

RECORD OF DECISION

K - Wythe Ave. Station
Operable Unit Number 01: Wythe Berry LLC Properties
State Superfund Project
Brooklyn, Kings County
Site No. 224069
March 2017



Prepared by
Division of Environmental Remediation
New York State Department of Environmental Conservation

DECLARATION STATEMENT - RECORD OF DECISION

K - Wythe Ave. Station
Operable Unit Number: 01
State Superfund Project
Brooklyn, Kings County
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Statement of Purpose and Basis

This document presents the remedy for Operable Unit Number: 01: Wythe Berry LLC Properties of the K - Wythe Ave. Station site, a Class 2 inactive hazardous waste disposal site. The remedial program was chosen in accordance with the 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, and is not inconsistent with the National Oil and Hazardous Substances Pollution Contingency Plan of March 8, 1990 (40CFR300), as amended.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for Operable Unit Number: 01 of the K - Wythe Ave. Station site and the public's input to the proposed remedy presented by the Department. A listing of the documents included as a part of the Administrative Record is included in Appendix B of the ROD.

Description of Selected Remedy

During the course of the investigation certain actions, known as interim remedial measures (IRMs), were undertaken at the above referenced site. An IRM is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the remedial investigation (RI) or feasibility study (FS). The IRM(s) undertaken at this site are discussed in Section 6.2.

Based on the implementation of the IRM(s), the findings of the investigation of this site indicate that the site no longer poses a threat to human health or the environment; therefore No Further Action is the selected remedy. The remedy may include continued operation of a remedial system if one was installed during the IRM and the implementation of any prescribed institutional controls/engineering controls (ICs/ECs) that have been identified as being part of the remedy for the site.

The IRM(s) conducted at the site attained the remediation objectives identified for this site in Section 6.5 for the protection of public health and the environment.

New York State Department of Health Acceptance

The New York State Department of Health (NYSDOH) concurs that the remedy for this site is protective of human health.

Declaration

The selected remedy is protective of human health and the environment, complies with State and Federal requirements that are legally applicable or relevant and appropriate to the remedial action to the extent practicable, and is cost effective. This remedy utilizes permanent solutions and alternative treatment or resource recovery technologies, to the maximum extent practicable, and satisfies the preference for remedies that reduce toxicity, mobility, or volume as a principal element.

March 31, 2017

Date



Robert W. Schick, P.E., Director
Division of Environmental Remediation

RECORD OF DECISION

K - Wythe Ave. Station
Brooklyn, Kings County
Site No. 224069
March 2017

SECTION 1: SUMMARY AND PURPOSE

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), has selected a remedy for the above referenced site. The disposal of hazardous wastes at the site resulted in threats to public health and the environment that were addressed by actions known as interim remedial measures (IRMs), which were undertaken at the site. An IRM is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the remedial investigation (RI) or feasibility study (FS). The IRMs undertaken at this site are discussed in Section 6.2.

Based on the implementation of the IRM(s), the findings of the investigation of this site indicate that the site no longer poses a threat to human health or the environment. The IRM(s) conducted at the site attained the remediation objectives identified for this site, which are presented in Section 6.5, for the protection of public health and the environment. No Further Action is the remedy selected by this Record of Decision (ROD). A No Further Action remedy may include site management, which will include continued operation of any remedial system installed during the IRM and the implementation of any prescribed controls that have been identified as being part of the remedy for the site. This ROD identifies the IRM(s) conducted and discusses the basis for No Further Action.

The New York State Inactive Hazardous Waste Disposal Site Remedial Program (also known as the State Superfund Program) is an enforcement program, the mission of which is to identify and characterize suspected inactive hazardous waste disposal sites and to investigate and remediate those sites found to pose a significant threat to public health and environment.

The Department has issued this document in accordance with the requirements of New York State Environmental Conservation Law and 6 NYCRR Part 375. This document is a summary of the information that can be found in the site-related reports and documents.

SECTION 2: CITIZEN PARTICIPATION

The Department seeks input from the community on all remedies. A public comment period was held, during which the public was encouraged to submit comment on the proposed remedy. All comments on the remedy received during the comment period were considered by the Department in selecting a remedy for the site. Site-related reports and documents were made

available for review by the public at the following document repositories:

Brooklyn Public Library
Williamsburg Branch
240 Division Street at Marcy Avenue
Brooklyn, NY 11211
Phone: (718) 302-3485

Brooklyn Community Board 1
Attn: Gerald A. Esposito
435 Graham Avenue
Brooklyn, NY 11211
Phone: (718)389-0009

A public meeting was also conducted. At the meeting, the findings of the remedial investigation (RI) and the feasibility study (FS) were presented along with a summary of the proposed remedy. After the presentation, a question-and-answer period was held, during which verbal or written comments were accepted on the proposed remedy.

Comments on the remedy received during the comment period are summarized and addressed in the responsiveness summary section of the ROD.

Receive Site Citizen Participation Information By Email

Please note that the Department's Division of Environmental Remediation (DER) is "going paperless" relative to citizen participation information. The ultimate goal is to distribute citizen participation information about contaminated sites electronically by way of county email listservs. Information will be distributed for all sites that are being investigated and cleaned up in a particular county under the State Superfund Program, Environmental Restoration Program, Brownfield Cleanup Program, Voluntary Cleanup Program, and Resource Conservation and Recovery Act Program. We encourage the public to sign up for one or more county listservs at <http://www.dec.ny.gov/chemical/61092.html>

SECTION 3: SITE DESCRIPTION AND HISTORY

Location:

The former Wythe Avenue Station is located in the Williamsburg neighborhood of Brooklyn, New York, Kings County. The site occupies nine parcels, and is bounded by North 13th Street to the north, North 12th Street to the south, Berry Street to the east and Wythe Avenue to the west. These nine parcels are identified as Block 2283, Lots 1, 25, 28, 31, 33, 35, 38, 41 and 43, and comprise approximately 2.3 acres.

