NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL REMEDIATION
BCP Significant Threat Determination Report

1/15/2020

Site Code C224239 **Site Name** 8 Walworth
City Brooklyn **Town** New York City
Region 2 **County** Kings
Current Classification A
Estimated Size 0.0890 **Allowable Use**
Significant Threat: Yes **Project Manager** Aaron Fischer

Summary of Approvals

Originator/Supervisor: Heide-Marie Dudek **01/07/2020**

Regional Hazardous Waste Remedial Engineer: Jane O'Connell **01/15/2020**

BEEI of NYSDOH: **11/18/2019**

CO Bureau Director: Gerard Burke, Director, Remedial Bureau E **01/09/2020**

Assistant Division Director: George Heitzman, P.E.: **01/15/2020**

Basis for Significant Threat Determination

The soil, groundwater, and soil vapor at this 0.1 acre site have been tested as part of an RI. Tetrachloroethene (PCE), trichloroethene (TCE), and 1,2-dichlorethene (1,2-DCE), in addition to a suite of SVOCs and PCBs are present.
PCE was found at a max of 3,200 ppm in soil borings. In groundwater PCE max is 20,000 ppb and TCE at 11,000 ppb max. Soil vapor has elevated PCE, TCE, and vinyl chloride.

Site Description - Last Review: 11/20/2019

Location

The Site (a.k.a. Former Techtronics Ecological Site, P Site No. 224239) is located in the Bedford Stuyvesant section of Kings County and is comprised of a single tax parcel totaling 3,910 square feet (0.089 acres).
The Site is located in the City of New York and Borough of Brooklyn. The Site is rectangular shaped with 78 feet of frontage along Walworth Street.

The north, south and west sides of the property are bordered by warehouses and commercial / industrial buildings.

Site Features

The Site is improved with a 3,910 sf, 1- story masonry building constructed in 1982 (estimate). The building is divided into two sections each with its own access to the outside; the north section which was recently used as warehouse space and the south section which was used by an orthodox congregation for a prayer room.

Current Zoning and Land Use

Compliance with Current Zoning
The property is currently zoned M1-2. M1 districts are often buffers between M2 or M3 districts and adjacent residential or commercial districts. M1 districts typically include light industrial uses, such as woodworking shops, repair shops, and wholesale service and storage facilities. Nearly all industrial uses are allowed in M1 districts if they meet the stringent M1 performance standards. Offices, hotels and most retail uses are also permitted. Certain community facilities, such as hospitals, are allowed in M1 districts only by special permit, but houses of worship are allowed as-of-right. The proposed project, which includes an office building, is compatible with the surrounding land use and will be in compliance with the current zoning.

Compliance with Land Use Plans
On May 9, 2001, the City Council approved the Flushing - Bedford rezoning action (CEQR No. 00DCP015K) covering 15 blocks in the Flushing Avenue and Bedford Avenue area of Community
Districts 1 and 3 in the Bedford Stuyvesant neighborhood of Brooklyn. According to the Notice of Completion of The Final Environmental Impact Statement issued on March 16, 2001 by the NYC Planning Commission:

"The Flushing Bedford area, although zoned for manufacturing uses, contains a mix of residential uses, vacant land, open uses, auto-related uses, and commercial and industrial buildings. The rezoning area has experienced a significant decline in industrial activity over the last four decades resulting in an increase in auto related uses, junk yards and vacant land. Study findings indicate that over the last two decades, there has been a substantial growth in the residential population in the surrounding areas, resulting in a housing shortfall and increasing demand for new dwelling 'units. Since the mid 1980's there has been a marked increase in residential development, especially in the area north of Flushing Avenue."

"Although the existing manufacturing zoning does not permit as-of-right residential development, in recent years there has been new residential development in the area north of Flushing Avenue pursuant to zoning variances granted by the Board of Standards, and Appeals (BSA). In 1996 and

1998, two rezoning applications were approved changing the designation of a three block area immediately north of the rezoning area from manufacturing to residential. The presence of vacant and underutilized land, coupled with the increasing demand for housing in the adjacent communities, presents an opportunity for new residential development in this part of Brooklyn."

The objectives of the rezoning were to:
-provide opportunities for new residential development on vacant and under- utilized parcels;
-bring existing non-conforming residential uses into conformance, and would allow for their enlargement;
-allow for the continued presence and expansion of commercial and manufacturing uses;
-permit the introduction of new commercial and manufacturing uses; and,
-allow the residential re-use of underutilized and vacant land.

In general, the action would provide the land use controls necessary for appropriate residentialdevelopment and the continued presence of viable manufacturing uses.

The proposed project will be in full compliance with the current land use plans as identified in the Flushing Bedford Rezoning Action (CEQR No. 00DCP015K) adopted by the City on May 9, 2001.

Past Use of the Site

The historic use of the Site includes a storefront building, garage and residence from sometime prior to 1887 to sometime before to sometime before 1965 when a two-story residence remained on the south side of the Site and a single-story warehouse used for chemical drum storage was present on the north side of the Site. By 1977, the two-story residence was no longer present and the singlestory
chemical drum storage warehouse remained on the north side of the Site. By 1982 the Site was redeveloped with a single-story paint mixing warehouse. The Site and adjacent properties have remained generally unchanged through the current day.

This site was originally a P site (Former Techtronics Ecological Site, Site No. 224239). The site then entered the BCP program to complete the investigation and remedy.

Site Geography and Geology

The geologic setting of Long Island is well documented and consists of crystalline bedrock overlain by layers of unconsolidated deposits. According to geologic maps of the area created by the United

States Geologic Survey (USGS), the bedrock in this area of Brooklyn is an igneous intrusive classified as the Ravenswood grano-diorite of middle Ordovician to middle Cambrian age. Unconsolidated sediments overlie the bedrock and consist of Pleistocene aged sand, gravel and silty clays, deposited by glacial-fluvial activity. Non-native fill materials consisting of dredge spoils, rubble and / or other materials have historically been used to reinforce and extend shoreline areas and to raise and improve the drainage of low lying areas.

Subsurface soils at the Site consist of historic fill materials to a depth of approximately 4 to 6 feet below grade. Silty sand and gravel is present immediately below this layer. According to the USGS topographic map for the area (Brooklyn Quadrangle), the elevation of the property is approximately 20 feet above mean sea level. The topography within the immediate area slopes gradually from south to north.

No portion of the Site is located within a designated flood zone area. The nearest moderate risk flood zone is located 800 feet to the northwest and the nearest high risk flood zone is located 950 feet to the northwest.

