

Prepared By: Peter Rath sack

NYSDEC BCP Site No:	C224219	Date:	06/15/2023
Project Name:	450 Union Street	Weather:	Sunny, 70-75 °F
Client:	2201 Union LLC	Time:	7:00 – 13:20

Personnel On-Site:

Environmental Consultant: Vektor Consultants – Peter Rath sack, Ezgi Karayel

GZA: Daniel Tessar

Coastal Environmental Solutions - Patrick Slavin, Mike Martino

WSP: Brian Jessourian

Work Activities Performed:

- Vektor mobilized to the site to oversee the grossly contaminated media (GCM) delineation as per the Remedial Site Optimization Work Plan (RSOWP) along with Coastal Environmental Solutions (driller), and GZA (National Grid's environmental consultant).
- The locations for DB-6 and DB-7 were measured and marked according to the RSOWP.
- Coastal mobilized with Sonic Drill Rig CRS XL 140 DUO and installed boring (DB-6). DB-6 was installed to a depth of 60 feet bgs to assess the extent of non-aqueous phase liquid (NAPL) and GCM at the site.
 - GCM as evidenced by staining, sheen, odors, and PID readings was encountered starting at a depth of approximately 29 feet below grade surface (bgs). Visually impacted soils continued until approximately 40 feet. Blebs were encountered at approximately 34.5 to 35 feet bgs. Odors were present between 45 and 50 feet bgs. No olfactory or PID evidence of impacted soils were present below 50 feet bgs.
 - A shake test was conducted for suspected GCM at 29-30 feet interval and revealed a small amount of LNAPL. A second shake test was conducted to confirm lack of NAPL below 50 feet at the 50-51 feet interval.
- Coastal mobilized with Sonic Drill Rig CRS XL 140 DUO and installed boring (DB-7). DB-7 was installed to a depth of 60 feet bgs to assess the extent of non-aqueous phase liquid (NAPL) and GCM at the site.
 - GCM as evidenced by staining, sheen, odors, and PID readings was encountered starting at a depth of approximately 32 feet below grade surface (bgs). Visually impacted soils continued until approximately 35.5 feet. Coated soil was encountered at a depth of 35 to 35.5. No olfactory or PID evidence of impacted soils were present below 36 feet bgs.
 - A shake test was conducted for suspected GCM at 32-34 feet interval and revealed a small amount of LNAPL. A second shake test was conducted to confirm lack of NAPL below 36 feet at the 36-37 feet interval.
- All soil cuttings were placed into a 55-gallon drum at the Site for future off-site disposal, and DB-1 was backfilled with a concrete slurry.

Samples Collected:

- Vektor collected coal tar delineation samples from DB-6 (29'- 30') from 29 to 30 feet bgs, and DB-6 (50'-51') from 50 to 51 feet bgs. Vektor collected coal tar delineation samples from DB-7 (32'-34') from 32 to 34 feet, DB-7 (35'-35.5) from 35 to 35.5 feet bgs. (On Hold), and DB-7 (36'-38') from 36 to 38 feet bgs. The samples will be analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), pesticides, herbicides, target analyte list (TAL) metals, and cyanide. One field blank (FB-3) was also collected to be analyzed for the same parameters. One trip blank (TB-3) was included in the samples

delivered to the lab.

Community Air Monitoring Program

Real-time Community Air Monitoring Plan (CAMP) was implemented during all intrusive work at an upwind and a downwind location. No CAMP exceedances were observed.

Problems Encountered

N/A

Planned Activities for the Next Day

Continue delineation borings starting with DB-8.

