SITE OBSERVATION REPORT – RAWP Implementation – Day 32

LANGAN

PROJECT No.:	170390001	**CLIENT:**		**DATE:**	Tuesday, 17 December 2024
PROJECT:	141 3rd Street			**WEATHER:**	Sunny 45 - 59 ^{0}F Wind: WSW @ 0.4 – 6.6 mph
LOCATION:	Brooklyn, New York	Third Street Owner LLC and 155 Third St., LLC		**TIME:**	6:45 a.m. – 5:00 p.m.
BCP SITE ID:	C224336			**MONITOR:**	Gabriella DeGennaro, Andrew Ashley, JN Stanley

EQUIPMENT:
Hyundai HX520L
PC 400 Komatsu
Liebherr LRB 355-450
Geoprobe 7288DT (x2)
ISGS Mixture Trailer

PRESENT AT SITE:
Langan: Gabriella DeGennaro, Andrew Ashley, JN Stanley, Paul McMahon, Gerald Nicholls
Monadnock Construction (Construction Management): John Henry
New York State Department of Environmental Conservation (NYSDEC): Scott Deyette, Heidi Dudek, Aaron Fischer
WSP: Chris Descalfani, Charlie Lambert
Roux, Inc.: James Smyth
Aquifer Drilling & Testing, Inc. (ADT): Dave Moon
AARCO Environmental Services Corp. (AARCO): Michael Martin
Environmental Protection Agency (EPA): Mark Granger
Innovative Environmental Technologies (IET): Michael Scalzi and crew

OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:

Langan was onsite to document implementation of the New York State Department of Environmental Conservation (NYSDEC)-approved Remedial Action Work Plan (RAWP) dated 12 December 2024, In-Situ Geochemical Stabilization (ISGS) Pilot Test Work Plan dated 9 September 2024, and Remedial Design Document (RDD) for In-Situ Stabilization/Solidification (ISS) dated 5 April 2024.

Site Activities

- IET began ISGS implementation injections of the sodium permanganate solution in the ISGS pilot test area within the southeastern part of the site:
    - AARCO used a Geoprobe 7288DT drill rig to advance direct-push injection points IP-14 and IP-7 to about 29 feet below grade surface (bgs) (elevation [el] -23±). A pneumatic pump, high-pressure chemical resistant lined hose, and steel rods were used to inject the target interval (el -19± to -23±) in two-foot increments. Approximately 135 gallons of the sodium permanganate solution (RemOX® L ISCO Reagent) and water mixture at about 50 pounds per square inch (psi) was injected at each interval.
    - After completion of IP-14, daylighting of the sodium permanganate solution was observed in the location of former monitoring well MW15. IET neutralized the daylighting by applying manure on top of the solution.
    - After completion of IP-7, daylighting of the sodium permanganate solution was observed within the Gowanus Canal. Upon observation IET immediately stopped injections, and placed a filter sock containing wood chips into the impacted area of the Gowanus Canal to absorb the oxidizing agent. IET estimated about 10 gallons of the mixture entered into the Gowanus Canal.
        - Langan reported the spill to NYSDEC Spills Hotline. Ryan Piper, a representative from the NYSDEC Spills Hotline, later contacted Langan to indicate that NYSDEC Spill No. 2407940 was assigned and Aaron Fischer would be the spill case manager.
        - Langan also reported the spill to Environmental Protection Agency (EPA) via the National Response Center, and EPA Spill No. 1419190 was assigned.

    - Langan was contacted by the U.S. Coast Guard to provide photo documentation and summary information regarding spill notification.

- ADT used a Geoprobe 7288DT drill rig to advance core locations C1 (representative of previously mixed cells ISS-32, ISS-33 and ISS-35) and C2 (representative of previously mixed cells ISS-15 through ISS-17) to about 35 feet bgs (el. -28±) to document mixture consistency in the ISS pilot test area. Cores and drilling equipment were inspected for visible non-aqueous phase liquid (NAPL), percent of core sample recovered, and NAPL coating on drilling tools.
    - A bleb of NAPL was observed at about 21 feet bgs (el. -14±) in recovered soil in coring location C1.
    - The cores demonstrated a homogenous mix in ISS pilot test cells.
    - Following completion of cores, each location was tremie-grouted from the base of the core to surface grade.
    - ISS cores were retained on site in wood core boxes and will be maintained on site through the remediation.

