

# AIR MONITORING SUMMARY REPORT

REMEDIAL ACTION IN PARCEL B (EXCLUDING SITE 7 AND 18)  
HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CALIFORNIA

The Navy is performing air monitoring at Hunters Point Naval Shipyard (HPNS) in accordance with the Final Dust Monitoring and Control Plan (DMCP), included in the “Final Remedial Action Work Plan for Parcel B (Excluding Sites 7 & 18), Hunters Point Naval Shipyard, San Francisco, California” (Engineering/Remediation Resources Group, Inc. [ERRG], 2012). The Final DMCP describes procedures to minimize dust generation during work activities, and prescribes air monitoring to ensure these procedures are effective. The Final DMCP helps prevent exposure of residents and construction workers to dust and potential airborne chemicals of concern from the construction area.

This document presents the air monitoring data collected and analyzed to date for this project and compares the results with the established threshold criteria included in the Final DMCP. More specifically, this summary report describes the following:

- Where and how air monitoring samples were collected
- What test methods were used to analyze air monitoring samples
- How air monitoring data were evaluated

## AIR MONITORING SITE LOCATIONS

High volume air monitoring stations are used to collect air samples upwind and downwind of work areas during periods of active construction. The predominant wind direction at HPNS is from the west. Locations of air monitoring stations and wind direction and magnitude data collected to date are shown on [Figure 1](#). The locations of the air monitoring stations were determined based on the prevailing wind direction and were modified, as needed, based on real time wind direction and velocity data collected from an on-site wind sock and weather station. Monitoring stations are not moved while samples are being collected. Each monitoring station includes separate monitoring systems for: 1) total suspended particulates (TSP) and metals; 2) particulate matter larger than 10 microns in size (PM<sub>10</sub>); 3) polychlorinated biphenyls (PCBs); 4) polycyclic aromatic hydrocarbons (PAHs), and 5) asbestos.

## SAMPLE COLLECTION AND ANALYSIS

**TSP and Metals.** Samples of TSP are collected with a high-volume (39 to 60 cubic feet per minute) air sampler) in accordance with U.S. Environmental Protection Agency’s (EPA’s) reference sampling method for TSP, described in Title 40 Code of Federal Regulations (CFR), Part 50, Subpart B. Each sample is collected on a filter over an approximately 24-hour period; the filter is then weighed to determine the amount of TSP collected. After the amount of TSP is determined, the sample is analyzed

for aluminum, antimony, arsenic, cadmium, copper, iron, lead, manganese, mercury, vanadium, and zinc using a modified EPA Method 12 ([EPA, 2007](#)).

**PM<sub>10</sub>.** Air samples are collected and analyzed for PM<sub>10</sub> in accordance with EPA's reference sampling method for PM<sub>10</sub>, described in 40 CFR 50, Subpart J. Each sample is collected on a filter over an approximately 24-hour period; the filter is then weighed to evaluate the concentrations of PM<sub>10</sub> in ambient air.

**PCBs.** Air samples are collected and analyzed for PCBs in accordance with EPA Method TO-4A ([EPA, 1999a](#)). Each sample is collected using a high-volume polyurethane foam (PUF) sampling apparatus, followed by gas chromatography/mass spectrometry, to evaluate PCB concentrations in ambient air. Each sample is collected at a sampling rate of 8 standard cubic feet per minute (0.225 standard cubic meters per minute), with a minimum volume of 300 cubic meters over a 24-hour period.

**PAHs.** Air samples are collected and analyzed for PAHs in accordance with EPA Method T0-13A ([EPA, 1999b](#)). Each sample is collected using a high-volume PUF sampling apparatus, followed by gas chromatography/mass spectrometry, to evaluate PAH concentrations in ambient air. Each sample is collected at a sampling rate of 8 standard cubic feet per minute (0.225 standard cubic meters per minute), with a minimum volume of 300 cubic meters over a 24-hour period.

**Asbestos.** Air samples are collected and analyzed for asbestos in accordance with the National Institute for Occupational Safety and Health (NIOSH) Method 7400, in the *NIOSH Manual of Analytical Methods* ([NIOSH, 1994](#)). Samples are collected on three-piece cellulose ester filters, which are fitted with conductive cowlings, at a sampling rate of between 0.5 liter per minute (L/min) and 16 L/min. Each sample is collected over period of 24-hour.

## **ANALYSIS OF AIR MONITORING DATA**

Air monitoring is performed to ensure worker and community safety in accordance with NIOSH-approved air sampling methods, and to verify that the dust control measures being implemented during construction are effective. Analytical results from air monitoring samples collected are compared with the threshold criteria listed in the table below.

**Table 1. Threshold Criteria for Analysis of Air Monitoring Data**

Test Parameters	Threshold Criteria	Threshold Criteria References
TSP	500 µg/m <sup>3</sup>	Calculated action level for general dust and particulates
PM <sub>10</sub>	5,000 µg/m <sup>3</sup>	Cal/OSHA PEL <sup>2</sup>
Aluminum <sup>1</sup>	10,000 µg/m <sup>3</sup>	Cal/OSHA PEL
Antimony <sup>1</sup>	500 µg/m <sup>3</sup>	Cal/OSHA PEL
Arsenic	10 µg/m <sup>3</sup>	Cal/OSHA PEL
Cadmium <sup>1</sup>	5 µg/m <sup>3</sup>	Cal/OSHA PEL
Copper <sup>1</sup>	1 µg/m <sup>3</sup>	Cal/OSHA PEL
Iron <sup>1</sup>	1,000 µg/m <sup>3</sup>	Cal/OSHA PEL
Lead	50 µg/m <sup>3</sup>	Cal/OSHA PEL
Manganese	200 µg/m <sup>3</sup>	Cal/OSHA PEL
Mercury <sup>1</sup>	25 µg/m <sup>3</sup>	Cal/OSHA PEL
Vanadium <sup>1</sup>	50 µg/m <sup>3</sup>	Cal/OSHA PEL
Zinc <sup>1</sup>	10,000 µg/m <sup>3</sup>	Cal/OSHA PEL
Asbestos	0.1 fibers/cm <sup>3</sup>	Cal/OSHA PEL
PCBs	500 µg/m <sup>3</sup>	Cal/OSHA PEL
PAHs	200 µg/m <sup>3</sup>	Cal/OSHA PEL

