Naval Facilities Engineering Systems Command Southwest
BRAC PMO West
San Diego, CA

Interim

Air Sampling Summary Report No. 04

Data Date Range: August 24, 2020 through February 5, 2021
Parcel G

Former Hunters Point Naval Shipyard, San Francisco, CA

March 2021

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DCN: APTM-0006-5065-0038

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Prepared for:

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Acronyms and Abbreviations

µCi/mL	microcurie per milliliter
µg/m^3	microgram per cubic meter
^{232}Th	thorium-232
APTIM	Aptim Federal Services, LLC
BAAQMD	Bay Area Air Quality Management District
DMP	Final, Revision 1, Dust Management and Air Monitoring Plan
DTSC	California Department of Toxic Substances Control
EPA	U.S. Environmental Protection Agency
HERO	Human and Ecological Risk Office
LCS	laboratory control sample
LCSD	laboratory control sample duplicate
MS	matrix spike
MSD	matrix spike duplicate
NIST	National Institute of Standards and Technology
NORM	naturally occurring radioactive material
PM2.5	particulate matter larger than 2.5 microns in size
PM10	particulate matter larger than 10 microns in size
ROC	radionuclide of concern
RPD	relative percent difference
SDG	sample delivery group
TSP	total suspended particulates

1.0 Introduction

Aptim Federal Services, LLC (APTIM) is providing environmental remediation services to the U.S. Department of the Navy under the Radiological Environmental Multiple Award Contract, Contract Number N62473-17-D-0006, Contract Task Order N6247318F5065. APTIM is performing air sampling of fugitive dust emissions in support of Parcel G removal activities in accordance with the Final, Revision 1, Dust Management and Air Monitoring Plan (DMP) (included as Appendix E of the *Final, Revision 1, Parcel G Removal Site Evaluation Work Plan Addendum, Hunters Point Naval Shipyard, San Francisco, California* [APTIM, 2020]). The DMP describes procedures to reduce fugitive dust during work activities and outlines air sampling procedures to ensure these procedures are effective. Air sampling ensures on-site worker safety and provides reasonable assurance of the protection of the surrounding residents and public receptors.

This summary report describes the following:

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

This summary report presents the air sampling analytical results from August 24, 2020 through February 5, 2021, and compares the results with the established action levels included in the DMP (APTIM, 2020 [Appendix E]).

2.0 Sampling Site Locations

Air sampling stations were mobilized to collect air samples upwind and downwind of work areas for the duration of the project. The predominant wind direction at former Hunters Point Naval Shipyard is from the west or west-northwest. Figure 1 shows locations of air sampling stations and predominant wind direction. For the fieldwork performed during this period, APTIM used one upwind sampling location and two downwind sampling locations marked as follows:

- “Air Sampling Station 1 (Upwind)”
- “Air Sampling Station 17 (Downwind)”
- “Air Sampling Station 17A (Downwind)”
- “Air Sampling Station 18 (Downwind)”

The Downwind Air Sampling Stations 17, 17A, or 18 were used based on the location of fieldwork. One downwind sampling station was in use at a time. A windsock installed on site was used to show wind direction and weather forecasts were checked daily at www.noaa.gov. Sampling stations remained stationary while sampling was conducted. Each sampling station included four separate air sampling systems for the following:

- Total suspended particulates (TSP) and metals (lead and manganese)
- Particulate matter larger than 10 microns in size (PM10)
- Asbestos
- Radionuclides of concern (ROCs)

3.0 Analytical Methods

TSP, Lead, and Manganese: TSP samples were 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, Part 50, Appendix B. Each sample was collected on a filter over the course of a period not to exceed 25 hours; the filter was then weighed to determine the amount of TSP collected. Once the amount of TSP was determined, the sample was analyzed for lead and manganese in accordance with one of the IO-3 methods identified in the *Compendium of Methods for the Determination of Inorganic Compounds in Ambient Air* (EPA, 1999). The equipment specifications and sampling procedures used, including the sampling apparatus, filters, equipment accuracy, equipment calibration, and quality assurance checks conformed to those specified in the analytical method. The TSP high-volume samplers were calibrated using a National Institute of Standards and Technology (NIST)-traceable flow controller to 40.0 cubic feet per minute on a monthly basis and flowrates were recorded daily and adjusted as needed to maintain the flowrates.

PM10: Air samples were collected and analyzed for PM10 in accordance with EPA's reference sampling method for PM10, described in 40 Code of Federal Regulations Part 50, Appendix J. Each sample was collected on a filter over the course of a period not to exceed 25 hours; the filter was then weighed to evaluate the concentrations of PM10 in ambient air. The PM10 high-volume samplers were calibrated using a NIST-traceable flow controller to 40.0 cubic feet per minute on a monthly basis and flowrates were recorded daily and adjusted as needed to maintain flowrates.

Asbestos: Air samples were collected and analyzed for asbestos in accordance with the National Institute for Occupational Safety and Health Method 7400, in the *NIOSH Manual of Analytical Methods* (1994). Method 7400 requires that samples be collected on three-piece cellulose ester filters, which are fitted with conductive cowlings, at a sampling rate of between 0.5 liter per minute and 16 liters per minute. Each sample was collected on a filter over the course of a period not to exceed 25 hours. The GilAir Plus pumps were calibrated using a NIST-traceable flow controller to 2.0 liters per minute on a monthly basis, and flowrates were recorded daily and adjusted as needed to maintain flowrates.

ROCs: Air samples were collected and analyzed for ROCs to demonstrate dust management controls were protective of worker health and public health for off-site

receptors. Radiological air samples were collected using low-volume air samplers, F&J Specialty Products, Inc. Model LV-1D over 104 hours (Monday morning to Friday afternoon) to achieve the sample volume required to provide minimum detectable activities below the action levels. The samples were analyzed at the off-site laboratory for Gamma Spectroscopy (EPA 901.1/DOE EML HASL-300), gas flow proportional counting (EPA Method 905.0), and Alpha Spectroscopy.

4.0 Analysis of Air Sampling Data

Analytical results from air sampling samples were compared with the action levels listed in Table 4-1 and in accordance with the DMP (APTIM, 2020 [Appendix E]).

Table 4-1: Air Sampling Action Levels

Test Parameters	Action Level	Basis
PM10	50 µg/m^3	DTSC HERO developed action level (residents and public receptors) [a]
	5,000 µg/m^3 [b]	Cal/OSHA PEL (on-site workers)
TSP	500 µg/m^3	Basewide HPNS level chosen to minimize overall permissible dust release from sites (on-site workers)
Lead	50 µg/m^3	Cal/OSHA PEL (on-site workers)
Manganese	200 µg/m^3	Cal/OSHA PEL (on-site workers)
Asbestos	0.1 fiber/cm^3	Cal/OSHA PEL (on-site workers)
Cesium-137	4.00E-11 µCi/mL	10 CFR, Part 20, Appendix B, Table 2 Column 1 adjusted from 50 mrem per year to a maximum annual exposure of 10 mrem per year at the receptor (public receptor) [c]
Plutonium-239	4.00E-15 µCi/mL	
Radium-226	1.80E-13 µCi/mL	
Strontium-90	1.20E-12 µCi/mL	
Thorium-232	1.20E-15 µCi/mL	
Uranium-235	6.00E-13 µCi/mL	

Notes:

[a] The DTSC HERO action level is based on the CSAAQS. The CSAAQS is designed to protect the general public from airborne particulates generated in the urban, suburban, and rural environments. The CSAAQS is not meant to be applied to general project-specific construction actions and related air quality. Rather, the standard is used to attain city- or regional-wide ambient air quality goals for the benefit of the general public. The current CSAAQS for PM10 is 50 µg/m^3 average per 24-hour day. The City and County of San Francisco is currently a non-attainment area for the CSAAQS for PM10.

[b] Cal/OSHA PEL for particulates not otherwise regulated (respiratory) used for PM10.

[c] Results may be evaluated using 40 CFR Appendix E to Part 61 to demonstrate compliance with the National Emission Standards for Hazardous Air Pollutants (40 CFR Part 61).

µCi/mL	microcurie per milliliter (activity)
µg/m^3	microgram per cubic meter
Cal/OSHA	California Occupational Safety and Health Administration
CFR	Code of Federal Regulations
CSAAQS	California State ambient air quality standard

DTSC	California Department of Toxic Substances Control
fiber/cm^3	fiber per cubic centimeter
HERO	Human and Ecological Risk Office
HPNS	former Hunters Point Naval Shipyard
mrem	millirem
PEL	permissible exposure limit
PM10	particulate matter larger than 10 microns in diameter
TSP	total suspended particulates

5.0 Air Sampling Results

The tables included as Attachment 1 present weather information (including ambient pressure and temperature data) and air sampling results. Air sampling data were collected from the upwind sampling station and downwind sampling station (Section 2.0). Table 5-1 lists each interim air sampling report and the dates covered in each report.

Table 5-1: Air Sampling Report Summary

Interim Report Number	New Data Date Range
01	08/24/20–09/11/20
02	09/14/20–09/25/20
03	09/28/20–12/05/20
04	12/07/20–02/05/21

5.1 Report 01

There were no site-related exceedances above air sampling threshold criteria and action levels during this reporting period.

There were PM10 exceedances (above 50 micrograms per cubic meter [µg/m^3]) in both upwind and downwind samples on August 28, September 9, September 10, and September 11, 2020. PM10 concentrations were unusually high due to forest fires near the area and not related to site activities.

A summary of air sampling station downtime for the reporting period is as follows:

- August 24, 2020—The TSP sampler at the downwind air sampling station was down for approximately 1 hour. The generator was repaired on August 24 and replaced on August 25.
- August 27, 2020—While conducting daily filter changeouts, the air sampling technician noticed the upwind generator was shut off due to low fuel. The duration of shut off time is unknown. Generator was refueled and sampling was restarted at 0805.
- September 2, 2020—Downwind station was shut off for 15 minutes, from approximately 0830 to 0845. The generator exhaust was re-positioned downwind from the samplers to minimize pollutant contamination from the exhaust.

- September 8, 2020—Downwind sampling was shut off for approximately 1 hour, from 0922 to 1022. The station was relocated to Air Sampling Station 17A.

5.2 Report 02

There were no site-related exceedances above air sampling threshold criteria and action levels during this reporting period.

There was a PM10 exceedance (above 50 µg/m^3) in the downwind sample on September 14, 2020. PM10 concentrations were unusually high due to forest fires near the area and not related to site activities. The upwind sample from that day contributed 48.6 µg/m^3 and the downwind sample was 88.4 µg/m^3; the site-related PM10 concentration was 39.8 µg/m^3.

A summary of air sampling station downtime for the reporting period is as follows:

- September 16, 2020—The downwind sampling station was down for one hour while replacing the generator.
- September 18, 2020—The upwind sampling station was down for approximately 0.75 hours while replacing the generator.
- September 25, 2020—The upwind sampling station was down for approximately four hours due to a generator malfunction. The new generator was brought on site, and the upwind air sampling station returned to service at 1119.

5.3 Report 03

There were PM10 exceedances above the California Department of Toxic Substances Control (DTSC) Human and Ecological Risk Office (HERO) developed action level (50 µg/m^3) on the following dates (Attachment 1, Table 3):

- October 1, 2020 (upwind and downwind)
- October 2, 2020 (upwind and downwind)
- October 6, 2020 (upwind)
- October 15, 2020 (upwind and downwind)
- October 23, 2020 (upwind and downwind)
- October 28, 2020 (upwind)

- November 16, 2020 (upwind)
- November 21, 2020 (downwind)
- December 3, 2020 (upwind and downwind)
- December 4, 2020 (upwind and downwind)
- December 5, 2020 (upwind and downwind)

Air sampling results are subtracted based on predominant wind direction when wind speeds are greater than 5 miles per hour. Attachment 2 presents a summary of the subtraction criteria. Based on wind direction and wind speed, site-related PM10 concentrations were below the 50 µg/m^3 action level on October 2, 2020, October 6, 2020, October 23, 2020, and October 28, 2020.

In early October, PM10 concentrations were unusually high due to forest fires near the area and not related to site activities. PM10 results above the DTSC HERO developed action level (50 µg/m^3) on October 1, 2020 were not related to site activities. The regional concentration of particulate matter larger than 2.5 microns in size (PM2.5), measured at the Bay Area Air Quality Management District (BAAQMD) Arkansas Street Station, was also elevated at 130 µg/m^3, according to the BAAQMD website. Elevated results on this day are not related to site activities.

On October 15, 2020, PM10 results were above the DTSC HERO developed action level (50 µg/m^3) at both the upwind and downwind air sampler locations (89.1 µg/m^3 and 79.7 µg/m^3, respectively). Wind speed was below 5 miles per hour and the wind direction was north (Attachment 1, Table1).

On November 16, 2020, the upwind result was 63.8 µg/m^3, above the 50 µg/m^3 action level; however, the downwind result was below the action level (34.5 µg/m^3). Wind speed was below 5 miles per hour and the wind direction was south-southeast (Attachment 1, Table1).

On November 21, 2020, the downwind PM10 result was 76 µg/m^3, above the 50 µg/m^3 action level. Wind speed was below 5 miles per hour and the wind direction was northeast (Attachment 1, Table1).

In accordance with the DMP (APTIM, 2020 [Appendix E]), dust (measured as PM10) is also monitored in real-time using DustTrak™ monitors. Although the PM10 filter-based air sample results, analyzed at the off-site laboratory, were above the DTSC HERO developed action level (50 µg/m^3), the average daily real-time dust monitoring results

(DustTrak™ results) were below the DTSC action level on October 15, November 16, and November 21, 2020.

On December 3, 4, and 5, 2020, site PM10 results ranged from 51 to 74 µg/m^3 from both upwind and downwind air sampler locations. Wind speed ranged from 0.9 to 2 miles per hour, and the wind direction was northeast or south (Attachment 1, Table 1). Regional concentrations of PM2.5, measured at the BAAQMD Arkansas Street Station, were also elevated, and ranged from 62 to 69 µg/m^3, according to the BAAQMD website. The PM2.5 regional data suggests the elevated results on these days were not related to site activities.