Contaminants of Concern (Including Materials Disposed)	**Quantity Disposed**
OU 01	
tetrachloroethene (PCE)	UNKNOWN
trichloroethene (TCE)	UNKNOWN
mercury	UNKNOWN
PCB aroclor 1254	UNKNOWN
dibenz[a,h]anthracene	UNKNOWN

Analytical Data Available for : Groundwater, Soil, Soil Vapor, Indoor Air

Applicable Standards Exceeded for: Groundwater, Soil, Soil Vapor

Site Environmental Assessment - Last Review: 11/20/2019

Nature and Extent of Contamination:
The chlorinated solvent compounds tetrachloroethylene (PCE) and its breakdown products trichloroethene (TCE) and cis-1,2-dichloroethene (cis-1,2-DCE), as well as other volatile organic compounds (VOCs) were detected in soil, groundwater, and soil vapor samples during the remedial investigation in 2018/19. Soil samples collected on site also contained elevated concentrations of Metals, Semi-Volatile Organic Compounds (SVOCs), and PCBs.

Soil – During the remedial investigation, eight (8) soil borings were collected throughout the site. Chlorinated Volatile Organic Compounds (CVOCs) were detected above Protection of Groundwater Soil Cleanup Objectives in all soil borings. Maximum PCE concentration of 3,200,000 ug/kg was found at SB-1708 (7-9’ bgs). Maximum TCE concentration of 200,000

ug/kg was found at SB-1708 (7-9' bgs).

Groundwater – During the remedial investigation, five (5) monitoring wells were installed. CVOCs were detected in all five groundwater samples collected at the site: PCE ranges from 7,800 to 20,000 parts per billion, or ppb; TCE ranges from 1,800 to 11,000 ppb; and cis-1,2-DCE ranges from 270 to 11,000 ppb. The NYSDEC's list of 21 PFAS compounds was also analyzed as part of the remedial investigation. Combined PFOA PFOS concentrations ranged from 50 parts per trillion (ppt) in MW-1701 to 928 ppt in MW 1705.

Soil Vapor – As part of the remedial investigation, six (6) soil vapor samples were collected throughout the site. CVOCs were detected in all on-site samples. PCE ranged from 705 ug/m3 in SS-5 to 590,000 ug/m3 in SS-1. TCE concentrations ranged from 106 ug/m3 in SS-5 to 488,000 ug/m3 in SS-1. All sub-slab vapor samples also contained BTEX compounds.

Significant Threat:
A significant threat determination will be made following completion of a site characterization.

Site Health Assessment - Last Update: 11/19/2019

People may contact contaminated soils or groundwater if they dig below the surface. Contaminated groundwater at the site is not used for drinking or other purposes and this site is served by a public water supply that obtains water from a different source not affected by this contamination. Volatile organic compounds in soil vapor (air spaces within the soil) may move into overlying buildings 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 site is currently vacant and redevelopment is planned. The potential exists for the inhalation of site contaminants due to soil vapor intrusion for future onsite buildings. Additional investigation is needed to determine whether actions are needed to address soil vapor intrusion in offsite structures.

	Start		End	
OU 01				
Agreement	9/20/17	ACT	11/19/17	ACT
Application Approval	8/23/17	ACT	9/20/17	ACT
Application Completion	6/21/17	ACT	8/23/17	ACT
Emerging Contaminant Sampling	1/17/19	ACT	8/7/20	PLN
OGC Docket - Eligibility Determination	8/23/17	ACT	9/13/17	ACT
Reclass Pkg.	1/6/20	ACT	2/17/20	PLN
Remedial Action	1/1/21	PLN	12/31/21	PLN
Remedial Design	4/1/20	PLN	10/1/20	PLN
Remedial Investigation	9/28/18	ACT	3/31/20	PLN