## Notes:

1. Analyte is part of an expanded suite; samples are only analyzed once per week for this analyte

2. Cal/OSHA PEL for particulates not otherwise regulated (respiratory) used for PM<sub>10</sub>

Cal/OSHA = California Department of Industrial Relations, Division of Occupational Safety and Health

cm<sup>3</sup> = cubic centimeter

PEL = permissible exposure limit

µg/m<sup>3</sup> = micrograms per cubic meter

## AIR MONITORING RESULTS

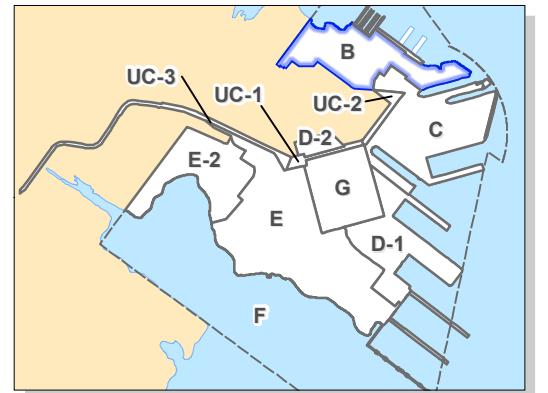
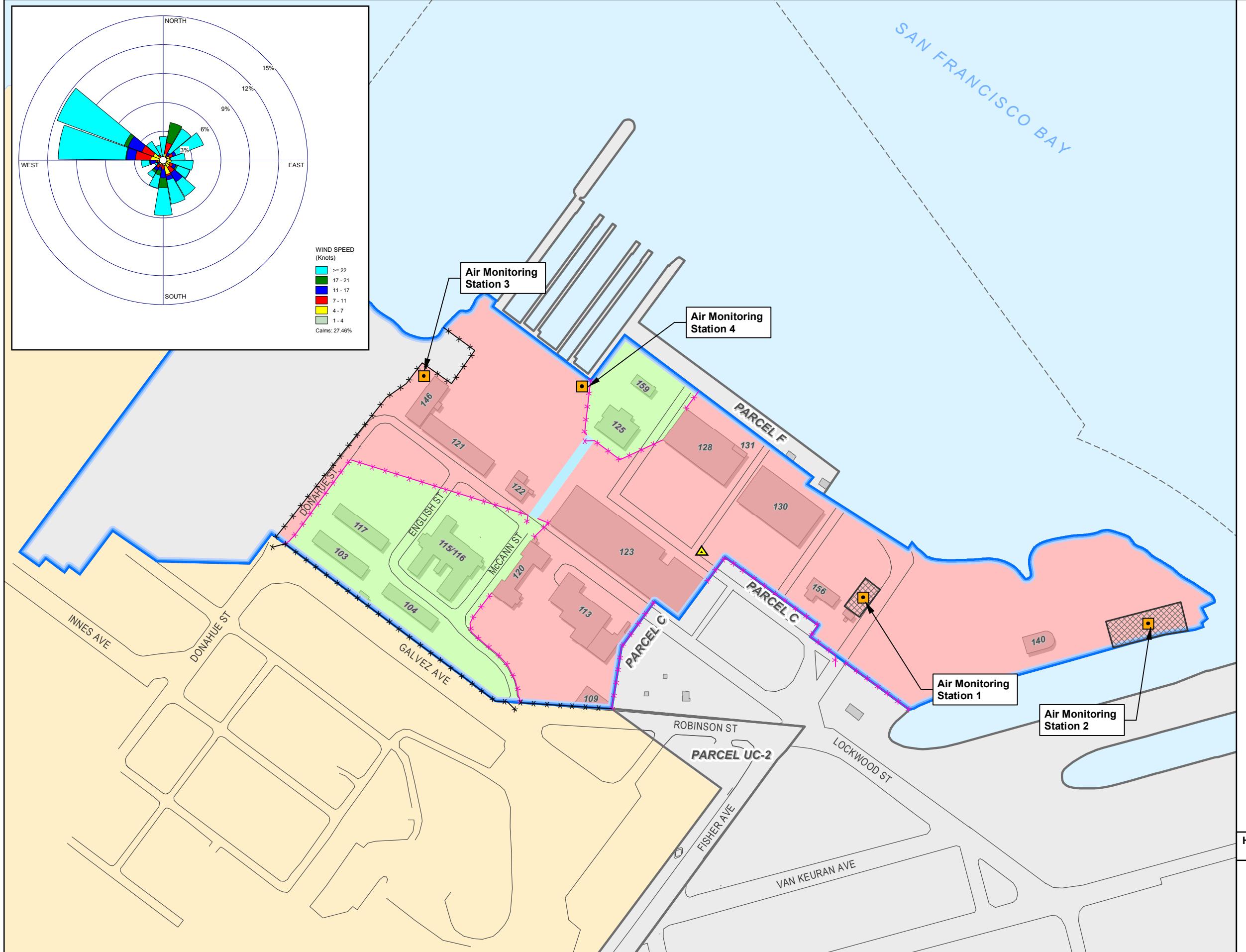
Weather information (including ambient pressure and temperature) and air monitoring results are presented in the tables included as Attachment 1. The air monitoring results show that there have not been any exceedances of the threshold criteria listed in Table 1 to date. If site activities do cause exceedances of the threshold criteria, additional dust control measures will be evaluated and implemented.

## REFERENCES

- Engineering/Remediation Resources Group, Inc., 2012. “Final Remedial Action Work Plan for Parcel B (Excluding Sites 7 & 18), Hunters Point Naval Shipyard, San Francisco, California.” June.
- U.S. Environmental Protection Agency (EPA), 1999. “Compendium of Methods for the Determination of Inorganic Compounds in Ambient Air.” EPA/625/R-96/010a. Office of Research and Development. June. Available Online at: <<http://www.epa.gov/ttnamti1/files/ambient/inorganic/iocompen.pdf>>.
- EPA, 1999a. “Compendium Method T0-4a – Determination of Pesticides and Polychlorinated Biphenyls in Ambient Air Using High Volume Polyurethane Foam (PUF) Sampling Followed by Gas Chromatographic/Multi-Detector Detection (GC/MD)”. Available Online at: <http://www.epa.gov/ttnamti1/files/ambient/airtox/to-4ar2r.pdf>
- EPA, 1999b. “Compendium Method T0-13a – Determination of Polycyclic Aromatic Hydrocarbons (PAHs) in Ambient Air Using Gas Chromatography/Mass Spectrometry (GC/MS)”. Available online at: <<http://www.epa.gov/ttnamti1/files/ambient/airtox/to-13arr.pdf>>
- EPA, 2007. “Method 12 – Determination of Inorganic Lead Emissions from Stationary Sources.” Available Online at: <<http://www.epa.gov/ttn/emc/methods/method12.html>>.
- National Institute for Occupational Safety and Health, 1994. “Asbestos and Other Fibers by PCM.” August 15. Available Online at: <<http://www.cdc.gov/niosh/docs/2003-154/pdfs/7400.pdf>>

