LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

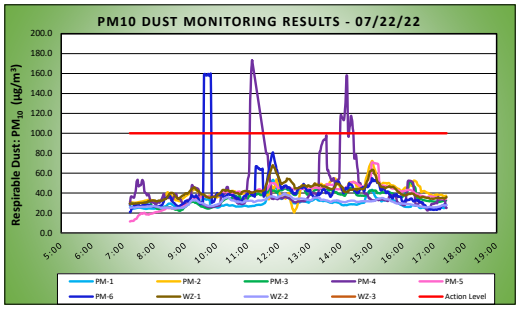
DAILY AIR MONITORING REPORT
250 Water Street Remediation Site
Manhattan, New York

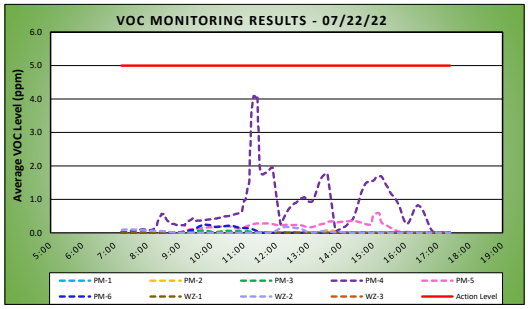
07/22/22	
Project number: 170381202	
Page 1 of 2	Rev. No. 0
Submitted By:	
Dust Action Level (µg/m³)	100
VOC Action Level (ppm)	5
Hg Action Level (µg/m³)	1.0

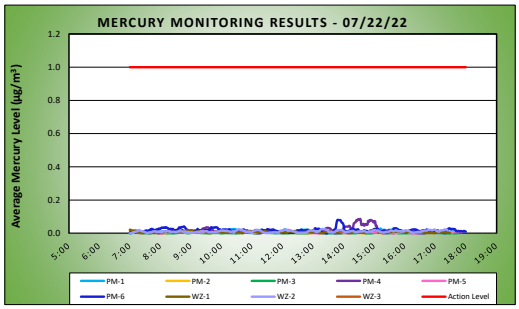
Weather Data Range for Work Day		Wind Direction	N	Relative Humidity (%)	23.2 - 52.6	Daily Rain (in)	0.00	Readings in the summary table and graphs below are the reported downwind concentrations.
Temp (°F)	82.2 - 97.8	Wind Speed (MPH)	0.6 - 7.2	Barometer (inHg)	29.91 - 29.96			

Station Location Work Area	Daily Avg. Dust Concentration (µg/m³)	Max 15 Minute Dust Concentration (µg/m³)	Time of Maximum 15 Minute Avg Dust Reading	Daily Avg. VOC Concentration (ppm)	Max 15 Minute VOC Concentration (ppm)	Time of Max 15 Minute Avg VOC Reading
PM-1	29.6	53.3	11:49	0.0	0.0	7:12
PM-2	41.6	72.2	15:00	0.0	0.1	13:38
PM-3	35.5	51.9	16:13	0.0	0.1	9:43
PM-4	45.3	**172.9	11:09	0.7	4.1	11:24
PM-5	38.8	70.7	15:00	0.2	0.6	15:09
PM-6	41.1	*160.0	9:49	0.0	0.3	9:46
WZ-1	41.9	68.0	11:49	0.0	0.0	7:13
WZ-2	30.5	39.5	12:12	0.0	0.2	12:17
WZ-3	N/A	N/A	N/A	N/A	N/A	N/A

Station Location Work Area	Daily Avg. Mercury Concentration (µg/m³)	Max 15 Minute Mercury Concentration (µg/m³)	Time of Max 15 Minute Avg Mercury Reading
PM-1	0.01	0.03	15:38
PM-2	0.01	0.02	13:36
PM-3	0.00	0.01	10:48
PM-4	0.01	0.09	14:33
PM-5	0.01	0.02	12:10
PM-6	0.02	0.08	13:48
WZ-1	0.01	0.02	7:01
WZ-2	0.01	0.03	13:19
WZ-3	N/A	N/A	N/A







Air Monitoring Notes:

Langan performed air monitoring at the perimeter of the site and at the work zone at eight total locations for mercury vapor, volatile organic compounds (VOCs), and particulate matter less than 10 microns in diameter (PM10), during ground -intrusive activities. There were no fifteen-minute average concentrations for mercury vapor or VOCs that approached or exceeded the action level established by the CAMP (1.0 µg/m³ and 5.0 ppm, respectively).

Background Concentrations
Prior to implementation of ground -intrusive work, instantaneous background concentrations of mercury vapor and VOCs were recorded using a handheld Jerome® J505 mercury vapor analyzer and a handheld PID, respectively.
- Background concentrations of mercury vapor at each CAMP station ranged from 0.00 to 0.01 µg/m ³.
- Background concentrations of VOCs at each CAMP station were recorded at 0.0 ppm.