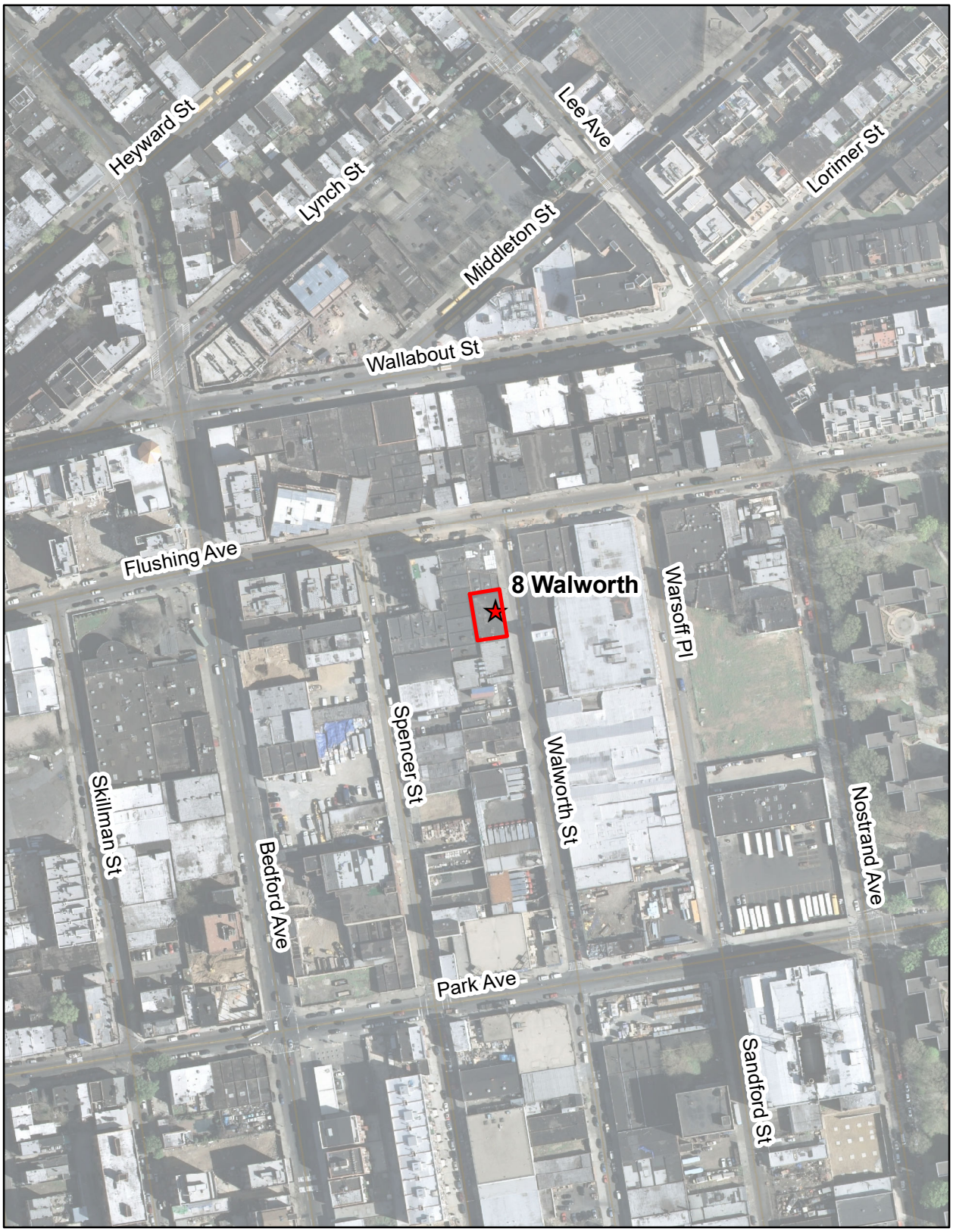
Remedy Description and Cost

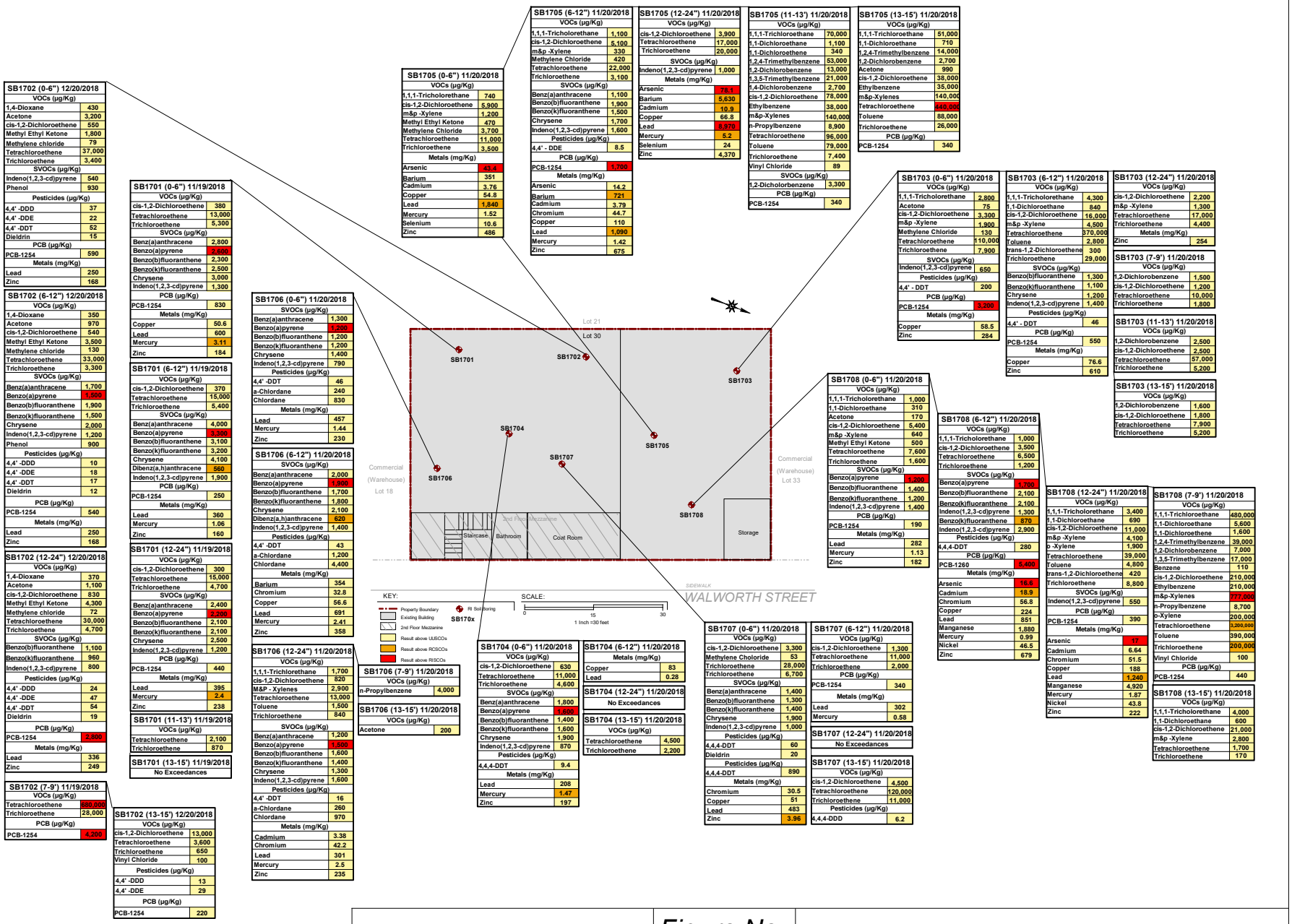
Site Code C224239 **Site Name** 8 Walworth

Remedy Description for Operable Unit 01

Total Cost

Site Location Map
C224239, 8 Walworth





SB1702 (0-6") 12/20/2018

VOCs (µg/Kg)	
1,4-Dioxane	430
Acetone	3,200
cis-1,2-Dichloroethene	550
Methyl Ethyl Ketone	1,800
Methylene chloride	79
Tetrachloroethene	37,000
Trichloroethene	3,400
SVOCs (µg/Kg)	
Indeno(1,2,3-cd)pyrene	540
Phenol	930
Pesticides (µg/Kg)	
4,4' -DDD	37
4,4' -DDE	22
4,4' -DDT	52
Dieldrin	15
PCB (µg/Kg)	
PCB-1254	590
Metals (mg/Kg)	
Lead	250
Zinc	168

SB1702 (6-12") 12/20/2018

VOCs (µg/Kg)	
1,4-Dioxane	350
Acetone	970
cis-1,2-Dichloroethene	540
Methyl Ethyl Ketone	3,500
Methylene chloride	130
Tetrachloroethene	33,000
Trichloroethene	3,300
SVOCs (µg/Kg)	
Benz(a)anthracene	1,700
Benzo(a)pyrene	1,500
Benzo(b)fluoranthene	1,900
Benzo(k)fluoranthene	1,500
Chrysene	2,000
Indeno(1,2,3-cd)pyrene	1,200
Phenol	900
Pesticides (µg/Kg)	
4,4' -DDD	10
4,4' -DDE	18
4,4' -DDT	17
Dieldrin	12
PCB (µg/Kg)	
PCB-1254	540
Metals (mg/Kg)	
Lead	250
Zinc	168

SB1702 (12-24") 12/20/2018

VOCs (µg/Kg)	
1,4-Dioxane	370
Acetone	1,100
cis-1,2-Dichloroethene	830
Methyl Ethyl Ketone	4,300
Methylene chloride	72
Tetrachloroethene	30,000
Trichloroethene	4,700
SVOCs (µg/Kg)	
Benzo(b)fluoranthene	1,100
Benzo(k)fluoranthene	960
Indeno(1,2,3-cd)pyrene	800
Pesticides (µg/Kg)	
4,4' -DDD	24
4,4' -DDE	47
4,4' -DDT	54
Dieldrin	19
PCB (µg/Kg)	
PCB-1254	2,800
Metals (mg/Kg)	
Lead	336
Zinc	249

SB1702 (7-9') 11/19/2018

VOCs (µg/Kg)	
Tetrachloroethene	680,000
Trichloroethene	28,000
PCB (µg/Kg)	
PCB-1254	4,200

