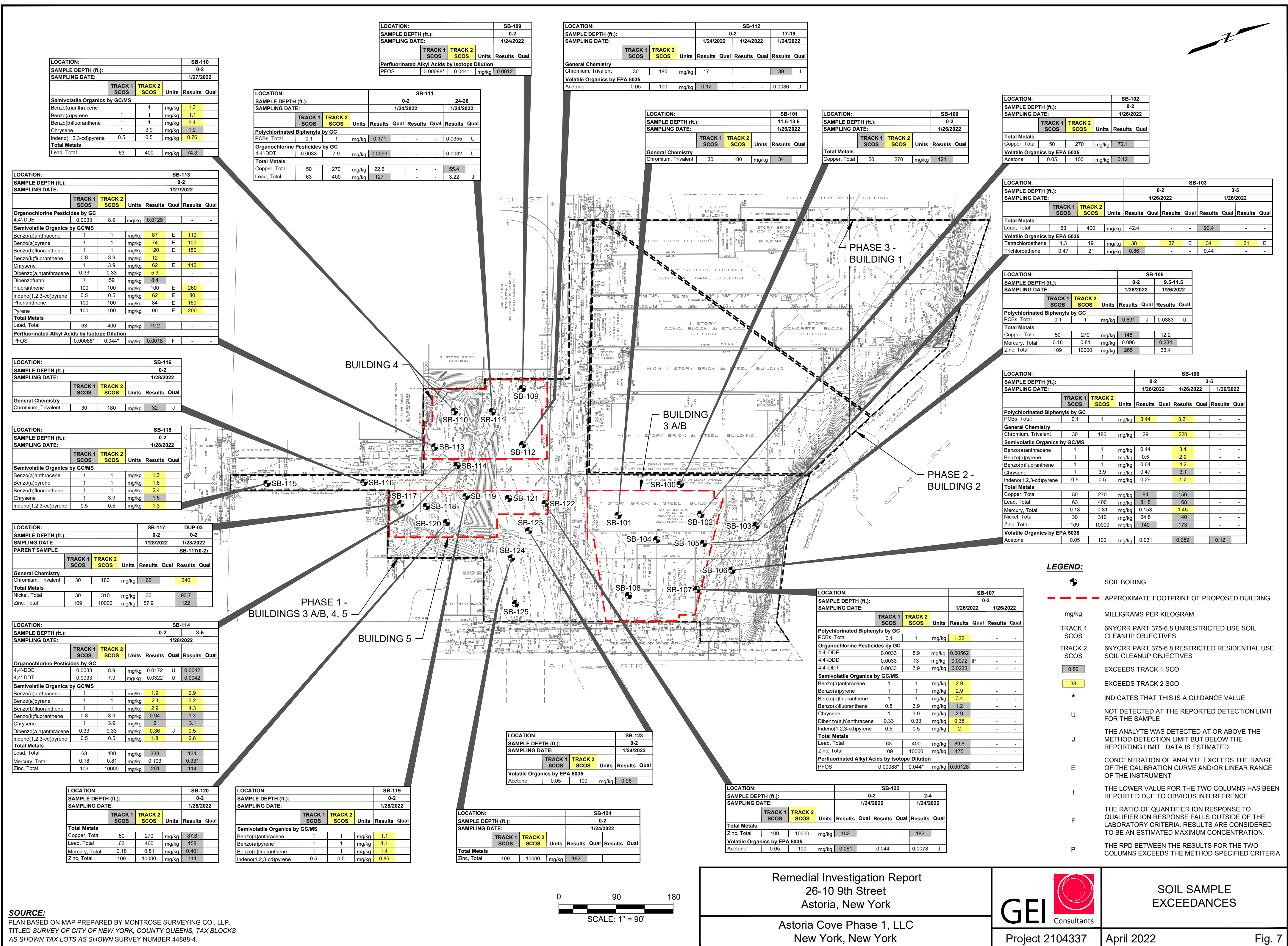




LOCATION:		MW-5			
SAMPLING DATE:		2/2/2022			
	NYSDEC Part 703.5 AWQS	Units	Results	Qual	
Dissolved Metals					
Manganese, Dissolved	300	ug/l	821.8		
Semivolatile Organics by GC/MS					
Phenol	1	ug/l	1.2	J	
Semivolatile Organics by GC/MS-SIM					
Benzo(a)anthracene	0.002	ug/l	0.03	J	
Benzo(b)fluoranthene	0.002	ug/l	0.02	J	
Total Metals					
Iron, Total	300	ug/l	10000		
Manganese, Total	300	ug/l	988		
Perfluorinated Alkyl Acids by Isotope Dilution					
Perfluorooctanoic Acid (PFOA)	0.01*	ug/l	0.0141		

LOCATION:		MW-1			
SAMPLING DATE:		2/1/2022			
	NYSDEC Part 703.5 AWQS	Units	Results	Qual	
Dissolved Metals					
Magnesium, Dissolved	35000	ug/l	36300		
Sodium, Dissolved	20000	ug/l	80500		
Semivolatile Organics by GC/MS-SIM					
Benzo(b)fluoranthene	0.002	ug/l	0.01	J	
Total Metals					
Iron, Total	300	ug/l	4700		
Magnesium, Total	35000	ug/l	38800		
Sodium, Total	20000	ug/l	77800		

LOCATION:		MW-6			
SAMPLING DATE:		2/2/2022			
	NYSDEC Part 703.5 AWQS	Units	Results	Qual	
Semivolatile Organics by GC/MS					
Phenol	1	ug/l	3.3	J	
Semivolatile Organics by GC/MS-SIM					
Benzo(a)anthracene	0.002	ug/l	0.02	J	
Total Metals					
Iron, Total	300	ug/l	7520		
Manganese, Total	300	ug/l	370.6		

LOCATION:		MW-11			
SAMPLING DATE:		2/1/2022			
	NYSDEC Part 703.5 AWQS	Units	Results	Qual	
Dissolved Metals					