A summary of air sampling station downtime for the reporting period is as follows:

- October 13, 2020—The downwind air sampling station was offline from 0745 to 0928 (approximately 1.5 hours). The Parcel G radiologically controlled area was expanded, and the air sampling station was moved to the other side of the fence to keep the station outside the radiologically controlled area. The station was relocated less than 10 meters.
- October 19, 2020—The downwind air sampling station 17A was offline from approximately 0800 to 0820 for generator maintenance.
- December 3, 2020—The upwind air sampling station 1 was offline from approximately 0707 to 0720 (13 minutes) and the downwind air sampling station 18 was offline from approximately 0734 to 0752 (18 minutes) for generator maintenance.

5.4 Report 04

There were PM10 exceedances above the DTSC HERO developed action level (50 µg/m^3) on the following dates (Attachment 1, Table 3):

- December 8, 2020 (upwind)
- December 9, 2020 (upwind and downwind)
- January 19, 2021 (upwind and downwind)
- January 20, 2021 (upwind and downwind)
- January 21, 2021 (upwind)
- February 5, 2021 (upwind)

Air sampling results are subtracted based on predominant wind direction when wind speeds are greater than 5 miles per hour. Based on wind direction and wind speed, site-related PM10 concentrations were not subtracted for the listed dates.

On December 8, 2020, the upwind result was above the 50 µg/m^3 action level and the downwind result was below the action level (63.9 µg/m^3 and 32.3 µg/m^3, respectively). Wind speed was below 5 miles per hour and the wind direction was northeast (Attachment 1, Table 1). In accordance with the DMP (APTIM, 2020 [Appendix E]), dust (measured as PM10) is also monitored in real-time using DustTrak™ monitors. Although the PM10 filter-based air sample result, analyzed at the off-site laboratory, was above the DTSC HERO developed action level (50 µg/m^3), the average daily real-time dust monitoring results (DustTrak™ results) were below the DTSC action level on December 8, 2020.

On December 9, 2020, PM10 results were above the DTSC HERO developed action level (50 µg/m^3) at both the upwind and downwind air sampler locations (90.5 µg/m^3 and 64.0 µg/m^3, respectively). Wind speed was below 5 miles per hour and the wind direction was south-southwest (Attachment 1, Table 1). Regional concentrations of PM2.5, measured at the BAAQMD Arkansas Street Station, were also elevated on December 9, 2020 (78 µg/m^3) according to the BAAQMD website. The PM2.5 regional data suggests the elevated results on this day may not be related to site activities.

On January 19, 2021, PM10 results were above the DTSC HERO developed action level (50 µg/m^3) at both the upwind and downwind air sampler locations (50.8 µg/m^3 and 73.7 µg/m^3, respectively). Wind speed was 15.4 miles per hour and the wind direction was north-northeast (Attachment 1, Table 1). Although the PM10 filter-based air sample results, analyzed at the off-site laboratory, were above the DTSC HERO developed action level (50 µg/m^3), the average daily real-time dust monitoring results (DustTrak™ results) were below the DTSC action level on January 19, 2021.

On January 20, 2021, PM10 results were above the DTSC HERO developed action level (50 µg/m^3) at both the upwind and downwind air sampler locations (81.3 µg/m^3 and 62.2 µg/m^3, respectively). Wind speed was below 5 miles per hour and the wind direction was south (Attachment 1, Table 1). Regional concentrations of PM2.5, measured at the BAAQMD Arkansas Street Station, were also elevated on January 20, 2021 (57 µg/m^3) according to the BAAQMD website. The PM2.5 regional data suggests the elevated results on this day may not be related to site activities.

On January 21, 2021, the upwind result was above the 50 µg/m^3 action level and the downwind result was below the action level (71.2 µg/m^3 and 35.5 µg/m^3, respectively). Wind speed was below 5 miles per hour and the wind direction was southwest (Attachment 1, Table 1). Although the PM10 filter-based air sample results, analyzed at the off-site laboratory, were above the DTSC HERO developed action level (50 µg/m^3), the average daily real-time dust monitoring results (DustTrak™ results) were below the DTSC action level on January 21, 2021.

On February 5, 2021, the upwind result was above the 50 µg/m^3 action level and the downwind result was below the action level (51.0 µg/m^3 and 17.0 µg/m^3, respectively). Wind speed was below 5 miles per hour and the wind direction was west-southwest (Attachment 1, Table 1). Although the PM10 filter-based air sample results, analyzed at the off-site laboratory, were above the DTSC HERO developed action level (50 µg/m^3), the average daily real-time dust monitoring results (DustTrak™ results) were below the DTSC action level on February 5, 2021.

There were thorium-232 (^{232}Th) exceedances above the action limit (1.20E-15 microcurie per milliliter [µCi/mL]) in the upwind and downwind samples collected between December 21 and December 22, 2020. The upwind sample result was 1.97 E-15 µCi/mL ^{232}Th, and the downwind sample result was 1.29E-15 µCi/mL ^{232}Th (Attachment 1, Table 5). Wind speed on these dates ranged from 3.8 to 4.3 miles per hour and the wind direction was north-northeast (Attachment 1, Table 1). The samples had a shorter duration (27 hours versus typical 104 hours) due to the site shutting down for weather between December 23, 2020 and January 4, 2021. Shorter sample durations equate to smaller sample volumes. The shorter sample durations increase total uncertainty in the measurement which may bias the sample results. Additionally, ^{232}Th was detected in the field blank sample from this week above the action limit at 1.92E-15 µCi/mL ^{232}Th (Table 6-4). Field blank filter sample results have ranged from 5.26E-17 to 1.92E-15 µCi/mL ^{232}Th (Table 6-4) between August 24, 2020 and February 5, 2021. Air samples are collected on glass fiber filters, which may contain naturally occurring radioactive material (NORM). The ^{232}Th detections in the field blank samples, coupled with the low ^{232}Th results, suggest these exceedances may be due to NORM background in the sample filter media. Communications with the laboratory have also confirmed many filter media contain small amounts of NORM, and further investigation relative to the background of current filters in use is in progress.

A summary of air sampling station downtime for the reporting period is as follows:

- December 17, 2020—Upwind TSP air sampler was offline for approximately 2 hours from 1000 to 1210.
- December 23, 2020-January 1, 2021—Air sampling not performed because the site was shut down due to weather conditions or holidays, and no workers were on site.
- January 4, 2021—Air sampling not performed due to rain.
- January 6, 2021—Air sampling performed for half the day (morning) due to rain.
- January 26, 2021-February 3, 2021—Air sampling not performed because the site was shut down due to weather conditions, and no workers were on site. Workers were on site February 4 and 5, 2021, for storm damage repairs only.

6.0 Data Quality Assessment

Laboratory data were reviewed by the APTIM chemist to verify that analytical results were received from the laboratory, that the results provided in the electronic data deliverable and hard copy forms were the same, and that standard laboratory procedures and protocols were followed. Analytical data for this project were assessed in terms of precision, accuracy, representativeness, completeness, and comparability based on the requirements of the published EPA analytical methods and laboratory standard operating procedures and as specified in the DMP (APTIM, 2020 [Appendix E]).

Accuracy is demonstrated by recovery of target analytes from fortified blank and sample matrices, laboratory control sample (LCS), laboratory control sample duplicate (LCSD), matrix spike (MS), and matrix spike duplicate (MSD), respectively. The recovery of target analytes from fortified samples is compared to acceptance criteria. When these criteria are not met, the data are flagged appropriately.

Precision is expressed as relative percent difference (RPD) between the results of laboratory replicate sample analyses: sample duplicates, LCSDs, and MSDs. When analyte RPDs exceed the acceptance criteria, the data are flagged appropriately.

Representativeness of the samples submitted for analysis is ensured by adherence to standard sampling techniques and protocols.

Comparability of sample results is ensured through the use of approved consistent sampling and analysis methods.

Completeness is expressed as a ratio of number of usable data to all analytical data collected.

Sensitivity of sample results is ensured through the use of appropriate sampling techniques and analytical methods with detection limits below decision levels.

The laboratory data packages were reviewed at EPA Level II. As applicable to referenced methodology, a Level II data review includes reviewing the following:

- Chain-of-custody/sample receipt
- Method blanks
- Field filter blanks

- Tracer compound recovery (ROCs)
- LCS/LCSD
- MS and MSD and sample duplicates
- Sensitivity
- Completeness (field and technical)

Table 6-1 lists samples collected, collection dates, analyses performed, and laboratory sample delivery groups (SDGs) that are discussed in the following subsections.

Table 6-1: Sample Delivery Group Summary

Date Range	SDG	Analyses
08/24/20 through 08/28/20	37375	PM10, TSP, Metals, Asbestos
08/24/20 through 08/28/20	39364	ROCs
08/31/20 through 09/04/20	37971	PM10, TSP, Metals, Asbestos
08/31/20 through 09/04/20	39383	ROCs
09/08/20 through 09/11/20	38566	PM10, TSP, Metals, Asbestos
09/08/20 through 09/11/20	39450	ROCs
09/14/20 through 09/18/20	39178	PM10, TSP, Metals, Asbestos
09/14/20 through 09/18/20	39533	ROCs
09/21/20 through 09/25/20	39763	PM10, TSP, Metals, Asbestos
09/21/20 through 09/25/20	39632	ROCs
09/28/20 through 10/02/20	40465	PM10, TSP, Metals, Asbestos
09/28/20 through 10/02/20	39752	ROCs
10/05/20 through 10/09/20	40980	PM10, TSP, Metals, Asbestos
10/05/20 through 10/09/20	39863	ROCs
10/12/20 through 10/16/20	41663	PM10, TSP, Metals, Asbestos
10/12/20 through 10/16/20	39983	ROCs
10/19/20 through 10/24/20	42226	PM10, TSP, Metals, Asbestos
10/19/20 through 10/24/20	40123	ROCs
10/26/20 through 10/30/20	42858	PM10, TSP, Metals, Asbestos
10/26/20 through 10/31/20	40264	ROCs
10/31/20, 11/02/20 through 11/07/20	43457	PM10, TSP, Metals, Asbestos
10/31/20 through 11/07/20	40343	ROCs
11/09/20 through 11/13/20	44183	PM10, TSP, Metals, Asbestos
11/11/20 through 11/16/20	40427	ROCs
11/16/20 through 11/21/20	44764	PM10, TSP, Metals, Asbestos
11/16/20 through 11/21/20	40558	ROCs
11/23/20 through 11/25/20	45096	PM10, TSP, Metals, Asbestos
11/23/20 through 11/25/20	40659	ROCs

Date Range	SDG	Analyses
11/30/20 through 12/05/20	45687	PM10, TSP, Metals, Asbestos
11/30/20 through 12/05/20	40701	ROCs
12/07/20 through 12/12/20	46537	PM10, TSP, Metals, Asbestos
12/07/20 through 12/12/20	40798	ROCs
12/14/20 through 12/18/20	47011	PM10, TSP, Metals, Asbestos
12/14/20 through 12/18/20	40877	ROCs
12/21/20 through 12/22/20	47068	PM10, TSP, Metals, Asbestos
12/21/20 through 12/22/20	40901	ROCs
01/05/21 through 01/08/21	48272	PM10, TSP, Metals, Asbestos
01/05/21 through 01/08/21	40982	ROCs
01/11/21 through 01/15/21	48977	PM10, TSP, Metals, Asbestos
01/11/21 through 01/15/21	41038	ROCs
01/19/21 through 01/22/21	49458	PM10, TSP, Metals, Asbestos
01/20/21 through 01/22/21	41108	ROCs
01/25/21	50057	PM10, TSP, Metals, Asbestos
02/04/21 through 02/05/21	50884	PM10, TSP, Metals, Asbestos

Notes:
PM10 particulate matter larger than 10 microns in size
ROC radionuclide of concern
SDG sample delivery group
TSP total suspended particulates

The data quality assessment discusses data review findings and their potential impact on the data quality and usability. Definitions of EPA qualifiers and reason codes applied to the affected sample results that are outside the established control requirements are presented as follows:

Table 6-2: Qualifier Definitions

Qualifier	Definition
	No qualifier indicates that the data are acceptable both qualitatively and quantitatively.
U	The analyte was analyzed for but was not detected above the reported sample quantitation limit.
J	The analyte was analyzed for and was positively identified, but the reported numerical value is estimated. Although the data are considered usable and may be used as appropriate to meet project objectives. Results are qualitatively acceptable and quantitatively uncertain.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate.
R	The analyte was analyzed for, but the presence or absence of the analyte has not been verified. Qualifier denotes the data are unusable due to

Qualifier	Definition
	deficiencies in the ability to analyze the sample and meet quality control criteria. Results are rejected and data are unusable for project decisions.

6.1 Sample Receipt and Laboratory Narrative

As required by EPA, samples were received at the laboratory under chain-of-custody and were logged in for analysis. Minor log-in discrepancies, if noted by the laboratory were resolved with the Project Chemist prior to analysis. Analyses were completed within method specified holding times for applicable methods. Sample analysis deviations or discrepancies are described as follows:

Table 6-3: Sample Analysis Discrepancies

SDG	Analysis	Anomaly/Issue	Resolution
37971	Asbestos	PG-ASB090120-17DOWNWIND and PG-ASB090220-17DOWNWIND overloaded for asbestos (filters with particulate loading of greater than 50 percent cause potentially biased results)	Due to local forest fires, ash and smoke in the area affected sample collection. No asbestos results reported for 09/01/20 downwind and 09/02/20 downwind.
38566	Asbestos	PG-ASB091020-1UPWIND and PG-ASB091020-17DOWNWIND overloaded for asbestos (filters with particulate loading of greater than 50 percent cause potentially biased results)	Due to local forest fires, ash and smoke in the area affected sample collection. No asbestos results reported for 09/10/20.

Notes:
SDG sample delivery group

6.2 Blanks

Laboratory method blanks and field filter blanks were prepared and analyzed as recommended by the referenced methods and the DMP (APTIM, 2020 [Appendix E]). The concentration of target analytes in the laboratory blanks and field blanks were either not detected or below the limit of detection for SDGs with the exceptions noted in this section.