SITE PLAN / WORK AREAS

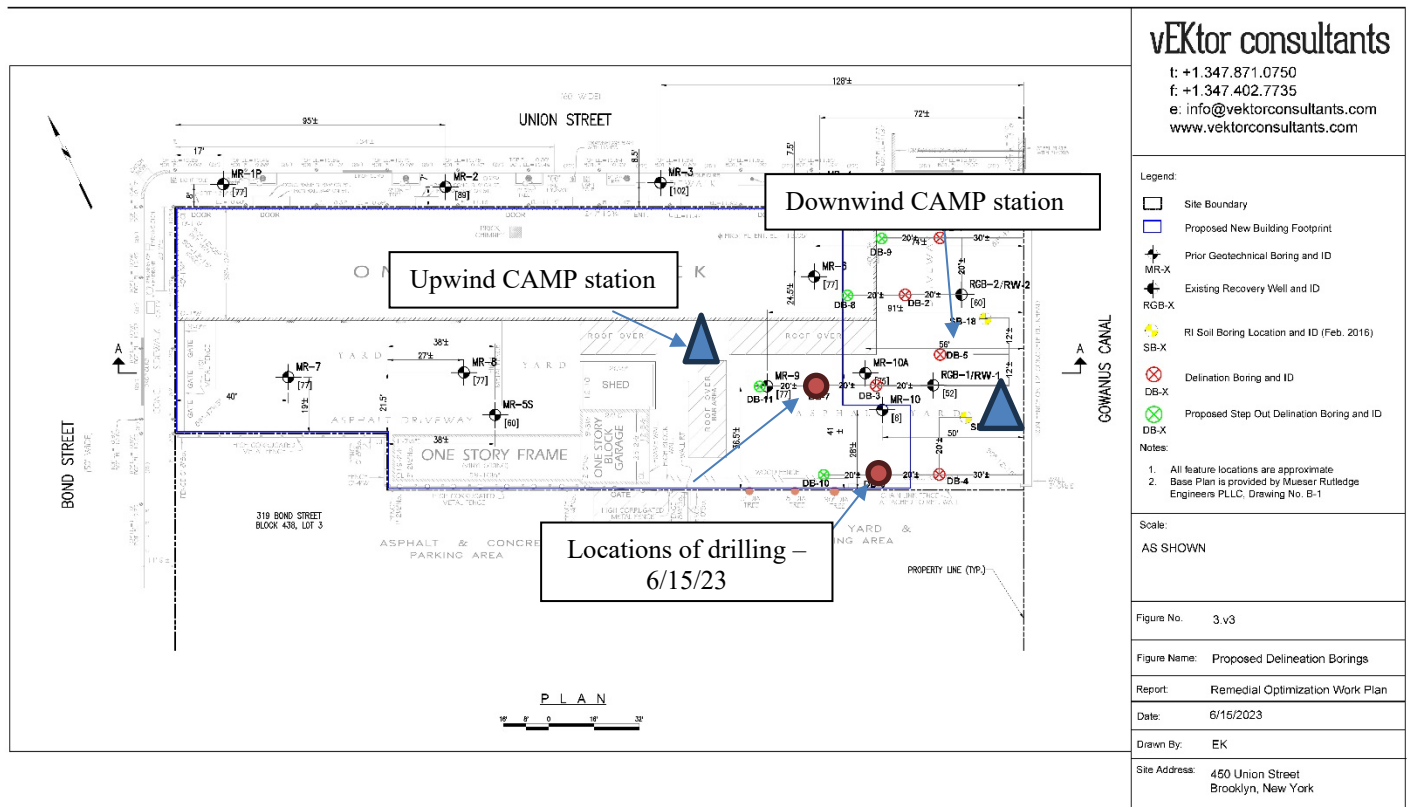


PHOTO LOG

Photo 1: View of CAMP station and Coastal Environmental Solutions drilling DB-6 with Sonic Drill Rig CRS XL 140 DUO



Photo 2: View of DB-6 sonic sleeves 10 to 15 feet bgs. and 15 to 20 feet bgs.



Photo 3: View of shake test from DB-6 29 to 30 feet bgs.



Photo 4: View of DB-7 sonic sleeves 30 to 35 feet and 35 to 40 feet.




Photo 5: View of shake tests from DB-7 36 to 37 feet bgs and DB07 32 to 34 feet bgs.



Photo 6: View of Coastal Environmental Solutions grouting DB-7.

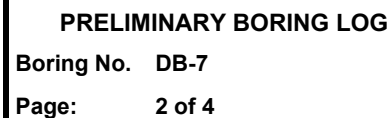


	Client: 2201 Union LLC	PRELIMINARY BORING LOG Boring No. DB-7 Page: 1 of 4
	Project: 450 Union	
	Address: 450 Union Street, Brooklyn, NY	

Drilling Start Date: 6/15/2023 Drilling End Date: 6/15/2023 Drilling Company: Costal Environmental Solutions Drilling Method: Sonic Drilling Equipment: CRS XL 140 DUO Driller: Patrick Slavin Logged By: Peter Rathsack	Boring Depth (ft): 60 Boring Diameter (in): 4.00 Sampling Method(s): DS - Dedicated Sonic Plastic Sleeve Location (Lat, Long): 40.67938, -73.98890
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DEPTH (ft)	LITHOLOGY	COLOR CODE	COLLECT			SOIL/ROCK VISUAL DESCRIPTION	MEASURE		DEPTH (ft)
			Sample Type	Remarks	Recovery (ft)		PID (ppm)	Lab Sample	
0			DS		3.00	(0.00') Fill: asphalt, crushed gravel, brick	0.8		0
				No Observed Impacts					
5				No Observed Impacts		(8.00') Fill: asphalt, crushed gravel, brick	0		5
				No Observed Impacts		(9.00') Fill: asphalt, crushed gravel, brick, organic			
10			DS		2.66	(10.00') Well-graded SAND with gravel (SW); fine-coarse grained, little fine-coarse gravel, little silt, loose, wet, dark gray	0		10
				No Observed Impacts					
15				No Observed Impacts			0		15
				No Observed Impacts					
20						(19.00') SILT (ML); trace fine-coarse gravel, some fine-coarse sand, low plasticity, medium stiff, moist, dark gray	0		20