Magnesium, Dissolved	35000	ug/l	48000		
Sodium, Dissolved	20000	ug/l	92800		
Total Metals					
Iron, Total	300	ug/l	11900		
Magnesium, Total	35000	ug/l	52500		
Manganese, Total	300	ug/l	464.9		
Sodium, Total	20000	ug/l	96900		
Perfluorinated Alkyl Acids by Isotope Dilution					
Perfluorooctanoic Acid (PFOA)	0.01*	ug/l	0.0233		

LOCATION:		MW-2			
SAMPLING DATE:		2/2/2022			
	NYSDEC Part 703.5 AWQS	Units	Results	Qual	
Dissolved Metals					
Magnesium, Dissolved	35000	ug/l	494000		
Sodium, Dissolved	20000	ug/l	4410000		
Polychlorinated Biphenyls by GC					
Aroclor 1248	0.09	ug/l	1.01		
Aroclor 1254	0.09	ug/l	1.13		
Aroclor 1260	0.09	ug/l	0.145	IP	
PCBs, Total	0.09	ug/l	2.29		
Semivolatile Organics by GC/MS					
Phenol	1	ug/l	3.9	J	
Semivolatile Organics by GC/MS-SIM					
Benzo(a)anthracene	0.002	ug/l	0.54		
Benzo(a)pyrene	0	ug/l	0.56		
Benzo(b)fluoranthene	0.002	ug/l	0.77		
Benzo(k)fluoranthene	0.002	ug/l	0.2		
Chrysene	0.002	ug/l	0.45		
Indeno(1,2,3-cd)pyrene	0.002	ug/l	0.47		
Total Metals					
Iron, Total	300	ug/l	10800		
Lead, Total	25	ug/l	100.3		
Magnesium, Total	35000	ug/l	571000		
Sodium, Total	20000	ug/l	4200000		
Volatile Organics by GC/MS					
Tetrachloroethene	5	ug/l	11		
Perfluorinated Alkyl Acids by Isotope Dilution					
Perfluorooctanoic Acid (PFOA)	0.01*	ug/l	0.0287		
Perfluorooctanesulfonic Acid (PFOS)	0.01*	ug/l	0.038		