The following radiological results were qualified “JB” due to method blank or field blank contamination:

Table 6-4: Blank Discrepancies for Radionuclides of Concern

Analyte	SDG	Sample ID	Result (µCi/mL)
^{239}Pu/ ^{240}Pu	39364 39383 39450	Method Blank (one prep batch for indicated SDGs)	6.582E-17
	39364	PG-RAD-08282020-17/DOWNWIND	8.38E-17
	39383	PG-RAD-09042020-17/DOWNWIND	1.01E-16
	39450	PG-RAD-09112020-1/UPWIND	1.24E-16
^{226}Ra	39364 39383 39450	Method Blank (one prep batch for indicated SDGs)	2.923E-15
	39364	PG-RAD-08/282020-BLANK	7.86E-16
		PG-RAD-08282020-17/DOWNWIND	1.87E-15
	39383	PG-RAD-09042020-BLANK	2.32E-15
		PG-RAD-09042020-1/UPWIND	1.87E-15
		PG-RAD-09042020-17/DOWNWIND	1.39E-15
	39450	PG-RAD-09112020-BLANK	2.66E-15
		PG-RAD-09112020-1/UPWIND	1.17E-15
		PG-RAD-09112020-17A/DOWNWIND	1.96E-15
	39632	Method Blank	1.937E-15
		PG-RAD-09252020-1/UPWIND	3.65E-15
		PG-RAD-09252020-17A/DOWNWIND	1.73E-15
	40901	PG-RAD-12222020-BLANK	2.77E-15
		PG-RAD-12222020-18/DOWNWIND	1.93E-15
	40982	Method Blank	9.075E-16
		PG-RAD-01082021-18/DOWNWIND	1.31E-15
^{90}Sr	39383	PG-RAD-09042020-BLANK	1.76E-15
		PG-RAD-09042020-1/UPWIND	3.33E-15
	39533 39632	Method Blank (one prep batch for indicated SDGs)	3.394E-15
	39533	PG-RAD-09182020-1/UPWIND	2.00E-15
	39632	PG-RAD-09252020-1/UPWIND	4.00E-15
	39983	PG-RAD-10162020-BLANK	1.59E-15
		PG-RAD-10162020-17A/DOWNWIND	2.06E-15
	40343	PG-RAD-11072020-BLANK	1.16E-14
		PG-RAD-11072020-1/UPWIND	1.01E-14
		PG-RAD-11072020-18/DOWNWIND	6.50E-15

Analyte	SDG	Sample ID	Result (µCi/mL)
^{232}Th	39364	PG-RAD-08/282020-BLANK	2.44E-16
		PG-RAD-08/282020-1/UPWIND	1.98E-16
		PG-RAD-08/282020-17/DOWNWIND	3.19E-16
	39383	PG-RAD-09042020-BLANK	1.20E-15
		PG-RAD-09042020-1/UPWIND	4.93E-16
		PG-RAD-09042020-17/DOWNWIND	5.20E-16
	39450	PG-RAD-09112020-BLANK	3.86E-16
		PG-RAD-09112020-1/UPWIND	3.90E-16
		PG-RAD-09112020-17A/DOWNWIND	2.86E-16
	39533	PG-RAD-09182020-BLANK	3.60E-16
		PG-RAD-09182020-1/UPWIND	3.29E-16
		PG-RAD-09182020-17A/DOWNWIND	4.76E-16
	39632	PG-RAD-09252020-BLANK	1.69E-16
		PG-RAD-09252020-1/UPWIND	1.51E-16
		PG-RAD-09252020-17A/DOWNWIND	1.80E-16
	39752 39863 39983	Method Blank (one prep batch for indicated SDGs)	1.224E-16
	39752	PG-RAD-10022020-BLANK	1.76E-16
		PG-RAD-10022020-1/UPWIND	2.37E-16
		PG-RAD-10022020-17A/DOWNWIND	2.43E-16
	39863	PG-RAD-10092020-BLANK	3.88E-16
		PG-RAD-10092020-1/UPWIND	2.54E-16
		PG-RAD-10092020-17A/DOWNWIND	1.61E-16
	39983	PG-RAD-10162020-BLANK	1.99E-16
		PG-RAD-10162020-17A/DOWNWIND	6.22E-17
	40264	PG-RAD-10312020-BLANK	5.26E-17
		PG-RAD-10312020-1/UPWIND	1.31E-16
		PG-RAD-10312020-17A/DOWNWIND	1.36E-16
	40343	Method Blank	3.627E-17
		PG-RAD-11072020-BLANK	8.73E-17
		PG-RAD-11072020-1/UPWIND	8.80E-17
		PG-RAD-11072020-18/DOWNWIND	9.67E-17
	40472	PG-RAD-11162020-BLANK	1.07E-16
		PG-RAD-11162020-1/UPWIND	1.27E-16
		PG-RAD-11162020-18/DOWNWIND	1.58E-16
	40558	PG-RAD-11212020-BLANK	1.71E-16
		PG-RAD-11212020-1/UPWIND	1.12E-16
		PG-RAD-11212020-18/DOWNWIND	1.27E-16
	40659	PG-RAD-11252020-BLANK	4.40E-16
		PG-RAD-11252020-1/UPWIND	4.63E-16

Analyte	SDG	Sample ID	Result (µCi/mL)
		PG-RAD-11252020-18/DOWNWIND	1.44E-16
	40798	Method Blank	6.910E-17
		PG-RAD-12122020-BLANK	1.21E-16
		PG-RAD-12122020-1/UPWIND	3.65E-16
		PG-RAD-12122020-18/DOWNWIND	1.31E-16
	40877	PG-RAD-12182020-BLANK	6.38E-16
		PG-RAD-12182020-1/UPWIND	7.79E-16
		PG-RAD-12182020-18/DOWNWIND	7.92E-16
	40901	PG-RAD-12222020-BLANK	1.92E-15
		PG-RAD-12222020-1/UPWIND	1.97E-15
		PG-RAD-12222020-18/DOWNWIND	1.29E-15
	40982	PG-RAD-01082021-BLANK	6.48E-16
		PG-RAD-01082021-1/UPWIND	6.05E-16
		PG-RAD-01082021-18/DOWNWIND	1.05E-15
	41038	PG-RAD-01152021-BLANK	3.66E-16
		PG-RAD-01152021-1/UPWIND	6.11E-16
		PG-RAD-01152021-18/DOWNWIND	3.73E-16
	41108	Method Blank	1.889E-16
		PG-RAD-01222021-BLANK	1.51E-15
		PG-RAD-01222021-1/UPWIND	1.12E-15
		PG-RAD-01222021-18/DOWNWIND	8.49E-16
^{235}U/ ^{236}U	39450	PG-RAD-09112020-BLANK	2.04E-16
		PG-RAD-09112020-1/UPWIND	1.96E-16
	39632	Method Blank	1.099E-16
		PG-RAD-09252020-1/UPWIND	1.59E-16
	39752	PG-RAD-10022020-BLANK	1.04E-16
		PG-RAD-10022020-1/UPWIND	1.99E-16
	40343	Method Blank	1.043E-16
		PG-RAD-11072020-1/UPWIND	8.82E-17

Notes:

µCi/mL	microcurie per milliliter
^{90}Sr	strontium-90
^{226}Ra	radium-226
^{232}Th	thorium-232
^{235}U	uranium-235
^{236}U	uranium-236
^{239}Pu	plutonium-239
^{240}Pu	plutonium-240
SDG	sample delivery group

Sample radiological results summarized in this section are greater than the minimum detectable concentration but less than 10 times the associated blank results. Sample results were qualified as estimated (JB).

Trace detections of ROCs, specifically ^{232}Th, in filter field blanks and samples have been consistent throughout the sampling periods. Communications with the laboratory have also confirmed many filter media contain small amounts of NORM, and further investigation relative to the background of current glass fiber filters in use is in progress.

The following metals results were qualified “B” due to method blank contamination:

Table 6-5: Blank Discrepancies for PM10/Total Suspended Particulates/Metals/Asbestos

Analyte	SDG	Sample ID	Result (µg/sample)	Final Result (µg/m^3)
Lead	41663	Method Blank	3.500 J	N/A
		PG-TSP101220-17ADOWNWIND	4.58 J	<0.007 B
	43457	Method Blank	5.395 J	N/A
		PG-TSP103120-1UPWIND	7.22 J	<0.028 B
		PG-TSP103120-18DOWNWIND	7.40 J	<0.027 B
		PG-TSP110220-18DOWNWIND	9.50 J	<0.007 B
		PG-TSP110320-18DOWNWIND	3.82 J	<0.007 B
		PG-TSP110420-18DOWNWIND	6.06 J	<0.007 B
		PG-TSP110520-18DOWNWIND	9.17 J	<0.007 B
	45096	Method Blank	5.960 J	N/A
		PG-TSP-112420-1UPWIND	10.2 J	<0.007 B
		PG-TSP-112520-1UPWIND	8.73 J	<0.022 B
		PG-TSP-112520-18DOWNWIND	4.93 J	<0.021 B
	48977	Method Blank	10.69	N/A
		PG-TSP011121-1UPWIND	19.0	<0.007 B
		PG-TSP011221-1UPWIND	19.8	<0.007 B
		PG-TSP011221-18DOWNWIND	17.7	<0.007 B
		PG-TSP011321-1UPWIND	14.1	<0.007 B
		PG-TSP011321-18DOWNWIND	17.1	<0.007 B
		PG-TSP011421-1UPWIND	10.6	<0.007 J B
		PG-TSP011421-18DOWNWIND	15.6	<0.007 B
		PG-TSP011521-1UPWIND	13.4	<0.024 B

Analyte	SDG	Sample ID	Result (µg/sample)	Final Result (µg/m^3)
		PG-TSP011521-18DOWNWIND	9.79	<0.025 J B
	50884	Method Blank	5.549	N/A
		PG-TSP020521-18DOWNWIND	8.42	<0.025 J B
Manganese	47011	Method Blank	4.481	N/A
		PG-TSP121620-18DOWNWIND	4.68	<0.023 J B
		PG-TSP121820-18DOWNWIND	5.57	<0.020 J B
	50884	Method Blank	4.205	N/A
		PG-TSP020521-18DOWNWIND	6.30	<0.025 B

Notes:

µg/sample	microgram per sample
µg/m^3	microgram per cubic meter
<	less than
J	the concentration is an estimated value
B	compound was found in the blank and sample
N/A	not applicable
PM10	particulate matter larger than 10 microns in size
SDG	sample delivery group

Sample results for metals that were detected less than the laboratory reporting limit (J-qualified) and were less than two times the associated blank results, were qualified as not detected at the reporting limit.

6.3 Laboratory Control Samples

LCSs were prepared and analyzed as required by the referenced methods. The percent recoveries for LCS, LCSD, and RPD were within control limits for all analytical batches containing the samples for this project.

6.4 Matrix Spikes/Matrix Spike Duplicates/Laboratory Duplicates

Laboratory quality control samples, MS/MSD, and laboratory duplicates were prepared using project samples. The percent recovery MS and MSD were all within the specified control limits, and the RPD between MS/MSD or sample/sample duplicate were within the specific precision control limit with the exceptions noted as follows:

Table 6-6: Matrix Spike/Matrix Spike Duplicate Discrepancies

SDG	Sample Spiked	Analyte	MS/MSD % Recovery	Control Limit	Qualifier
38566	PG-TSP090820-1UPWIND	Mn	68% / 68%	75%–125%	All manganese results in the SDG were qualified as estimated (J) due to low MS and MSD recovery; matrix interference is suspected.
42858	PG-TSP102620-1UPWIND	Mn	71% / 88%	75%–125%	All manganese results in the SDG were qualified as estimated (J) due to low MS recovery; matrix interference is suspected.

Notes:

%	percent
Mn	manganese
MS	matrix spike
MSD	matrix spike duplicate
SDG	sample delivery group

Even though the sample results above were qualified as estimated (J) the MS/MSD exceedance were minor and LCS/LCSD recoveries indicate acceptable analytical batch precision. The sample data usability is not affected.

6.5 Tracers (Radionuclides of Concern)

A tracer is either an isotope of the same element as the isotope of interest, or an isotope of an element different from the element of the isotope of interest, but one that behaves chemically very similar to the isotope of interest. Tracers are added to both field samples and batch quality control samples prior to sample preparation. The percent recovery of the tracer is used to normalize the measured activity of the isotope

of interest. The review indicated that tracer recoveries were within the established control limits with the exceptions noted as follows:

Table 6-7: Tracer Recovery Discrepancies

SDG	Sample	Analyte	Tracer Recovery	Control Limit	Qualifier
39450	PG-RAD-09112020-1/UPWIND	^{232}Th	111%	40%–110%	Sample results were qualified as estimated (J) due to potential low bias reflected in high tracer recovery.
39383	PG-RAD-09042020-17/DOWNWIND	^{232}U	112%	40%–110%	Sample results were qualified as estimated (J) due to potential low bias reflected in high tracer recovery.
39533	PG-RAD-09182020-1/UPWIND	^{242}Pu	112%	40%–110%	Sample results were qualified as estimated (J) due to potential low bias reflected in high tracer recovery.
39533	PG-RAD-09182020-17A/DOWNWIND	^{242}Pu	111%	40%–110%	Sample results were qualified as estimated (UJ) due to potential low bias reflected in high tracer recovery.
39632	PG-RAD-09252020-1/UPWIND	^{242}Pu	112%	40%–110%	Sample results were qualified as estimated (UJ) due to potential low bias reflected in high tracer recovery.
39632	PG-RAD-09252020-17A/DOWNWIND	^{242}Pu	111%	40%–110%	Sample results were qualified as estimated (UJ) due to potential low bias reflected in high tracer recovery.
39983	PG-RAD-10162020-BLANK	^{242}Pu	111%	40%–110%	Sample results were qualified as estimated (J/UJ) due to potential low bias reflected in high tracer recovery.

SDG	Sample	Analyte	Tracer Recovery	Control Limit	Qualifier
40427	PG-RAD-11162020-1/UPWIND	^{242}Pu	112%	40%–110%	Sample results were qualified as estimated (UJ) due to potential low bias reflected in high tracer recovery.
40701	PG-RAD-12052020-1/UPWIND	^{242}Pu	111%	40%–110%	Sample results were qualified as estimated (UJ) due to potential low bias reflected in high tracer recovery.
40701	PG-RAD-12052020-18/DOWNWIND	^{242}Pu	112%	40%–110%	Sample results were qualified as estimated (UJ) due to potential low bias reflected in high tracer recovery.
40901	PG-RAD-12222020-BLANK	^{232}U	111%	30%-110%	Sample results were qualified as estimated (J/UJ) due to potential low bias reflected in high tracer recovery.