NOTES:



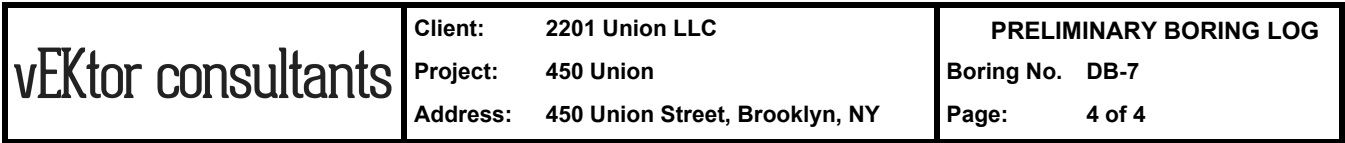
NOTES:


<div style="font-size: 2em; font-weight: bold; margin: 0;">vEktor consultants</div>			Client: 2201 Union LLC		PRELIMINARY BORING LOG Boring No. DB-7 Page: 3 of 4	
			Project: 450 Union Address: 450 Union Street, Brooklyn, NY			


Drilling Start Date: 6/15/2023 Drilling End Date: 6/15/2023 Drilling Company: Costal Environmental Solutions Drilling Method: Sonic Drilling Equipment: CRS XL 140 DUO Driller: Patrick Slavin Logged By: Peter Rathsack	Boring Depth (ft): 60 Boring Diameter (in): 4.00 Sampling Method(s): DS - Dedicated Sonic Plastic Sleeve Location (Lat, Long): 40.67938, -73.98890
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DEPTH (ft)	LITHOLOGY	COLOR CODE	COLLECT			SOIL/ROCK VISUAL DESCRIPTION	MEASURE		DEPTH (ft)					
			Sample Type	Remarks	Recovery (ft)		PID (ppm)	Lab Sample						
40			DS	No Observed Impacts	2.10	(40.00') Poorly graded SAND with gravel (SP); fine-coarse grained, some fine-coarse gravel, trace silt, loose, moist, gray	0.2	0	40					
45														45
50			DS	No Observed Impacts	4.75	(50.00') Lean CLAY (CL); trace silt, medium plasticity, stiff, moist, pale brown (53.00') Poorly graded SAND with gravel (SP); fine-coarse grained, some fine-coarse gravel, loose, moist, gray	0	0	50					
55														55
60			DS	No Observed Impacts	3.08	(55.00') Poorly graded SAND with gravel (SP); fine-coarse grained, some fine-coarse gravel, trace silt, loose, moist, gray (56.00') SILT with sand (ML); some fine-coarse gravel, some fine-coarse sand, low plasticity, medium stiff, moist, light reddish-brown	0	0	60					

NOTES:



	Client:	2201 Union LLC	PRELIMINARY BORING LOG
	Project:	450 Union	Boring No. DB-7
	Address:	450 Union Street, Brooklyn, NY	Page: 4 of 4

	Client:	2201 Union LLC	PRELIMINARY BORING LOG
	Project:	450 Union	Boring No. DB-7
	Address:	450 Union Street, Brooklyn, NY	Page: 4 of 4

Drilling Start Date:	6/15/2023	Boring Depth (ft):	60
Drilling End Date:	6/15/2023	Boring Diameter (in):	4.00
Drilling Company:	Costal Environmental Solutions	Sampling Method(s):	DS - Dedicated Sonic Plastic Sleeve
Drilling Method:	Sonic	Location (Lat, Long):	40.67938, -73.98890
Drilling Equipment:	CRS XL 140 DUO		
Driller:	Patrick Slavin		
Logged By:	Peter Rathsack		


Drilling Start Date:	6/15/2023	Boring Depth (ft):	60
Drilling End Date:	6/15/2023	Boring Diameter (in):	4.00
Drilling Company:	Costal Environmental Solutions	Sampling Method(s):	DS - Dedicated Sonic Plastic Sleeve
Drilling Method:	Sonic	Location (Lat, Long):	40.67938, -73.98890
Drilling Equipment:	CRS XL 140 DUO		
Driller:	Patrick Slavin		
Logged By:	Peter Rathsack		