LOCATION:		MW-3		DUP-01	
SAMPLING DATE:		2/2/2022		2/2/2022	
PARENT SAMPLE:				MW-3	
	NYSDEC Part 703.5 AWQS	Units	Results	Qual	Results Qual
Dissolved Metals					
Magnesium, Dissolved	35000	ug/l	288000		330000
Sodium, Dissolved	20000	ug/l	2580000		2950000
Semivolatile Organics by GC/MS					
Phenol	1	ug/l	1.1 J		3.7 J
Semivolatile Organics by GC/MS-SIM					
Benzo(a)anthracene	0.002	ug/l	0.09 J		0.04 J
Benzo(a)pyrene	0	ug/l	0.08 J		0.03 J
Benzo(b)fluoranthene	0.002	ug/l	0.12		0.04 J
Benzo(k)fluoranthene	0.002	ug/l	0.03 J		0.01 J
Chrysene	0.002	ug/l	0.09 J		0.03 J
Indeno(1,2,3-cd)pyrene	0.002	ug/l	0.06 J		0.02 J
Total Metals					
Iron, Total	300	ug/l	3300		1740
Lead, Total	25	ug/l	158.1		72.13
Magnesium, Total	35000	ug/l	356000		315000
Sodium, Total	20000	ug/l	2420000		2530000
Volatile Organics by GC/MS					
Trichloroethene	5	ug/l	13		13

BUILDING 4

BUILDING 5

PHASE 1 - BUILDINGS 3 A/B, 4, 5

PHASE 3 - BUILDING 1

BUILDING 3 A/B

PHASE 2 - BUILDING 2

LOCATION:		MW-12			
SAMPLING DATE:		2/1/2022			
	NYSDEC Part 703.5 AWQS	Units	Results	Qual	
Dissolved Metals					
Magnesium, Dissolved	35000	ug/l	39700		
Sodium, Dissolved	20000	ug/l	80800		
Total Metals					
Iron, Total	300	ug/l	604		
Magnesium, Total	35000	ug/l	41000		
Sodium, Total	20000	ug/l	85600		
Perfluorinated Alkyl Acids by Isotope Dilution					
Perfluorooctanoic Acid (PFOA)	0.01*	ug/l	0.0438		
Perfluorooctanesulfonic Acid (PFOS)	0.01*	ug/l	0.0352		

LOCATION:		MW-4			
SAMPLING DATE:		2/1/2022			
	NYSDEC Part 703.5 AWQS	Units	Results	Qual	
Dissolved Metals					
Magnesium, Dissolved	35000	ug/l	41700		
Manganese, Dissolved	300	ug/l	1124		
Sodium, Dissolved	20000	ug/l	112000		
Total Metals					
Iron, Total	300	ug/l	3910		
Magnesium, Total	35000	ug/l	48600		
Manganese, Total	300	ug/l	1251		
Sodium, Total	20000	ug/l	115000		
Perfluorinated Alkyl Acids by Isotope Dilution					
Perfluorooctanoic Acid (PFOA)	0.01*	ug/l	0.0409		
Perfluorooctanesulfonic Acid (PFOS)	0.01*	ug/l	0.0271		

LEGEND:

- MONITORING WELL
- - - APPROXIMATE FOOTPRINT OF PROPOSED BUILDING
- ug/l MICROGRAMS PER LITER
- NYSDEC Part 703.5 AWQS NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION TITLE 6 NEW YORK CODES, RULES, AND REGULATIONS PART 703.5 AMBIENT WATER QUALITY STANDARDS
- * INDICATES THAT THIS IS A GUIDANCE VALUE
- J THE ANALYTE WAS DETECTED AT OR ABOVE THE METHOD DETECTION LIMIT BUT BELOW THE REPORTING LIMIT. DATA IS ESTIMATED.
- I THE LOWER VALUE FOR THE TWO COLUMNS HAS BEEN REPORTED DUE TO OBVIOUS INTERFERENCE
- P THE RPD BETWEEN THE RESULTS FOR THE TWO COLUMNS EXCEEDS THE METHOD-SPECIFIED CRITERIA

SOURCE:
PLAN BASED ON MAP PREPARED BY MONTROSE SURVEYING CO., LLP.
TITLED SURVEY OF CITY OF NEW YORK, COUNTY QUEENS, TAX BLOCKS
AS SHOWN TAX LOTS AS SHOWN SURVEY NUMBER 44888-4.