Site Features:

The site is comprised of commercial and industrial properties, and site topography is nearly flat. Lot 1 contains a newly constructed twenty-one story hotel and retail stores, the remaining eight lots comprise several one-story warehouse buildings on the east half of the site which are

currently occupied by various commercial and industrial tenants.

Current Zoning and Land Use:

The area is zoned M1-1 and M1-2, which allow for light industrial and commercial uses. The site is surrounded by mixed use parcels, including light industrial, commercial and residential. The nearest residential area is within 100 feet to the southwest.

Past Use of the Site:

The site was operated as a Manufactured Gas Plant (MGP) holder station by Brooklyn Union Gas Co. from approximately 1903 to 1965. The station operated solely for gas distribution, and no gas production facilities were present at the site. Over the life of facility, manufactured gas, and possibly natural gas, based on the years of operation, was stored at the facility. In 1965 the holders and all associated MGP buildings were dismantled when the property was sold. Subsequent development of the site included two one-story buildings on the western two parcels, used for manufacturing and warehousing, in 1968. The eastern portion of the site was redeveloped with several warehouse buildings between 1985 and 1991.

Operable Units:

The site was divided into two operable units. An operable unit represents a portion of a remedial program for a site that for technical or administrative reasons can be addressed separately to investigate, eliminate or mitigate a release, threat of a release or exposure pathway resulting from the site contamination.

Operable Unit 1 (OU1) consists of the parcel (Lot 1) owned by Wythe Berry LLC on the western half of the site. Operable unit 2 (OU2) consists of the remaining eight parcels owned by Mihata Corporation on the eastern half of the site.

Geology and Hydrogeology:

The site is underlain by up to 12 feet of urban fill material, then various layers of gravelly sands, silts and clays. Bedrock is approximately 100 feet below the ground surface.

Groundwater is encountered at depths of 7 to 10 feet beneath the site, and generally flows to the north in the western portion of the site, and to the east in the eastern portion of the site.

Operable Unit (OU) Number 01 is the subject of this document.

A Record of Decision will be issued for OU 02 in the future.

A site location map is attached as Figure 1.

SECTION 4: LAND USE AND PHYSICAL SETTING

The Department may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For this site, alternatives (or an alternative) that restrict(s) the use of the site to restricted-residential use

(which allows for commercial use and industrial use) as described in Part 375-1.8(g) were/was evaluated in addition to an alternative which would allow for unrestricted use of the site.

A comparison of the results of the investigation to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the unrestricted use SCGs for the site contaminants is included in the Tables for the media being evaluated in Exhibit A.

SECTION 5: ENFORCEMENT STATUS

Potentially Responsible Parties (PRPs) are those who may be legally liable for contamination at a site. This may include past or present owners and operators, waste generators, and haulers.

The PRPs for the site, documented to date, include:

Brooklyn Union Gas Company
National Grid USA

The Department and Brooklyn Union Gas Company d/b/a KeySpan Energy Delivery New York & KeySpan Gas East Corporation d/b/a KeySpan Energy Delivery Long Island entered into a Consent Order on August 10, 2007 (Index #A2-0552-0606). KeySpan Corporation is now part of National Grid USA. The Order obligates the responsible parties to implement a full remedial program for this and 31 other former MGP and Holder Station sites.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

A Remedial Investigation (RI) has been conducted. The purpose of the RI was to define the nature and extent of any contamination resulting from previous activities at the site. The field activities and findings of the investigation are described in the RI Report.

The following general activities are conducted during an RI:

- Research of historical information,
- Geophysical survey to determine the lateral extent of wastes,
- Test pits, soil borings, and monitoring well installations,
- Sampling of waste, surface and subsurface soils, groundwater, and soil vapor,
- Sampling of surface water and sediment,
- Ecological and Human Health Exposure Assessments.

The analytical data collected on this site includes data for:

- groundwater
- soil

6.1.1: Standards, Criteria, and Guidance (SCGs)

The remedy must conform to promulgated standards and criteria that are directly applicable or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, Criteria and Guidance are hereafter called SCGs.

To determine whether the contaminants identified in various media are present at levels of concern, the data from the RI were compared to media-specific SCGs. The Department has developed SCGs for groundwater, surface water, sediments, and soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. The tables found in Exhibit A list the applicable SCGs in the footnotes. For a full listing of all SCGs see: <http://www.dec.ny.gov/regulations/61794.html>

6.1.2: RI Results

The data have identified contaminants of concern. A "contaminant of concern" is a hazardous waste that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action. Not all contaminants identified on the property are contaminants of concern. The nature and extent of contamination and environmental media requiring action are summarized in Exhibit A. Additionally, the RI Report contains a full discussion of the data. The contaminant(s) of concern identified for this Operable Unit at this site is/are:

benzene	benzo(a)pyrene
toluene	benzo(b)fluoranthene
ethylbenzene	benzo[k]fluoranthene
xylene (mixed)	dibenz[a,h]anthracene
1,2,4-trimethylbenzene	lead
1,3,5-trimethylbenzene	mercury
benzo(a)anthracene	arsenic
chrysene	naphthalene
indeno(1,2,3-CD)pyrene	isopropylbenzene

Based on the investigation results, comparison to the SCGs, and the potential public health and environmental exposure routes, certain media and areas of the site required remediation. These media were addressed by the IRM(s) described in Section 6.2. More complete information can be found in the RI Report and the IRM Construction Completion Report.

6.2: Interim Remedial Measures

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before issuance of the Record of Decision.

The following IRM(s) has/have been completed at this site based on conditions observed during the RI.

Lot 1 Wythe Berry LLC (OU-1)

As detailed in the May 2015 IRM Construction Completion Report, the IRM was completed between June and September, 2014, during which the holder remnants and associated contaminated subsurface soil were excavated for disposal at an off-site permitted facility. As shown in Figure 3, this excavation removed all of the MGP contaminated soil that exceeded restricted residential soil cleanup objectives (SCOs), except in two locations, where exceedances remained deeper than fifteen feet below ground surface. The IRM removed approximately 68,000 tons of soil to a depth of 15 to 25 feet below ground surface.