Sampling

- No samples were collected.

Community Air Monitoring Plan (CAMP) Activities

- Langan performed continuous air monitoring for volatile organic compounds (VOC) and particulate matter smaller than 10 microns in diameter (PM10) using two perimeter air monitoring stations at upwind and downwind locations. The PM10 and VOC action levels were not exceeded during the monitoring period. Recorded air monitoring data is presented on CAMP summary data sheet appended to the end of this Daily Field Report. The graphs on the CAMP summary data sheet show PM10 and VOC concentration as site contribution (downwind concentrations subtracted by upwind concentration).

Material Tracking

- No material was exported from site.
- No material was imported to site.

Material Import Summary				
Facility	**NYSDEC Approved Quantity**	**Imported**	**Today**	**Total**
Tilcon - Haverstraw Haverstraw, NY ASTM #3 Virgin Stone (1.5-Inch)	400 CY (560 tons)	**No. Loads**	0	**4**
		Quantity (tons)	0	**89.95**
Impact Materials Jersey City (IMJC) Jersey City, NJ 0.75-inch Stone	2,000 CY (2,800 tons)	**No. Loads**	0	**0**
		Quantity (tons)	0	**0**
IMJC Jersey City, NJ 1.5-inch Stone	400 CY (560 tons)	**No. Loads**	0	**2**
		Quantity (tons)	0	**49.65**

Drums

- One 55-gallon drum containing purged groundwater an DNAPL is staged in the east-central part of the site.
- One 55-gallon drum containing decontamination fluid and purged groundwater is staged in the east-central part of the site.
- Six 55-gallon drums containing soil cuttings are staged in the eastern part of the site.
- One 55-gallon drum containing soil cuttings is staged in the southern part of the site.

Anticipated Activities

- AARCO will advance ISGS core locations to evaluate ISGS radius of influence through visual inspection and field screening.
- Langan will confirm the absence of residual permanganate in the Gowanus Canal.

SITE PHOTOGRAPHS:



Photo 1: IET advancing IP-7 in the southeastern part of site (facing east).

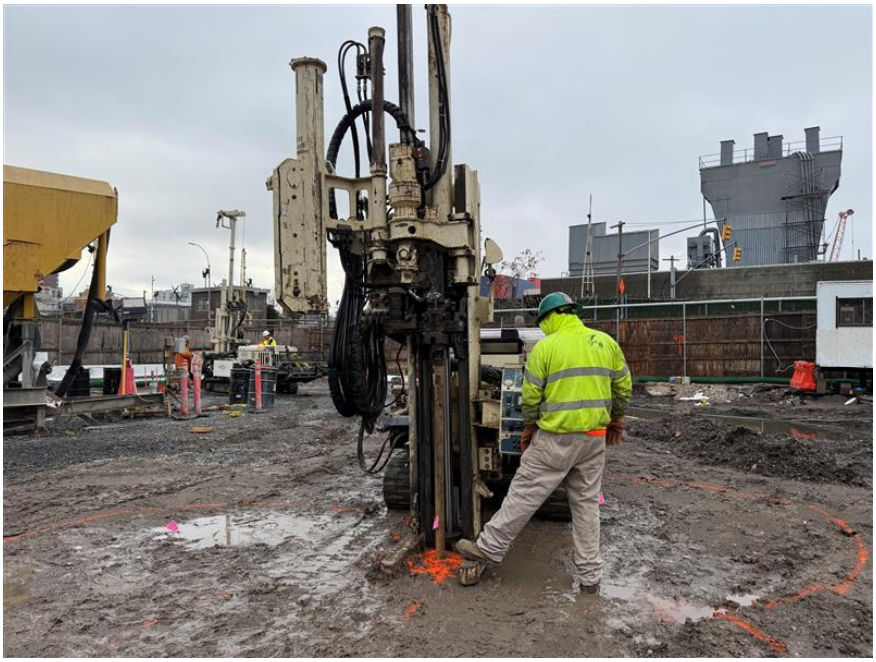


Photo 2: ADT advancing core location C1 in the eastern part of site (facing south).



