:

- The brewery encompassing block #1328, #1366, #1367, and #1329 was no longer present, and had been replaced by other businesses. The presence of parking lots and garages can now be seen on block #1328, #1366, and #1367.
- The buildings that covered the east ends of block #1366 and #1365 were replaced with large parking lots.

By 1976, mixed development of the area continued. Observations of the area included the following:

- Large apartment buildings were built on block #1367, #1366, and #1365. Several parking garages were also located on these blocks between the buildings.
- Block #1346, #1347, and #1348 were primarily covered by apartment buildings, parking garages, and a few small businesses.
- The New York Telephone Building was present on block #1329.
- A U.S. Postal facility and parking garage comprise most of block #1328.
- City Corp. Center was present on block #1308.
- A subway station was present on block #1311.

ENVIRONMENTAL SITE ASSESSMENT REPORT
Shaft 33B – Water Main Route
New York, New York

By 1985, mixed development of the area continued. Observations of the area included the following:

- The small buildings at the east end of block #1327 were replaced with a large office building.
- “River Tower” was constructed in the center of block #1365.

Between 1985 and 2003, no significant changes in land use had occurred along the water main connections route.

3.2.2 Aerial Photographs

A December 2005 aerial photograph (Appendix D) shows the Site located immediately below the Queensboro Bridge. The majority of building structures within the water main route Study Area appear to be low-rise residential structures and mixed-use residential / commercial buildings, but a few high-rise complexes are evident from aerial photos. Most of these high-rise complexes are located between E. 56th and E. 55th Streets.

3.2.3 NYC Building Department Records

Because there is no single address that would adequately provide NYC building department records a search of these database sources was not conducted.

4. CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusions - Environmental Site Assessment

Malcolm Pirnie performed an ESA for this Site and its findings are provided in Sections 2 and 3 of this Report. As a result of the findings in Sections 2 and 3, the following conclusions are offered:

Recognized Environmental Conditions

A recognized environmental condition means “...the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater or surface water of the property.” Recognized environmental conditions do not “...include de minimis conditions that generally do not present a material risk of harm to public health or the environment, and that generally would not be subject of an enforcement action if brought to the attention of appropriate government agencies. Conditions determined to be de minimis are not recognized environmental conditions.” (ASTM E1527 ¶3.3.31)

This ESA has revealed no evidence of recognized environmental conditions in connection with the Site.

ENVIRONMENTAL SITE ASSESSMENT REPORT
Shaft 33B – Water Main Route
New York, New York

Historical Recognized Environmental Condition

A historical recognized environmental condition means an “... environmental condition which in the past would have been considered a recognized environmental condition, but which may or may not be considered a recognized environmental condition currently.” (ASTM E 1527 ¶ 3.3.16) The use of this term largely depends on the current impact of the condition on the Site. For example, if a site remediation had occurred and the overseeing government agency accepted the remediation, the condition may be considered a ‘historical recognized condition’.

This ESA has revealed no evidence of historical recognized environmental conditions in connection with the Site.

Other Environmental Conditions

In certain situations, a Site condition, observed by Malcolm Pirnie or noted in the available records, may not meet the definition of a ‘recognized environmental condition’. However, presence of these environmental conditions may impact the Client’s due diligence decisions regarding the Site.

In the course of this ESA, other environmental conditions in connection with the Site were observed or discovered in the previously-described documents, as follows:

- Environmental Database records indicate the potential for soil and groundwater contamination, based on sources in the vicinity (e.g., the history of spill records).