SB1702 (13-15') 12/20/2018

VOCs (µg/Kg)	
cis-1,2-Dichloroethene	13,000
Tetrachloroethene	3,600
Trichloroethene	650
Vinyl Chloride	100
Pesticides (µg/Kg)	
4,4' -DDD	13
4,4' -DDE	29
PCB (µg/Kg)	
PCB-1254	220

SB1701 (0-6") 11/19/2018

VOCs (µg/Kg)	
cis-1,2-Dichloroethene	380
Tetrachloroethene	13,000
Trichloroethene	5,300
SVOCs (µg/Kg)	
Benz(a)anthracene	2,800
Benzo(a)pyrene	2,600
Benzo(b)fluoranthene	2,300
Benzo(k)fluoranthene	2,500
Chrysene	3,000
Indeno(1,2,3-cd)pyrene	1,300
PCB (µg/Kg)	
PCB-1254	830
Metals (mg/Kg)	
Copper	50.6
Lead	600
Mercury	3.11
Zinc	184

SB1701 (6-12") 11/19/2018

VOCs (µg/Kg)	
cis-1,2-Dichloroethene	370
Tetrachloroethene	15,000
Trichloroethene	5,400
SVOCs (µg/Kg)	
Benz(a)anthracene	4,000
Benzo(a)pyrene	3,300
Benzo(b)fluoranthene	3,100
Benzo(k)fluoranthene	3,200
Chrysene	4,100
Dibenz(a,h)anthracene	560
Indeno(1,2,3-cd)pyrene	1,900
PCB (µg/Kg)	
PCB-1254	250
Metals (mg/Kg)	
Lead	360
Mercury	1.06
Zinc	160

SB1701 (12-24") 11/19/2018

VOCs (µg/Kg)	
cis-1,2-Dichloroethene	300
Tetrachloroethene	15,000
Trichloroethene	4,700
SVOCs (µg/Kg)	
Benz(a)anthracene	2,400
Benzo(a)pyrene	2,200
Benzo(b)fluoranthene	2,100
Benzo(k)fluoranthene	2,100
Chrysene	2,500
Indeno(1,2,3-cd)pyrene	1,200
PCB (µg/Kg)	
PCB-1254	440
Metals (mg/Kg)	
Lead	395
Mercury	2.4
Zinc	238

SB1701 (11-13') 11/19/2018

VOCs (µg/Kg)	
Tetrachloroethene	2,100
Trichloroethene	870

SB1701 (13-15') 11/19/2018

No Exceedances

SB1705 (0-6") 11/20/2018

VOCs (µg/Kg)	
1,1,1-Tricholorethane	740
cis-1,2-Dichloroethene	5,900
m&p -Xylene	1,200
Methyl Ethyl Ketone	470
Methylene Chloride	3,700
Tetrachloroethene	11,000
Trichloroethene	3,500
Metals (mg/Kg)	
Arsenic	43.4
Barium	351
Cadmium	3.76
Copper	54.8
Lead	1,840
Mercury	1.52
Selenium	10.6
Zinc	486

SB1705 (6-12") 11/20/2018

VOCs (µg/Kg)	
1,1,1-Tricholorethane	1,100
cis-1,2-Dichloroethene	5,100
m&p -Xylene	330
Methylene Chloride	420
Tetrachloroethene	22,000
Trichloroethene	3,100
SVOCs (µg/Kg)	
Benz(a)anthracene	1,100
Benzo(b)fluoranthene	1,900
Benzo(k)fluoranthene	1,500
Chrysene	1,700
Indeno(1,2,3-cd)pyrene	1,600
Pesticides (µg/Kg)	
4,4' - DDE	8.5
PCB (µg/Kg)	
PCB-1254	1,700
Metals (mg/Kg)	
Arsenic	14.2
Barium	721
Cadmium	3.79
Chromium	44.7
Copper	110
Lead	1,090
Mercury	1.42
Zinc	675

SB1705 (12-24") 11/20/2018

VOCs (µg/Kg)	
cis-1,2-Dichloroethene	3,900
Tetrachloroethene	17,000
Trichloroethene	20,000
SVOCs (µg/Kg)	
Indeno(1,2,3-cd)pyrene	1,000
Metals (mg/Kg)	
Arsenic	78.1
Barium	5,630
Cadmium	10.9
Copper	66.8
Lead	8,970
Mercury	5.2
Selenium	24
Zinc	4,370

SB1705 (11-13') 11/20/2018

VOCs (µg/Kg)	
1,1,1-Trichloroethane	70,000
1,1-Dichloroethane	1,100
1,1-Dichloroethene	340
1,2,4-Trimethylbenzene	53,000
1,2-Dichlorobenzene	13,000
1,3,5-Trimethylbenzene	21,000
1,4-Dichlorobenzene	2,700
cis-1,2-Dichloroethene	78,000
Ethylbenzene	38,000
m&p-Xylenes	140,000
n-Propylbenzene	8,900
Tetrachloroethene	96,000
Toluene	79,000
Trichloroethene	7,400
Vinyl Chloride	89
SVOCs (µg/Kg)	
1,2-Dicholorbenzene	3,300
PCB (µg/Kg)	
PCB-1254	340

SB1705 (13-15') 11/20/2018

VOCs (µg/Kg)	
1,1,1-Trichloroethane	51,000
1,1-Dichloroethane	710
1,2,4-Trimethylbenzene	14,000
1,2-Dichlorobenzene	2,700
Acetone	990
cis-1,2-Dichloroethene	38,000
Ethylbenzene	35,000
m&p-Xylenes	140,000
Tetrachloroethene	440,000
Toluene	88,000
Trichloroethene	26,000
PCB (µg/Kg)	
PCB-1254	340

SB1706 (0-6") 11/20/2018

SVOCs (µg/Kg)	
Benz(a)anthracene	1,300
Benzo(a)pyrene	1,200
Benzo(b)fluoranthene	1,200
Benzo(k)fluoranthene	1,200
Chrysene	1,400
Indeno(1,2,3-cd)pyrene	790
Pesticides (µg/Kg)	
4,4' -DDT	46
a-Chlordane	240
Chlordane	830
Metals (mg/Kg)	
Lead	457
Mercury	1.44
Zinc	230

SB1706 (6-12") 11/20/2018

SVOCs (µg/Kg)	
Benz(a)anthracene	2,000
Benzo(a)pyrene	1,900
Benzo(b)fluoranthene	1,700
Benzo(k)fluoranthene	1,800
Chrysene	2,100
Dibenz(a,h)anthracene	620
Indeno(1,2,3-cd)pyrene	1,400
Pesticides (µg/Kg)	
4,4' -DDT	43
a-Chlordane	1,200
Chlordane	4,400
Metals (mg/Kg)	
Barium	354
Chromium	32.8
Copper	56.6
Lead	691
Mercury	2.41
Zinc	358