## **Figures**

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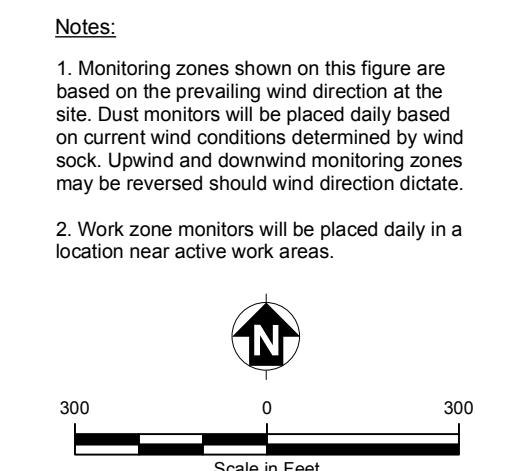


**LEGEND:**

- Air Monitoring Station
- On-Site Weather Station
- Dust Monitoring Station Location
- Tenant Access Permitted
- Tenant Access Permitted (Escort Required)
- Construction Zone - No Public Access
- Parcel B Boundary
- Existing Building
- Non-Navy Property
- Road
- Temporary Fence
- Fence

**NOTES:**

- Monitoring zones shown on this figure are based on the prevailing wind direction at the site. Dust monitors will be placed daily based on current wind conditions determined by wind sock. Upwind and downwind monitoring zones may be reversed should wind direction dictate.
- Work zone monitors will be placed daily in a location near active work areas.



**ERRG** ENGINEERING/REMEDIATION  
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**Hunters Point Naval Shipyard, San Francisco, California**  
Department of the Navy, BRAC PMO West, San Diego, California

**FIGURE 1**  
**AIR MONITORING LOCATIONS  
AND WIND DATA SUMMARY MAP,  
NOVEMBER 2012 - JANUARY 2013**

## **Attachment 1. Air Monitoring Results**

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**Table A-1. Ambient Pressure and Temperature Monitoring Results**

Date	Ambient Pressure (inches of mercury)	Ambient Temperature (degrees Celsius)
13-Nov-12	30.10	14.7
13-Nov-12	30.10	14.7
14-Nov-12	30.00	14.1
14-Nov-12	30.00	14.1
15-Nov-12	29.96	15.2
15-Nov-12	29.96	15.2
16-Nov-12	29.89	15.6
16-Nov-12	29.89	15.6
17-Nov-12	30.09	13.9
17-Nov-12	30.09	13.9
18-Nov-12	30.19	14.9
18-Nov-12	30.19	14.9
26-Nov-12	30.07	12.3
26-Nov-12	30.07	12.3
27-Nov-12	29.94	15.1
27-Nov-12	29.94	15.1
28-Nov-12	30.00	15.0
28-Nov-12	30.00	15.0
29-Nov-12	29.89	16.5
29-Nov-12	29.89	16.5
10-Dec-12	30.08	12.7
10-Dec-12	30.08	12.7
11-Dec-12	29.88	11.9
11-Dec-12	29.88	11.9
12-Dec-12	29.89	9.2
12-Dec-12	29.89	9.2
13-Dec-12	29.89	9.0
13-Dec-12	29.89	9.0
14-Dec-12	30.03	7.6
14-Dec-12	30.03	7.6
15-Dec-12	30.06	10.8
15-Dec-12	30.06	10.8
16-Dec-12	30.02	12.6
16-Dec-12	30.02	12.6
26-Dec-12	30.10	10.6
26-Dec-12	30.10	10.6
27-Dec-12	30.15	8.3
27-Dec-12	30.15	8.3
28-Dec-12	30.04	9.1
28-Dec-12	30.04	9.1
29-Dec-12	30.09	8.3
29-Dec-12	30.09	8.3
08-Jan-13	30.12	10.1
08-Jan-13	30.12	10.1
09-Jan-13	30.09	8.8
09-Jan-13	30.09	8.8
10-Jan-13	30.19	8.6

**Table A-1. Ambient Pressure and Temperature Monitoring Results**

Date	Ambient Pressure (inches of mercury)	Ambient Temperature (degrees Celsius)
10-Jan-13	30.19	8.6
11-Jan-13	30.19	7.5
11-Jan-13	30.19	7.5
12-Jan-13	30.21	7.1
12-Jan-13	30.21	7.1
13-Jan-13	30.35	7.1
13-Jan-13	30.35	7.1
16-Jan-13	30.28	8.1
16-Jan-13	30.28	8.1
17-Jan-13	30.18	9.7
17-Jan-13	30.18	9.7
21-Jan-13	30.12	9.3
21-Jan-13	30.12	9.3
22-Jan-13	30.03	11.2
22-Jan-13	30.03	11.2
23-Jan-13	30.08	10.9
23-Jan-13	30.08	10.9
24-Jan-13	30.15	12.1
24-Jan-13	30.15	12.1
28-Jan-13	30.28	9.6
28-Jan-13	30.28	9.6
29-Jan-13	30.31	9.7
29-Jan-13	30.31	9.7
30-Jan-13	30.28	10.7
30-Jan-13	30.28	10.7
31-Jan-13	30.20	11.2
31-Jan-13	30.20	11.2