The excavation proceeded from the ground surface until soil sampling indicated that the SCOs had been achieved. The sidewalls of the excavation were shored and the excavation dewatered. Confirmatory samples were taken from the bottom of the excavation, and visual inspections were performed to verify the excavation effectively removed all of the visually-impacted soils from the site.

Of the 28 confirmatory samples taken, 25 met the SCOs for restricted residential use. The three samples which did not meet the SCOs, and which exceeded only for metals and PAHs, were detected in soil samples collected from two locations, at depths greater than 15 feet below ground surface.

Two different types of backfill were used at the site. Approximately 1,150 cubic yards of flowable fill, meeting the unrestricted SCOs, was placed at the bottom of the excavation. Approximately 1,300 cubic yards of soil meeting the restricted residential SCOs was placed between the building foundation and the excavation sidewall around the site.

To enable the excavation of the site soils and structures, the site was dewatered during the IRM. Over the 4 months of site work, approximately 33 million gallons of water were removed from the site and surrounding areas. All of the water removed from the excavation was treated in an on-site system and then discharged to the sanitary sewer under permit. The removal of source materials and flushing effect of dewatering are considered to have effectively addressed the groundwater contamination and the potential for soil vapor intrusion at OU1.

6.3: Summary of Environmental Assessment

This section summarizes the assessment of existing and potential future environmental impacts presented by the site. Environmental impacts may include existing and potential future exposure pathways to fish and wildlife receptors, wetlands, groundwater resources, and surface water.

Based upon the resources and pathways identified and the toxicity of the contaminants of ecological concern at this site, a Fish and Wildlife Resources Impact Analysis (FWRIA) was not necessary for OU 01.

Prior to Completion of Remediation
For OU 1: Lot 1 Parcel

Soil and groundwater were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs), and pesticides. Based upon investigations conducted, the primary contaminants of concern for OU 1 were BTEX and naphthalene (VOCs), and polycyclic aromatic hydrocarbons (PAHs) (SVOCs).

Prior to the IRM, the subsurface soil exceeded the unrestricted soil cleanup objectives (SCOs) for benzene, toluene, ethylbenzene and xylene (BTEX), various PAH constituents, and several metals. Benzene was found as high as 70 parts per million (ppm), compared to an SCO of 0.06 ppm. Toluene was found as high as 550 ppm (0.7 SCO), ethylbenzene as high as 270 ppm (1 ppm SCO), and total xylenes as high as 610 ppm (0.26 ppm SCO). Naphthalene was detected as high as 9,400 ppm, compared to an SCO of 12 ppm. Several PAH compounds were detected as high as 96 ppm, with most having an SCO of 1 ppm. The metal constituents that exceeded the unrestricted SCOs were as follows: lead as high as 1400 ppm (63 ppm SCO); mercury as high as 18 ppm (0.18 ppm SCO); and arsenic as high as 40 ppm (13 ppm SCO). Subsurface soil offsite had minor exceedances of only the unrestricted SCOs.

Groundwater - Groundwater was only sampled at one on-site location during the investigation due to existing buildings, and was found to be impacted by SVOCs and lead. Lead was detected at a concentration of 254 ppb (25 ppb standard); and the four PAHs detected (benz(a)anthracene, benz(a)pyrene, benzo(b)fluoranthene, and chrysene) had a maximum concentration of 0.08 ppb, with a standard of 0.002 ppb. Groundwater sampled at two offsite locations was found to be impacted by VOCs and SVOCs. At MW-01 (located side-gradient), benzene was detected at 21 ppb, ethylbenzene at 140 ppb, xylenes at 50 ppb, naphthalene at 270 ppb, and 1,2,4-Trimethylbenzene at 52 ppb. At MW-02 (located up-gradient), only benzene was detected at 3.4 ppb.

Soil Vapor - There were no soil vapor samples collected at OU-1.

Post-remediation (OU1 only):

An IRM was performed at OU1 in 2014 that removed approximately 68,000 tons of impacted material to depths ranging from 15 to 25 feet below ground surface. Prior to remediation, the primary contaminants of concern were BTEX and naphthalene (VOCs), and PAHs (SVOCs). Of the 28 confirmatory soil samples taken, 25 met the site remedial action SCOs for restricted residential use. The three samples which did not meet the SCOs, and which exceeded only for metals and PAHs, were found at depths greater than 15 feet below ground surface. Groundwater samples collected post-IRM from three locations adjacent to and down-gradient of MW-01 had BTEX results of non-detect at two locations, and 7.9 ppb at the third location. No other constituents were detected at these locations.

6.4: Summary of Human Exposure Pathways

This human exposure assessment identifies ways in which people may be exposed to site-related contaminants. Chemicals can enter the body through three major pathways (breathing, touching or swallowing). This is referred to as *exposure*.

Contaminated groundwater at the site is not used for drinking or other purposes and the area is served by a public water supply that is not affected by this contamination (OU-1; OU-2). Direct contact with contaminants in the soil is unlikely because the site is covered with pavement and buildings (OU-1; OU-2). Volatile organic compounds in the contaminated soil or contamination groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying structures and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. The potential exists for people to inhale site contaminants in indoor air due to soil vapor intrusion for any future on-site redevelopment (OU-2). Environmental sampling indicates that soil vapor intrusion is not a concern for off-site buildings.

6.5: Summary of the Remediation Objectives

The objectives for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375. The goal for the remedial program is to restore the site to pre-disposal conditions to the extent feasible. At a minimum, the remedy shall eliminate or mitigate all significant threats to public health and the environment presented by the contamination identified at the site through the proper application of scientific and engineering principles.

The remedial action objectives for this site are:

Groundwater

RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of volatiles, from contaminated groundwater.

RAOs for Environmental Protection

- Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.
- Remove the source of ground or surface water contamination.

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of or exposure from vapor volatilizing from contaminants in soil.

RAOs for Environmental Protection

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

SECTION 7: SUMMARY OF SELECTED REMEDY

Based on the results of the investigations at the site, the IRM that has been performed, and the evaluation presented here, the Department is proposing No Further Action as the remedy for the site. The Department believes that this remedy is protective of human health and the environment and satisfies the remediation objectives described in Section 6.5.