Photo 3: View of ISS core C1 (facing north).

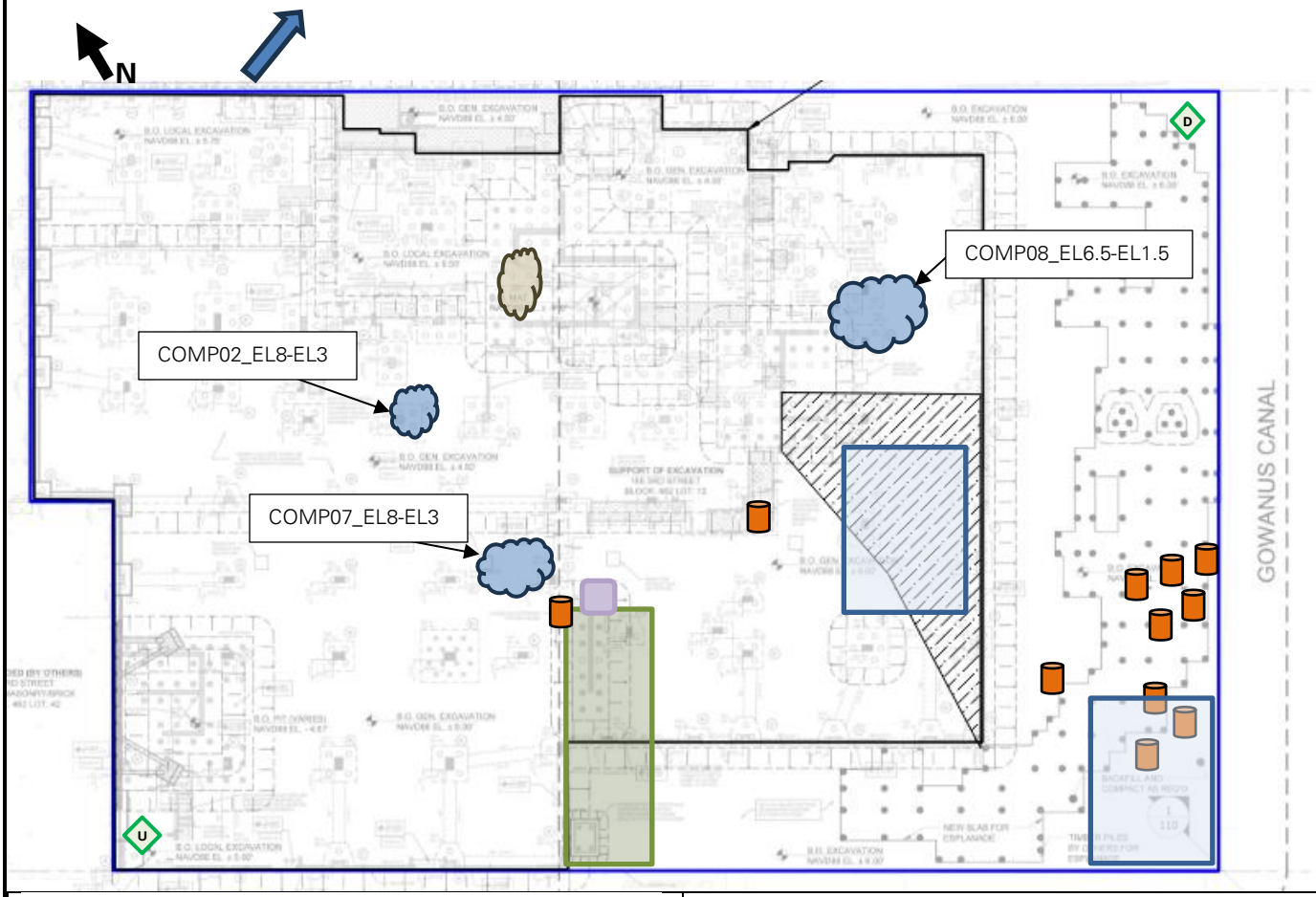


Photo 4: Daylighting observed in the Gowanus Canal (facing north). The existing boom was not placed by the 141 3rd Street Project Team, and had been left in place by the Gowanus Canal Site contractors. The boom was not connected on the southern side, and initially sodium permanganate solution flowed south in the Gowanus Canal. A representative from the Gowanus Environmental Remediation Trust later tied off the boom underneath the Third Street Bridge



Photo 5: Neutralization of daylighting over former monitoring well MW15 (facing south).

FIGURE 1 - SITE MAP:



LEGEND:

- APPROXIMATE SITE BOUNDARY
- PROPOSED BUILDING FOOTPRINT