ENVIRONMENTAL SITE ASSESSMENT REPORT
Shaft 33B – Water Main Route
New York, New York

4.2 Recommendations - Environmental Site Assessment

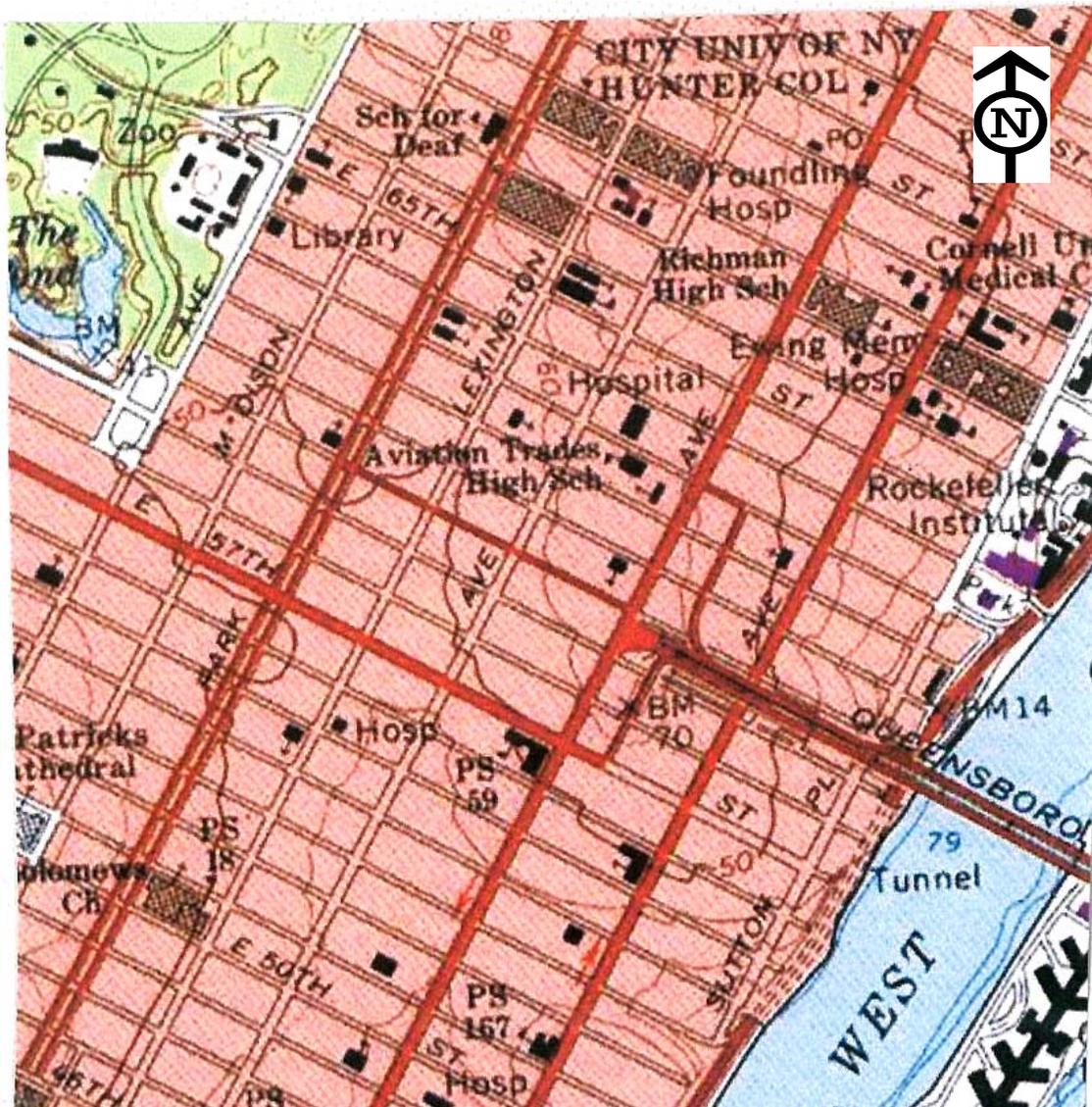
Malcolm Pirnie performed an ESA for this Site and its findings are provided in Sections 2 and 3 of this Report. As a result of the findings in Sections 2 and 3, the following recommendations are offered:

Phase II Environmental Site Assessment

Based upon the information obtained, it is recommended that a Phase II Environmental Site Assessment be performed, to include soil borings and associated chemical testing within and adjacent to the Site boundaries. The constituents listed in Section 3.1, Government Environmental Databases, would be reviewed to determine the appropriate chemical analyses to be conducted. These soil borings and chemical analyses are recommended to determine the potential for off-site migration of contaminants to the water main route, and to identify disposal needs and costs of site soils during construction. Water testing may also be necessary, depending upon whether excavation activities occur at or below the water table.