DEPTH (ft)		LITHOLOGY	COLOR CODE	COLLECT			SOIL/ROCK VISUAL DESCRIPTION	MEASURE		DEPTH (ft)
				Sample Type	Remarks	Recovery (ft)		PID (ppm)	Lab Sample	
60	(60.00') Boring terminated									60
65										65
70										70
75										75
80										80

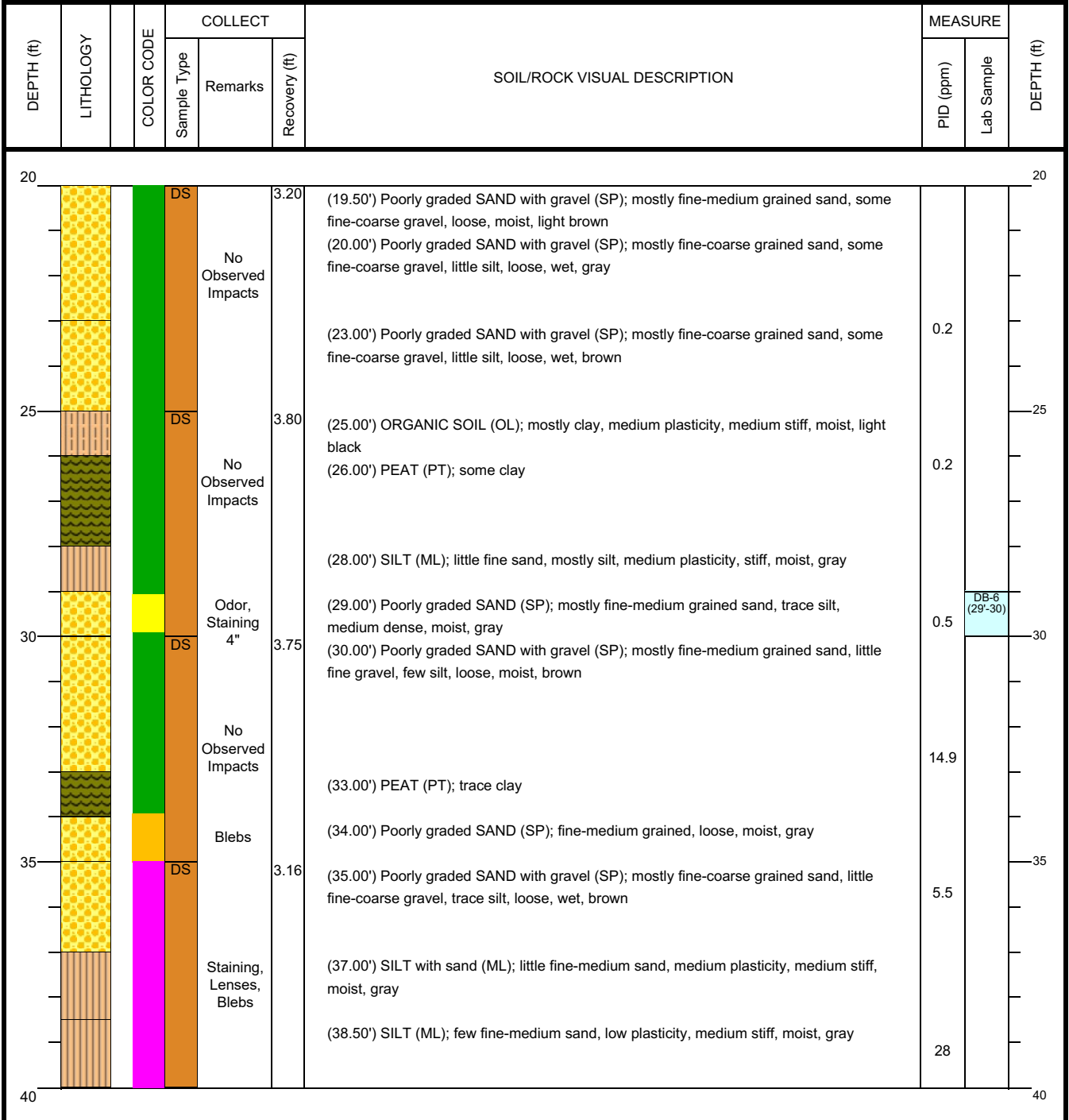
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Boring Depth (ft):	60
Boring Diameter (in):	4.00
Sampling Method(s):	DS - Dedicated Plastic Sonic Sleeve
Location (Lat, Long):	40.67933, -73.98892


NOTES:

	Client: 2201 Union LLC	PRELIMINARY BORING LOG Boring No. DB-6 Page: 2 of 4
	Project: 450 Union	
	Address: 450 Union Street, Brooklyn, NY	