The elements of the IRM already completed are listed below:

Excavation and off-site disposal of MGP structures, piping and approximately 68,000 tons of contaminated soil exceeding the restricted residential soil cleanup objectives.

The selected remedy is referred to as the No Further Action with Institutional Controls remedy.

The elements of the selected remedy are as follows:

1. A site cover (building) currently exists and will be maintained to allow for restricted residential use of the site. Any future site redevelopment will maintain the existing site cover, which consists either of the structures such as buildings, pavement, and sidewalks, or soil where the upper two feet of exposed surface soil meets the applicable soil cleanup objectives (SCOs) for restricted residential use. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6NYCRR part 375-6.7(d).

2. Imposition of an institutional control in the form of an environmental easement for the OU-1 portion of the site which will:

- require the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- allow the use and development of the controlled property for restricted residential use as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restrict the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or NYCDOH; and
- require compliance with the Department approved Site Management Plan.

3. A Site Management Plan is required, which includes the following:

- an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

Institutional Controls: The Environmental Easement discussed in Paragraph 2 above.

Engineering Controls: The cover system discussed in Paragraph 1.

This plan includes, but may not be limited to:

- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- descriptions of the provisions of the environmental easement including any land use, and groundwater use restrictions;
- provisions for the management and inspection of the identified engineering controls;
- maintaining site access controls and Department notification; and,
- the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

Exhibit A

Nature and Extent of Contamination

This section describes the findings of the Remedial Investigation for all environmental media that were evaluated. As described in Section 6.1, samples were collected from various environmental media to characterize the nature and extent of contamination.

For each medium for which contamination was identified, a table summarizes the findings of the investigation. The tables present the range of contamination found at the site in the media and compares the data with the applicable SCGs for the site. The contaminants are arranged into four categories; volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides/ polychlorinated biphenyls (PCBs), and inorganics (metals and cyanide). For comparison purposes, the SCGs are provided for each medium that allows for unrestricted use. For soil, if applicable, the Restricted Use SCGs identified in Section 4 and Section 6.1.1 are also presented.

Waste/Source Areas

As described in the RI report, waste/source materials were identified at the site and were impacting groundwater and soil.

Wastes are defined in 6 NYCRR Part 375-1.2(aw) and include solid, industrial and/or hazardous wastes. Source areas are defined in 6 NYCRR Part 375(au). Source areas are areas of concern at a site where substantial quantities of contaminants are found which can migrate and release significant levels of contaminants to another environmental medium. Waste and source areas, in the form of both VOCs (BTEX) and SVOCs PAHs, were found in subsurface soils over the entire parcel, up to 25 feet below ground surface. This included areas inside, underneath and outside the former gas holder.

The waste/source areas identified at the site were addressed by the IRM(s) described in Section 6.2.

Groundwater

Groundwater was collected from only one on-site location, and two off-site locations (upgradient and downgradient) prior to the IRM. The results indicated that on-site shallow groundwater only slightly exceeded SCGs for PAHs and inorganics, while the off-site groundwater exceeded SCGs for VOCs and SVOCs. During the IRM approximately 33 million gallons of groundwater were pumped from the ground and treated.

Table #1 – Groundwater (Prior to IRM)

Detected Constituents	Concentration Range Detected (ppb) ^a	SCG ^b (ppb)	Frequency Exceeding SCG
VOCs			
Benzene	3.4 - 21	1	2 of 3
Ethylbenzene	140	5	1 of 3
Total Xylenes	50	5	1 of 3
Naphthalene	270	10	1 of 3

Detected Constituents	Concentration Range Detected (ppb) ^a	SCG ^b (ppb)	Frequency Exceeding SCG
1,2,4-Trimethylbenzene	52	5	1 of 3
Isopropyl Benzene	32	5	1 of 3
SVOCs			
Benz(a)anthracene	0.08	0.002	1 of 3
Benzo(a)pyrene	0.08	ND	1 of 3
Benzo(b)fluoranthene	0.08	0.002	1 of 3
Benzo(k)fluoranthene	0.07	0.002	1 of 3
Chrysene	0.08	0.002	1 of 3
Naphthalene	110	10	1 of 3
Inorganics			
Lead	254	25	1 of 3
Arsenic	31	25	1 of 3

a - ppb: parts per billion, which is equivalent to micrograms per liter, ug/L, in water.

b- SCG: Standard Criteria or Guidance - Ambient Water Quality Standards and Guidance Values (TOGs 1.1.1), 6 NYCRR Part 703, Surface water and Groundwater Quality Standards, and Part 5 of the New York State Sanitary Code (10 NYCRR Part 5).

Groundwater contamination identified during the RI was addressed during the IRM described in Section 6.2.

Subsurface Soil

Soil contamination was assessed both by visual observation and chemical analysis. A total of 28 samples were collected after the excavation from depths of 15-30 feet below ground surface. The sample locations are shown on Figure 3. The results indicate that soils at the site after the IRM exceed the unrestricted SCGs for volatile and semi-volatile organics in 26 of the 28 samples, but only 2 samples exceed the restricted residential SCOs for semi-volatile organics and metals below 15 feet.