APPENDIX A

SITE TOPOGRAPHIC MAP



NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
CITY WATER TUNNEL NO. 3, STAGE 2
SHAFT 33B - WATER MAIN ROUTE
SITE TOPOGRAPHIC MAP

APPENDIX A

APPENDIX B

SITE AND VICINITY PHOTOGRAPHS AND PHOTOGRAPH KEY

WATER MAIN ROUTE PHOTOGRAPH KEY

Photograph Number	Location - Street / Avenue Address	Corner	Direction
1	Preferred Shaft 33B Site	n/a	n/a
2	E. 59th Street / First Avenue	Northwest	South
3	E. 59th Street / First Avenue	Northeast	South
4	E. 58th Street / First Avenue	Northeast	South
5	E. 58th Street / First Avenue	Northeast	South
6	E. 58th Street / First Avenue	Northwest	South
7	E. 58th Street / First Avenue	Northwest	South
8	E. 58th Street / First Avenue	Northwest	South
9	E. 57th Street / First Avenue	Northwest	South
10	E. 57th Street / First Avenue	Northwest	South
11	E. 57th Street / First Avenue	Northwest	South
12	E. 57th Street / First Avenue	Northwest	South
13	E. 57th Street / First Avenue	Northeast	South
14	E. 57th Street / First Avenue	Northeast	South
15	E. 56th Street / First Avenue	Northeast	South
16	E. 56th Street / First Avenue	Northeast	South
17	E. 56th Street / First Avenue	Northwest	South
18	E. 56th Street / First Avenue	Northeast	West
19	E. 56th Street / First Avenue	Southeast	West
20	E. 56th Street / First Avenue	Southeast	West
21	E. 56th Street / First Avenue	Southeast	West
22	E. 56th Street / First Avenue	Southwest	West
23	E. 56th Street / First Avenue	Southwest	West
24	E. 56th Street between First and Second Avenues	North	South
25	E. 56th Street / Second Avenue	Northeast	South
26	E. 56th Street / Second Avenue	Northeast	East
27	E. 56th Street / Second Avenue	Northeast	East
28	E. 56th Street / Second Avenue	Northeast	West
29	E. 56th Street / Second Avenue	Northeast	West
30	E. 56th Street / Second Avenue	Northeast	South
31	E. 56th Street / Second Avenue	Northeast	South
32	E. 56th Street / Second Avenue	Northeast	North
33	E. 56th Street / Second Avenue	Northeast	North
34	E. 56th Street / Third Avenue	Southwest	West
35	E. 56th Street / Third Avenue	Southwest	West
36	E. 55th Street / First Avenue	Northeast	West
37	E. 55th Street / First Avenue	Northeast	West
38	E. 55th Street / First Avenue	Northeast	North
39	E. 55th Street / First Avenue	Northeast	North
40	E. 55th Street / First Avenue	Northeast	South
41	E. 55th Street / First Avenue	Northeast	South
42	E. 55th Street / Second Avenue	Northeast	West
43	E. 55th Street / Second Avenue	Northeast	West
44	E. 55th Street / Second Avenue	Northeast	West
45	E. 55th Street / Second Avenue	Northeast	West
46	E. 55th Street / Second Avenue	Northeast	South
47	E. 55th Street / Second Avenue	Northeast	North
48	E. 55th Street / Second Avenue	Northeast	North