Notes:

%	percent
^{232}Th	thorium-232
^{232}Ur	uranium-232
^{242}Pu	plutonium-242
SDG	sample delivery group

Although tracer recoveries were outside of specified control limits, the amount of exceedance was minor, the relative error ratio values were within laboratory control limits. Data usability was not affected.

6.6 Sensitivity

Reporting limits for results reported by the laboratory were sufficiently low enough for project decisions.

6.7 Completeness

The following subsections present a discussion of field and technical completeness for the sampling events.

Field completeness is based on the number of samples/analyses planned compared to the number of results obtained. Field completeness is 100 percent for TSP, PM10, and metals for the sampling between August 24, 2020 and February 5, 2021. Field completeness is 98 percent for asbestos for the sampling between August 24, 2020 and February 5, 2021 due to sample loss (overload) caused by local forest fires in August through October 2020. Field completeness is 95 percent for ROCs for the sampling between August 24, 2020 and February 5, 2021, due to sample loss caused by rain damage for the samples collected on January 25, 2021.

Technical completeness is a quantitative measure of the data usability based on the number of rejected data compared to the total number of sample results. The technical-completeness calculation considers data that are not rejected to be usable. The technical-completeness objective is 90 percent. As discussed in the previous subsection, sample results were qualified as estimated (J/UJ) due to method blank laboratory quality control outliers. However, the degree of the quality control exceedances was small and did not affect the data usability. The technical completeness was 100 percent for all analyses.

6.8 Summary and Statement of Data Usability

Based on the above data review there were no significant systematic problems identified with the analytical method performance. Although some results were flagged as estimated due to deficiencies, the data usability was not affected. Data meet the quality objectives for the intended use.

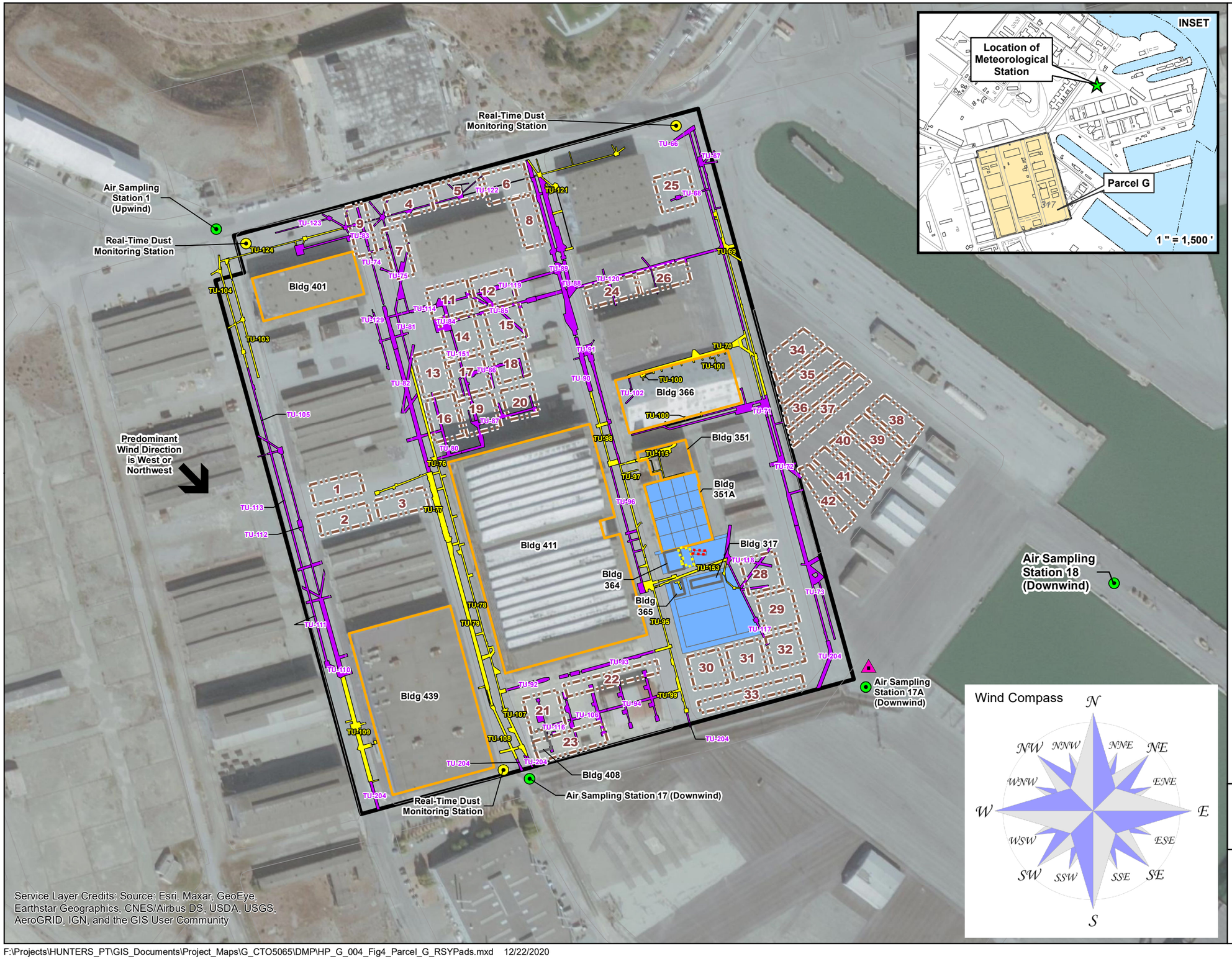
7.0 References

Aptim Federal Services, LLC, 2020, *Final, Revision 1, Parcel G Removal Site Evaluation Work Plan Addendum, Former Hunters Point Naval Shipyard, San Francisco, California,* July.

National Institute for Occupational Safety and Health, 1994, *NIOSH Manual of Analytical Methods,* Method 7400, August.

U.S. Environmental Protection Agency, 1999, *Compendium of Methods for the Determination of Inorganic Compounds in Ambient Air*.

FIGURE



- Air Sampling Station (Worker Action Levels for COCs [Table 1] and Public Action Levels for ROCs [Table 2])
- Real-Time Dust Monitoring Station (Public Action Level for Dust [PM10] [Table 1])
- Windsock
- ROADS
- RSY Pad
- Parcel G Boundary
- Impacted Building
- Impacted Demolished Building
- Phase 1 Trench Unit
- Phase 2 Trench Unit
- Survey Unit
- Liquid Waste Transfer System Excavation Limits (to 10 ft bgs)
- Peanut Spill Excavation Limits (to 2 ft bgs)

Notes:
1) Air sampling will be performed at two stations, one upwind (Station 1) and one downwind (Station 17, 17A, or 18). Air sampling station locations represent potential locations and may be modified to accomodate changing site conditions and/or wind direction.
2) Additional dust monitoring locations may be established based on field activities.
3) COC - Chemical of Concern.
4) ROC - Radionuclide of Concern.

U.S. Department of the Navy
BRAC PMO West
San Diego, California

FIGURE 1
PARCEL G
AIR SAMPLING AND DUST MONITORING LOCATIONS

INVESTIGATION, SURVEY, AND REPORTING AT PARCEL G
HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CA

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ATTACHMENT 1
AIR SAMPLING RESULTS

Attachment 1, Table 1: Ambient Pressure and Temperature Monitoring Results

Date	Ambient Pressure (in Hg)	Ambient Temperature (°C)	Wind Speed (mph)	Wind Direction
8/24/20	29.83	17.11	11.30	WNW
8/25/20	29.86	16.94	11.30	NW
8/26/20	29.85	15.06	6.10	WSW
8/27/20	29.82	15.00	5.80	SW
8/28/20	29.81	15.39	6.10	WSW
8/31/20	29.83	16.17	5.40	W
9/1/20	29.94	16.72	5.4	W
9/2/20	30.03	17.00	6.0	W
9/3/20	30.03	15.89	5.20	WSW
9/4/20	29.99	17.11	5.80	WSW
9/8/20	29.68	17.61	5.0	W
9/9/20	29.83	16.22	3.4	NW
9/10/20	30.00	16.56	2.4	NW
9/11/20	30.00	16.28	1.7	SSW
9/14/20	30.05	16.17	4.3	WSW
9/15/20	30.10	17.78	3.60	SW
9/16/20	30.07	19.83	3.20	W
9/17/20	30.02	17.83	4.6	WSW
9/18/20	30.04	19.33	4.8	WSW
9/21/20	29.91	17.39	4.9	WSW
9/22/20	30.03	17.78	6.2	W
9/23/20	30.07	18.83	5.7	WSW
9/24/20	30.03	18.72	5.2	WSW
9/25/20	30.01	17.83	5.0	W
9/28/20	29.89	23.94	9.60	WNW
9/29/20	30.00	16.44	12.70	WNW
9/30/20	30.04	19.22	8.30	WNW

Attachment 1, Table 1: Ambient Pressure and Temperature Monitoring Results

Date	Ambient Pressure (in Hg)	Ambient Temperature (°C)	Wind Speed (mph)	Wind Direction
10/1/20	29.96	22.28	4.70	N
10/2/20	29.94	19.61	7.40	WNW
10/5/20	30.00	14.89	9.50	WNW
10/6/20	29.97	14.33	12.50	WNW
10/7/20	29.93	15.06	13.30	WNW
10/8/20	29.95	16.50	10.50	W
10/9/20	29.95	16.83	6.20	WNW
10/12/20	30.07	19.17	6.00	WNW
10/13/20	30.06	19.78	7.10	WNW
10/14/20	30.06	21.94	6.30	WNW
10/15/20	29.97	24.44	4.00	N
10/16/20	29.94	25.72	7.50	SSE
10/19/20	29.96	16.61	10.70	WNW
10/20/20	29.88	17.78	7.20	WNW
10/21/20	29.80	18.11	8.50	WNW
10/22/20	29.84	16.11	9.30	WNW
10/23/20	29.96	15.50	7.70	WNW
10/24/20	29.96	15.39	6.60	W
10/26/20	30.10	18.22	12.50	NNE
10/27/20	30.07	18.72	6.10	N
10/28/20	30.06	16.39	5.40	WNW
10/29/20	30.05	15.28	6.00	N
10/30/20	30.05	13.39	9.80	WNW
10/31/20	30.07	15.00	6.00	WNW
11/2/20	3.07	15.44	7.90	WNW
11/3/20	30.08	13.44	12.90	WNW
11/4/20	30.19	15.56	8.50	WNW
11/5/20	30.04	16.61	8.60	WNW

Attachment 1, Table 1: Ambient Pressure and Temperature Monitoring Results

Date	Ambient Pressure (in Hg)	Ambient Temperature (°C)	Wind Speed (mph)	Wind Direction
11/6/20	29.77	13.78	17.20	WNW
11/7/20	29.72	12.39	12.80	WNW
11/9/20	30.21	11.22	2.80	SSW
11/10/20	30.26	11.39	2.80	SE
11/11/20	30.13	12.33	3.20	NNE
11/12/20	30.13	11.61	3.60	NE
11/13/20	30.17	12.22	5.00	SSW
11/16/20	30.06	15.06	2.10	SSE
11/17/20	29.94	14.94	6.50	SW
11/18/20	30.11	14.89	4.60	SW
11/19/20	30.32	12.28	2.30	S
11/20/20	30.29	12.56	2.50	NE
11/21/20	30.22	11.94	1.70	NE
11/23/20	30.08	12.39	2.10	SSW
11/24/20	30.16	11.61	2.60	SSW
11/25/20	30.25	12.11	3.70	SSW
11/30/20	30.31	10.83	1.50	S
12/1/20	30.24	10.94	1.30	S
12/2/20	30.16	12.33	2.10	NE
12/3/20	30.29	11.89	1.50	NE
12/4/20	30.29	11.61	0.90	S
12/5/20	30.29	10.61	2.00	S

Attachment 1, Table 1: Ambient Pressure and Temperature Monitoring Results

Notes:
Wind, ambient pressure and ambient temperature data were retrieved from on-site APTIM MET Station (8/26/20-8/28/20, 8/31/20-9/18/20, 11/9/20-02/05/21).
Wind, ambient pressure and ambient temperature data were retrieved from KSFO, San Francisco, San Francisco International Airport (8/24/20-8/25/20, 9/21/20-11/7/20).
°C - degrees Celsius
in Hg - inches of mercury
mph - miles per hour

Attachment 1, Table 2: TSP and Metals Sampling Results

Date	Sample Location	Sampling Period (hours)	TSP	TSP Exceedance? (Yes/No)	Lead	Lead Exceedance? (Yes/No)	Manganese	Manganese Exceedance? (Yes/No)
Action Level			500		50		200	
Units			(µg/m^3)		(µg/m^3)		(µg/m^3)	
8/24/20	1Upwind	23.5	46.0	No	0.01	No	0.04	No
8/24/20	17Downwind	24.3	47.4	No	0.04	No	0.04	No
8/25/20	1Upwind	23.9	54.5	No	0.01	No	0.05	No
8/25/20	17Downwind	24.3	41.7	No	0.01	No	0.01	No
8/26/20	1Upwind	24.1	37.8	No	0.01 J	No	0.03	No
8/26/20	17Downwind	24.1	55.9	No	0.01	No	0.02	No
8/27/20	1Upwind	24.1	31.0	No	0.01	No	0.02	No
8/27/20	17Downwind	24.1	41.6	No	0.01	No	0.02	No
8/28/20	1Upwind	7.3	117	No	0.02 J	No	0.06	No
8/28/20	17Downwind	7.1	105.0	No	0.08	No	0.03	No
8/31/20	1Upwind	23.8	50.0	No	<0.01	No	0.02	No
8/31/20	17Downwind	23.7	47.4	No	0.01	No	0.02	No
9/1/20	1Upwind	24.2	63.8	No	0.01 J	No	0.05	No
9/1/20	17Downwind	24.1	56.1	No	0.02	No	0.03	No
9/2/20	1Upwind	23.6	51.0	No	0.003 J	No	0.04	No
9/2/20	17Downwind	23.6	50.2	No	0.005 J	No	0.03	No
9/3/20	1Upwind	23.9	43.4	No	<0.01	No	0.03	No
9/3/20	17Downwind	23.9	33.3	No	<0.01	No	0.02	No
9/4/20	1Upwind	8.3	46.3	No	<0.02	No	0.03	No
9/4/20	17Downwind	8.1	50.8	No	<0.02	No	0.03	No
9/8/20	1Upwind	23.9	108	No	0.01	No	0.31 J	No
9/8/20	17ADownwind	24.1	106	No	0.01 J	No	0.49 J	No
9/9/20	1Upwind	23.9	59.0	No	0.002 J	No	0.11 J	No
9/9/20	17ADownwind	24.0	62.4	No	<0.01	No	0.08 J	No
9/10/20	1Upwind	24.3	169	No	0.01	No	0.27 J	No
9/10/20	17ADownwind	24.2	20.2	No	0.01 J	No	0.25 J	No
9/11/20	1Upwind	7.5	225	No	0.01 J	No	0.29 J	No
9/11/20	17ADownwind	7.2	204	No	0.01 J	No	0.18 J	No
9/14/20	1Upwind	24.4	69.0	No	0.004 J	No	0.11	No
9/14/20	17ADownwind	24.4	93.0	No	0.008	No	0.08	No
9/15/20	1Upwind	23.8	62.3	No	0.007 J	No	0.08	No
9/15/20	17ADownwind	23.9	26.3	No	0.010	No	0.05	No
9/16/20	1Upwind	23.3	33.5	No	0.005 J	No	0.05	No
9/16/20	17ADownwind	23.7	12.3	No	<0.007	No	0.019	No
9/17/20	1Upwind	24.2	52.5	No	0.011	No	0.06	No
9/17/20	17ADownwind	24.3	22.5	No	0.012	No	0.03	No
9/18/20	1Upwind	8.1	39.5	No	0.02	No	0.05	No