Drilling Start Date: 6/15/2023 Drilling End Date: 6/15/2023 Drilling Company: Costal Environmental Solutions Drilling Method: Sonic Drilling Equipment: CRS XL 140 DUO Driller: Patrick Slavin Logged By: Peter Rathsack	Boring Depth (ft): 60 Boring Diameter (in): 4.00 Sampling Method(s): DS - Dedicated Plastic Sonic Sleeve Location (Lat, Long): 40.67933, -73.98892
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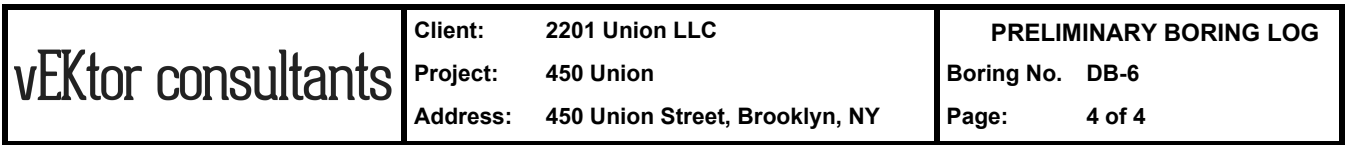
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	Client: 2201 Union LLC	PRELIMINARY BORING LOG Boring No. DB-6 Page: 3 of 4
	Project: 450 Union	
	Address: 450 Union Street, Brooklyn, NY	


Drilling Start Date: 6/15/2023 Drilling End Date: 6/15/2023 Drilling Company: Costal Environmental Solutions Drilling Method: Sonic Drilling Equipment: CRS XL 140 DUO Driller: Patrick Slavin Logged By: Peter Rathsack	Boring Depth (ft): 60 Boring Diameter (in): 4.00 Sampling Method(s): DS - Dedicated Plastic Sonic Sleeve Location (Lat, Long): 40.67933, -73.98892
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DEPTH (ft)	LITHOLOGY	COLOR CODE	COLLECT			SOIL/ROCK VISUAL DESCRIPTION	MEASURE		DEPTH (ft)
			Sample Type	Remarks	Recovery (ft)		PID (ppm)	Lab Sample	
40			DS	No Observed Impacts	3.00	(40.00') Poorly graded SAND with gravel (SP); fine-coarse grained, little fine-coarse gravel, loose, moist, gray	33.2		40
						(43.50') Fat CLAY with sand (CH); little fine-coarse sand, medium plasticity, stiff, moist, dark gray	3.3		
45			DS	Odor	2.66	(45.00') Poorly graded SAND with gravel (SP); some fine-coarse grained sand, some fine-coarse gravel, loose, moist, dark gray	1.8		45
							1.3		
50			DS	No Observed Impacts	3.50	(50.00') Poorly graded SAND with gravel (SP); fine-coarse grained, little fine-coarse gravel, little silt, medium dense, moist, brown		DB-6 (50'-51')	50
							0		
							0		
55			DS	No Observed Impacts	3.16	(55.00') Poorly graded SAND with gravel (SP); some fine-coarse grained sand, some fine-coarse gravel, loose, moist, brown	0		55
							0		
							0		
60									60

NOTES:



	Client:	2201 Union LLC	PRELIMINARY BORING LOG Boring No. DB-6 Page: 4 of 4
	Project:	450 Union	
	Address:	450 Union Street, Brooklyn, NY	

	Client:	2201 Union LLC	PRELIMINARY BORING LOG Boring No. DB-6 Page: 4 of 4
	Project:	450 Union	
	Address:	450 Union Street, Brooklyn, NY	