**Table A-2a. TSP and Metals Monitoring Results - Daily**

Sample Date	Sample Location	Sampling Period (hours)	Sample Volume (m <sup>3</sup> )	TSP (mg/m <sup>3</sup> )	TSP Exceedance? (Yes/No)	Arsenic (µg/m <sup>3</sup> )	Arsenic Exceedance? (Yes/No)	Lead (µg/m <sup>3</sup> )	Lead Exceedance? (Yes/No)	Manganese (µg/m <sup>3</sup> )	Manganese Exceedance? (Yes/No)
13-Nov-12	1	24.0	1707.8	0.0451	No	0.0000	No	0.0000	No	0.0263	No
13-Nov-12	2	23.6	1675.8	0.0579	No	0.0000	No	0.0000	No	0.0298	No
14-Nov-12	1	24.0	1714.9	0.0420	No	0.0000	No	0.0000	No	0.0233	No
14-Nov-12	2	23.4	1687.9	0.0344	No	0.0000	No	0.0000	No	0.0196	No
15-Nov-12	1	25.2	1788.3	0.0363	No	0.0000	No	0.0000	No	0.0185	No
15-Nov-12	2	25.4	1807.4	0.0415	No	0.0000	No	0.0000	No	0.0415	No
16-Nov-12	1	10.3	731.1	0.0137	No	0.0000	No	0.0000	No	0.0000	No
16-Nov-12	2	24.4	1729.7	0.0116	No	0.0000	No	0.0000	No	0.0000	No
17-Nov-12	1	24.0	1716.4	0.0163	No	0.0000	No	0.0000	No	0.0000	No
17-Nov-12	2	24.1	1718.8	0.0180	No	0.0000	No	0.0000	No	0.0000	No
18-Nov-12	1	25.0	1785.8	0.0274	No	0.0000	No	0.0000	No	0.0000	No
18-Nov-12	2	25.0	1785.8	0.0213	No	0.0000	No	0.0000	No	0.0000	No
26-Nov-12	1	24.1	1724.1	0.0307	No	0.0000	No	0.0000	No	0.0000	No
26-Nov-12	2	24.6	1763.5	0.0459	No	0.0000	No	0.0000	No	0.0244	No
27-Nov-12	1	24.2	1713.0	0.0292	No	0.0000	No	0.0000	No	0.0000	No
27-Nov-12	2	15.3	1083.3	0.0932	No	0.0000	No	0.8770	No	0.1108	No
28-Nov-12	1	25.3	1793.9	0.0162	No	0.0000	No	0.0000	No	0.0000	No
28-Nov-12	2	24.9	1766.6	0.0204	No	0.0000	No	0.0000	No	0.0000	No
29-Nov-12	1	26.8	1890.0	0.0169	No	0.0000	No	0.0000	No	0.0000	No
29-Nov-12	2	26.9	1894.3	0.0195	No	0.0000	No	0.0000	No	0.0000	No
10-Dec-12	1	24.8	1768.7	0.0317	No	0.0000	No	0.0000	No	0.0221	No
10-Dec-12	2	25.2	1796.1	0.0312	No	0.0000	No	0.0000	No	0.0212	No
11-Dec-12	1	25.0	1778.0	0.0146	No	0.0000	No	0.0000	No	0.0000	No
11-Dec-12	2	24.6	1747.2	0.0223	No	0.0000	No	0.0000	No	0.0000	No
12-Dec-12	1	24.1	1722.5	0.0139	No	0.0000	No	0.0000	No	0.0000	No
12-Dec-12	2	24.4	1740.5	0.0477	No	0.0000	No	0.0000	No	0.0419	No
13-Dec-12	1	24.7	1765.0	0.0164	No	0.0000	No	0.0000	No	0.0000	No
13-Dec-12	2	24.6	1754.3	0.0291	No	0.0000	No	0.0000	No	0.0182	No
14-Dec-12	1	25.3	1825.5	0.0197	No	0.0000	No	0.0000	No	0.0000	No
14-Dec-12	2	25.5	1837.4	0.0163	No	0.0000	No	0.0000	No	0.0000	No
15-Dec-12	1	24.8	1781.2	0.0079	No	0.0000	No	0.0000	No	0.0000	No
15-Dec-12	2	24.5	1754.9	0.0057	No	0.0000	No	0.0000	No	0.0000	No
16-Dec-12	1	24.2	1730.8	0.0156	No	0.0000	No	0.0000	No	0.0000	No
16-Dec-12	2	24.1	1715.5	0.0245	No	0.0000	No	0.0000	No	0.0000	No
26-Dec-12	1	25.0	1792.7	0.0128	No	0.0000	No	0.0000	No	0.0000	No
26-Dec-12	2	25.0	1793.9	0.0173	No	0.0000	No	0.0000	No	0.0000	No
27-Dec-12	1	24.5	1770.3	0.0181	No	0.0000	No	0.0000	No	0.0000	No
27-Dec-12	2	24.3	1749.9	0.0223	No	0.0000	No	0.0000	No	0.0000	No
28-Dec-12	1	26.5	1903.5	0.0158	No	0.0000	No	0.0000	No	0.0000	No
28-Dec-12	2	26.4	1897.1	0.0121	No	0.0000	No	0.0000	No	0.0000	No