SB1706 (12-24") 11/20/2018

VOCs (µg/Kg)	
1,1,1-Trichlorethane	1,700
cis-1,2-Dichloroethene	820
M&P - Xylenes	2,900
Tetrachloroethene	13,000
Toluene	1,500
Trichloroethene	840
SVOCs (µg/Kg)	
Benz(a)anthracene	1,200
Benzo(a)pyrene	1,500
Benzo(b)fluoranthene	1,600
Benzo(k)fluoranthene	1,400
Chrysene	1,300
Indeno(1,2,3-cd)pyrene	1,600
Pesticides (µg/Kg)	
4,4' -DDT	16
a-Chlordane	260
Chlordane	970
Metals (mg/Kg)	
Cadmium	3.38
Chromium	42.2
Lead	301
Mercury	2.5
Zinc	235

SB1706 (7-9') 11/20/2018

VOCs (µg/Kg)	
n-Propylbenzene	4,000

SB1706 (13-15') 11/20/2018

VOCs (µg/Kg)	
Acetone	200

SB1704 (0-6") 11/20/2018

VOCs (µg/Kg)	
cis-1,2-Dichloroethene	630
Tetrachloroethene	11,000
Trichloroethene	4,600
SVOCs (µg/Kg)	
Benz(a)anthracene	1,800
Benzo(a)pyrene	1,600
Benzo(b)fluoranthene	1,400
Benzo(k)fluoranthene	1,600
Chrysene	1,900
Indeno(1,2,3-cd)pyrene	870
Pesticides (µg/Kg)	
4,4,4-DDT	9.4
Metals (mg/Kg)	
Lead	208
Mercury	1.47
Zinc	197

SB1704 (6-12") 11/20/2018

Metals (mg/Kg)	
Copper	83
Lead	0.28

SB1704 (12-24") 11/20/2018

No Exceedances

SB1704 (13-15") 11/20/2018

VOCs (µg/Kg)	
Tetrachloroethene	4,500
Trichloroethene	2,200

SB1707 (0-6") 11/20/2018

VOCs (µg/Kg)	
cis-1,2-Dichloroethene	3,300
Methylene Chloride	53
Trichloroethene	28,000
Trichloroethene	6,700
SVOCs (µg/Kg)	
Benz(a)anthracene	1,400
Benzo(b)fluoranthene	1,300
Benzo(k)fluoranthene	1,400
Chrysene	1,900
Indeno(1,2,3-cd)pyrene	1,000
Pesticides (µg/Kg)	
4,4,4-DDT	60
Dieldrin	20
Pesticides (µg/Kg)	
4,4,4-DDT	890
Metals (mg/Kg)	
Chromium	30.5
Copper	51
Lead	483
Zinc	3.96

SB1707 (6-12") 11/20/2018

VOCs (µg/Kg)	
cis-1,2-Dichloroethene	1,300
Tetrachloroethene	11,000
Trichloroethene	2,000
PCB (µg/Kg)	
PCB-1254	340
Metals (mg/Kg)	
Lead	302
Mercury	0.58

SB1707 (12-24") 11/20/2018

No Exceedances

SB1707 (13-15') 11/20/2018

VOCs (µg/Kg)	
cis-1,2-Dichloroethene	4,500
Tetrachloroethene	120,000
Trichloroethene	11,000
Pesticides (µg/Kg)	
4,4,4-DDD	6.2

SB1703 (0-6") 11/20/2018

VOCs (µg/Kg)	
1,1,1-Tricholorethane	2,800
Acetone	75
cis-1,2-Dichloroethene	3,300
m&p -Xylene	1,900
Methylene Chloride	130
Tetrachloroethene	110,000
Trichloroethene	7,900
SVOCs (µg/Kg)	
Indeno(1,2,3-cd)pyrene	650
Pesticides (µg/Kg)	
4,4' - DDT	200
PCB (µg/Kg)	
PCB-1254	3,200
Metals (mg/Kg)	
Copper	58.5
Zinc	284

SB1703 (6-12") 11/20/2018

VOCs (µg/Kg)	
1,1,1-Tricholorethane	4,300
1,1-Dichloroethane	840
cis-1,2-Dichloroethene	16,000
m&p -Xylene	4,500
Tetrachloroethene	370,000
Toluene	2,800
trans-1,2-Dichloroethene	300
Trichloroethene	29,000
SVOCs (µg/Kg)	
Benzo(b)fluoranthene	1,300
Benzo(k)fluoranthene	1,100
Chrysene	1,200
Indeno(1,2,3-cd)pyrene	1,400
Pesticides (µg/Kg)	
4,4' - DDT	46
PCB (µg/Kg)	
PCB-1254	550
Metals (mg/Kg)	
Copper	76.6
Zinc	610

SB1703 (12-24") 11/20/2018

VOCs (µg/Kg)	
cis-1,2-Dichloroethene	2,200
m&p -Xylene	1,300
Tetrachloroethene	17,000
Trichloroethene	4,400
Metals (mg/Kg)	
Zinc	254

SB1703 (7-9') 11/20/2018

VOCs (µg/Kg)	
1,2-Dichlorobenzene	1,500
cis-1,2-Dichloroethene	1,200
Tetrachloroethene	10,000
Trichloroethene	1,800

SB1703 (11-13') 11/20/2018

VOCs (µg/Kg)	
1,2-Dichlorobenzene	2,500
cis-1,2-Dichloroethene	2,500
Tetrachloroethene	57,000
Trichloroethene	5,200

SB1703 (13-15') 11/20/2018

VOCs (µg/Kg)	
1,2-Dichlorobenzene	1,600
cis-1,2-Dichloroethene	1,800
Tetrachloroethene	7,900
Trichloroethene	5,200

SB1708 (0-6") 11/20/2018

VOCs (µg/Kg)	
1,1,1-Trichloroethane	1,000
1,1-Dichloroethane	310
Acetone	170
cis-1,2-Dichloroethene	5,400
m&p -Xylene	640
Methyl Ethyl Ketone	500
Tetrachloroethene	7,600
Trichloroethene	1,600
SVOCs (µg/Kg)	
Benzo(a)pyrene	1,200
Benzo(b)fluoranthene	1,400
Benzo(k)fluoranthene	1,200
Indeno(1,2,3-cd)pyrene	1,400
PCB (µg/Kg)	
PCB-1254	190
Metals (mg/Kg)	
Lead	282
Mercury	1.13
Zinc	182