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Drilling End Date:	6/15/2023	Boring Diameter (in):	4.00
Drilling Company:	Costal Environmental Solutions	Sampling Method(s):	DS - Dedicated Plastic Sonic Sleeve
Drilling Method:	Sonic	Location (Lat, Long):	40.67933, -73.98892
Drilling Equipment:	CRS XL 140 DUO		
Driller:	Patrick Slavin		
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Drilling Method:	Sonic	Location (Lat, Long):	40.67933, -73.98892
Drilling Equipment:	CRS XL 140 DUO		
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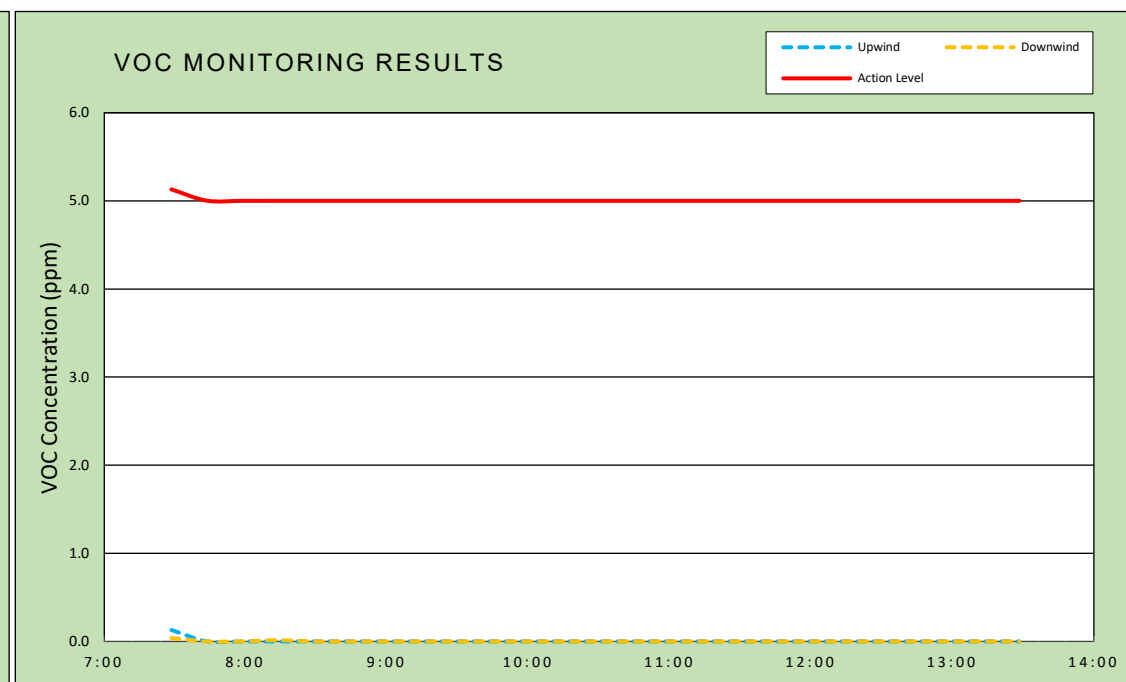
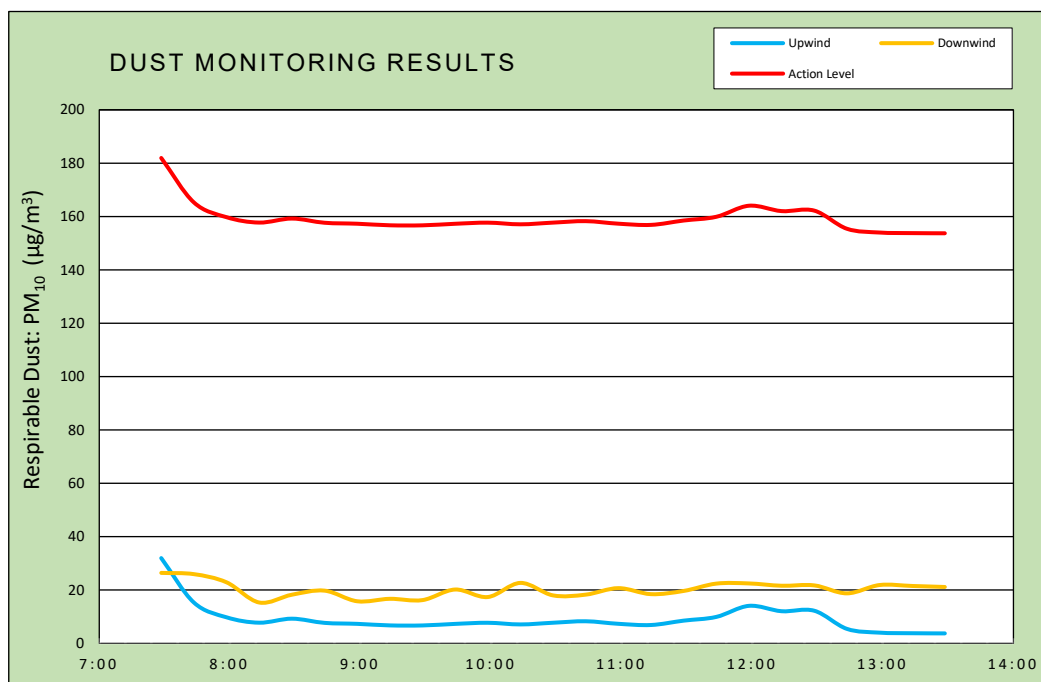
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NOTES:

vEktor consultants	DAILY AIR MONITORING REPORT 450 Union Street Brooklyn, New York					06/15/2023	
						Rev. No. 0	Page 1 of 2
						Project Number:	
						Dust Action Level	150 $\mu\text{g}/\text{m}^3$
37 W. 37th St, 6th Floor - New York, NY						VOC Action Level	5 ppm