Attachment 1, Table 2: TSP and Metals Sampling Results

Date	Sample Location	Sampling Period (hours)	TSP	TSP Exceedance? (Yes/No)	Lead	Lead Exceedance? (Yes/No)	Manganese	Manganese Exceedance? (Yes/No)
Action Level			500		50		200	
Units			(µg/m^3)		(µg/m^3)		(µg/m^3)	
9/18/20	17ADownwind	7.3	34.9	No	0.01 J	No	0.03	No
9/21/20	1Upwind	23.9	65.2	No	0.014	No	0.10	No
9/21/20	17ADownwind	24.2	36.1	No	0.009	No	0.03	No
9/22/20	1Upwind	23.4	44.3	No	0.008	No	0.04	No
9/22/20	17ADownwind	23.5	22.3	No	0.008	No	0.017	No
9/23/20	1Upwind	23.9	33.6	No	0.005 J	No	0.02	No
9/23/20	17ADownwind	24.7	19.8	No	0.004 J	No	0.014	No
9/24/20	1Upwind	24.3	19.6	No	0.002 J	No	0.021	No
9/24/20	17ADownwind	24.6	10.4	No	<0.007	No	0.005	No
9/25/20	1Upwind	3.8	79.8	No	<0.05	No	0.0	No
9/25/20	17ADownwind	7.1	53.2	No	<0.02	No	0.02	No
9/28/20	1Upwind	23.9	60.5	No	0.013	No	0.17	No
9/28/20	17ADownwind	23.8	58.7	No	0.003 J	No	0.15	No
9/29/20	1Upwind	24.2	37.2	No	<0.007	No	0.03	No
9/29/20	17ADownwind	24.0	30.3	No	0.007 J	No	0.02	No
9/30/20	1Upwind	24.5	41.3	No	0.006 J	No	0.03	No
9/30/20	17ADownwind	24.4	41.6	No	0.007	No	0.02	No
10/1/20	1Upwind	23.4	55.6	No	0.007 J	No	0.03	No
10/1/20	17ADownwind	23.9	65.2	No	<0.007	No	0.04	No
10/2/20	1Upwind	8.0	82.2	No	<0.022	No	0.04	No
10/2/20	17ADownwind	7.5	83.4	No	0.010 J	No	0.03	No
10/5/20	1Upwind	24.2	24.4	No	0.005 J	No	0.02	No
10/5/20	17ADownwind	24.3	23.0	No	0.004 J	No	0.02	No
10/6/20	1Upwind	24.5	39.5	No	0.009	No	0.03	No
10/6/20	17ADownwind	24.8	47.2	No	0.009	No	0.03	No
10/7/20	1Upwind	23.6	40.7	No	0.004 J	No	0.02	No
10/7/20	17ADownwind	23.6	36.5	No	<0.007	No	0.02	No
10/8/20	1Upwind	23.6	29.2	No	0.006 J	No	0.02	No
10/8/20	17ADownwind	23.2	20.6	No	0.003 J	No	0.01	No
10/9/20	1Upwind	8.0	14.2	No	0.009 J	No	0.02	No
10/9/20	17ADownwind	8.0	13.9	No	<0.022	No	0.02	No
10/12/20	1Upwind	23.9	33.2	No	0.006 J B	No	0.02	No
10/12/20	17ADownwind	23.9	28.8	No	<0.007 B	No	0.02	No
10/13/20	1Upwind	24.2	38.8	No	0.007 J B	No	0.03	No
10/13/20	17ADownwind	24.2	28.6	No	0.006 J B	No	0.02	No
10/14/20	1Upwind	23.8	46.8	No	0.024 B	No	0.04	No
10/14/20	17ADownwind	24.0	41.1	No	0.030 B	No	0.04	No

Attachment 1, Table 2: TSP and Metals Sampling Results

Date	Sample Location	Sampling Period (hours)	TSP	TSP Exceedance? (Yes/No)	Lead	Lead Exceedance? (Yes/No)	Manganese	Manganese Exceedance? (Yes/No)
Action Level			500		50		200	
Units			(µg/m^3)		(µg/m^3)		(µg/m^3)	
10/15/20	1Upwind	23.8	101	No	0.017 B	No	0.14	No
10/15/20	17ADownwind	24.1	94.2	No	0.012 B	No	0.16	No
10/16/20	1Upwind	8.1	48.4	No	<0.022	No	0.24	No
10/16/20	17ADownwind	7.6	57.3	No	0.014 J B	No	0.11	No
10/19/20	1Upwind	23.5	41.6	No	0.009	No	0.03 B	No
10/19/20	17ADownwind	24.3	38.2	No	0.008	No	0.02 B	No
10/20/20	1Upwind	24.0	42.3	No	0.007 J	No	0.03 B	No
10/20/20	17ADownwind	23.6	30.0	No	0.005 J	No	0.02 B	No
10/21/20	1Upwind	24.0	56.2	No	0.007 J	No	0.03 B	No
10/21/20	17ADownwind	24.0	55.7	No	0.009	No	0.02 B	No
10/22/20	1Upwind	24.1	92.1	No	0.012	No	0.07 B	No
10/22/20	17ADownwind	24.1	56.8	No	0.006 J	No	0.03 B	No
10/23/20	1Upwind	7.9	237	No	0.035	No	0.20 B	No
10/23/20	17ADownwind	7.8	138	No	0.019 J	No	0.10 B	No
10/24/20	1Upwind	8.3	102	No	0.008 J	No	0.03 B	No
10/24/20	17ADownwind	8.4	39.3	No	0.022	No	0.10 B	No
10/26/20	1Upwind	24.0	63.1	No	0.008	No	0.16 J	No
10/26/20	17ADownwind	23.5	53.8	No	0.002 J	No	0.13 J	No
10/27/20	1Upwind	23.7	53.2	No	0.003 J	No	0.02 J	No
10/27/20	17ADownwind	23.7	47.2	No	0.007 J	No	0.05 J	No
10/28/20	1Upwind	24.2	71.1	No	0.007 J	No	0.10 J	No
10/28/20	17ADownwind	24.2	64.4	No	0.003 J	No	0.09 J	No
10/29/20	1Upwind	23.8	61.9	No	0.009	No	0.08 J	No
10/29/20	17ADownwind	24.3	52.2	No	0.002 J	No	0.04 J	No
10/30/20	1Upwind	25.5	67.0	No	0.007 J	No	0.03 J	No
10/30/20	17ADownwind	23.4	37.6	No	0.004 J	No	0.03 J	No
10/31/20	1Upwind	6.4	37.3	No	<0.028 B	No	0.06	No
10/31/20	18Downwind	6.5	34.4	No	<0.027 B	No	0.06	No
11/2/20	1Upwind	24.1	80.3	No	0.016 B	No	0.07	No
11/2/20	18Downwind	24.1	32.0	No	<0.007 B	No	0.03	No
11/3/20	1Upwind	24.2	53.4	No	0.011 B	No	0.04	No
11/3/20	18Downwind	24.2	15.7	No	<0.007 B	No	0.01	No
11/4/20	1Upwind	23.9	8.62	No	<0.007	No	0.01	No
11/4/20	18Downwind	23.9	21.1	No	<0.007 B	No	0.02	No
11/5/20	1Upwind	24.1	78.2	No	0.011 B	No	0.05	No
11/5/20	18Downwind	24.1	27.7	No	<0.007 B	No	0.02	No
11/6/20	1Upwind	23.7	101	No	0.017 B	No	0.07	No

Attachment 1, Table 2: TSP and Metals Sampling Results

Date	Sample Location	Sampling Period (hours)	TSP	TSP Exceedance? (Yes/No)	Lead	Lead Exceedance? (Yes/No)	Manganese	Manganese Exceedance? (Yes/No)
Action Level			500		50		200	
Units			(µg/m^3)		(µg/m^3)		(µg/m^3)	
11/6/20	18Downwind	24.2	24.8	No	0.007 J B	No	0.01	No
11/7/20	1Upwind	7.2	20.9	No	<0.025	No	0.03	No
11/7/20	18Downwind	6.7	ND	No	<0.026	No	0.02	No
11/9/20	1Upwind	23.8	31.1	No	0.034	No	0.03	No
11/9/20	18Downwind	23.9	19.6	No	0.003 J	No	0.01	No
11/10/20	1Upwind	23.8	25.3	No	0.004 J	No	0.02	No
11/10/20	18Downwind	24.1	18.1	No	<0.007	No	0.01	No
11/11/20	1Upwind	24.2	25.7	No	0.003 J	No	0.02	No
11/11/20	18Downwind	23.9	26.6	No	0.003 J	No	0.02	No
11/12/20	1Upwind	24.1	21.0	No	0.002 J	No	0.01	No
11/12/20	18Downwind	24.0	28.6	No	<0.007	No	0.02	No
11/13/20	1Upwind	5.8	8.25	No	0.008 J	No	0.01 J	No
11/13/20	18Downwind	5.8	3.94	No	<0.031	No	<0.02	No
11/16/20	1Upwind	24.6	98.0	No	0.011	No	0.04	No
11/16/20	18Downwind	24.6	70.9	No	0.005 J	No	0.02	No
11/17/20	1Upwind	27.1	8.51	No	0.004 J	No	0.01	No
11/17/20	18Downwind	27.1	ND	No	<0.007	No	0.002 J	No
11/18/20	1Upwind	24.1	28.3	No	0.005 J	No	0.01	No
11/18/20	18Downwind	24.0	10.1	No	0.003 J	No	0.003 J	No
11/19/20	1Upwind	24.5	28.7	No	0.007 J	No	0.02	No
11/19/20	18Downwind	24.4	31.7	No	0.005 J	No	0.01	No
11/20/20	1Upwind	23.6	59.2	No	0.006 J	No	0.02	No
11/20/20	18Downwind	23.7	39.0	No	0.008	No	0.01	No
11/21/20	1Upwind	6.5	109	No	0.018 J	No	0.02	No
11/21/20	18Downwind	6.6	191	No	0.014 J	No	<0.01	No
11/23/20	1Upwind	24.1	9.88	No	0.009 B	No	0.01	No
11/23/20	18Downwind	24.0	13.6	No	0.008 B	No	0.01	No
11/24/20	1Upwind	24.5	20.8	No	<0.007 B	No	0.03	No
11/24/20	18Downwind	24.6	7.72	No	0.008 B	No	0.01	No
11/25/20	1Upwind	8.0	33.1	No	<0.022 B	No	0.03	No
11/25/20	18Downwind	8.3	ND	No	<0.021 B	No	0.01 J	No
11/30/20	1Upwind	23.1	56.7	No	0.009	No	0.03	No
11/30/20	18Downwind	23.9	23.3	No	0.004 J	No	0.01	No
12/1/20	1Upwind	23.4	44.2	No	0.012	No	0.03	No
12/1/20	18Downwind	24.0	25.9	No	0.005 J	No	0.01	No
12/2/20	1Upwind	24.3	18.0	No	0.003 J	No	0.01	No
12/2/20	18Downwind	24.4	28.7	No	0.007 J	No	0.01	No