**Table A-2a. TSP and Metals Monitoring Results - Daily**

Sample Date	Sample Location	Sampling Period (hours)	Sample Volume (m <sup>3</sup> )	TSP (mg/m <sup>3</sup> )	TSP Exceedance? (Yes/No)	Arsenic (µg/m <sup>3</sup> )	Arsenic Exceedance? (Yes/No)	Lead (µg/m <sup>3</sup> )	Lead Exceedance? (Yes/No)	Manganese (µg/m <sup>3</sup> )	Manganese Exceedance? (Yes/No)
29-Dec-12	1	25.2	1817.1	0.0193	No	0.0000	No	0.0000	No	0.0000	No
29-Dec-12	2	25.3	1819.5	0.0209	No	0.0000	No	0.0000	No	0.0000	No
08-Jan-13	3	23.9	1710.9	0.0368	No	0.0000	No	0.0000	No	0.0000	No
08-Jan-13	4	25.2	1806.5	0.0393	No	0.0000	No	0.0000	No	0.0161	No
09-Jan-13	3	24.3	1744.5	0.0149	No	0.0000	No	0.0000	No	0.0000	No
09-Jan-13	4	24.3	1744.5	0.0172	No	0.0000	No	0.0000	No	0.0000	No
10-Jan-13	3	24.3	1747.8	0.0195	No	0.0000	No	0.0000	No	0.0000	No
10-Jan-13	4	24.3	1753.7	0.0251	No	0.0000	No	0.0000	No	0.0000	No
11-Jan-13	3	25.7	1856.3	0.0140	No	0.0000	No	0.0000	No	0.0000	No
11-Jan-13	4	26.0	1880.6	0.0191	No	0.0000	No	0.0000	No	0.0000	No
12-Jan-13	3	24.7	1784.4	0.0163	No	0.0000	No	0.0000	No	0.0000	No
12-Jan-13	4	24.8	1794.0	0.0256	No	0.0000	No	0.0000	No	0.0167	No
13-Jan-13	3	25.2	1829.4	0.0306	No	0.0000	No	0.0000	No	0.0213	No
13-Jan-13	4	25.2	1831.9	0.0868	No	0.0000	No	0.0000	No	0.0530	No
16-Jan-13	1	25.8	1868.3	0.0498	No	0.0000	No	0.0000	No	0.0209	No
16-Jan-13	2	25.6	1854.0	0.0642	No	0.0000	No	0.0000	No	0.0356	No
17-Jan-13	1	26.0	1866.7	0.0573	No	0.0000	No	0.0000	No	0.0305	No
17-Jan-13	2	25.7	1849.0	0.0487	No	0.0000	No	0.0000	No	0.0222	No
21-Jan-13	1	24.6	1760.3	0.0523	No	0.0000	No	0.0000	No	0.0267	No
21-Jan-13	2	24.7	1773.4	0.0485	No	0.0000	No	0.0000	No	0.0209	No
22-Jan-13	1	25.4	1805.0	0.0659	No	0.0000	No	0.0000	No	0.0321	No
22-Jan-13	2	25.8	1839.7	0.0527	No	0.0000	No	0.0000	No	0.0234	No
23-Jan-13	1	24.2	1723.8	0.0273	No	0.0000	No	0.0000	No	0.0000	No
23-Jan-13	2	24.9	1777.3	0.0248	No	0.0000	No	0.0000	No	0.0000	No
24-Jan-13	1	25.1	1784.4	0.0303	No	0.0000	No	0.0000	No	0.0185	No
24-Jan-13	2	23.9	1701.4	0.0212	No	0.0000	No	0.0000	No	0.0000	No
28-Jan-13	1	25.1	1806.3	0.0161	No	0.0000	No	0.0000	No	0.0000	No
28-Jan-13	2	25.2	1819.5	0.0170	No	0.0000	No	0.0000	No	0.0000	No
29-Jan-13	1	24.5	1761.0	0.0295	No	0.0000	No	0.0000	No	0.0000	No
29-Jan-13	2	24.6	1771.8	0.0288	No	0.0000	No	0.0000	No	0.0000	No
30-Jan-13	1	24.5	1754.6	0.0296	No	0.0000	No	0.0000	No	0.0160	No
30-Jan-13	2	24.2	1738.9	0.0224	No	0.0000	No	0.0000	No	0.0000	No
31-Jan-13	1	27.3	1948.1	0.0477	No	0.0000	No	0.0000	No	0.0236	No
31-Jan-13	2	27.3	1949.3	0.0380	No	0.0000	No	0.0000	No	0.0139	No

Notes:

Threshold value for TSP = 0.5 mg/m<sup>3</sup>

Threshold value for arsenic = 10 µg/m<sup>3</sup>

Threshold value for lead = 50 µg/m<sup>3</sup>

Threshold value for manganese = 200 µg/m<sup>3</sup>

Detection limit for TSP is 0.06 µg/m<sup>3</sup> (assuming a minimum sample volume of 1,600 m<sup>3</sup>)

Detection limits for arsenic, lead, and manganese are 16 ng/m<sup>3</sup> (assuming minimum sample volumes of 1,600 m<sup>3</sup>)

m<sup>3</sup> = cubic meters

mg/m<sup>3</sup> = milligrams per cubic meter

TSP = total suspended particulates

µg/m<sup>3</sup> = milligrams per cubic meter

**Table A-2b. TSP and Metals Monitoring Results - Expanded Suite**

Sample Date	Sample Location	Sampling Period (hours)	Sample Volume (m <sup>3</sup> )	Aluminum <sup>A</sup> (µg/m <sup>3</sup> )	Aluminum Exceedance? (Yes/No)	Antimony <sup>A</sup> (µg/m <sup>3</sup> )	Antimony Exceedance? (Yes/No)	Cadmium <sup>A</sup> (µg/m <sup>3</sup> )	Cadmium Exceedance? (Yes/No)	Copper <sup>A</sup> (µg/m <sup>3</sup> )	Copper Exceedance? (Yes/No)	Iron <sup>A</sup> (µg/m <sup>3</sup> )	Iron Exceedance? (Yes/No)	Mercury <sup>A</sup> (µg/m <sup>3</sup> )	Mercury Exceedance? (Yes/No)	Vanadium <sup>A</sup> (µg/m <sup>3</sup> )	Vanadium Exceedance? (Yes/No)	Zinc <sup>A</sup> (µg/m <sup>3</sup> )	Zinc Exceedance? (Yes/No)
13-Nov-12	1	24.0	1707.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
13-Nov-12	2	23.6	1675.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
14-Nov-12	1	24.0	1714.9	0.6997	No	0.0000	No	0.0000	No	0.1399	No	1.2246	No	0.0000	No	0.0000	No	0.0583	No
14-Nov-12	2	23.4	1687.9	0.5924	No	0.0000	No	0.0000	No	0.0770	No	0.9479	No	0.0000	No	0.0000	No	0.0427	No
15-Nov-12	1	25.2	1788.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
15-Nov-12	2	25.4	1807.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
16-Nov-12	1	10.3	731.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
16-Nov-12	2	24.4	1729.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
17-Nov-12	1	24.0	1716.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
17-Nov-12	2	24.1	1718.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
18-Nov-12	1	25.0	1785.8	0.5152	No	0.0000	No	0.0000	No	0.0896	No	0.6160	No	0.0000	No	0.0000	No	0.0000	No
18-Nov-12	2	25.0	1785.8	0.3640	No	0.0000	No	0.0000	No	0.0728	No	0.3080	No	0.0000	No	0.0000	No	0.0000	No
26-Nov-12	1	24.1	1724.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
26-Nov-12	2	24.6	1763.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
27-Nov-12	1	24.2	1713.0	0.5721	No	0.0000	No	0.0000	No	0.1518	No	0.6422	No	0.0000	No	0.0000	No	0.0000	No
27-Nov-12	2	15.3	1083.3	1.2000	No	0.0000	No	0.0000	No	0.2123	No	14.7697	No	0.0000	No	0.0000	No	0.4523	No
28-Nov-12	1	25.3	1793.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
28-Nov-12	2	24.9	1766.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
29-Nov-12	1	26.8	1890.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
29-Nov-12	2	26.9	1894.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10-Dec-12	1	24.8	1768.7	0.7915	No	0.0000	No	0.0000	No	0.4240	No	1.4700	No	0.0000	No	0.0000	No	0.0735	No
10-Dec-12	2	25.2	1796.1	0.5568	No	0.0000	No	0.0000	No	0.1726	No	1.1136	No	0.0000	No	0.0000	No	0.0668	No
11-Dec-12	1	25.0	1778.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
11-Dec-12	2	24.6	1747.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
12-Dec-12	1	24.1	1722.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
12-Dec-12	2	24.4	1740.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
13-Dec-12	1	24.7	1765.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
13-Dec-12	2	24.6	1754.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
14-Dec-12	1	25.3	1825.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
14-Dec-12	2	25.5	1837.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
15-Dec-12	1	24.8	1781.2	0.4547	No	0.0000	No	0.0000	No	0.1347	No	0.5614	No	0.0000	No	0.0000	No	0.0000	No
15-Dec-12	2	24.5	1754.9	0.3704	No	0.0000	No	0.0000	No	0.0570	No	0.3305	No	0.0000	No	0.0000	No	0.0291	No
16-Dec-12	1	24.2	1730.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
16-Dec-12	2	24.1	1715.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
26-Dec-12	1	25.0	1792.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
26-Dec-12	2	25.0	1793.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
27-Dec-12	1	24.5	1770.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
27-Dec-12	2	24.3	1749.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
28-Dec-12	1	26.5	1903.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
28-Dec-12	2	26.4	1897.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
29-Dec-12	1	25.2	1817.1	0.3852	No	0.0000	No	0.0000	No	0.1541	No	0.3962	No	0.0000	No	0.0000	No	0.0000	No
29-Dec-12	2	25.3	1819.5	0.4287	No	0.0000	No	0.0000	No	0.2363	No	0.4507	No	0.0000	No	0.0000	No	0.0379	No
08-Jan-13	3	23.9	1710.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
08-Jan-13	4	25.2	1806.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
09-Jan-13	3	24.3	1744.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
09-Jan-13	4	24.3	1744.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10-Jan-13	3	24.3	1747.8	0.4177	No	0.0000	No	0.0000	No	0.5721									