- APPROXIMATE PROPOSED EXTENT OF ISS AREA TO BE EXCAVATED TO 4 FEET BGS (EL. 3.5± FEET NAVD88)

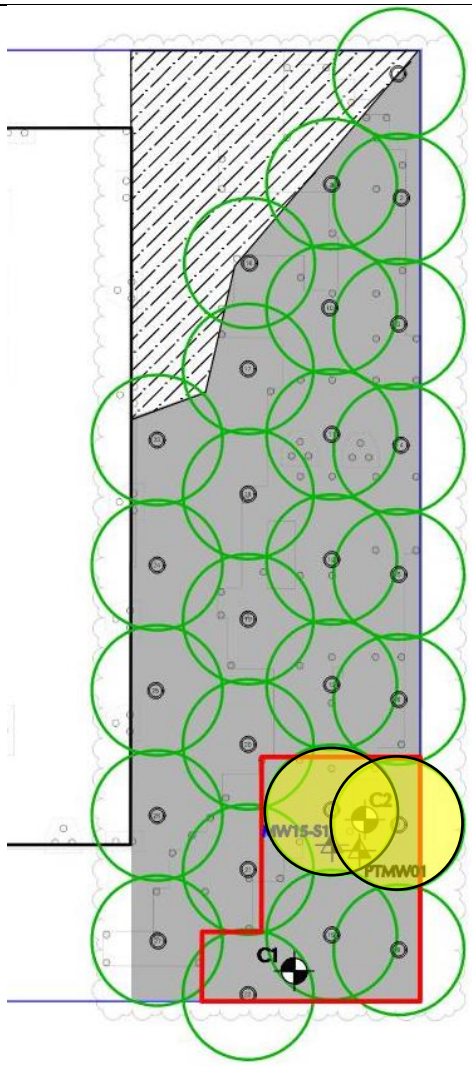
COMPLETED WORK KEY

- Approximate work area
- Approximate location of upwind CAMP station
- Approximate location of downwind CAMP station
- Approximate location of drum
- Approximate wind direction
- Stockpiled soil/fill
- Stockpiled C&D debris
- Stockpiled imported stone
- Temporary stabilized construction entrance
- Truck wash catch basin

Base map includes Figure 5 – Pre-ISS Excavation Plan from the NYSDEC-approved RDD for ISS, prepared by Langan Engineering, dated 4/5/2024

FIGURE 2 - ISGS PROGRESS MAP

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LEGEND:

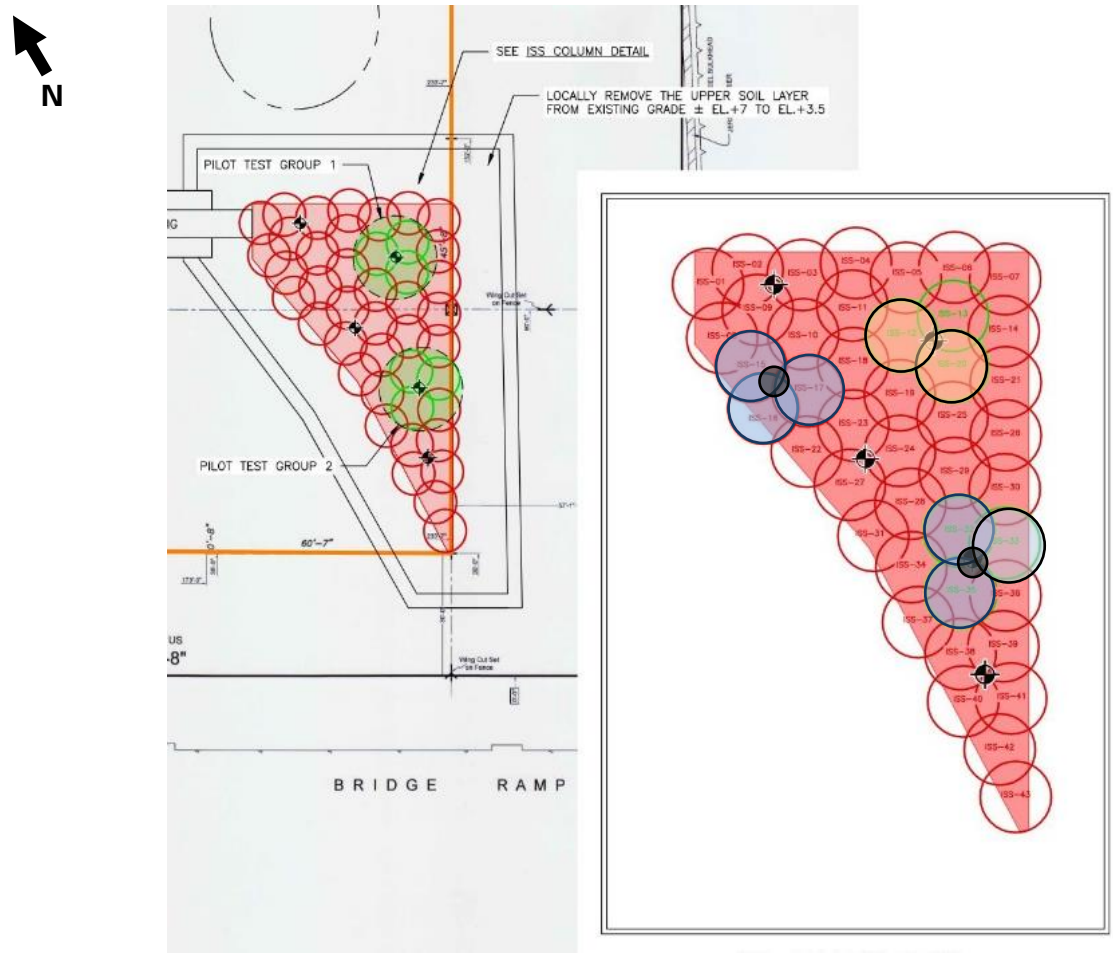
- APPROXIMATE SITE BOUNDARY
- PROPOSED BUILDING FOOTPRINT
- APPROXIMATE PROPOSED EXTENT OF ISGS AREA BETWEEN EL. -19± TO EL. -23±
- APPROXIMATE PROPOSED EXTENT OF ISGS SUPPORT/LAYDOWN AREA
- APPROXIMATE PROPOSED TEMPORARY DIRECT-PUSH INJECTION POINT LOCATION
- APPROXIMATE ROI (13-FOOT RADIUS, 25-FOOT SPACING)
- C1 — APPROXIMATE PROPOSED PILOT TEST QA/QC CORE LOCATION
- APPROXIMATE ISGS PILOT TEST AREA
- MW15-S1 — EXISTING MONITORING WELL LOCATION
- PTWM01 — PROPOSED MONITORING WELL LOCATION