0 90 180
SCALE: 1" = 90'

Remedial Investigation Report
26-10 9th Street
Astoria, New York

Astoria Cove Phase 1, LLC
New York, New York



Project 2104337

GROUNDWATER SAMPLE
EXCEEDANCES

April 2022

Fig. 8

LOCATION:		SV-9			
SAMPLING DATE:		2/2/2022			
		Units	Results	Qual	
Volatile Organics in Air					
Dichlorodifluoromethane	ug/m3	171			
Chloromethane	ug/m3	0.684			
Ethanol	ug/m3	32			
Acetone	ug/m3	656			
Trichlorofluoromethane	ug/m3	7.19			
Isopropanol	ug/m3	6.44			
Tertiary butyl Alcohol	ug/m3	27.9			
2-Butanone	ug/m3	13.4			
n-Hexane	ug/m3	5.11			
Benzene	ug/m3	1.04			
Cyclohexane	ug/m3	0.957			
2,2,4-Trimethylpentane	ug/m3	1.29			
Heptane	ug/m3	0.975			
Toluene	ug/m3	1.48			

LOCATION:		SV-10			
SAMPLING DATE:		2/2/2022			
		Units	Results	Qual	
Volatile Organics in Air					
Dichlorodifluoromethane	ug/m3	51.4			
Ethanol	ug/m3	78			
Acetone	ug/m3	5700			
Isopropanol	ug/m3	11.8			
Tertiary butyl Alcohol	ug/m3	34.9			
2-Butanone	ug/m3	46.3			

LOCATION:		SV-7			
SAMPLING DATE:		2/2/2022			
		Units	Results	Qual	
Volatile Organics in Air					
Dichlorodifluoromethane	ug/m3	608			
Chloromethane	ug/m3	2.31			
1,3-Butadiene	ug/m3	3.41			
Ethanol	ug/m3	157			
Acetone	ug/m3	3940			
Trichlorofluoromethane	ug/m3	23.3			
Isopropanol	ug/m3	36.1			
Tertiary butyl Alcohol	ug/m3	146			
Carbon disulfide	ug/m3	9.34			
2-Butanone	ug/m3	61.3			
n-Hexane	ug/m3	25			
Benzene	ug/m3	6.49			
Cyclohexane	ug/m3	5.51			
Heptane	ug/m3	5.98			
Toluene	ug/m3	12.4			
2-Hexanone	ug/m3	8.2			
Tetrachloroethene	ug/m3	16.7			

LOCATION:		SV-8			
SAMPLING DATE:		2/2/2022			
		Units	Results	Qual	
Volatile Organics in Air					
Dichlorodifluoromethane	ug/m3	5.14			
Ethanol	ug/m3	13.6			
Acetone	ug/m3	1080			
Trichlorofluoromethane	ug/m3	2.16			
Isopropanol	ug/m3	1.87			
Tertiary butyl Alcohol	ug/m3	4.91			
2-Butanone	ug/m3	7.52			

LOCATION:		SV-2			
SAMPLING DATE:		2/2/2022			
		Units	Results	Qual	
Volatile Organics in Air					
Dichlorodifluoromethane	ug/m3	3.54			
Chloromethane	ug/m3	0.779			
Ethanol	ug/m3	224			
Acetone	ug/m3	404			
Trichlorofluoromethane	ug/m3	9.22			
Isopropanol	ug/m3	5.21			
Tertiary butyl Alcohol	ug/m3	5.24			
2-Butanone	ug/m3	4.13			
n-Hexane	ug/m3	1.46			
1,1,1-Trichloroethane	ug/m3	7.15			
Benzene	ug/m3	1.36			
Cyclohexane	ug/m3	0.757			
2,2,4-Trimethylpentane	ug/m3	1.03			
Heptane	ug/m3	0.979			
Toluene	ug/m3	2.69			