Perimeter and Work Zone Concentrations
- * PM10 concentrations at perimeter CAMP station PM -6 exceeded the action level established in the CAMP (0.100 mg/m³) for a duration of about 15 minutes (9:36am to 9:50am). The maximum 15-minute TWA concentration of PM10 was recorded at 0.160 mg/m³ and was caused by instantaneous PM10 concentrations ranging from 0.798 mg/m³ to 1.208 mg/m³. No ground-intrusive activities were ongoing at the site and fugitive dust was not observed migrating from the site during this time . The DustTrak unit at perimeter CAMP station PM-6 was recalibrated and instantaneous PM10 concentrations returned to background conditions at 9:37am.
- ** PM10 concentrations at perimeter CAMP station PM -4 exceeded the action level established in the CAMP (0.100 mg/m ³) for a duration of about 5 minutes (11:05am to 11:09am). The maximum 15-minute TWA concentration of PM10 was recorded at 0.173 mg/m ³ and was caused by instantaneous PM10 concentrations ranging from 0.118 mg/m ³ to 0.691 mg/m³. The exceedances were caused by exhaust from a nearby generator, which resulted in PM10 and VOC concentrations above backgroun d conditions. Perimeter CAMP station PM-4 was relocated further downwind of the work area at 11:10am to avoid potential interference from the generator. During this time, off-site CAMP station WZ-2 was located on the eastern sidewalk of Peck Slip and no instantaneous PM10 concentrations above background conditions were recorded.
- PM10 concentrations at perimeter CAMP station PM -4 exceeded the action level established in the CAMP (0.100 mg/m³) for a duration of about 26 minutes (1:59pm to 2:24pm). The maximum 15-minute TWA concentration of PM10 was recorded at 0.158 mg/m³ and was caused by instantaneous PM10 concentrations ranging from 0.134 mg/m³ to 0.500 mg/m³. The exceedances were caused by concrete demolition activities in proximity to the perimeter CAMP station. Dust suppression was i mplemented by spraying the work area with water and PM10 concentrations returned to background conditions. During this time, off -site CAMP station WZ-2 was located on the eastern sidewalk of Peck Slip and no instantaneous PM10 concentrations above background conditions were recorded.

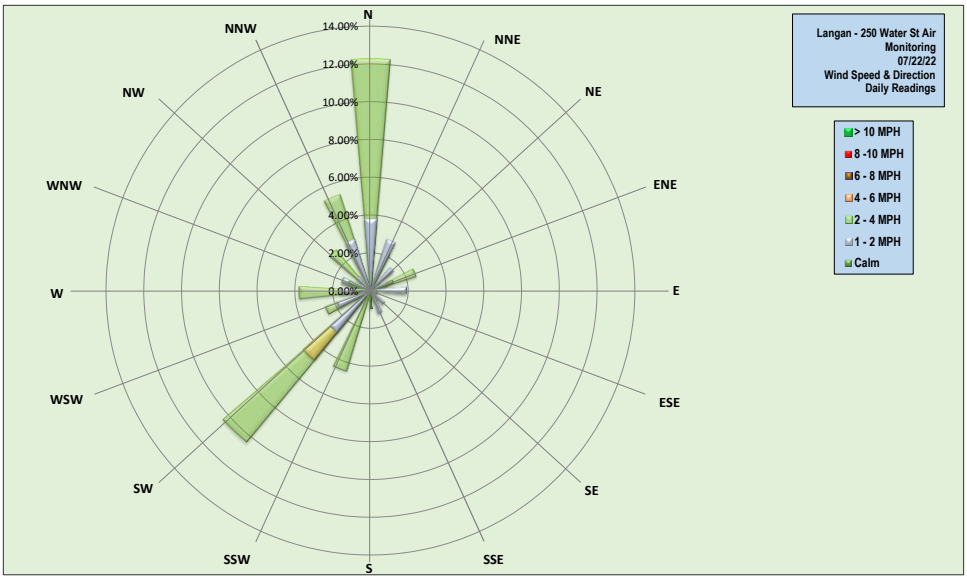
Ambient Air (Handheld Jerome® J505 and Handheld PID)
- The dedicated mobile monitor (Langan) used a handheld Jerome ® J505 mercury vapor analyzer to monitor ambient air conditions at various heights throughout the site. Instantaneous mercury vapor concentrations throughout the site ranged from 0.00 µg/m ³ to 0.28 µg/m³.
- The dedicated mobile monitor (Langan) used a handheld PID to monitor VOC concentrations throughout the site. Instantaneous VOC concentrations were at or below background concentrations throughout the work day.

Off-Site CAMP Station Relocation
- CAMP station WZ-1 was relocated to the northern sidewalk of Pearl Street from 6:58am to 5:23pm during excavation/backfilling activities along the northern boundary of the site.
- CAMP station WZ-2 was relocated to the eastern sidewalk of Peck Slip from 6:58am to 5:23pm during installation of SOE soldier piles along the eastern boundary of the site.

Equipment Troubleshooting
PM10 concentrations were not recorded at perimeter CAMP station PM-4 between 11:10am and 11:20am during relocation of the CAMP station further downwind of the work area to avoid interference from a nearby generator. Fugitive dust was not observed migrating from the site during this time and data logging resumed at 11:21am. During this time, off-site CAMP station WZ-2 was located on the eastern sidewalk of Peck Slip and no instantaneous PM10 concentrations above background conditions were recorded.

Prior to CAMP Shutdown
Prior to discontinuing the CAMP, air quality at each CAMP station was verified using the handheld PID and handheld Jerome ® J505 mercury vapor analyzer and no readings above background concentrations were recorded. Additionally, areas of exposed soil/fill were covered with polyethylene sheeting a nd/or Atmos" AC-645 dust/vapor suppressing foam. CAMP stations were discontinued between 5:22pm and 5:24pm at the conclusion of ground -intrusive activities.
- Mercury vapor concentrations at each CAMP station were recorded at 0.00 µg/m ³.
- VOC concentrations at each CAMP station were recorded at 0.0 ppm.

EMILCOTT
environmental, health & safety experts


Langan - 250 Water St Air Monitoring
07/22/22
Wind Speed & Direction
Daily Readings
> 10 MPH
8 -10 MPH
6 - 8 MPH
4 - 6 MPH
2 - 4 MPH
1 - 2 MPH
Calm
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
14.00%
12.00%
10.00%
8.00%
6.00%
4.00%
2.00%
0.00%