Attachment 1, Table 2: TSP and Metals Sampling Results

Date	Sample Location	Sampling Period (hours)	TSP	TSP Exceedance? (Yes/No)	Lead	Lead Exceedance? (Yes/No)	Manganese	Manganese Exceedance? (Yes/No)
Action Level			500		50		200	
Units			(µg/m^3)		(µg/m^3)		(µg/m^3)	
12/3/20	1Upwind	23.7	91.1	No	0.015	No	0.06	No
12/3/20	18Downwind	23.5	96.9	No	0.009	No	0.06	No
12/4/20	1Upwind	23.8	64.1	No	0.015	No	0.05	No
12/4/20	18Downwind	24.1	61.4	No	0.007 J	No	0.03	No
12/5/20	1Upwind	7.1	51.6	No	0.011 J	No	0.03	No
12/5/20	18Downwind	7.1	48.7	No	0.013 J	No	0.02	No
12/7/20	1Upwind	23.9	64.3	No	0.019	No	0.08	No
12/7/20	18Downwind	23.9	50.0	No	0.017	No	0.06	No
12/8/20	1Upwind	24.1	98.7	No	0.029	No	0.09	No
12/8/20	18Downwind	24.0	44.6	No	0.004 J	No	0.03	No
12/9/20	1Upwind	23.8	109	No	0.022	No	0.09	No
12/9/20	18Downwind	23.9	76.4	No	0.013	No	0.05	No
12/10/20	1Upwind	24.0	101	No	0.018	No	0.07	No
12/10/20	18Downwind	24.1	47.5	No	0.008	No	0.02	No
12/11/20	1Upwind	8.8	76.4	No	0.021	No	0.06	No
12/11/20	18Downwind	9.0	20.6	No	0.009 J	No	0.01	No
12/12/20	1Upwind	7.2	ND	No	<0.024	No	0.01 J	No
12/12/20	18Downwind	7.3	ND	No	0.007 J	No	0.01 J	No
12/14/20	1Upwind	24.1	52.2	No	0.010	No	0.04 B	No
12/14/20	18Downwind	24.1	20.5	No	<0.007	No	0.01 B	No
12/15/20	1Upwind	24.1	55.8	No	0.009	No	0.04 B	No
12/15/20	18Downwind	24.0	22.0	No	0.002 J	No	0.01 B	No
12/16/20	1Upwind	7.6	54.1	No	0.012 J	No	0.05 B	No
12/16/20	18Downwind	7.7	21.1	No	<0.023	No	<0.02 J B	No
12/17/20	1Upwind	24.3	63.3	No	0.008	No	0.03 B	No
12/17/20	18Downwind	24.2	18.5	No	0.007	No	0.01 B	No
12/18/20	1Upwind	8.7	53.6	No	0.015 J	No	0.05 B	No
12/18/20	18Downwind	8.7	5.59	No	<0.020	No	<0.02 J B	No
12/21/20	1Upwind	23.6	51.1	No	0.008	No	0.04	No
12/21/20	18Downwind	23.6	19.3	No	0.007 J	No	0.01	No
12/22/20	1Upwind	3.6	ND	No	<0.049	No	0.03	No
12/22/20	18Downwind	3.6	ND	No	<0.049	No	<0.02	No
12/23/20	1Upwind	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2
12/23/20	18Downwind	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2
12/28/20	1Upwind	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2
12/28/20	18Downwind	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2
12/29/20	1Upwind	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2

Attachment 1, Table 2: TSP and Metals Sampling Results

Date	Sample Location	Sampling Period (hours)	TSP	TSP Exceedance? (Yes/No)	Lead	Lead Exceedance? (Yes/No)	Manganese	Manganese Exceedance? (Yes/No)
Action Level			500		50		200	
Units			(µg/m^3)		(µg/m^3)		(µg/m^3)	
12/29/20	18Downwind	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2
12/30/20	1Upwind	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2
12/30/20	18Downwind	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2
12/31/20	1Upwind	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2
12/31/20	18Downwind	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2
1/4/21	1Upwind	Note 1	Note 1	Note 1	Note 1	Note 1	Note 1	Note 1
1/4/21	18Downwind	Note 1	Note 1	Note 1	Note 1	Note 1	Note 1	Note 1
1/5/21	1Upwind	24.0	44.9	No	0.003 J	No	0.03	No
1/5/21	18Downwind	23.9	23.0	No	<0.007	No	0.01	No
1/6/21	1Upwind	4.3	18.7	No	<0.042	No	0.02 J	No
1/6/21	18Downwind	4.5	19.0	No	<0.039	No	<0.02	No
1/7/21	1Upwind	23.7	105	No	0.003 J	No	0.01	No
1/7/21	18Downwind	23.8	20.2	No	0.006 J	No	0.01	No
1/8/21	1Upwind	2.6	ND	No	<0.068	No	<0.03	No
1/8/21	18Downwind	2.6	ND	No	<0.068	No	<0.03	No
1/8/21	1Upwind	2.6	ND	No	<0.068	No	<0.03	No
1/8/21	18Downwind	2.6	ND	No	<0.068	No	<0.03	No
1/11/21	1Upwind	23.8	56.8	No	<0.007 B	No	0.03 B	No
1/11/21	18Downwind	24.2	27.5	No	0.015 B	No	0.01 B	No
1/12/21	1Upwind	24.3	44.7	No	<0.007 B	No	0.02 B	No
1/12/21	18Downwind	23.9	33.2	No	<0.007 B	No	0.01 B	No
1/13/21	1Upwind	24.0	27.7	No	<0.007 B	No	0.01 B	No
1/13/21	18Downwind	24.0	20.8	No	<0.007 B	No	0.01 B	No
1/14/21	1Upwind	23.6	43.6	No	<0.007 J B	No	0.02 B	No
1/14/21	18Downwind	24.1	35.6	No	<0.007 B	No	0.01 B	No
1/15/21	1Upwind	7.3	54.6	No	<0.024 B	No	0.03 B	No
1/15/21	18Downwind	7.0	57.9	No	<0.025 J B	No	0.03 B	No
1/19/21	1Upwind	23.5	78.2	No	0.005 J	No	0.06	No
1/19/21	18Downwind	23.4	95.5	No	<0.008	No	0.05	No
1/20/21	1Upwind	24.1	111	No	0.008	No	0.06	No
1/20/21	18Downwind	24.2	68.9	No	0.003 J	No	0.04	No
1/21/21	1Upwind	9.5	204	No	0.012 J	No	0.13	No
1/21/21	18Downwind	9.1	54.2	No	0.005 J	No	0.03	No
1/22/21	1Upwind	3.8	36.2	No	<0.047	No	0.02	No
1/22/21	18Downwind	3.5	ND	No	<0.050	No	0.02	No
1/25/21	1Upwind	23.7	127.0	No	0.010	No	0.08	No
1/25/21	18Downwind	23.7	25.0	No	0.006 J	No	0.01	No
1/26/21	1Upwind	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2
1/26/21	18Downwind	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2

Attachment 1, Table 2: TSP and Metals Sampling Results

Date	Sample Location	Sampling Period (hours)	TSP	TSP Exceedance? (Yes/No)	Lead	Lead Exceedance? (Yes/No)	Manganese	Manganese Exceedance? (Yes/No)
Action Level			500		50		200	
Units			(µg/m^3)		(µg/m^3)		(µg/m^3)	
1/27/21	1Upwind	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2
1/27/21	18Downwind	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2
1/28/21	1Upwind	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2
1/28/21	18Downwind	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2
1/29/21	1Upwind	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2
1/29/21	18Downwind	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2
2/1/21	1Upwind	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2
2/1/21	18Downwind	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2
2/2/21	1Upwind	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2
2/2/21	18Downwind	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2
2/3/21	1Upwind	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2
2/3/21	18Downwind	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2
2/4/21	1Upwind	24.1	73.4	No	0.008 B	No	0.04 B	No
2/4/21	18Downwind	24.2	17.3	No	0.077 B	No	0.01 B	No
2/5/21	1Upwind	7.6	113	No	0.024 B	No	0.06 B	No
2/5/21	18Downwind	7.1	15.2	No	<0.025 J B	No	<0.02 B	No

Notes:
Note 1: Sample not collected due to inclement conditions (rain).
Note 2: Sample not collected because the site was temporarily shut down and no workers were onsite.
Sample locations are shown on Figure 1.
µg/m^3 - microgram per cubic meter
TSP - total suspended particulates
B - compound was found in the blank and sample
J - the concentration is an estimated value

Attachment 1, Table 3: PM10 Air Sampling Results

Date	Sample Location	Sampling Period	PM10 Result	PM10 Exceedance? (Yes/No)	PM10 Exceedance? (Yes/No)
Action Level		≤ 25		5000 [a]	50 [b]
Units		hours	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)
8/24/20	1Upwind	23.55	24.2	No	No
8/24/20	17Downwind	24.32	21.1	No	No
8/25/20	1Upwind	23.90	26.6	No	No
8/25/20	17Downwind	24.25	23.1	No	No
8/26/20	1Upwind	24.12	16.7	No	No
8/26/20	17Downwind	24.08	17.9	No	No
8/27/20	1Upwind	24.10	18.3	No	No
8/27/20	17Downwind	24.07	23.5	No	No
8/28/20	1Upwind	7.33	70.4	No	Yes (Note 1)
8/28/20	17Downwind	7.12	64.7	No	Yes (Note 1)
8/31/20	1Upwind	23.85	27.3	No	No
8/31/20	17Downwind	23.65	26.4	No	No
9/1/20	1Upwind	24.17	29.2	No	No
9/1/20	17Downwind	24.08	28.3	No	No
9/2/20	1Upwind	23.62	21.1	No	No
9/2/20	17Downwind	23.60	19.8	No	No
9/3/20	1Upwind	23.88	18.9	No	No
9/3/20	17Downwind	23.90	16.6	No	No
9/4/20	1Upwind	8.33	28.1	No	No
9/4/20	17Downwind	8.08	22.9	No	No
9/8/20	1Upwind	23.85	50.0	No	No
9/8/20	17ADownwind	24.15	47.8	No	No
9/9/20	1Upwind	23.93	131	No	Yes (Note 1)
9/9/20	17ADownwind	23.97	119	No	Yes (Note 1)
9/10/20	1Upwind	24.27	159	No	Yes (Note 1)
9/10/20	17ADownwind	24.20	161	No	Yes (Note 1)
9/11/20	1Upwind	7.45	192	No	Yes (Note 1)
9/11/20	17ADownwind	7.23	178	No	Yes (Note 1)
9/14/20	1Upwind	24.38	48.6	No	No
9/14/20	17ADownwind	24.45	88.4	No	Yes (Note 1)
9/15/20	1Upwind	23.82	23.9	No	No
9/15/20	17ADownwind	23.85	13.6	No	No
9/16/20	1Upwind	23.33	13.6	No	No
9/16/20	17ADownwind	23.67	9.64	No	No
9/17/20	1Upwind	24.17	20.8	No	No
9/17/20	17ADownwind	24.25	21.9	No	No
9/18/20	1Upwind	8.08	7.83	No	No

Attachment 1, Table 3: PM10 Air Sampling Results

Date	Sample Location	Sampling Period	PM10 Result	PM10 Exceedance? (Yes/No)	PM10 Exceedance? (Yes/No)
Action Level		≤ 25		5000 [a]	50 [b]
Units		hours	(µg/m^3)	(µg/m^3)	(µg/m^3)
9/18/20	17ADownwind	7.33	8.43	No	No
9/21/20	1Upwind	23.85	11.5	No	No
9/21/20	17ADownwind	24.20	20.1	No	No
9/22/20	1Upwind	23.40	22.1	No	No
9/22/20	17ADownwind	23.48	16.0	No	No
9/23/20	1Upwind	23.85	14.7	No	No
9/23/20	17ADownwind	24.68	8.40	No	No
9/24/20	1Upwind	24.28	8.79	No	No
9/24/20	17ADownwind	24.60	1.79	No	No
9/25/20	1Upwind	3.82	47.4	No	No
9/25/20	17ADownwind	7.08	32.0	No	No
9/28/20	1Upwind	23.90	39.3	No	No
9/28/20	17ADownwind	23.82	35.2	No	No
9/29/20	1Upwind	24.25	13.4	No	No
9/29/20	17ADownwind	24.00	12.8	No	No
9/30/20	1Upwind	24.50	43.0	No	No
9/30/20	17ADownwind	24.45	13.9	No	No
10/1/20	1Upwind	23.42	66.7	No	Yes (Note 1)
10/1/20	17ADownwind	23.93	82.3	No	Yes (Note 1)
10/2/20	1Upwind	7.97	96.2	No	No (Note 2)
10/2/20	17ADownwind	7.53	91.7	No	No (Note 2)
10/5/20	1Upwind	24.22	15.7	No	No
10/5/20	17ADownwind	24.27	14.3	No	No
10/6/20	1Upwind	24.48	199	No	No (Note 2)
10/6/20	17ADownwind	24.78	23.0	No	No
10/7/20	1Upwind	23.55	29.6	No	No
10/7/20	17ADownwind	23.57	27.3	No	No
10/8/20	1Upwind	23.57	17.5	No	No
10/8/20	17ADownwind	23.23	14.1	No	No
10/9/20	1Upwind	8.00	ND	No	No
10/9/20	17ADownwind	8.05	5.77	No	No
10/12/20	1Upwind	23.90	29.6	No	No
10/12/20	17ADownwind	23.90	23.7	No	No
10/13/20	1Upwind	24.20	32.8	No	No
10/13/20	17ADownwind	24.17	21.9	No	No
10/14/20	1Upwind	23.83	40.6	No	No
10/14/20	17ADownwind	24.03	33.7	No	No

Attachment 1, Table 3: PM10 Air Sampling Results

Date	Sample Location	Sampling Period	PM10 Result	PM10 Exceedance? (Yes/No)	PM10 Exceedance? (Yes/No)
Action Level		≤ 25		5000 [a]	50 [b]
Units		hours	(µg/m^3)	(µg/m^3)	(µg/m^3)
10/15/20	1Upwind	23.77	89.1	No	Yes
10/15/20	17ADownwind	24.12	79.7	No	Yes
10/16/20	1Upwind	8.08	34.6	No	No
10/16/20	17ADownwind	7.60	28.8	No	No
10/19/20	1Upwind	23.53	26.3	No	No
10/19/20	17ADownwind	24.33	23.0	No	No
10/20/20	1Upwind	23.98	28.8	No	No
10/20/20	17ADownwind	23.57	25.7	No	No
10/21/20	1Upwind	24.03	41.8	No	No
10/21/20	17ADownwind	24.02	38.2	No	No
10/22/20	1Upwind	24.12	38.9	No	No
10/22/20	17ADownwind	24.15	30.7	No	No
10/23/20	1Upwind	7.87	107	No	No (Note 2)
10/23/20	17ADownwind	7.77	75.0	No	No (Note 2)
10/24/20	1Upwind	8.32	40.2	No	No
10/24/20	17ADownwind	8.42	19.4	No	No
10/26/20	1Upwind	23.95	39.9	No	No
10/26/20	17ADownwind	23.52	38.8	No	No
10/27/20	1Upwind	23.67	39.8	No	No
10/27/20	17ADownwind	23.65	46.3	No	No
10/28/20	1Upwind	24.18	53.4	No	No (Note 2)
10/28/20	17ADownwind	24.25	49.1	No	No
10/29/20	1Upwind	23.82	42.3	No	No
10/29/20	17ADownwind	24.33	40.2	No	No
10/30/20	1Upwind	25.52	30.5	No	No
10/30/20	17ADownwind	23.42	24.9	No	No
10/31/20	1Upwind	6.38	30.2	No	No
10/31/20	18Downwind	6.45	31.2	No	No
11/2/20	1Upwind	24.10	38.0	No	No
11/2/20	18Downwind	24.10	14.2	No	No
11/3/20	1Upwind	24.22	15.4	No	No
11/3/20	18Downwind	24.23	6.92	No	No
11/4/20	1Upwind	23.88	6.84	No	No
11/4/20	18Downwind	23.85	4.46	No	No
11/5/20	1Upwind	24.08	27.7	No	No
11/5/20	18Downwind	24.15	14.3	No	No
11/6/20	1Upwind	23.75	32.3	No	No