SB1708 (6-12") 11/20/2018

VOCs (µg/Kg)	
1,1,1-Trichloroethane	1,000
cis-1,2-Dichloroethene	3,500
Tetrachloroethene	6,500
Trichloroethene	1,200
SVOCs (µg/Kg)	
Benzo(a)pyrene	1,700
Benzo(b)fluoranthene	2,100
Benzo(k)fluoranthene	2,100
Indeno(1,2,3-cd)pyrene	1,300
Benzo(k)fluoranthene	870
Indeno(1,2,3-cd)pyrene	2,900
Pesticides (µg/Kg)	
4,4,4-DDT	280
PCB (µg/Kg)	
PCB-1260	5,400
Metals (mg/Kg)	
Arsenic	16.6
Cadmium	18.9
Chromium	56.8
Copper	224
Lead	851
Manganese	1,880
Mercury	0.99
Nickel	46.5
Zinc	679

SB1708 (12-24") 11/20/2018

VOCs (µg/Kg)	
1,1,1-Trichloroethane	3,400
1,1-Dichloroethane	690
cis-1,2-Dichloroethene	11,000
m&p -Xylene	4,100
o -Xylene	1,900
Tetrachloroethene	39,000
Toluene	4,800
trans-1,2-Dichloroethene	420
Trichloroethene	8,800
SVOCs (µg/Kg)	
Indeno(1,2,3-cd)pyrene	550
PCB (µg/Kg)	
PCB-1254	390
Metals (mg/Kg)	
Arsenic	17
Cadmium	6.64
Chromium	51.5
Copper	188
Lead	1,240
Manganese	4,920
Mercury	1.87
Nickel	43.8
Zinc	222

SB1708 (7-9') 11/20/2018

VOCs (µg/Kg)	
1,1,1-Trichloroethane	480,000
1,1-Dichloroethane	5,600
1,1-Dichloroethene	1,600
1,2,4-Trimethylbenzene	39,000
1,2-Dichlorobenzene	7,000
1,3,5-Trimethylbenzene	17,000
Benzene	110
cis-1,2-Dichloroethene	210,000
Ethylbenzene	210,000
m&p-Xylenes	777,000
n-Propylbenzene	8,700
o-Xylene	200,000
Tetrachloroethene	1,200,000
Toluene	390,000
Trichloroethene	200,000
Vinyl Chloride	100
PCB (µg/Kg)	
PCB-1254	440

SB1708 (13-15') 11/20/2018

VOCs (µg/Kg)	
1,1,1-Trichloroethane	4,000
1,1-Dichloroethene	600
cis-1,2-Dichloroethene	21,000
m&p -Xylene	2,800
Tetrachloroethene	1,700
Trichloroethene	170

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Figure No. 6

Site Name: 8 Walworth Street

Site Address: 8-18 Walworth Street, Brooklyn, NY

Drawing Title: Parameters Detected Above UUSCOs, RCSCOs and RISCOs

MW1701 - 1/17/2019	
VOCs (µg/L)	
1,1,1-Trichloroethane	140
1,1-Dichloroethane	6.6
Carbon Tetrachloride	11
Chloroform	8.9
cis-1,2-Dichloroethene	270
Tetrachloroethene	11,000
Trichloroethene	6,200
SVOCs (µg/L)	
Benz(a)anthracene	0.06
Benzo(a)pyrene	0.04
Benzo(b)fluoranthene	0.05
Benzo(k)fluoranthene	0.05
Chrysene	0.05
Indeno(1,2,3-cd)pyrene	0.03
Dissolved Metals (mg/L)	
Sodium	93.7

MW1702 - 1/17/2019	
VOCs (µg/L)	
1,1,1-Trichloroethane	160
1,1-Dichloroethane	29
1,1-Dichloroethene	93
1,2,4-Trimethylbenzene	12
1,2-Dichlorobenzene	8.7
1,3,5-Trimethylbenzene	11
Chloroform	29
cis-1,2-Dichloroethene	5,700
Ethylbenzene	96
m&p-Xylenes	240
o-Xylene	490
Tetrachloroethene	20,000
Toluene	200
Trichloroethene	11,000
Vinyl Chloride	130
SVOCs (µg/L)	
Benz(a)anthracene	0.03
Benzo(b)fluoranthene	0.03
Benzo(k)fluoranthene	0.03
Chrysene	0.04
PCBs (µg/L)	
PCB-1254	29
Pestcides (µg/L)	
4,4'-DDD	0.1
Dieldrin	0.044
Dissolved Metals (mg/L)	
Iron	3.8
Manganese	3.26
Sodium	137
Emerging Contaminants (ng/L)	
PFOA and PFOS	152.7

MW1703 - 1/17/2019	
VOCs (µg/L)	
1,1,1-Trichloroethane	1,100
1,1,2,2-Tetrachloroethane	8.5
1,1-Dichloroethane	220
1,1-Dichloroethene	39
1,2-Dichlorobenzene	680
1,3,5-Trimethylbenzene	6.4
1,4-Dichlorobenzene	100
Carbon tetrachloride	22
Chloroform	46
cis-1,2-Dichloroethene	11,000
Ethylbenzene	6.6
m&p-Xylenes	11
Naphthalene	51
o-Xylene	110
Tetrachloroethene	9,400
Toluene	22
trans-1,2-Dichloroethene	10
Trichloroethene	4,300
Vinyl Chloride	91
SVOCs (µg/L)	
2-Methylphenol (o-cresol)	1.8
Benz(a)anthracene	0.05
Benzo(a)pyrene	0.03
Benzo(b)fluoranthene	0.04
Benzo(k)fluoranthene	0.03
Chrysene	0.05
Indeno(1,2,3-cd)pyrene	0.03
Naphthalene	42
PCBs (µg/L)	
PCB-1254	0.24
Dissolved Metals (mg/L)	
Manganese	5.54
Selenium	0.136
Sodium	155
Emerging Contaminants (ng/L)	
PFOA and PFOS	211.1

MW1705 - 1/17/2019	
VOCs (µg/L)	
1,1,1-Trichloroethane	1,700
1,1-Dichloroethane	550
1,1-Dichloroethene	36
1,2,4-Trimethylbenzene	91
1,2-Dichlorobenzene	46
1,3,5-Trimethylbenzene	34
1,4-Dichlorobenzene	8.1
Chloroethane	5.9
Chloroform	1.9
cis-1,2-Dichloroethene	3,700
Ethylbenzene	320
Isopropylbenzene	11
m&p-Xylenes	1,100
Naphthalene	25
n-Propylbenzene	17
o-Xylene	370
Tetrachloroethene	9,200
Toluene	2,100
trans-1,2-Dichloroethene	7
Trichloroethene	1,800
Vinyl Chloride	89
SVOCs (µg/L)	
2-Methylphenol (o-cresol)	8.7
Benz(a)anthracene	0.69
Benzo(a)pyrene	0.21
Benzo(b)fluoranthene	0.57
Benzo(k)fluoranthene	0.43
Bis(2-ethylhexyl) phthalate	5.1
Chrysene	0.92
Indeno(1,2,3-cd)pyrene	0.29
Naphthalene	12
PCBs (µg/L)	
PCB-1254	0.83
Dissolved Metals (mg/L)	
Manganese	4.75
Selenium	0.029
Sodium	95.8
Emerging Contaminants (ng/L)	
PFOA and PFOS	928