Table # 2- Subsurface Soil (Post-IRM)

Detected Constituents	Concentration Range Detected (ppm) ^a	Unrestricted SCG ^b (ppm)	Frequency Exceeding Unrestricted SCG	Restricted Use SCG ^{c,d} (ppm)	Frequency Exceeding Restricted SCG
VOCs					
Benzene	ND-3.4	0.06	5 of 28	0.06 ^d	5 of 28
Ethylbenzene	ND-29	1	4 of 28	1 ^d	4 of 28
Toluene	ND-120	0.7	1 of 28	100	1 of 28
Total Xylene	ND-180	0.26	8 of 28	1.6 ^d	7 of 28
Methylene Chloride	ND-1.3	0.05	6 of 28	100	0 of 28
Naphthalene	ND-17	12	2 of 28	12 ^d	2 of 28
1,2,4-Trimethylbenzene	ND-110	3.6	3 of 28	3.6 ^d	3 of 28
1,3,5-Trimethylbenzene	ND-37	8.4	1 of 28	52	0 of 28

Detected Constituents	Concentration Range Detected (ppm) ^a	Unrestricted SCG ^b (ppm)	Frequency Exceeding Unrestricted SCG	Restricted Use SCG ^{c,d} (ppm)	Frequency Exceeding Restricted SCG
SVOCs					
Benzo(a)anthracene	ND-4.9	1	1 of 28	1	1 of 28
Benzo(a)pyrene	ND-3.6	1	1 of 28	1	1 of 28
Benzo(b)fluoranthene	ND-2.9	1	1 of 28	1	1 of 28
Benzo(k)fluoranthene	ND-3.2	0.8	1 of 28	1.7 ^d	1 of 28
Chrysene	ND-3.6	1	1 of 28	1 ^d	1 of 28
Dibenz(a,h)anthracene	ND-0.66	0.33	1 of 28	0.33	1 of 28
Indeno(1,2,3-cd)pyrene	ND-2.0	0.5	1 of 28	0.5	1 of 28
Naphthalene	ND-140	12	1 of 28	12 ^d	1 of 28
Inorganics					
Arsenic	ND-24	13	1 of 28	16	1 of 28
Mercury	ND-0.39	0.18	1 of 28	0.73	0 of 28

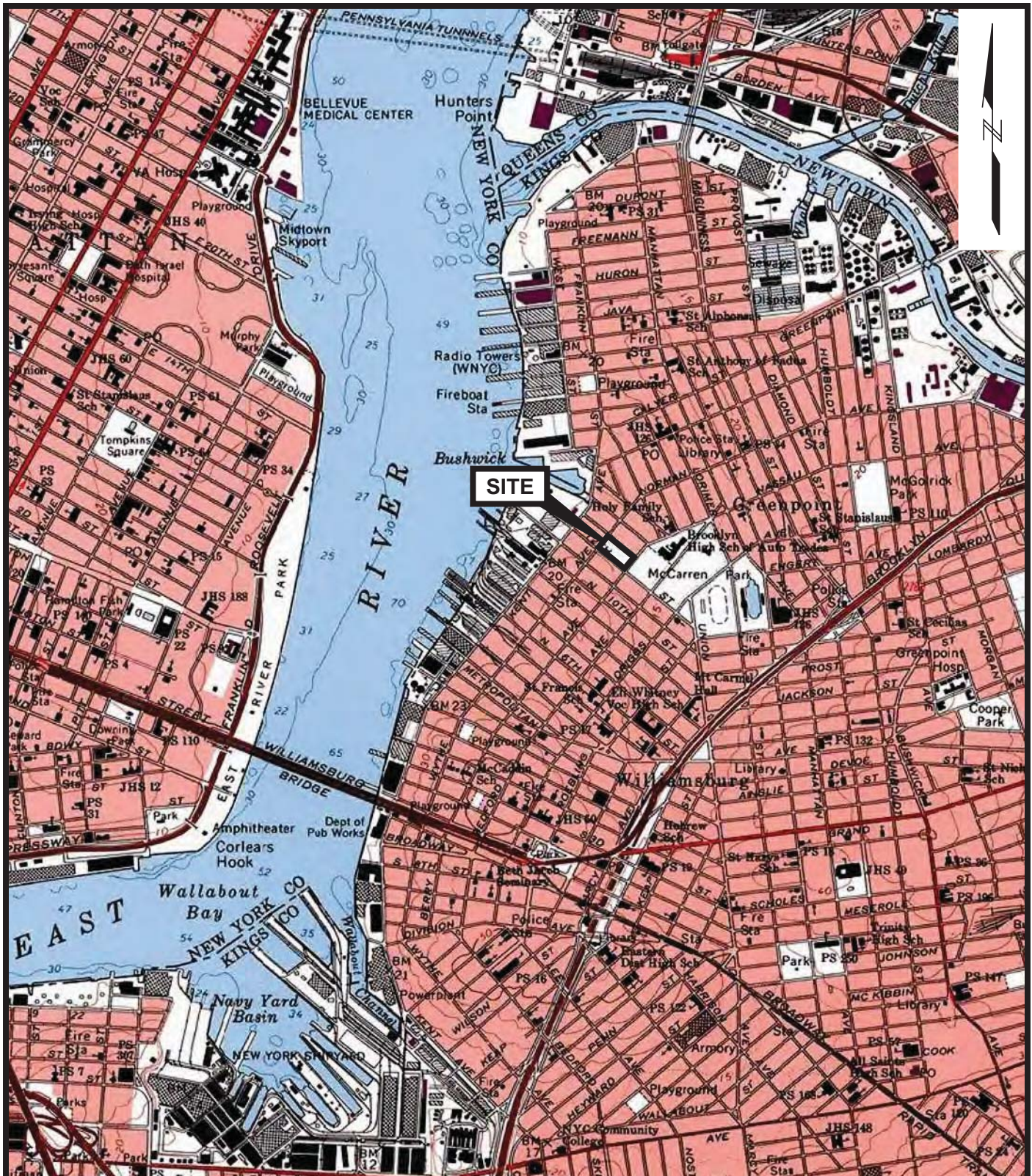
a - ppm: parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;

b - SCG: Part 375-6.8(a), Unrestricted Soil Cleanup Objectives.

c - SCG: Part 375-6.8(b), Restricted Use Soil Cleanup Objectives for the Protection of Public Health for Restricted Residential Use, unless otherwise noted.

d - SCG: Part 375-6.8(b), Restricted Use Soil Cleanup Objectives for the Protection of Groundwater.

Soil contamination identified during the RI exceeding applicable site SCOs was addressed during the IRM described in Section 6.2.