WATER MAIN ROUTE PHOTOGRAPH KEY

Photograph	Location -	Corner	Direction
49	E. 55th Street / Third Avenue	Northeast	North
50	E. 55th Street / Third Avenue	Northeast	North
51	E. 55th Street / Third Avenue	Northeast	South
52	E. 55th Street / Third Avenue	Northeast	South
53	229 - 239 E. 53rd Street (Historic Resource)	South	North
54	229 - 239 E. 53rd Street (Historic Resource)	South	North
55	229 - 239 E. 53rd Street (Historic Resource)	South	North
56	229 - 239 E. 53rd Street (Historic Resource)	South	North
57	229 - 239 E. 53rd Street (Historic Resource)	South	North
58	229 - 239 E. 53rd Street (Historic Resource)	South	North
59	229 - 239 E. 53rd Street (Historic Resource)	South	North
60	E. 54th Street / Second Avenue - Connaught Tower		
61	E. 54th Street / Second Avenue - Connaught Tower		
62	E. 54th Street / Second Avenue - Connaught Tower		
63	E. 54th Street / Second Avenue - Connaught Tower		
64	E. 54th Street / Second Avenue - Connaught Tower		
65	E. 54th General Info		
66	E. 54th General Info		
67	Connaught Tower		



PHOTO 1: PREFERRED SHAFT 33B SITE



**PHOTO 2: E. 59TH STREET / FIRST AVENUE
NORTHWEST CORNER**



**NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
CITY WATER TUNNEL NO. 3, STAGE 2
SHAFT 33B – WATER MAIN ROUTE
WATER MAIN ROUTE PHOTOGRAPHS**

APPENDIX B



**PHOTO 3: E. 59TH STREET / FIRST AVENUE
NORTHEAST CORNER**



**PHOTO 4: E. 58TH STREET / FIRST AVENUE
NORTHEAST CORNER**



**NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
CITY WATER TUNNEL NO. 3, STAGE 2
SHAFT 33B – WATER MAIN ROUTE
WATER MAIN ROUTE PHOTOGRAPHS**

APPENDIX B



**PHOTO 5: E. 58TH STREET / FIRST AVENUE
NORTHEAST CORNER**



**PHOTO 6: E. 58TH STREET / FIRST AVENUE
NORTHWEST CORNER**



**NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
CITY WATER TUNNEL NO. 3, STAGE 2
SHAFT 33B – WATER MAIN ROUTE
WATER MAIN ROUTE PHOTOGRAPHS**

APPENDIX B



**PHOTO 7: E. 58TH STREET / FIRST AVENUE
NORTHWEST CORNER**



**PHOTO 8: E. 58TH STREET / FIRST AVENUE
NORTHWEST CORNER**



**NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
CITY WATER TUNNEL NO. 3, STAGE 2
SHAFT 33B – WATER MAIN ROUTE
WATER MAIN ROUTE PHOTOGRAPHS**

APPENDIX B



**PHOTO 9: E. 57TH STREET / FIRST AVENUE
NORTHWEST CORNER**



**PHOTO 10: E. 57TH STREET / FIRST AVENUE
NORTHWEST CORNER**



**NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
CITY WATER TUNNEL NO. 3, STAGE 2
SHAFT 33B – WATER MAIN ROUTE
WATER MAIN ROUTE PHOTOGRAPHS**

APPENDIX B



**PHOTO 11: E. 57TH STREET / FIRST AVENUE
NORTHWEST CORNER**



**PHOTO 12: E. 57TH STREET / FIRST AVENUE
NORTHWEST CORNER**



**NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
CITY WATER TUNNEL NO. 3, STAGE 2
SHAFT 33B – WATER MAIN ROUTE
WATER MAIN ROUTE PHOTOGRAPHS**