COMPLETED WORK KEY

- ISGS injection point completed today
- ISGS injection point previously completed

Base map includes Figure 2 – Project Implementation Plan In-Situ Stabilization/Solidification, prepared by Roux Environmental and Geology, D.P.C, dated October 2024

FIGURE 3 - ISS PROGRESS MAP:



LEGEND

- FOOTPRINT OF FORMER BUILDING
- PROPOSED ISS PRODUCTION COLUMNS 10.5 FOOT DIAMETER
- PROPOSED ISS PILOT TEST COLUMNS 10.5 FOOT DIAMETER
- PROPOSED QA/QC PRODUCTION CORE LOCATION
- PROPOSED EXTENT OF ISS AREA FROM EL. −16 TO −25±"

COMPLETED WORK KEY

- ISS cell mixed today
- ISS cell previously mixed
- ISS cell to be remixed
- Core location advanced

Base map includes Figure 2 – Project Implementation Plan In-Situ Stabilization/Solidification, prepared by Roux Environmental and Geology, D.P.C, dated October 2024

TABLE 1 - ISS PROGRESS TABLE:

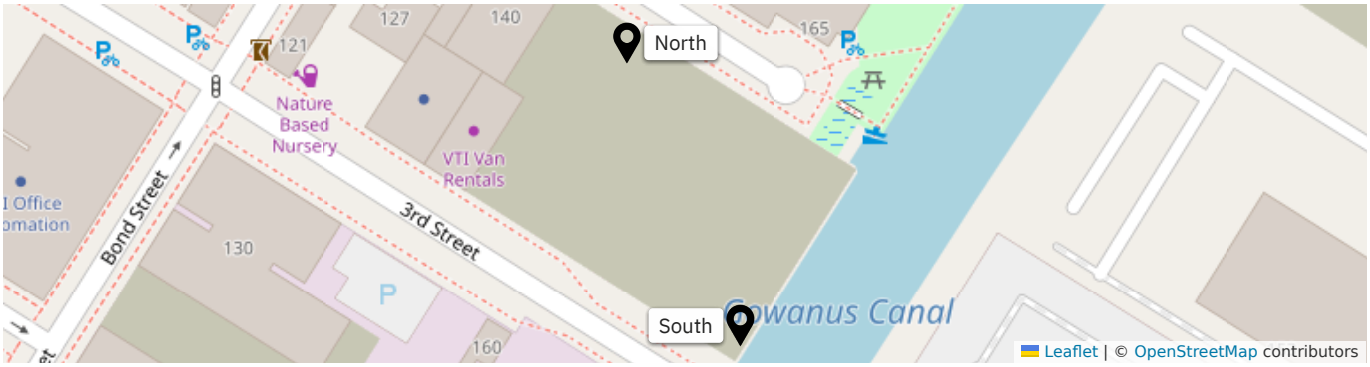
ISS Column ID	Coordinates (N, E)	Interval (el)	Mixing Time Per Interval (min)	Reagent Additional Per Interval (gal/min)	Injection Pressure (psi)	Injection Rate (psi/min)	Rotational Speed (RPM)	Advance Rate (ft/min)	No. of Passes
ISS-20	98.87, 221.23	3.5± to -13.5±	9.23	50	50	6.5	30	3.75	1
		-13.5± to -26.5±	9.23	50	50	6.5	30	3.75	1
ISS-12	103.418, 213.788	3.5± to -11.5±	15	50	N/A	N/A	15	1.4	1
		-11.5± to -16.5±	10	50	N/A	N/A	15	0.4	1
		-16.5± to -21.5±	10	50	N/A	N/A	15	0.4	N/A
ISS-16	92.59, 193.29	1.89± to -26.5±	270	50	N/A	N/A	17	0.10	1
ISS-17	95.14, 199.81	5.5± to -26.5±	170	50	N/A	N/A	18	0.19	1
ISS-15	98.75, 191.97	5.5± to -26.5±	160	50	N/A	N/A	16	0.28	1
ISS-35	65.47, 222.59	4.41± to -26.5±	335	50	N/A	N/A	16	0.17	2
ISS-32	74.47, 222.33	5.5± to -26.5±	223	50	N/A	N/A	16	0.36	2
ISS-33	74.47, 229.01	5.5± to -26.5±	127	50	N/A	N/A	16	0.25	2