Attachment 1, Table 3: PM10 Air Sampling Results

Date	Sample Location	Sampling Period	PM10 Result	PM10 Exceedance? (Yes/No)	PM10 Exceedance? (Yes/No)
Action Level		≤ 25		5000 [a]	50 [b]
Units		hours	(µg/m^3)	(µg/m^3)	(µg/m^3)
11/6/20	18Downwind	24.17	8.77	No	No
11/7/20	1Upwind	7.17	6.36	No	No
11/7/20	18Downwind	6.67	ND	No	No
11/9/20	1Upwind	23.83	24.0	No	No
11/9/20	18Downwind	23.85	17.7	No	No
11/10/20	1Upwind	23.75	16.5	No	No
11/10/20	18Downwind	24.08	12.6	No	No
11/11/20	1Upwind	24.25	20.7	No	No
11/11/20	18Downwind	23.90	18.7	No	No
11/12/20	1Upwind	24.07	17.1	No	No
11/12/20	18Downwind	24.02	21.7	No	No
11/13/20	1Upwind	5.77	3.06	No	No
11/13/20	18Downwind	5.78	2.33	No	No
11/16/20	1Upwind	24.57	63.8	No	Yes (Note 3)
11/16/20	18Downwind	24.55	34.5	No	No
11/17/20	1Upwind	27.13	ND	No	No
11/17/20	18Downwind	27.08	11.3	No	No
11/18/20	1Upwind	24.13	21.0	No	No
11/18/20	18Downwind	24.05	21.4	No	No
11/19/20	1Upwind	24.52	30.5	No	No
11/19/20	18Downwind	24.43	9.82	No	No
11/20/20	1Upwind	23.65	43.1	No	No
11/20/20	18Downwind	23.72	27.3	No	No
11/21/20	1Upwind	6.52	ND	No	No
11/21/20	18Downwind	6.60	76.0	No	Yes
11/23/20	1Upwind	24.13	7.68	No	No
11/23/20	18Downwind	23.97	6.26	No	No
11/24/20	1Upwind	24.53	10.6	No	No
11/24/20	18Downwind	24.58	13.6	No	No
11/25/20	1Upwind	7.95	ND	No	No
11/25/20	18Downwind	8.33	ND	No	No
11/30/20	1Upwind	23.08	27.2	No	No
11/30/20	18Downwind	23.90	15.6	No	No
12/1/20	1Upwind	23.42	28.5	No	No
12/1/20	18Downwind	24.02	22.6	No	No
12/2/20	1Upwind	24.32	19.5	No	No
12/2/20	18Downwind	24.37	26.1	No	No

Attachment 1, Table 3: PM10 Air Sampling Results

Date	Sample Location	Sampling Period	PM10 Result	PM10 Exceedance? (Yes/No)	PM10 Exceedance? (Yes/No)
Action Level		≤ 25		5000 [a]	50 [b]
Units		hours	(µg/m^3)	(µg/m^3)	(µg/m^3)
12/3/20	1Upwind	23.68	74.0	No	Yes (Note 1)
12/3/20	18Downwind	23.53	51.0	No	Yes (Note 1)
12/4/20	1Upwind	23.83	62.9	No	Yes (Note 1)
12/4/20	18Downwind	24.07	58.1	No	Yes (Note 1)
12/5/20	1Upwind	7.10	61.7	No	Yes (Note 1)
12/5/20	18Downwind	7.10	56.4	No	Yes (Note 1)
12/7/20	1Upwind	23.85	44.2	No	No
12/7/20	18Downwind	23.88	29.0	No	No
12/8/20	1Upwind	24.08	63.9	No	Yes (Note 3)
12/8/20	18Downwind	24.03	32.3	No	No
12/9/20	1Upwind	23.83	90.5	No	Yes
12/9/20	18Downwind	23.87	64.0	No	Yes
12/10/20	1Upwind	23.98	41.8	No	No
12/10/20	18Downwind	24.08	24.3	No	No
12/11/20	1Upwind	8.78	28.8	No	No
12/11/20	18Downwind	8.98	9.66	No	No
12/12/20	1Upwind	7.23	14.8	No	No
12/12/20	18Downwind	7.33	15.7	No	No
12/14/20	1Upwind	24.13	22.7	No	No
12/14/20	18Downwind	24.10	15.9	No	No
12/15/20	1Upwind	24.10	31.4	No	No
12/15/20	18Downwind	24.05	19.8	No	No
12/16/20	1Upwind	7.58	34.1	No	No
12/16/20	18Downwind	7.67	19.2	No	No
12/17/20	1Upwind	24.25	31.6	No	No
12/17/20	18Downwind	24.22	12.5	No	No
12/18/20	1Upwind	8.67	21.0	No	No
12/18/20	18Downwind	8.68	ND	No	No
12/21/20	1Upwind	23.58	17.0	No	No
12/21/20	18Downwind	23.58	9.36	No	No
12/22/20	1Upwind	3.62	ND	No	No
12/22/20	18Downwind	3.60	ND	No	No
12/23/20	1Upwind	Note 5	Note 5	Note 5	Note 5
12/23/20	18Downwind	Note 5	Note 5	Note 5	Note 5
12/28/20	1Upwind	Note 5	Note 5	Note 5	Note 5
12/28/20	18Downwind	Note 5	Note 5	Note 5	Note 5
12/29/20	1Upwind	Note 5	Note 5	Note 5	Note 5

Attachment 1, Table 3: PM10 Air Sampling Results

Date	Sample Location	Sampling Period	PM10 Result	PM10 Exceedance? (Yes/No)	PM10 Exceedance? (Yes/No)
Action Level		≤ 25		5000 [a]	50 [b]
Units		hours	(µg/m^3)	(µg/m^3)	(µg/m^3)
12/29/20	18Downwind	Note 5	Note 5	Note 5	Note 5
12/30/20	1Upwind	Note 5	Note 5	Note 5	Note 5
12/30/20	18Downwind	Note 5	Note 5	Note 5	Note 5
12/31/20	1Upwind	Note 5	Note 5	Note 5	Note 5
12/31/20	18Downwind	Note 5	Note 5	Note 5	Note 5
1/4/21	1Upwind	Note 4	Note 4	Note 4	Note 4
1/4/21	18Downwind	Note 4	Note 4	Note 4	Note 4
1/5/21	1Upwind	24.00	22.9	No	No
1/5/21	18Downwind	23.92	16.1	No	No
1/6/21	1Upwind	4.25	10.4	No	No
1/6/21	18Downwind	4.50	13.1	No	No
1/7/21	1Upwind	23.68	19.6	No	No
1/7/21	18Downwind	23.83	20.0	No	No
1/8/21	1Upwind	2.58	ND	No	No
1/8/21	18Downwind	2.58	ND	No	No
1/11/21	1Upwind	23.80	32.9	No	No
1/11/21	18Downwind	24.20	22.8	No	No
1/12/21	1Upwind	24.27	36.9	No	No
1/12/21	18Downwind	23.85	38.1	No	No
1/13/21	1Upwind	23.98	21.2	No	No
1/13/21	18Downwind	23.98	19.8	No	No
1/14/21	1Upwind	23.62	17.8	No	No
1/14/21	18Downwind	24.07	16.6	No	No
1/15/21	1Upwind	7.35	28.6	No	No
1/15/21	18Downwind	7.02	31.0	No	No
1/19/21	1Upwind	23.52	50.8	No	Yes
1/19/21	18Downwind	23.38	73.7	No	Yes
1/20/21	1Upwind	24.15	81.3	No	Yes
1/20/21	18Downwind	24.20	62.2	No	Yes
1/21/21	1Upwind	9.50	71.2	No	Yes (Note 3)
1/21/21	18Downwind	9.12	35.5	No	No
1/22/21	1Upwind	3.78	ND	No	No
1/22/21	18Downwind	3.52	ND	No	No
1/25/21	1Upwind	23.73	49.0	No	No
1/25/21	18Downwind	23.67	12.4	No	No
1/26/21	1Upwind	Note 5	Note 5	Note 5	Note 5
1/26/21	18Downwind	Note 5	Note 5	Note 5	Note 5

Attachment 1, Table 3: PM10 Air Sampling Results

Date	Sample Location	Sampling Period	PM10 Result	PM10 Exceedance? (Yes/No)	PM10 Exceedance? (Yes/No)
Action Level		≤ 25		5000 [a]	50 [b]
Units		hours	(µg/m^3)	(µg/m^3)	(µg/m^3)
1/27/21	1Upwind	Note 5	Note 5	Note 5	Note 5
1/27/21	18Downwind	Note 5	Note 5	Note 5	Note 5
1/28/21	1Upwind	Note 5	Note 5	Note 5	Note 5
1/28/21	18Downwind	Note 5	Note 5	Note 5	Note 5
1/29/21	1Upwind	Note 5	Note 5	Note 5	Note 5
1/29/21	18Downwind	Note 5	Note 5	Note 5	Note 5
2/1/21	1Upwind	Note 5	Note 5	Note 5	Note 5
2/1/21	18Downwind	Note 5	Note 5	Note 5	Note 5
2/2/21	1Upwind	Note 5	Note 5	Note 5	Note 5
2/2/21	18Downwind	Note 5	Note 5	Note 5	Note 5
2/3/21	1Upwind	Note 5	Note 5	Note 5	Note 5
2/3/21	18Downwind	Note 5	Note 5	Note 5	Note 5
2/4/21	1Upwind	24.13	36.2	No	No
2/4/21	18Downwind	24.20	13.5	No	No
2/5/21	1Upwind	7.62	51.0	No	Yes (Note 3)
2/5/21	18Downwind	7.08	17.0	No	No

Attachment 1, Table 3: PM10 Air Sampling Results

Notes:

Note 1: Elevated particulate matter levels observed regionally. This exceedance is likely not due to site activities.

Note 2: Based on wind direction and wind speed, site-related PM10 concentrations were below the 50 µg/m^3 action level.

Note 3: Upwind air sample result is above the action level; however, the downwind result is below the action level.

Note 4: Sample not collected due to inclement conditions (rain).

Note 5: Sample not collected because the site was temporarily shut down and no workers were onsite.

BAAQMD implements the CSAAQS for the Bay Area. The CSAAQS is designed to protect the general public from airborne particulates generated in the urban, suburban, and rural environments. The CSAAQS is not meant to be applied to general project-specific construction actions and related air quality. Rather, the standard is used to attain city- or regional-wide ambient air quality goals for the benefit of the general public. The current CSAAQS for PM10 is 50 µg/m^3 average per 24-hour day. The City and County of San Francisco is currently a non-attainment area for the CSAAQS for PM10.

Sample locations are shown on Figure 1.

[a] Cal/OSHA PEL (on-site workers)

[b] DTSC HERO developed action level (residents and public receptors), based on the CSAAQS

≤ - less than or equal to

µg/m^3 - microgram per cubic meter

BAAQMD - Bay Area Air Quality Management District

Cal/OSHA - California Occupational Safety and Health Administration

CSAAQS - California State ambient air quality standard

DTSC - California Department of Toxic Substances Control

HERO - Human and Ecological Risk Office

PEL - permissible exposure limit

PM10 - particulate matter smaller than 10 microns in diameter

Attachment 1, Table 4: Asbestos Sampling Results

Date	Sample Location	Sampling Period	Asbestos	Asbestos Exceedance? (Yes/No)
Action Level		≤ 25	0.1	
Units		hours	(fibers/cm^3)	
8/24/20	1Upwind	24.3	<0.0009	No
8/24/20	17Downwind	24.2	<0.0009	No
8/25/20	1Upwind	23.9	<0.0009	No
8/25/20	17Downwind	24.3	<0.0009	No
8/26/20	1Upwind	24.6	<0.0009	No
8/26/20	17Downwind	24.1	<0.0009	No
8/27/20	1Upwind	24.1	<0.0009	No
8/27/20	17Downwind	24.1	<0.0009	No
8/28/20	1Upwind	8.3	<0.0030	No
8/28/20	17Downwind	8.1	<0.0032	No
8/31/20	1Upwind	23.9	<0.0009	No
8/31/20	17Downwind	23.7	<0.0009	No
9/1/20	1Upwind	24.2	<0.0009	No
9/1/20	17Downwind	24.1	Note 2	No
9/2/20	1Upwind	23.6	<0.0010	No
9/2/20	17Downwind	23.6	Note 2	No
9/3/20	1Upwind	23.9	0.0019	No
9/3/20	17Downwind	23.9	0.0010	No
9/4/20	1Upwind	8.3	<0.0027	No
9/4/20	17Downwind	8.1	<0.0028	No
9/8/20	1Upwind	23.9	0.0014	No
9/8/20	17ADownwind	24.2	0.0010	No
9/9/20	1Upwind	23.9	<0.0009	No
9/9/20	17ADownwind	24.0	<0.0009	No
9/10/20	1Upwind	24.3	Note 2	No
9/10/20	17ADownwind	24.2	Note 2	No
9/11/20	1Upwind	7.5	<0.0030	No
9/11/20	17ADownwind	7.2	<0.0031	No
9/14/20	1Upwind	24.4	<0.0009	No
9/14/20	17ADownwind	24.4	<0.0009	No
9/15/20	1Upwind	23.8	0.0013	No
9/15/20	17ADownwind	23.9	<0.0009	No
9/16/20	1Upwind	23.3	0.0018	No
9/16/20	17ADownwind	23.7	<0.0009	No
9/17/20	1Upwind	24.2	<0.0009	No
9/17/20	17ADownwind	24.3	<0.0009	No
9/18/20	1Upwind	8.1	0.0038	No
9/18/20	17ADownwind	7.3	<0.0031	No