APPENDIX B



**PHOTO 13: E. 57TH STREET / FIRST AVENUE
NORTHEAST CORNER**



**PHOTO 14: E. 57TH STREET / FIRST AVENUE
NORTHEAST CORNER**



**NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
CITY WATER TUNNEL NO. 3, STAGE 2
SHAFT 33B – WATER MAIN ROUTE
WATER MAIN ROUTE PHOTOGRAPHS**

APPENDIX B



**PHOTO 15: E. 56TH STREET / FIRST AVENUE
NORTHEAST CORNER**



**PHOTO 16: E. 56TH STREET / FIRST AVENUE
NORTHEAST CORNER**



**NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
CITY WATER TUNNEL NO. 3, STAGE 2
SHAFT 33B – WATER MAIN ROUTE
WATER MAIN ROUTE PHOTOGRAPHS**

APPENDIX B



**PHOTO 17: E. 56TH STREET / FIRST AVENUE
NORTHWEST CORNER**



**PHOTO 18: E. 56TH STREET / FIRST AVENUE
NORTHEAST CORNER**



**NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
CITY WATER TUNNEL NO. 3, STAGE 2
SHAFT 33B – WATER MAIN ROUTE
WATER MAIN ROUTE PHOTOGRAPHS**

APPENDIX B



**PHOTO 19: E. 56TH STREET / FIRST AVENUE
SOUTHEAST CORNER**



**PHOTO 20: E. 56TH STREET / FIRST AVENUE
SOUTHEAST CORNER**



**NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
CITY WATER TUNNEL NO. 3, STAGE 2
SHAFT 33B – WATER MAIN ROUTE
WATER MAIN ROUTE PHOTOGRAPHS**

APPENDIX B



**PHOTO 21: E. 56TH STREET / FIRST AVENUE
SOUTHEAST CORNER**



**PHOTO 22: E. 56TH STREET / FIRST AVENUE
SOUTHWEST CORNER**



**NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
CITY WATER TUNNEL NO. 3, STAGE 2
SHAFT 33B – WATER MAIN ROUTE
WATER MAIN ROUTE PHOTOGRAPHS**

APPENDIX B



**PHOTO 23: E. 56TH STREET / FIRST AVENUE
SOUTHWEST CORNER**



**PHOTO 24: E. 56TH STREET BETWEEN FIRST AND SECOND AVENUES
NORTH CORNER**



**NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
CITY WATER TUNNEL NO. 3, STAGE 2
SHAFT 33B – WATER MAIN ROUTE
WATER MAIN ROUTE PHOTOGRAPHS**

APPENDIX B



**PHOTO 25: E. 56TH STREET / SECOND AVENUE
NORTHEAST CORNER**



**PHOTO 26: E. 56TH STREET / SECOND AVENUE
NORTHEAST CORNER**





**PHOTO 27: E. 56TH STREET / SECOND AVENUE
NORTHEAST CORNER**



**PHOTO 28: E. 56TH STREET / SECOND AVENUE
NORTHEAST CORNER**



**NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
CITY WATER TUNNEL NO. 3, STAGE 2
SHAFT 33B – WATER MAIN ROUTE
WATER MAIN ROUTE PHOTOGRAPHS**

APPENDIX B



**PHOTO 29: E. 56TH STREET / SECOND AVENUE
NORTHEAST CORNER**



**PHOTO 30: E. 56TH STREET / SECOND AVENUE
NORTHEAST CORNER**



**NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
CITY WATER TUNNEL NO. 3, STAGE 2
SHAFT 33B – WATER MAIN ROUTE
WATER MAIN ROUTE PHOTOGRAPHS**

APPENDIX B



**PHOTO 31: E. 56TH STREET / SECOND AVENUE
NORTHEAST CORNER**



**PHOTO 32: E. 56TH STREET / SECOND AVENUE
NORTHEAST CORNER**





**PHOTO 33: E. 56TH STREET / SECOND AVENUE
NORTHEAST CORNER**



**PHOTO 34: E. 56TH STREET / THIRD AVENUE
SOUTHWEST CORNER**



**NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
CITY WATER TUNNEL NO. 3, STAGE 2
SHAFT 33B – WATER MAIN ROUTE
WATER MAIN ROUTE PHOTOGRAPHS**