LOCATION:		SV-1			
SAMPLING DATE:		2/2/2022			
		Units	Results	Qual	
Volatile Organics in Air					
Dichlorodifluoromethane	ug/m3	2.8			
Chloromethane	ug/m3	1.08			
Ethanol	ug/m3	123			
Acetone	ug/m3	97.4			
Trichlorofluoromethane	ug/m3	1.73			
Isopropanol	ug/m3	4.03			
Tertiary butyl Alcohol	ug/m3	2.3			
2-Butanone	ug/m3	2.55			
n-Hexane	ug/m3	2.77			
1,1,1-Trichloroethane	ug/m3	11.4			
Benzene	ug/m3	2.68			
Cyclohexane	ug/m3	1.37			
2,2,4-Trimethylpentane	ug/m3	2.74			
Heptane	ug/m3	2.34			
Toluene	ug/m3	6.75			
Ethylbenzene	ug/m3	1.13			
p/m-Xylene	ug/m3	3.19			
o-Xylene	ug/m3	1.15			

LOCATION:		SV-11			
SAMPLING DATE:		2/2/2022			
		Units	Results	Qual	
Volatile Organics in Air					
Dichlorodifluoromethane	ug/m3	2.48			
Chloromethane	ug/m3	0.733			
Ethanol	ug/m3	39.9			
Acetone	ug/m3	1100			
Trichlorofluoromethane	ug/m3	1.49			
Isopropanol	ug/m3	7.79			
Tertiary butyl Alcohol	ug/m3	30.9			
2-Butanone	ug/m3	20.4			
n-Hexane	ug/m3	1.66			
Benzene	ug/m3	1.05			
Cyclohexane	ug/m3	1.05			
Heptane	ug/m3	1.09			
Toluene	ug/m3	1.36			

LOCATION:		SV-3			
SAMPLING DATE:		2/2/2022			
		Units	Results	Qual	
Volatile Organics in Air					
Dichlorodifluoromethane	ug/m3	3.63			
Chloromethane	ug/m3	0.5			
Ethanol	ug/m3	172			
Acetone	ug/m3	69.8			
Trichlorofluoromethane	ug/m3	3.56			
Isopropanol	ug/m3	4.87			
1,1-Dichloroethane	ug/m3	32.9			
Tertiary butyl Alcohol	ug/m3	2.89			
1,1-Dichloroethane	ug/m3	8.99			
2-Butanone	ug/m3	2.67			
Tetrahydrofuran	ug/m3	2.02			
n-Hexane	ug/m3	2.07			
1,1,1-Trichloroethane	ug/m3	606			
Benzene	ug/m3	1.19			
Cyclohexane	ug/m3	0.781			
Heptane	ug/m3	3.38			
Toluene	ug/m3	8.86			

LOCATION:		SV-12			
SAMPLING DATE:		2/2/2022			
		Units	Results	Qual	
Volatile Organics in Air					
Dichlorodifluoromethane	ug/m3	39.9			
Chloromethane	ug/m3	1.45			
Ethanol	ug/m3	52.2			
Acetone	ug/m3	2330			
Trichlorofluoromethane	ug/m3	6.97			
Isopropanol	ug/m3	11.8			
Tertiary butyl Alcohol	ug/m3	25.5			
2-Butanone	ug/m3	9.79			

LOCATION:		SV-13		SV-13	
SAMPLING DATE:		2/2/2022		2/2/2022	
		Units	Results	Qual	Results
Volatile Organics in Air					
Dichlorodifluoromethane	ug/m3	40.2	-	-	-
Chloromethane	ug/m3	1.36	-	-	-
Ethanol	ug/m3	42.4	-	-	-
Acetone	ug/m3	1970	E	2300	-
Trichlorofluoromethane	ug/m3	6.97	-	-	-
Isopropanol	ug/m3	8.6	-	-	-
Tertiary butyl Alcohol	ug/m3	27.4	-	-	-
Methylene chloride	ug/m3	6.39	-	-	-
2-Butanone	ug/m3	14.5	-	-	-
n-Hexane	ug/m3	2.34	-	-	-
Benzene	ug/m3	1.3	-	-	-
Cyclohexane	ug/m3	1.32	-	-	-
Heptane	ug/m3	1.11	-	-	-
Toluene	ug/m3	1.61	-	-	-
Tetrachloroethene	ug/m3	10.4	-	-	-