SOURCE:

Map created with TOPO! © 2001 National Geographic
(www.nationalgeographic.com/topo)



Construction Completion Report
Wythe Ave. (Berry St.) Holder Station Site
Borough of Brooklyn, New York

nationalgrid

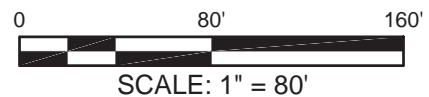
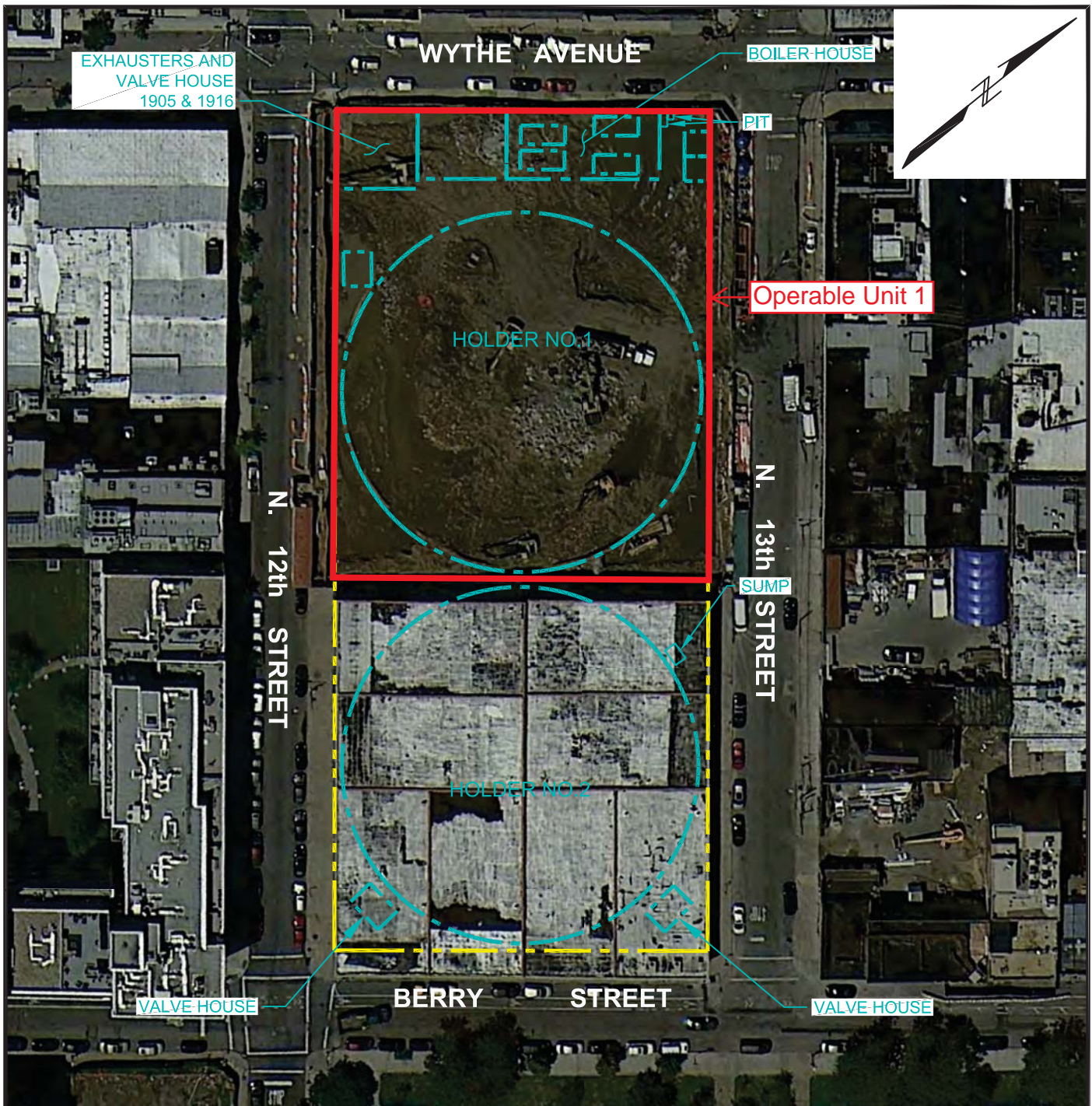
GEI Consultants

SITE LOCATION MAP

Project 101970

May 2015

Fig. 1



SOURCES:

1. AERIAL PHOTOGRAPH OBTAINED FROM GOOGLE™ EARTH PRO (<http://www.google.com/earth/>), IMAGERY DATE: 6/19/2014, ACCESSED ON: 1/19/2014.
2. SANBORN FIRE INSURANCE MAPS 1942, 1916 AND 1905.
3. SITE BOUNDARY WAS OBTAINED FROM NEW YORK CITY OPEN ACCESSIBLE SPACE INFORMATION SYSTEM <http://www.oasisnyc.net>, ACCESSED MAY 2010.

LEGEND:

- SITE BOUNDARY
- HISTORIC STRUCTURE (APPROXIMATE)

Construction Completion Report
Wythe Ave. (Berry Street) Holder Station Site
Borough of Brooklyn, New York