APPENDIX B



**PHOTO 35: E. 56TH STREET / THIRD AVENUE
SOUTHWEST CORNER**



**PHOTO 36: E. 55TH STREET / FIRST AVENUE
NORTHEAST CORNER**



**NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
CITY WATER TUNNEL NO. 3, STAGE 2
SHAFT 33B – WATER MAIN ROUTE
WATER MAIN ROUTE PHOTOGRAPHS**

APPENDIX B



**PHOTO 37: E. 55TH STREET / FIRST AVENUE
NORTHEAST CORNER**



**PHOTO 38: E. 55TH STREET / FIRST AVENUE
NORTHEAST CORNER**



**NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
CITY WATER TUNNEL NO. 3, STAGE 2
SHAFT 33B – WATER MAIN ROUTE
WATER MAIN ROUTE PHOTOGRAPHS**

APPENDIX B



**PHOTO 39: E. 55TH STREET / FIRST AVENUE
NORTHEAST CORNER**



**PHOTO 40: E. 55TH STREET / FIRST AVENUE
NORTHEAST CORNER**



**NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
CITY WATER TUNNEL NO. 3, STAGE 2
SHAFT 33B – WATER MAIN ROUTE
WATER MAIN ROUTE PHOTOGRAPHS**

APPENDIX B



**PHOTO 41: E. 55TH STREET / FIRST AVENUE
NORTHEAST CORNER**



**PHOTO 42: E. 55TH STREET / SECOND AVENUE
NORTHEAST CORNER**



**NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
CITY WATER TUNNEL NO. 3, STAGE 2
SHAFT 33B – WATER MAIN ROUTE
WATER MAIN ROUTE PHOTOGRAPHS**

APPENDIX B



**PHOTO 43: E. 55TH STREET / SECOND AVENUE
NORTHEAST CORNER**



**PHOTO 44: E. 55TH STREET / SECOND AVENUE
NORTHEAST CORNER**



**NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
CITY WATER TUNNEL NO. 3, STAGE 2
SHAFT 33B – WATER MAIN ROUTE
WATER MAIN ROUTE PHOTOGRAPHS**

APPENDIX B



**PHOTO 45: E. 55TH STREET / SECOND AVENUE
NORTHEAST CORNER**



**PHOTO 46: E. 55TH STREET / SECOND AVENUE
NORTHEAST CORNER**



**NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
CITY WATER TUNNEL NO. 3, STAGE 2
SHAFT 33B – WATER MAIN ROUTE
WATER MAIN ROUTE PHOTOGRAPHS**

APPENDIX B



**PHOTO 47: E. 55TH STREET / SECOND AVENUE
NORTHEAST CORNER**



**PHOTO 48: E. 55TH STREET / SECOND AVENUE
NORTHEAST CORNER**



**NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
CITY WATER TUNNEL NO. 3, STAGE 2
SHAFT 33B – WATER MAIN ROUTE
WATER MAIN ROUTE PHOTOGRAPHS**

APPENDIX B



**PHOTO 49: E. 55TH STREET / THIRD AVENUE
NORTHEAST CORNER**



**PHOTO 50: E. 55TH STREET / THIRD AVENUE
NORTHEAST CORNER**



**NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
CITY WATER TUNNEL NO. 3, STAGE 2
SHAFT 33B – WATER MAIN ROUTE
WATER MAIN ROUTE PHOTOGRAPHS**

APPENDIX B



**PHOTO 51: E. 55TH STREET / THIRD AVENUE
NORTHEAST CORNER**



**PHOTO 52: E. 55TH STREET / THIRD AVENUE
NORTHEAST CORNER**



**NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
CITY WATER TUNNEL NO. 3, STAGE 2
SHAFT 33B – WATER MAIN ROUTE
WATER MAIN ROUTE PHOTOGRAPHS**