LOCATION:		SV-15	
SAMPLING DATE:		2/2/2022	
		Units	Results
Volatile Organics in Air			
Dichlorodifluoromethane	ug/m3	3.18	
Chloromethane	ug/m3	0.681	
Ethanol	ug/m3	18.6	
Acetone	ug/m3	765	
Trichlorofluoromethane	ug/m3	9.22	
Isopropanol	ug/m3	5.58	
Tertiary butyl Alcohol	ug/m3	15.2	
2-Butanone	ug/m3	11.9	
Tetrahydrofuran	ug/m3	1.8	
n-Hexane	ug/m3	2.59	
1,1,1-Trichloroethane	ug/m3	4.82	
Benzene	ug/m3	1.64	
Cyclohexane	ug/m3	4.03	
Heptane	ug/m3	3.31	
Toluene	ug/m3	3	
Tetrachloroethene	ug/m3	1.51	

LOCATION:		SV-14	
SAMPLING DATE:		2/2/2022	
		Units	Results
Volatile Organics in Air			
Dichlorodifluoromethane	ug/m3	4.43	
Chloromethane	ug/m3	2.01	
Ethanol	ug/m3	70.1	
Acetone	ug/m3	5040	E
Isopropanol	ug/m3	10.3	
Tertiary butyl Alcohol	ug/m3	30.9	
2-Butanone	ug/m3	18.6	
n-Hexane	ug/m3	5.36	

LOCATION:		SV-6	
SAMPLING DATE:		2/2/2022	
		Units	Results
Volatile Organics in Air			
Dichlorodifluoromethane	ug/m3	3.4	
Chloromethane	ug/m3	1.62	
Ethanol	ug/m3	54.8	
Acetone	ug/m3	3470	
Trichlorofluoromethane	ug/m3	12.8	
Isopropanol	ug/m3	8.38	
Tertiary butyl Alcohol	ug/m3	33.3	
2-Butanone	ug/m3	23.7	
n-Hexane	ug/m3	2.48	

LOCATION:		SV-5			
SAMPLING DATE:		2/2/2022			
		Units	Results	Qual	
Volatile Organics in Air					
Dichlorodifluoromethane	ug/m3	65.8			
Chloromethane	ug/m3	2.66			
Ethanol	ug/m3	156			
Acetone	ug/m3	1430			
Trichlorofluoromethane	ug/m3	8.2			
Isopropanol	ug/m3	28			
Tertiary butyl Alcohol	ug/m3	131			
1,1-Dichloroethane	ug/m3	41.3			
2-Butanone	ug/m3	39.8			
cis-1,2-Dichloroethane	ug/m3	16.9			
n-Hexane	ug/m3	10.8			
1,1,1-Trichloroethane	ug/m3	316			
Benzene	ug/m3	5.62			
Cyclohexane	ug/m3	5.2			
Trichloroethene	ug/m3	23.2			
Toluene	ug/m3	6.52			

LEGEND:

▲ SOIL VAPOR

--- APPROXIMATE FOOTPRINT OF PROPOSED BUILDING

ug/m3 MICROGRAMS PER CUBIC METER OF AIR

E CONCENTRATION OF ANALYTE EXCEEDS THE RANGE OF THE CALIBRATION CURVE AND/OR LINEAR RANGE OF THE INSTRUMENT

SOURCE:
PLAN BASED ON MAP PREPARED BY MONTROSE SURVEYING CO., LLP.
TITLED SURVEY OF CITY OF NEW YORK, COUNTY QUEENS, TAX BLOCKS
AS SHOWN TAX LOTS AS SHOWN SURVEY NUMBER 44888-4.

0 90 180
SCALE: 1" = 90'

Remedial Investigation Report
26-10 9th Street
Astoria, New York

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New York, New York



Project 2104337

SOIL VAPOR SAMPLE
DETECTIONS

April 2022

Fig. 9