nationalgrid



Project 101970

HISTORIC SITE CONDITIONS

May 2015

Fig. 2

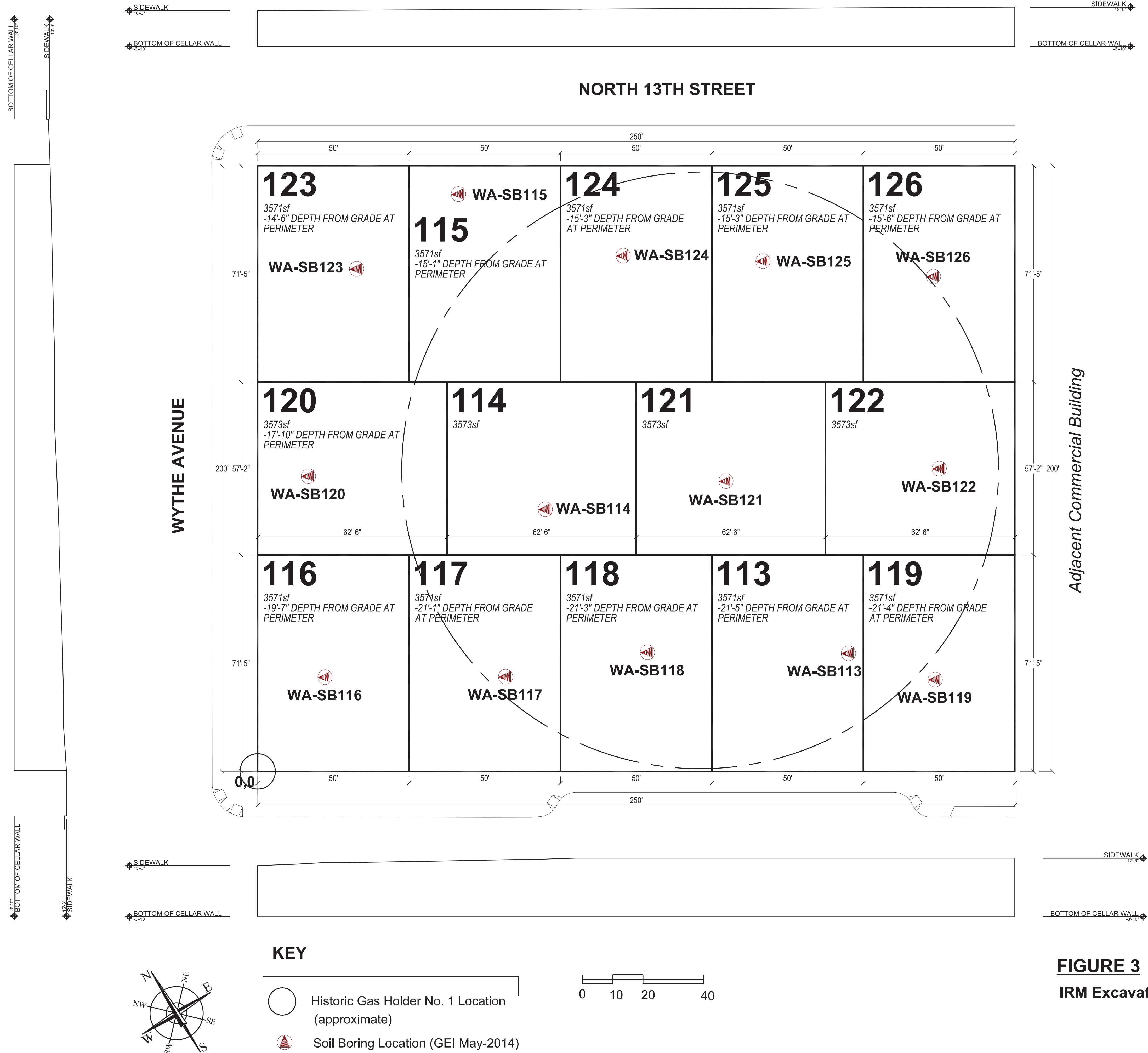


FIGURE 3
IRM Excavation Cells and Sample Locations



Figure 4

Soil Impacts Remaining
Post-Excavation

APPENDIX A

Responsiveness Summary

RESPONSIVENESS SUMMARY

**K-Wythe Ave. Station
Operable Unit No. 01: Wythe Berry LLC Properties
State Superfund Project
Brooklyn, Kings County, New York
Site No. 224069**

The Proposed Remedial Action Plan (PRAP) for the K-Wythe Ave. Station OU1 site was prepared by the New York State Department of Environmental Conservation (the Department) in consultation with the New York State Department of Health (NYSDOH) and was issued to the document repositories on February 28, 2017. The PRAP outlined the remedial measure proposed for the contaminated soil and groundwater at the K-Wythe Ave. Station OU1 site.

The release of the PRAP was announced by sending a notice to the public contact list, informing the public of the opportunity to comment on the proposed remedy.

A public meeting was held on March 21, 2017, which no members of the public attended. The public comment period for the PRAP ended on March 30, 2017.

This Responsiveness Summary responds to all questions and comments raised during the public comment period. The following are the comments received, with the Department's responses:

Donald P. Campbell, Project Manager, National Grid, submitted an email (dated March 2, 2017) which included the following comment:

COMMENT 1: On Page 3, it is stated in the PRAP text that the public meeting will be on March 17, 2017. However, the meeting is scheduled for March 14, 2017.

RESPONSE 1: The Department corrected the error and sent a revised PRAP to the document repositories on March 8, 2017.

Donald P. Campbell, Project Manager, National Grid, submitted a letter (dated March 23, 2017) which included the following comments:

COMMENT 2: On page 4 of the PRAP, in Section 5: Enforcement Status, the text states, "The PRPs for the site, documented to date, include: KeySpan dba National Grid, and National Grid. The Department and KeySpan Energy Delivery, New York and KeySpan Energy Delivery, Long Island entered into a Consent Order on August 10, 2007 (Index #A2-0552-0606). KeySpan Corporation is a wholly-owned subsidiary of National Grid USA."

This information needs to be updated. First, the party that signed the identified consent order, with respect to the Site, is the Brooklyn Union Gas Company. The Brooklyn Union Gas Company is no longer doing business as KeySpan Energy Delivery New York but is now doing business as National

Grid NY. Second, on March 31, 2017, KeySpan Corporation will merge with and into National Grid USA, with National Grid USA as the surviving entity. Third, there is no business entity named simply “National Grid,” and therefore National Grid” cannot be a PRP.

Furthermore, National Grid has identified other extant business entities that are the successors to former parent companies of The Brooklyn Union Gas Company, and these entities should be identified as PRPs. These entities are ExxonMobil, DTE Energy, and Beazer. More information about the relationship of these companies to The Brooklyn Union Gas Company will be provided in a draft off-site groundwater report and a draft, revised Interim Site Management Plan that will be submitted to the New York State Department of Environmental Conservation in the near future.

Adding to the PRPs identified in the above paragraph, current and prior property owners have liability under the Comprehensive Environmental Response Compensation and Liability Act. As identified in the PRAP, the current owner of OU 01 is Wythe Berry LLC, and the current owner of OU 02 is Mihata Corp. Consolidated Edison Company of New York, Inc. was a property owner at the site from approximately 1965 to 1983.