1. Coordinates were measured in northing and eastings from the project datum.

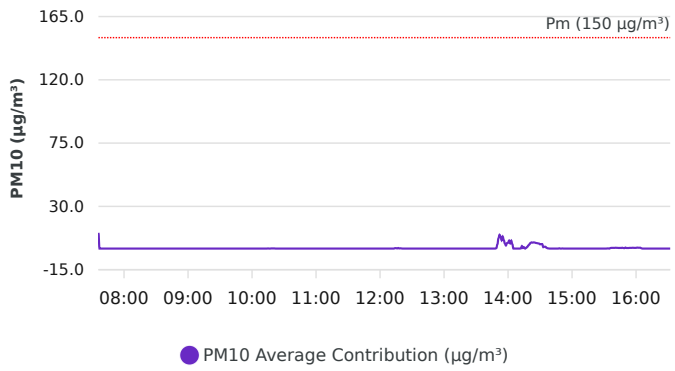
LANGAN	Air Monitoring Report	170390002 - 155 3rd St Brooklyn	
		Report Period	
		From:	12/17/2024 06:00
		To:	12/17/2024 18:00
		PM10 Action Level:	150 µg/m³
		VOC Action Level:	5 ppm

Daily Environmental Summary	Temp (°F)	Relative Humidity (%)	Barometer (inHg)	Windspeed (mph)	Prevailing wind direction
12/17/2024	-	-	-	0.4-6.6	WSW

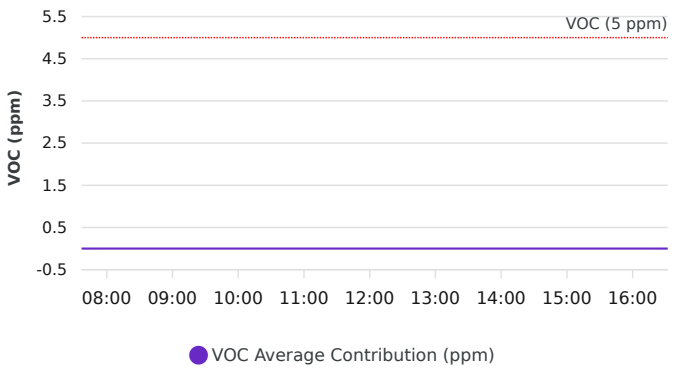
Daily Monitoring Summary	PM10 (µg/m³)	Time	VOC (ppm)	Time
Min Contribution (15 min avg.) - 12/17/2024	0.0	07:37	0.00	07:37
Max Contribution (15 min avg.) - 12/17/2024	11.2	07:36	0.00	07:37



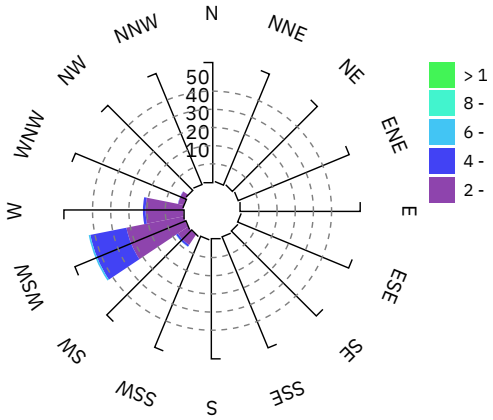
PM10 Average Contribution (µg/m³)



VOC Average Contribution (ppm)



Contribution wind rose (mph)



170390002 - 155 3rd St Brooklyn
Report date: 12/17/2024
A PM10 and VOC negative number filter has been applied to the averaged contribution data

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aeroqual