**Table A-2b. TSP and Metals Monitoring Results - Expanded Suite**

Sample Date	Sample Location	Sampling Period (hours)	Sample Volume (m <sup>3</sup> )	Aluminum <sup>A</sup> (µg/m <sup>3</sup> )	Aluminum Exceedance? (Yes/No)	Antimony <sup>A</sup> (µg/m <sup>3</sup> )	Antimony Exceedance? (Yes/No)	Cadmium <sup>A</sup> (µg/m <sup>3</sup> )	Cadmium Exceedance? (Yes/No)	Copper <sup>A</sup> (µg/m <sup>3</sup> )	Copper Exceedance? (Yes/No)	Iron <sup>A</sup> (µg/m <sup>3</sup> )	Iron Exceedance? (Yes/No)	Mercury <sup>A</sup> (µg/m <sup>3</sup> )	Mercury Exceedance? (Yes/No)	Vanadium <sup>A</sup> (µg/m <sup>3</sup> )	Vanadium Exceedance? (Yes/No)	Zinc <sup>A</sup> (µg/m <sup>3</sup> )	Zinc Exceedance? (Yes/No)
16-Jan-13	2	25.6	1854.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
17-Jan-13	1	26.0	1866.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
17-Jan-13	2	25.7	1849.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
21-Jan-13	1	24.6	1760.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
21-Jan-13	2	24.7	1773.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
22-Jan-13	1	25.4	1805.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
22-Jan-13	2	25.8	1839.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
23-Jan-13	1	24.2	1723.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
23-Jan-13	2	24.9	1777.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
24-Jan-13	1	25.1	1784.4	0.9527	No	0.0000	No	0.0000	No	0.2466	No	1.0648	No	0.0000	No	0.0000	No	0.1289	No
24-Jan-13	2	23.9	1701.4	0.6465	No	0.0000	No	0.0000	No	0.0705	No	0.4114	No	0.0000	No	0.0000	No	0.0647	No
28-Jan-13	1	25.1	1806.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
28-Jan-13	2	25.2	1819.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
29-Jan-13	1	24.5	1761.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
29-Jan-13	2	24.6	1771.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
30-Jan-13	1	24.5	1754.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
30-Jan-13	2	24.2	1738.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
31-Jan-13	1	27.3	1948.1	0.8727	No	0.0000	No	0.0000	No	0.2567	No	1.2320	No	0.0000	No	0.0000	No	0.0467	No
31-Jan-13	2	27.3	1949.3	0.6156	No	0.0000	No	0.0000	No	0.1129	No	0.7182	No	0.0000	No	0.0000	No	0.0457	No

Notes:

<sup>A</sup> = Analyte is part of an expanded suite; samples are only analyzed once per week for this analyte

Threshold value for aluminum = 10000 µg/m<sup>3</sup>

Threshold value for antimony = 500 µg/m<sup>3</sup>

Threshold value for cadmium = 5 µg/m<sup>3</sup>

Threshold value for copper = 1000 µg/m<sup>3</sup>

Threshold value for iron = 1000 µg/m<sup>3</sup>

Threshold value for mercury = 25 µg/m<sup>3</sup>

Threshold value for vanadium = 50 µg/m<sup>3</sup>

Threshold value for Zinc = 10000 µg/m<sup>3</sup>

Detection limits for metals are 16 ng/m<sup>3</sup> (assuming minimum sample volumes of 1,600 m<sup>3</sup>)

m<sup>3</sup> = cubic meters

mg/m<sup>3</sup> = milligrams per cubic meter

TSP = total suspended particulates

µg/m<sup>3</sup> = milligrams per cubic meter

N/A = not applicable, analyte was sampled for once a week over this time period.