In summary, the following, listed alphabetically, should be identified as potentially responsible parties that have been documented to date:

- Beazer,
- The Brooklyn Union Gas Company d/b/a National Grid NY,
- Consolidated Edison Company of New York, Inc.
- DTE Energy,
- ExxonMobil,
- Mihata Corp. (OU02), and
- Wythe Berry LLC (OU 01).

RESPONSE 2: The Department will modify Section 5 to list The Brooklyn Union Gas Company and National Grid USA as potentially responsible parties (PRPs) for the site. The remaining entities listed are not currently identified as PRPs by the Department. The two entities that will be listed as PRPs are identified because the New York State Department of State shows The Brooklyn Union Gas Company, the entity that signed the Order, to be an active corporation (it continues to exist); and KeySpan Corporation is now part of National Grid USA, which registered with the Department of State on March 21, 2017.

COMMENT 3: In addition to the contaminants of concern listed in Section 6.2.1 RI Results,* on pages 5 and 6 of the PRAP, the following compounds were detected at concentration exceeding Standards Criteria and Guidance:

- naphthalene, and
- isopropyl benzene

*See Comment 4.

RESPONSE 3: These contaminants were added to Section 6.2.1.

COMMENT 4: Regarding the term “Remedial Investigation” or “RI”, National Grid notes that it has never prepared Remedial Investigation work plan for, or implemented a Remedial Investigation work plan at, the Site. National Grid has performed a Site Characterization and, in advance of the Interim Remedial Measure, an Additional Investigation. National Grid understands the term “Remedial Investigation”, as used in the Wythe Ave. Station OU 01 PRAP, to refer to the Site Characterization and the Additional Investigation that were performed prior to the Interim Remedial Measure.

RESPONSE 4: The Department acknowledges that the term “Remedial Investigation”, as used in the Wythe Avenue Station OU 01 PRAP, refers to the Site Characterization and the Additional Investigation performed at the site.

Lisa Hein and Robert Seng submitted an email (dated March 29, 2017) which included the following comments and questions:

COMMENT 5: The remediation completed at OU1 raised many concerns, including nuisance odors and material tracked onto roads.

RESPONSE 5: The Department acknowledges that the developer/contractor violated approved plans which dictated the proper protocols to be followed during the work. In response to those violations, in addition to correcting the situation on-site, the Department issued a Stipulation of Environmental Enforcement that resulted in a substantial fine.

COMMENT 6: How can “visual” inspections determine the presence or absence of contaminants?

RESPONSE 6: Typical contamination encountered at former manufactured gas plant sites and holder stations includes a gas condensate referred to as coal tar. This material can be found as a dark reddish brown to black color in different viscosities. Soil that is in contact with this material becomes discolored or stained, which provides an easily identifiable area to be removed.

COMMENT 7: What are the levels of contaminants in air BEFORE and AFTER the cleanup?

RESPONSE 7: The Department typically collects this type of data at remediation sites only during intrusive activities, such as excavations. However, during the remediation perimeter air sampling for particulates and volatile organic compounds is performed during the period when intrusive activities may be underway hourly, or at other established intervals, in accordance with a NYSDOH approved Community Air Monitoring Program (CAMP).

COMMENT 8: Are these after-cleanup levels safe for continuous habitation? The neighborhood is filled with both home offices and young families.

RESPONSE 8: The remediation at the site removed volatile organic compounds from the soil, which reduces and/or eliminates the potential for soil vapor intrusion into buildings. In addition, the entire building had a waterproof membrane placed underneath the bottom concrete slab, which further serves as a barrier for vapors. There was no off-site contamination documented that may have potentially impacted other buildings surrounding the site.

COMMENT 9: What steps will NYS Dept. of Environmental Conservation and NYS Dept. of Health take to enhance protections for neighbors, laborers and waterways during the cleanup of OU2?

RESPONSE 9: As stated in Response No. 7, a CAMP will be implemented which monitors the air at the perimeter of the site to protect the surrounding community from airborne contaminants. Also, site-specific protocols will be developed as part of the remedial design for OU2 to ensure that on-site personnel and the neighboring residents and businesses are not adversely impacted by the future remediation.

COMMENT 10: Will you include us in your email notices to the community?

RESPONSE 10: Both fact sheets and public notices to announce future work or public meetings will be distributed in advance. The public is encouraged to sign up for the Department's listserv for Kings County in order to receive fact sheets and notices on this and other remedial sites in the county. See <http://www.dec.ny.gov/chemical/61092.html>

APPENDIX B

Administrative Record

Administrative Record

**K-Wythe Ave. Station Site
Operable Unit No. 01: Wythe Berry LLC Properties
State Superfund Project
Brooklyn, Kings County New York
Site No. 224069**

1. Proposed Remedial Action Plan for the K-Wythe Ave. Station site, Operable Unit No. 01, dated February 2017, prepared by the Department.
2. Order on Consent, Index No. A2-0552-0606, between the Department and The Brooklyn Union Gas Company d/b/a KeySpan Energy Delivery New York & KeySpan Gas East Corporation d/b/a KeySpan Energy Delivery Long Island, executed in August 2007.
3. "Site Characterization Report, Wythe Ave. (Berry St.) Former Holder Station, Brooklyn, NY, AOC Index No. A2-0552-0606, Site No. 224069", March 2013, prepared by GEI Consultants, Inc.
4. "Interim Remedial Measure Construction Completion Report, Wythe Ave. (Berry St.) Former Holder Station, Block 2283, Lots 1 and 10, Brooklyn, NY, NYSDEC Site No. 224069", May 2015, prepared by GEI Consultants, Inc.
5. "Additional Investigation Data Report, Wythe Ave. Station Site, Brooklyn, NY, NYSDEC Site # 224069", July 2015, prepared by GEI Consultants, Inc.
6. Email dated March 2, 2017 from Donald Campbell, National Grid.
7. Letter dated March 23, 2017 from Donald Campbell, National Grid.