Weather Data Range for Work Day		Wind Direction	WNW	Relative Humidity (%)	48.0 - 76.0	Daily Rain Total (in)	0.00	Readings in the summary table and graphs below are the reported downwind concentrations.
Temperature (°F)	62.0 - 76.0	Wind Speed (MPH)	2.9 - 5.1	Barometer (inHg)	29.60 - 29.70	Avg. Dew Point Temp (°F)	54.8	

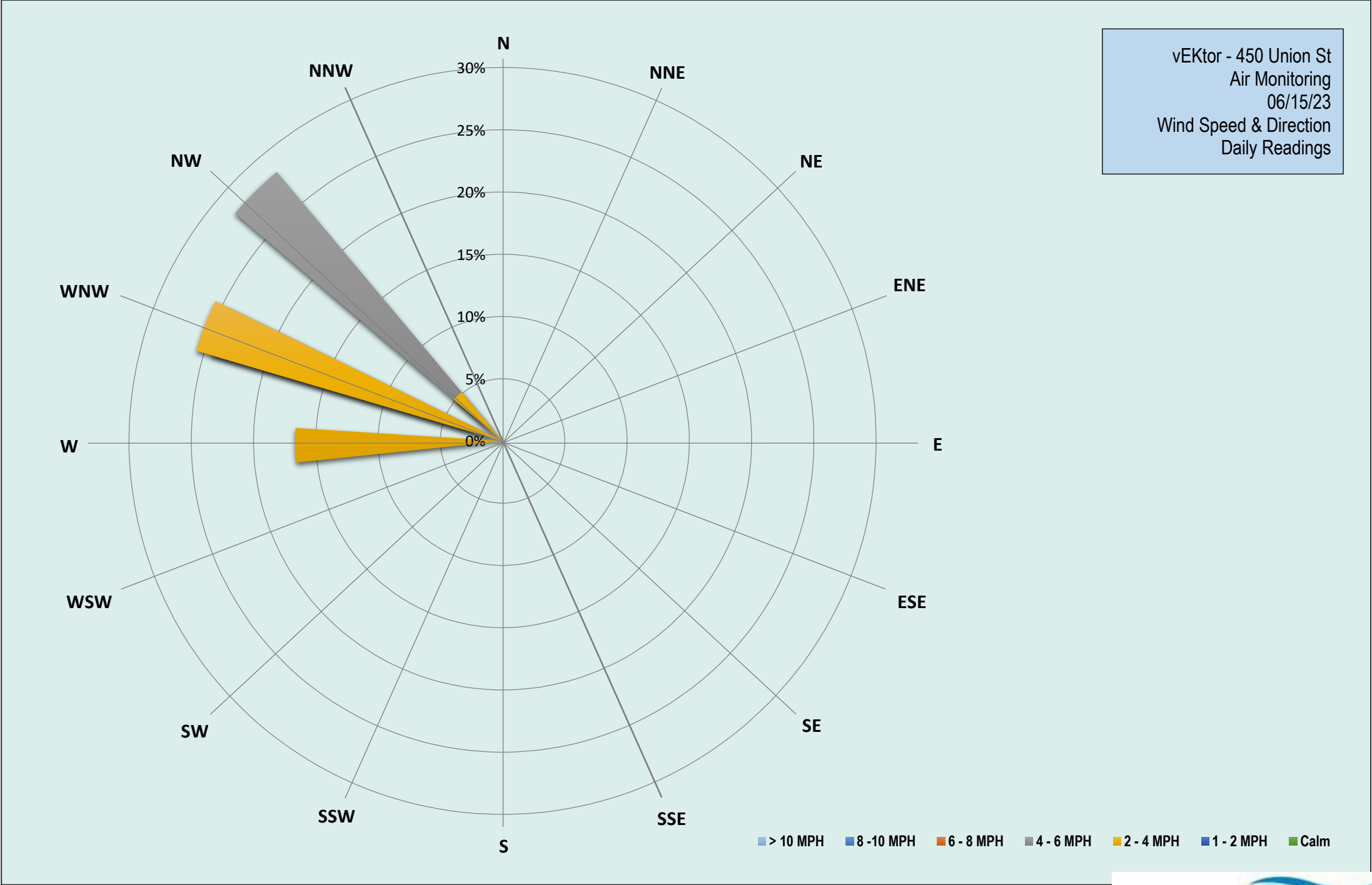
Station Location	Daily Avg. Dust Concentration ($\mu\text{g}/\text{m}^3$)	Max 15-Min Dust Concentration ($\mu\text{g}/\text{m}^3$)	Time of Max Dust Reading	Daily Avg. VOC Concentration (ppm)	Max 15-Min VOC Concentration (ppm)	Time of Max VOC Reading
Upwind	9.0	39.0	7:24	0.0	0.2	7:29
Downwind	20.1	40.6	7:21	0.0	0.1	7:45