**Table A-3. PM<sub>10</sub> Monitoring Results**

Sample Date	Sample Location	Sampling Period (hours)	Sample Volume (m <sup>3</sup> )	PM <sub>10</sub> (µg/m <sup>3</sup> )	PM <sub>10</sub> Exceedance? (Yes/No)
13-Nov-12	1	24.0	1690.3	21.298	No
13-Nov-12	2	23.6	1660.0	23.494	No
14-Nov-12	1	24.0	1697.8	28.861	No
14-Nov-12	2	23.4	1651.4	30.277	No
15-Nov-12	1	25.2	1770.4	23.159	No
15-Nov-12	2	25.4	1776.8	25.327	No
16-Nov-12	1	10.3	726.3	12.392	No
16-Nov-12	2	24.4	1705.5	14.072	No
17-Nov-12	1	24.0	1701.6	14.693	No
17-Nov-12	2	24.1	1702.5	15.271	No
18-Nov-12	1	25.0	1770.4	18.075	No
18-Nov-12	2	25.0	1775.2	17.463	No
26-Nov-12	1	24.1	1709.2	27.499	No
26-Nov-12	2	24.6	1748.2	28.601	No
27-Nov-12	1	24.2	1698.1	20.022	No
27-Nov-12	2	15.3	1073.9	35.385	No
28-Nov-12	1	25.3	1778.3	14.621	No
28-Nov-12	2	24.9	1753.7	19.388	No
29-Nov-12	1	26.8	1873.7	16.545	No
29-Nov-12	2	26.9	1895.7	15.825	No
10-Dec-12	1	24.8	1755.7	19.365	No
10-Dec-12	2	25.2	1778.1	21.372	No
11-Dec-12	1	25.0	1762.6	12.482	No
11-Dec-12	2	24.6	1734.4	13.261	No
12-Dec-12	1	24.1	1707.5	11.127	No
12-Dec-12	2	24.4	1730.0	19.654	No
13-Dec-12	1	24.7	1751.9	11.987	No
13-Dec-12	2	24.6	1741.3	16.654	No
14-Dec-12	1	25.3	1809.6	14.921	No
14-Dec-12	2	25.5	1823.8	15.353	No
15-Dec-12	1	24.8	1765.7	8.495	No
15-Dec-12	2	24.5	1742.0	8.611	No
16-Dec-12	1	24.2	1715.8	13.405	No
16-Dec-12	2	24.1	1705.2	16.421	No
26-Dec-12	1	25.0	1781.9	9.540	No
26-Dec-12	2	25.0	1783.1	11.777	No
27-Dec-12	1	24.5	1750.1	13.713	No
27-Dec-12	2	24.3	1737.0	16.696	No
28-Dec-12	1	26.5	1886.9	12.189	No
28-Dec-12	2	26.4	1885.7	11.667	No
29-Dec-12	1	25.2	1796.4	15.030	No
29-Dec-12	2	25.3	1808.5	16.036	No
08-Jan-13	3	23.9	1700.6	31.165	No
08-Jan-13	4	25.2	1795.6	30.073	No
09-Jan-13	3	24.3	1731.6	10.395	No
09-Jan-13	4	24.3	1731.6	11.550	No
10-Jan-13	3	24.3	1741.9	13.778	No
10-Jan-13	4	24.3	1743.1	16.063	No
11-Jan-13	3	25.7	1845.0	11.924	No
11-Jan-13	4	26.0	1864.2	11.801	No
12-Jan-13	3	24.7	1775.9	11.262	No
12-Jan-13	4	24.8	1783.1	10.095	No
13-Jan-13	3	25.2	1818.3	15.949	No
13-Jan-13	4	25.2	1820.8	19.223	No
16-Jan-13	1	25.8	1852.0	36.176	No
16-Jan-13	2	25.6	1837.9	35.911	No
17-Jan-13	1	26.0	1850.5	36.748	No
17-Jan-13	2	25.7	1832.9	32.736	No
21-Jan-13	1	24.6	1752.0	37.671	No
21-Jan-13	2	24.7	1762.7	34.606	No

**Table A-3. PM<sub>10</sub> Monitoring Results**

Sample Date	Sample Location	Sampling Period (hours)	Sample Volume (m <sup>3</sup> )	PM <sub>10</sub> (µg/m <sup>3</sup> )	PM <sub>10</sub> Exceedance? (Yes/No)
22-Jan-13	1	25.4	1799.0	41.133	No
22-Jan-13	2	25.8	1828.7	38.826	No
23-Jan-13	1	24.2	1713.4	30.348	No
23-Jan-13	2	24.9	1761.8	27.245	No
24-Jan-13	1	25.1	1773.7	21.424	No
24-Jan-13	2	23.9	1686.6	21.937	No
28-Jan-13	1	25.1	1795.4	9.469	No
28-Jan-13	2	25.2	1803.7	11.088	No
29-Jan-13	1	24.5	1752.8	19.398	No
29-Jan-13	2	24.6	1756.3	21.067	No
30-Jan-13	1	24.5	1744.0	18.922	No
30-Jan-13	2	24.2	1726.1	17.959	No
31-Jan-13	1	27.3	1931.1	34.177	No
31-Jan-13	2	27.3	1937.5	30.451	No

## Notes:

Threshold value for PM<sub>10</sub> = 5,000 µg/m<sup>3</sup>Detection limit for PM<sub>10</sub> is 0.06 µg/m<sup>3</sup> (assuming a minimum sample volume of 1,600 m<sup>3</sup>)m<sup>3</sup> = cubic metersPM<sub>10</sub> = particulate matter of 10 micrometers or lessµg/m<sup>3</sup> = milligrams per cubic meter

**Table A-4. PCB Monitoring Results**

Sample Date	Sample Location	Sampling Period (hours)	Sample Volume (m <sup>3</sup> )	Aroclor-1016 (µg/m <sup>3</sup> )	Aroclor-1221 (µg/m <sup>3</sup> )	Aroclor-1232 (µg/m <sup>3</sup> )	Aroclor-1242 (µg/m <sup>3</sup> )	Aroclor-1248 (µg/m <sup>3</sup> )	Aroclor-1254 (µg/m <sup>3</sup> )	Aroclor-1260 (µg/m <sup>3</sup> )	Total PCBs (µg/m <sup>3</sup> )	Total PCBs Exceedance? (Yes/No)
14-Nov-12	2	23.4	387.6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	No
16-Nov-12	2	24.4	418.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	No
18-Nov-12	2	25.0	421.6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	No
27-Nov-12	1	24.2	352.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	No
27-Nov-12	2	15.3	259.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	No
29-Nov-12	1	26.8	389.2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	No
29-Nov-12	2	26.9	449.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	No
11-Dec-12	1	25.0	369.6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	No
11-Dec-12	2	24.6	416.6	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.002	No
13-Dec-12	1	24.7	373.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	No
13-Dec-12	2	24.6	420.4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	No
15-Dec-12	1	24.8	375.4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	No
15-Dec-12	2	24.5	404.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	No
26-Dec-12	1	25.0	375.0	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.002	No
26-Dec-12	2	25.0	410.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	No
28-Dec-12	1	26.5	401.1	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.002	No
28-Dec-12	2	26.4	430.6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	No
08-Jan-13	3	23.9	372.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	No
08-Jan-13	4	25.2	396.6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	No
10-Jan-13	3	24.3	386.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	No
10-Jan-13	4	24.3	384.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	No
12-Jan-13	3	24.7	400.4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	No
12-Jan-13	4	24.8	395.6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	No
16-Jan-13	1	25.8	401.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	No
16-Jan-13	2	25.6	411.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	No