MW1704 - 2/11/2019	
VOCs (µg/L)	
1,1,1-Trichloroethane	100
Carbon Tetrachloride	21
Chloroform	7.2
cis-1,2-Dichloroethene	180
Tetrachloroethene	7,800
Trichloroethene	3,700
Dissolved Metals (mg/L)	
Manganese	2
Sodium	84.6
Emerging Contaminants (ng/L)	
PFOA and PFOS	292.7

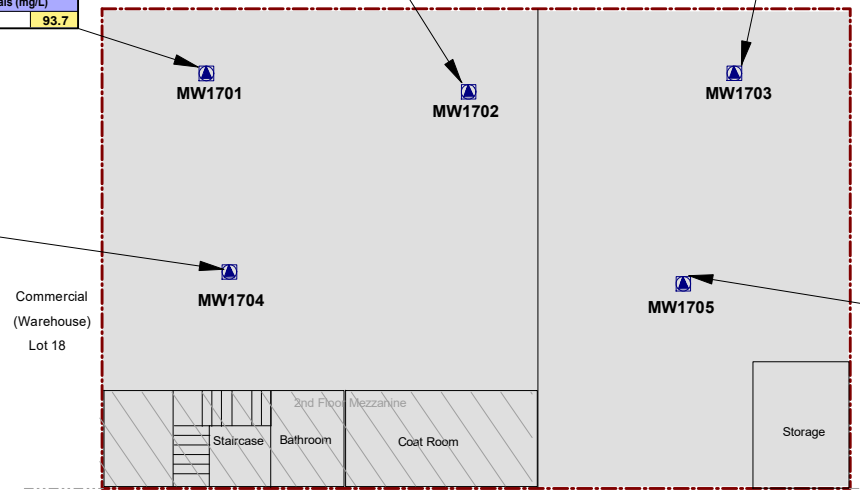

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Figure No. 7

Site Name: 8 Walworth Street

Site Address: 8-18 Walworth Street, Brooklyn, NY

Drawing Title: Groundwater Exceedances

SS1 - 1/17/2019	
1,1,2-Tetrachloroethane	115
1,1,1-Trichloroethane	29,700
1,1,2-Trichloroethane	85.1
1,1-Dichloroethane	1,410
1,1-Dichloroethene	355
1,2,4-Trimethylbenzene	12.6
4-Ethyltoluene	17.2
Acetone	304
Benzene	53
Carbon Tetrachloride	6,010
Chloroform	839
cis-1,2-Dichloroethene	36,400
Cyclohexane	37.8
Ethanol	79.3
Ethylbenzene	13.4
Heptane	10.5
Isopropylalcohol	104
Xylene (m&p)	45.6
Xylene (o)	21.7
Propylene	35.4
Tetrachloroethene	590,000
Toluene	124
trans-1,2-Dichloroethene	255
Trichloroethene	488,000
Trichlorofluoromethane	769
Trichlorotrifluoroethane	366
Vinyl Chloride	99.6

SS2 - 1/17/2019	
1,1-Dichloroethene	272
1,2,4-Trimethylbenzene	41.7
1,3,5-Trimethylbenzene	30.3
4-Ethyltoluene	119
Benzene	22.4
Carbon Disulfide	5.13
Carbon Tetrachloride	555
Chloroform	207
cis-1,2-Dichloroethene	15.9
Ethanol	1,620
Ethylbenzene	447
Heptane	100
Hexane	6.8
Isopropylalcohol	889
Isopropylbenzene	50.1
Methyl Ethyl Ketone	200
Methylene Chloride	109
Xylene (o)	330
Tetrachloroethene	17,400
Tetrahydrofuran	145
trans-1,2-Dichloroethene	352
Trichloroethene	1,020
Trichlorofluoromethane	86.5
Trichlorotrifluoroethane	173
Vinyl Chloride	112

SS3 - 1/17/2019	
1,1,1-Trichloroethane	1,290
1,1-Dichloroethane	110
1,1-Dichloroethene	14.1
4-Methyl-2-pentanone	36.6
Acetone	38.9
Carbon Tetrachloride	355
Chloroform	159
cis-1,2-Dichloroethene	2,390
Ethanol	14.4
Ethylbenzene	13.5
Xylene (m&p)	63.4
Methyl Ethyl Ketone	20.1
Methylene Chloride	71.2
Xylene (o)	22.3
Tetrachloroethene	37,300
Toluene	369
trans-1,2-Dichloroethene	36.1
Trichloroethene	27,400
Trichlorofluoromethane	94.9
Trichlorotrifluoroethane	48.4
Vinyl Chloride	2.09

SS4 - 1/17/2019	
1,1,1,2-Tetrachloroethane	4.65
1,1,1-Trichloroethane	42,400
1,1,2-Trichloroethane	32.8
1,1-Dichloroethane	6,710
1,1-Dichloroethene	456
1,2,4-Trimethylbenzene	4.11
1,2-Dichloroethane	4.65
1,3,5-Trimethylbenzene	1.7
4-Ethyltoluene	4.44
Acetone	228
Benzene	8.17
Carbon Disulfide	1.82
Carbon Tetrachloride	66
Chloroform	68.3
cis-1,2-Dichloroethene	60,600
Cyclohexane	15.2
Dichlorodifluromethane	2.8
Ethanol	18.8
Ethylbenzene	3.91
Isopropylalcohol	14
Xylene (m&p)	16.7
Methyl Ethyl Ketone	20.7
Methylene Chloride	175
n-Butylbenzene	1.03
Xylene (o)	6.21
Tetrachloroethene	54,400
Toluene	51.2
trans-1,2-Dichloroethene	1,690
Trichloroethene	16,900
Trichlorofluoromethane	14.4
Trichlorotrifluoroethane	167
Vinyl Chloride	143

SS5 - 1/17/2019	
1,1,1-Trichloroethane	6
1,2,4-Trimethylbenzene	3.35
1,3,5-Trimethylbenzene	1.06
Acetone	5.01
Benzene	1.9
Carbon Tetrachloride	0.79
Chloroform	6.1
cis-1,2-Dichloroethene	7.37
Dichlorodifluromethane	1.96
Ethanol	8.57
Ethylbenzene	2.46
Heptane	1.98
Xylene (m&p)	9.42
Methyl Ethyl Ketone	2.03
Xylene (o)	3.68
Tetrachloroethene	705
Toluene	10.5
Trichloroethene	106
Trichlorofluoromethane	1.33