Air Monitoring Notes:

Weather Notes:

vEKtor - 450 Union St
Air Monitoring
06/15/23
Wind Speed & Direction
Daily Readings



Thursday, June 15, 2023				
Number of Instances Where Downwind Particulates				0
Number of Comparable Data Points =				25
Start Time:				7:29
End Time:				13:29
PARTICULATE DATA				
Upwind		Downwind		Exceeds Particulate Alarm Limit
Time	15-Min Avg Concentration (ug/m ³)	Time	15-Min Avg Concentration (ug/m ³)	
7:29	32.0	7:29	26.4	-
7:44	15.3	7:44	25.9	-
7:59	9.8	7:59	22.9	-
8:14	7.7	8:14	15.3	-
8:29	9.2	8:29	18.2	-
8:44	7.7	8:44	19.8	-
8:59	7.3	8:59	15.8	-
9:14	6.7	9:14	16.7	-
9:29	6.7	9:29	16.2	-
9:44	7.3	9:44	20.2	-
9:59	7.7	9:59	17.4	-
10:14	7.1	10:14	22.7	-
10:29	7.7	10:29	18.0	-
10:44	8.3	10:44	18.3	-
10:59	7.3	10:59	20.7	-
11:14	6.9	11:14	18.4	-
11:29	8.5	11:29	19.6	-
11:44	9.9	11:44	22.4	-
11:59	14.1	11:59	22.5	-
12:14	12.0	12:14	21.6	-
12:29	12.2	12:29	21.7	-
12:44	5.4	12:44	18.7	-
12:59	4.0	12:59	21.9	-
13:14	3.8	13:14	21.5	-
13:29	3.7	13:29	21.1	-

Exceedance
Level

182.0
165.3
159.8
157.7
159.2
157.7
157.3
156.7
156.7
157.3
157.7
157.1
157.7
158.3
157.3
156.9
158.5
159.9
164.1
162.0
162.2
155.4
154.0
153.8
153.7

Upwind DustTrak Data Summary		
Daily Maximum	272.0	ug/m ³
Daily Minimum	0.0	ug/m ³
Daily Average	9.0	ug/m ³
Maximum 15-Minute Average	32.0	ug/m ³

Downwind DustTrak Data Summary		
Daily Maximum	99.3	ug/m ³
Daily Minimum	13.3	ug/m ³
Daily Average	20.1	ug/m ³
Maximum 15-Minute Average	26.4	ug/m ³

Thursday, June 15, 2023				
Number of Instances Where Downwind VOCs Exceeds				0
Number of Comparable Data Points =				0
Start Time:				7:34
End Time:				13:34
PID DATA				
Upwind		Downwind		Exceeds VOC Alarm Limit
Time	15-Min Avg Concentration (ppm)	Time	15-Min Avg Concentration (ppm)	
7:34	0.1	7:34	0.0	-
7:49	0.0	7:49	0.0	-
8:04	0.0	8:04	0.0	-
8:19	0.0	8:19	0.0	-
8:34	0.0	8:34	0.0	-
8:49	0.0	8:49	0.0	-
9:04	0.0	9:04	0.0	-
9:19	0.0	9:19	0.0	-
9:34	0.0	9:34	0.0	-
9:49	0.0	9:49	0.0	-
10:04	0.0	10:04	0.0	-
10:19	0.0	10:19	0.0	-
10:34	0.0	10:34	0.0	-
10:49	0.0	10:49	0.0	-
11:04	0.0	11:04	0.0	-
11:19	0.0	11:19	0.0	-
11:34	0.0	11:34	0.0	-
11:49	0.0	11:49	0.0	-
12:04	0.0	12:04	0.0	-
12:19	0.0	12:19	0.0	-
12:34	0.0	12:34	0.0	-
12:49	0.0	12:49	0.0	-
13:04	0.0	13:04	0.0	-
13:19	0.0	13:19	0.0	-
13:34	0.0	13:34	0.0	-

Exceedance Level

5.1

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

Upwind PID Data Summary		
Daily Maximum	0.2	ppm
Daily Minimum	0.0	ppm
Daily Average	0.0	ppm
Maximum 15-Minute Average	0.1	ppm

Downwind PID Data Summary		
Daily Maximum	0.2	ppm
Daily Minimum	0.0	ppm
Daily Average	0.0	ppm
Maximum 15-Minute Average	0.0	ppm