## Notes:

Threshold value for total PCBs = 500 µg/m<sup>3</sup>Detection limit for PCBs is 0.0017 µg/m<sup>3</sup> (assuming a minimum sample volume of 300 m<sup>3</sup>)m<sup>3</sup> = cubic meters

PCB = polychlorinated biphenyl

µg/m<sup>3</sup> = milligrams per cubic meter

#### **Table A-5. PAH Monitoring Results**

## Notes

Threshold value for total PAHs = 200 µg/m<sup>3</sup>

Detection limit for PAHs is  $0.017 \text{ }\mu\text{g/m}^3$  (assuming a minimum sample

$\text{m}^3$  = cubic meters

PAH = polycyclic aromatic hydrocarbons

$\mu\text{g}/\text{m}^3$  = milligrams per cubic meter

**Table A-6. Asbestos Monitoring Results**

Sample Date	Sample Location	Sampling Period (hours)	Sample Volume (m <sup>3</sup> )	Asbestos (fibers/cm <sup>3</sup> )	Asbestos Exceedance? (Yes/No)
13-Nov-12	1	24.0	2.3	0.0000	No
13-Nov-12	2	23.6	2.7	0.0000	No
14-Nov-12	1	24.0	3.5	0.0000	No
14-Nov-12	2	23.4	2.9	0.0000	No
15-Nov-12	1	25.2	3.6	0.0010	No
15-Nov-12	2	25.4	3.2	0.0013	No
16-Nov-12	1	10.3	1.4	0.0000	No
16-Nov-12	2	24.4	3.0	0.0000	No
17-Nov-12	1	24.0	3.2	0.0000	No
17-Nov-12	2	24.1	3.0	0.0000	No
18-Nov-12	1	25.0	3.3	0.0000	No
18-Nov-12	2	25.0	3.1	0.0000	No
26-Nov-12	1	24.1	3.2	0.0000	No
26-Nov-12	2	24.6	3.4	0.0000	No
27-Nov-12	1	24.2	3.2	0.0000	No
27-Nov-12	2	15.3	2.0	0.0000	No
28-Nov-12	1	25.3	3.3	0.0000	No
28-Nov-12	2	24.9	3.4	0.0000	No
29-Nov-12	1	26.8	3.5	0.0000	No
29-Nov-12	2	26.9	3.5	0.0000	No
10-Dec-12	1	24.8	3.3	0.0000	No
10-Dec-12	2	25.2	3.3	0.0000	No
11-Dec-12	1	25.0	3.3	0.0000	No
11-Dec-12	2	24.6	3.2	0.0000	No
12-Dec-12	1	24.1	3.2	0.0000	No
12-Dec-12	2	24.4	3.2	0.0000	No
13-Dec-12	1	24.7	3.3	0.0000	No
13-Dec-12	2	24.6	3.3	0.0000	No
14-Dec-12	1	25.3	3.4	0.0000	No
14-Dec-12	2	25.5	3.4	0.0000	No
15-Dec-12	1	24.8	3.3	0.0000	No
15-Dec-12	2	24.5	3.3	0.0000	No
16-Dec-12	1	24.2	3.2	0.0000	No
16-Dec-12	2	24.1	3.2	0.0000	No
26-Dec-12	1	25.0	3.3	0.0000	No
26-Dec-12	2	25.0	3.3	0.0000	No
27-Dec-12	1	24.5	3.3	0.0000	No
27-Dec-12	2	24.3	3.3	0.0000	No
28-Dec-12	1	26.5	3.4	0.0000	No
28-Dec-12	2	26.4	3.5	0.0000	No
29-Dec-12	1	25.2	3.4	0.0000	No
29-Dec-12	2	25.3	3.4	0.0000	No
08-Jan-13	3	23.9	3.2	0.0000	No
08-Jan-13	4	25.2	3.4	0.0000	No
09-Jan-13	3	24.3	3.3	0.0000	No
09-Jan-13	4	24.3	3.3	0.0000	No
10-Jan-13	3	24.3	3.3	0.0000	No
10-Jan-13	4	24.3	3.3	0.0000	No
11-Jan-13	3	25.7	3.5	0.0000	No
11-Jan-13	4	26.0	3.7	0.0000	No
12-Jan-13	3	24.7	3.3	0.0000	No
12-Jan-13	4	24.8	3.4	0.0000	No

**Table A-6. Asbestos Monitoring Results**

Sample Date	Sample Location	Sampling Period (hours)	Sample Volume (m <sup>3</sup> )	Asbestos (fibers/cm <sup>3</sup> )	Asbestos Exceedance? (Yes/No)
13-Jan-13	3	25.2	3.4	0.0000	No
13-Jan-13	4	25.2	3.4	0.0000	No
16-Jan-13	1	25.8	3.5	0.0000	No
16-Jan-13	2	25.6	3.5	0.0008	No
17-Jan-13	1	26.0	3.5	0.0000	No
17-Jan-13	2	25.7	3.4	0.0000	No
21-Jan-13	1	24.6	3.3	0.0000	No
21-Jan-13	2	24.7	3.3	0.0000	No
22-Jan-13	1	25.4	3.4	0.0000	No
22-Jan-13	2	25.8	3.4	0.0000	No
23-Jan-13	1	24.2	3.2	0.0000	No
23-Jan-13	2	24.9	3.3	0.0000	No
24-Jan-13	1	25.1	3.3	0.0000	No
24-Jan-13	2	23.9	3.2	0.0000	No
28-Jan-13	1	25.1	3.4	0.0000	No
28-Jan-13	2	25.2	3.6	0.0000	No
29-Jan-13	1	24.5	3.3	0.0000	No
29-Jan-13	2	24.6	3.3	0.0000	No
30-Jan-13	1	24.5	3.3	0.0000	No
30-Jan-13	2	24.2	3.2	0.0000	No
31-Jan-13	1	27.3	3.6	0.0000	No
31-Jan-13	2	27.3	3.6	0.0000	No

Notes:

Threshold value for asbestos = 0.1 fibers per cm<sup>3</sup>Detection limit for asbestos is 0.003 fibers/cm<sup>3</sup> (assuming a minimum sample volume of 900 liters)cm<sup>3</sup> = cubic centimeter