SS6 - 1/17/2019	
1,1,1-Trichloroethane	88,300
1,1-Dichloroethane	15,200
1,1-Dichloroethene	1,030
4-Methyl-2-pentanone	35.8
Acetone	323
Benzene	12.5
Carbon Tetrachloride	20.1
Chloroform	51.2
cis-1,2-Dichloroethene	73,300
Cyclohexane	59.2
Ethanol	61.6
Heptane	106
Hexane	15.8
Isopropylalcohol	71.7
Xylene (m&p)	20.8
Methyl Ethyl Ketone	115
Tetrachloroethene	25,200
Toluene	88.5
trans-1,2-Dichloroethene	2,800
Trichloroethene	11,000
Trichlorofluoromethane	13.1
Trichlorotrifluoroethane	460
Vinyl Chloride	593

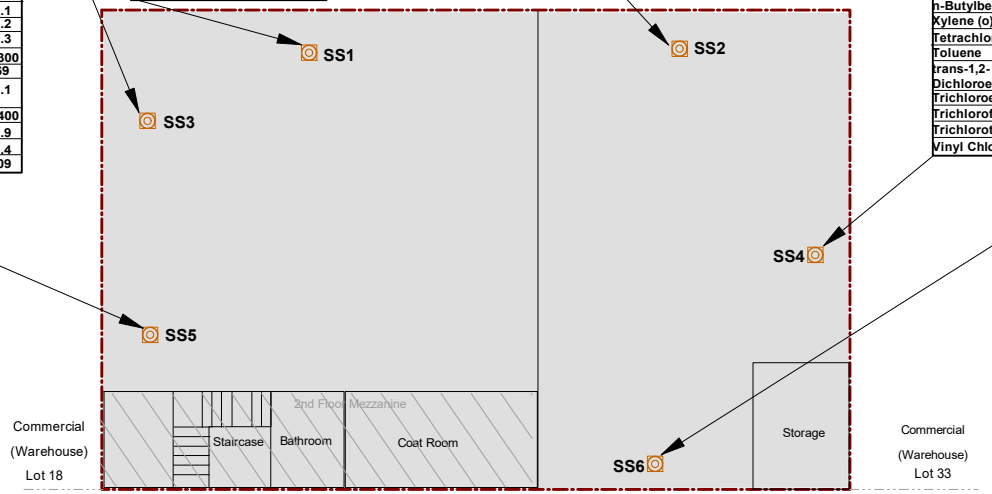

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Figure No. 8

Site Name: 8 Walworth Street

Site Address: 8-18 Walworth Street, Brooklyn, NY

Drawing Title: Soil Gas Detections

SIGNIFICANT THREAT DETERMINATION WORKSHEET

□ State Superfund Program
6 NYCRR 375-2.7

x Brownfield Cleanup Program
ECL 27-1411.1(c)

Site Name: 8 Walworth Site ID No. C224239

City/Town: Brooklyn County: Kings

1. Has all available and relevant evidence regarding the Site been reviewed and the factors in 375-2.7(a)(3) considered?	X Yes (go to 2)	□ No (stop)	□ Unsure (stop)
2. Does Site contamination result in significant adverse impacts (375-2.7(a)(1)) to:			
a. species that are endangered, threatened, or of concern?	□ Yes (go to b)	X No (go to b)	□ Unsure (go to b)
b. protected streams, tidal/freshwater wetlands, or significant fish and wildlife habitat?	□ Yes (go to c)	X No (go to c)	□ Unsure (go to c)
c. flora or fauna from bioaccumulation or leads to a recommendation to limit consumption?	□ Yes (go to d)	X No (go to d)	□ Unsure (go to d)
d. fish, shellfish, crustacea, or wildlife from concentrations that cause adverse/chronic effects?	□ Yes (go to e)	X No (go to e)	□ Unsure (go to e)
e. the environment due to a fire, spill, explosion, or reaction that generates toxic gases, vapors, fumes, mists or dusts?	X Yes (go to f)	□ No (go to f)	□ Unsure (go to f)
f. areas where individuals or water supplies may be present and NYSDOH has determined there to be a significantly increased risk to public health (including from soil vapor)?	X Yes (go to 3)	□ No (go to 3)	□ Unsure (go to 3)
3. Does Site contamination result in significant environmental damage (375-2.7(a)(2))?	X Yes (go to 4)	□ No (go to 4)	□ Unsure (stop)
4. If any box in items 2 or 3 have been checked "Yes," the site presents a significant threat to public health or the environment; check here.	Significant threat to: X Public Health X Environment		
5. If no boxes in items 2 or 3 have been checked "Yes," the site does not present a significant threat to public health or the environment; check here.	□ Not a Significant Threat		

Aaron Fischer, Assistant Env. Engineer — Project Manager Name/Title (Print)

Aaron Fischer — Project Manager Name (Signature)

01-02-2020 — Date

Gerard Burke — Bureau Director/RHWRE Name/Title (Print)

Gerard W Burke — Bureau Director/RHWRE Name (Signature)

1-6-20 — Date

07/29/10

NEW YORK STATE OF OPPORTUNITY. Department of Health

ANDREW M. CUOMO
Governor

HOWARD A. ZUCKER, M.D., J.D.
Commissioner

SALLY DRESLIN, M.S., R.N.
Executive Deputy Commissioner

November 18, 2019

Gerard Burke, Director
Remedial Bureau B
Division of Environmental Remediation
NYS Dept. of Environmental Conservation
625 Broadway
Albany, NY 12233

Re: Significant Threat Determination
8 Walworth Avenue
#C224239
Brooklyn, Kings County

Dear Mr. Burke,

At your Department's request, we have reviewed the available information, including the September 2019, draft *Remedial Investigation Report*, for the above-referenced site. Based on that review, I understand that volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs), and historic fill are present at the site. VOCs, including tetrachloroethene, trichloroethene, and degradation products, SVOCs, including various polyaromatic hydrocarbon compounds (PAHs), metals, including arsenic, barium, cadmium, lead, mercury, and zinc, PCBs, and pesticides have been detected at elevated levels in on-site soil. VOCs, PAHs, and metals have been detected at elevated levels in on-site groundwater. VOCs, particularly tetrachloroethene and trichloroethene, have been detected in on-site soil vapor. Off-site groundwater and soil vapor are also contaminated with elevated levels of VOCs.

The site is currently developed and vacant. Contaminated groundwater in the vicinity is not used for drinking purposes because the area is served by a public water supply that is not affected by this contamination. Environmental sampling indicates that soil vapor intrusion represents a concern for any future on-site development and a potential concern for other off-site structures. Additional environmental investigation is necessary to further evaluate and address potential exposure pathways associated with the site.

Based on the information provided to date, and the potential for exposure to site-related contaminants, I believe that this site represents a significant threat to public health. If you have any questions, or would like to discuss this site further, please contact me at (518) 402-7860.

Sincerely,

Justin H. Deming, P.G. Chief
Regions 2, 4, 8
Bureau of Environmental Exposure Investigation

Ec. C. Vooris / A. Martin / e-File
C. Westerman – NYSDOH MARO
C. D'Andrea – NYC DOHMH
H. Dudek / A. Fischer – NYSDEC Central Office
J. O'Connell – NYSDEC Region 2