APPENDIX B



**PHOTO 53: 229-239 E. 53RD STREET (HISTORIC RESOURCE)
SOUTH CORNER**



**PHOTO 54: 229-239 E. 53RD STREET (HISTORIC RESOURCE)
SOUTH CORNER**



**NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
CITY WATER TUNNEL NO. 3, STAGE 2
SHAFT 33B – WATER MAIN ROUTE
WATER MAIN ROUTE PHOTOGRAPHS**

APPENDIX B



**PHOTO 55: 229-239 E. 53RD STREET (HISTORIC RESOURCE)
SOUTH CORNER**



**PHOTO 56: 229-239 E. 53RD STREET (HISTORIC RESOURCE)
SOUTH CORNER**





**PHOTO 57: 229-239 E. 53RD STREET (HISTORIC RESOURCE)
SOUTH CORNER**



**PHOTO 58: 229-239 E. 53RD STREET (HISTORIC RESOURCE)
SOUTH CORNER**





**PHOTO 59: 229-239 E. 53RD STREET (HISTORIC RESOURCE)
SOUTH CORNER**



**PHOTO 60: E. 54TH STREET / SECOND AVENUE
CONNAUGHT TOWER**



**NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
CITY WATER TUNNEL NO. 3, STAGE 2
SHAFT 33B – WATER MAIN ROUTE
WATER MAIN ROUTE PHOTOGRAPHS**

APPENDIX B



**PHOTO 61: E. 54TH STREET / SECOND AVENUE
CONNAUGHT TOWER**



**PHOTO 62: E. 54TH STREET / SECOND AVENUE
CONNAUGHT TOWER**



**NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
CITY WATER TUNNEL NO. 3, STAGE 2
SHAFT 33B – WATER MAIN ROUTE
WATER MAIN ROUTE PHOTOGRAPHS**

APPENDIX B



**PHOTO 63: E. 54TH STREET / SECOND AVENUE
CONNAUGHT TOWER**



**PHOTO 64: E. 54TH STREET / SECOND AVENUE
CONNAUGHT TOWER**



**NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
CITY WATER TUNNEL NO. 3, STAGE 2
SHAFT 33B – WATER MAIN ROUTE
WATER MAIN ROUTE PHOTOGRAPHS**

APPENDIX B



PHOTO 65: E. 54TH STREET - GENERAL INFO



PHOTO 66: E. 54TH STREET – GENERAL INFO



**NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
CITY WATER TUNNEL NO. 3, STAGE 2
SHAFT 33B – WATER MAIN ROUTE
WATER MAIN ROUTE PHOTOGRAPHS**

APPENDIX B



PHOTO 67: CONNAUGHT TOWER



**NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
CITY WATER TUNNEL NO. 3, STAGE 2
SHAFT 33B – WATER MAIN ROUTE
WATER MAIN ROUTE PHOTOGRAPHS**

APPENDIX B

APPENDIX C

FIRSTSEARCH ELECTRONIC DATABASE REPORT

APPENDIX C

The FirstSearch Electronic Database Report is on file and available at Malcolm Pirnie Inc.'s New York City office:

Malcolm Pirnie Inc.
75-20 Astoria Boulevard, Suite 350,
Jackson Heights, New York 11370

APPENDIX D

EDF AERIAL PHOTO DECADE PACKAGE

The EDR Aerial Photo Decade Package

**E 59th St
E 59th St
New York, NY 10022**

Inquiry Number: 1538033.1

October 21, 2005



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INQUIRY #: 1538033.1

YEAR: 1994

— | — = 833'





INQUIRY #: 1538033.1

YEAR: 1984

— = 750'





QUIRY #: 1538033.1

YEAR: 1975

— = 750'





INQUIRY #: 1538033.1

YEAR: 1966

—|— = 750'





INQUIRY #: 1538033.1
EAR: 1954
| = 750'