Attachment 1, Table 4: Asbestos Sampling Results

Date	Sample Location	Sampling Period	Asbestos	Asbestos Exceedance? (Yes/No)
Action Level		≤ 25	0.1	
Units		hours	(fibers/cm^3)	
9/21/20	1Upwind	23.9	<0.0009	No
9/21/20	17ADownwind	24.2	<0.0009	No
9/22/20	1Upwind	23.4	<0.0010	No
9/22/20	17ADownwind	23.5	<0.0010	No
9/23/20	1Upwind	23.9	0.0012	No
9/23/20	17ADownwind	24.7	<0.0009	No
9/24/20	1Upwind	24.3	0.0017	No
9/24/20	17ADownwind	24.6	<0.0009	No
9/25/20	1Upwind	3.8	<0.0059	No
9/25/20	17ADownwind	7.1	<0.0032	No
9/28/20	1Upwind	23.9	<0.0009	No
9/28/20	17ADownwind	23.8	<0.0009	No
9/29/20	1Upwind	24.2	<0.0009	No
9/29/20	17ADownwind	24.0	<0.0009	No
9/30/20	1Upwind	24.5	<0.0009	No
9/30/20	17ADownwind	24.4	<0.0009	No
10/1/20	1Upwind	23.4	<0.0010	No
10/1/20	17ADownwind	23.9	<0.0009	No
10/2/20	1Upwind	8.0	<0.0028	No
10/2/20	17ADownwind	7.5	<0.0031	No
10/5/20	1Upwind	24.2	<0.0009	No
10/5/20	17ADownwind	24.3	<0.0009	No
10/6/20	1Upwind	24.5	<0.0009	No
10/6/20	17ADownwind	24.8	<0.0009	No
10/7/20	1Upwind	23.6	<0.0010	No
10/7/20	17ADownwind	23.6	<0.0010	No
10/8/20	1Upwind	23.6	<0.0010	No
10/8/20	17ADownwind	23.2	<0.0010	No
10/9/20	1Upwind	8.0	<0.0028	No
10/9/20	17ADownwind	8.0	<0.0028	No
10/12/20	1Upwind	23.9	0.0011	No
10/12/20	17ADownwind	23.9	0.0017	No
10/13/20	1Upwind	24.2	0.0012	No
10/13/20	17ADownwind	24.2	0.0010	No
10/14/20	1Upwind	23.8	0.0024	No
10/14/20	17ADownwind	24.0	0.0013	No
10/15/20	1Upwind	23.8	0.0034	No
10/15/20	17ADownwind	24.1	0.0026	No

Attachment 1, Table 4: Asbestos Sampling Results

Date	Sample Location	Sampling Period	Asbestos	Asbestos Exceedance? (Yes/No)
Action Level		≤ 25	0.1	
Units		hours	(fibers/cm^3)	
10/16/20	1Upwind	8.1	<0.0028	No
10/16/20	17ADownwind	7.6	0.0030	No
10/19/20	1Upwind	23.5	<0.0009	No
10/19/20	17ADownwind	24.3	<0.0009	No
10/20/20	1Upwind	24.0	<0.0009	No
10/20/20	17ADownwind	23.6	<0.0005	No
10/21/20	1Upwind	24.0	<0.0009	No
10/21/20	17ADownwind	24.0	<0.0009	No
10/22/20	1Upwind	24.1	0.0012	No
10/22/20	17ADownwind	24.1	<0.0009	No
10/23/20	1Upwind	7.9	<0.0028	No
10/23/20	17ADownwind	7.8	<0.0030	No
10/24/20	1Upwind	8.3	<0.0027	No
10/24/20	17ADownwind	8.4	<0.0027	No
10/26/20	1Upwind	24.0	0.0018	No
10/26/20	17ADownwind	23.5	0.0037	No
10/27/20	1Upwind	23.7	0.0025	No
10/27/20	17ADownwind	23.7	0.0023	No
10/28/20	1Upwind	24.2	0.0015	No
10/28/20	17ADownwind	24.2	<0.0009	No
10/29/20	1Upwind	23.8	0.0015	No
10/29/20	17ADownwind	24.3	0.0013	No
10/30/20	1Upwind	25.5	0.0010	No
10/30/20	17ADownwind	23.4	0.0011	No
10/31/20	1Upwind	6.4	<0.0035	No
10/31/20	18Downwind	6.5	<0.0035	No
11/2/20	1Upwind	24.1	<0.0009	No
11/2/20	18Downwind	24.1	0.0012	No
11/3/20	1Upwind	24.2	<0.0009	No
11/3/20	18Downwind	24.2	<0.0009	No
11/4/20	1Upwind	23.9	<0.0009	No
11/4/20	18Downwind	23.9	<0.0009	No
11/5/20	1Upwind	24.1	<0.0009	No
11/5/20	18Downwind	24.1	<0.0009	No
11/6/20	1Upwind	23.7	<0.0009	No
11/6/20	18Downwind	24.2	<0.0009	No
11/7/20	1Upwind	7.2	<0.0031	No
11/7/20	18Downwind	6.7	<0.0034	No

Attachment 1, Table 4: Asbestos Sampling Results

Date	Sample Location	Sampling Period	Asbestos	Asbestos Exceedance? (Yes/No)
Action Level		≤ 25	0.1	
Units		hours	(fibers/cm^3)	
11/9/20	1Upwind	23.8	<0.0009	No
11/9/20	18Downwind	23.9	<0.0009	No
11/10/20	1Upwind	23.8	<0.0009	No
11/10/20	18Downwind	24.1	<0.0009	No
11/11/20	1Upwind	24.2	<0.0009	No
11/11/20	18Downwind	23.9	<0.0009	No
11/12/20	1Upwind	24.1	<0.0009	No
11/12/20	18Downwind	24.0	<0.0009	No
11/13/20	1Upwind	5.8	<0.0008	No
11/13/20	18Downwind	5.8	<0.0008	No
11/16/20	1Upwind	24.6	0.0012	No
11/16/20	18Downwind	24.6	<0.0009	No
11/17/20	1Upwind	27.1	<0.0008	No
11/17/20	18Downwind	27.1	<0.0008	No
11/18/20	1Upwind	24.1	<0.0009	No
11/18/20	18Downwind	24.0	<0.0009	No
11/19/20	1Upwind	24.5	<0.0009	No
11/19/20	18Downwind	24.4	<0.0009	No
11/20/20	1Upwind	23.6	<0.0009	No
11/20/20	18Downwind	23.7	<0.0009	No
11/21/20	1Upwind	6.5	<0.0034	No
11/21/20	18Downwind	6.6	<0.0034	No
11/23/20	1Upwind	24.1	0.0017	No
11/23/20	18Downwind	24.0	<0.0009	No
11/24/20	1Upwind	24.5	0.0010	No
11/24/20	18Downwind	24.6	<0.0009	No
11/25/20	1Upwind	8.0	<0.0028	No
11/25/20	18Downwind	8.3	<0.0027	No
11/30/20	1Upwind	23.1	<0.0010	No
11/30/20	18Downwind	23.9	<0.0009	No
12/1/20	1Upwind	23.4	<0.0010	No
12/1/20	18Downwind	24.0	<0.0009	No
12/2/20	1Upwind	24.3	<0.0009	No
12/2/20	18Downwind	24.4	<0.0009	No
12/3/20	1Upwind	23.7	<0.0009	No
12/3/20	18Downwind	23.5	0.0025	No
12/4/20	1Upwind	23.8	<0.0009	No
12/4/20	18Downwind	24.1	<0.0009	No

Attachment 1, Table 4: Asbestos Sampling Results

Date	Sample Location	Sampling Period	Asbestos	Asbestos Exceedance? (Yes/No)
Action Level		≤ 25	0.1	
Units		hours	(fibers/cm^3)	
12/5/20	1Upwind	7.1	<0.0030	No
12/5/20	18Downwind	7.1	<0.0030	No
12/7/20	1Upwind	23.9	<0.0009	No
12/7/20	18Downwind	23.9	0.0012	No
12/8/20	1Upwind	24.1	0.0012	No
12/8/20	18Downwind	24.0	0.0010	No
12/9/20	1Upwind	23.8	<0.0009	No
12/9/20	18Downwind	23.9	<0.0009	No
12/10/20	1Upwind	24.0	<0.0009	No
12/10/20	18Downwind	24.1	<0.0009	No
12/11/20	1Upwind	8.8	<0.0026	No
12/11/20	18Downwind	9.0	<0.0025	No
12/12/20	1Upwind	7.2	<0.0030	No
12/12/20	18Downwind	7.3	<0.0030	No
12/14/20	1Upwind	24.1	<0.0009	No
12/14/20	18Downwind	24.1	<0.0009	No
12/15/20	1Upwind	24.1	<0.0009	No
12/15/20	18Downwind	24.0	<0.0009	No
12/16/20	1Upwind	7.6	<0.0030	No
12/16/20	18Downwind	7.7	<0.0029	No
12/17/20	1Upwind	24.3	<0.0009	No
12/17/20	18Downwind	24.2	0.0015	No
12/18/20	1Upwind	8.7	<0.0026	No
12/18/20	18Downwind	8.7	<0.0026	No
12/21/20	1Upwind	23.6	<0.0010	No
12/21/20	18Downwind	23.6	<0.0010	No
12/22/20	1Upwind	3.6	<0.0063	No
12/22/20	18Downwind	3.6	<0.0063	No
12/23/20	1Upwind	Note 3	Note 3	Note 3
12/23/20	18Downwind	Note 3	Note 3	Note 3
12/28/20	1Upwind	Note 3	Note 3	Note 3
12/28/20	18Downwind	Note 3	Note 3	Note 3
12/29/20	1Upwind	Note 3	Note 3	Note 3
12/29/20	18Downwind	Note 3	Note 3	Note 3
12/30/20	1Upwind	Note 3	Note 3	Note 3
12/30/20	18Downwind	Note 3	Note 3	Note 3
12/31/20	1Upwind	Note 3	Note 3	Note 3
12/31/20	18Downwind	Note 3	Note 3	Note 3

Attachment 1, Table 4: Asbestos Sampling Results

Date	Sample Location	Sampling Period	Asbestos	Asbestos Exceedance? (Yes/No)
Action Level		≤ 25	0.1	
Units		hours	(fibers/cm^3)	
1/4/21	1Upwind	Note 1	Note 1	Note 1
1/4/21	18Downwind	Note 1	Note 1	Note 1
1/5/21	1Upwind	24.0	<0.0010	No
1/5/21	18Downwind	23.9	<0.0010	No
1/6/21	1Upwind	4.3	<0.0053	No
1/6/21	18Downwind	4.5	<0.0050	No
1/7/21	1Upwind	23.7	<0.0009	No
1/7/21	18Downwind	23.8	<0.0009	No
1/8/21	1Upwind	2.6	<0.0087	No
1/8/21	18Downwind	2.6	<0.0087	No
1/11/21	1Upwind	23.8	<0.0009	No
1/11/21	18Downwind	24.2	<0.0009	No
1/12/21	1Upwind	24.3	<0.0009	No
1/12/21	18Downwind	23.9	<0.0009	No
1/13/21	1Upwind	24.0	<0.0009	No
1/13/21	18Downwind	24.0	<0.0009	No
1/14/21	1Upwind	23.6	0.0017	No
1/14/21	18Downwind	24.1	0.0014	No
1/15/21	1Upwind	7.3	<0.0031	No
1/15/21	18Downwind	7.0	<0.0032	No
1/19/21	1Upwind	23.5	<0.0010	No
1/19/21	18Downwind	23.4	<0.0010	No
1/20/21	1Upwind	24.1	<0.0009	No
1/20/21	18Downwind	24.2	<0.0009	No
1/21/21	1Upwind	9.5	<0.0024	No
1/21/21	18Downwind	9.1	<0.0025	No
1/22/21	1Upwind	3.8	<0.0060	No
1/22/21	18Downwind	3.5	<0.0064	No
1/25/21	1Upwind	23.7	<0.0009	No
1/25/21	18Downwind	23.7	<0.0009	No
1/26/21	1Upwind	Note 3	Note 3	Note 3
1/26/21	18Downwind	Note 3	Note 3	Note 3
1/27/21	1Upwind	Note 3	Note 3	Note 3
1/27/21	18Downwind	Note 3	Note 3	Note 3
1/28/21	1Upwind	Note 3	Note 3	Note 3
1/28/21	18Downwind	Note 3	Note 3	Note 3
1/29/21	1Upwind	Note 3	Note 3	Note 3
1/29/21	18Downwind	Note 3	Note 3	Note 3

Attachment 1, Table 4: Asbestos Sampling Results

Date	Sample Location	Sampling Period	Asbestos	Asbestos Exceedance? (Yes/No)
Action Level		**≤ 25**	**0.1**	
Units		**hours**	**(fibers/cm^3)**	
2/1/21	1Upwind	Note 3	Note 3	Note 3
2/1/21	18Downwind	Note 3	Note 3	Note 3
2/2/21	1Upwind	Note 3	Note 3	Note 3
2/2/21	18Downwind	Note 3	Note 3	Note 3
2/3/21	1Upwind	Note 3	Note 3	Note 3
2/3/21	18Downwind	Note 3	Note 3	Note 3
2/4/21	1Upwind	24.1	0.0013	No
2/4/21	18Downwind	24.2	<0.0009	No
2/5/21	1Upwind	7.6	<0.0029	No
2/5/21	18Downwind	7.1	<0.0032	No

Notes:
Note 1: Sample not collected due to inclement weather conditions (rain).
Note 2: Filter cartridge overloaded due to ash from forest fires.
Note 3: Sample not collected because the site was temporarily shut down and no workers were onsite.
Sample locations are shown on Figure 1.
< - less than
≤ - less than or equal to
fibers/cm^3 - fibers per cubic centimeter

Attachment 1, Table 5: Radionuclides of Concern Air Sampling Results

Date	Sample Location	Sampling Period	Cesium-137		Plutonium-239/240		Radium-226		Strontium-90		Thorium-232		Uranium-235/236		Exceedance? (Yes/No)
Action Level			4.00E-11		4.00E-15		1.80E-13		1.20E-12		1.20E-15		6.00E-13		
Units		hours	µCi/mL		µCi/mL		µCi/mL		µCi/mL		µCi/mL		µCi/mL		
8/24/20 - 8/28/20	1Upwind	104	1.04E-14	U	4.08E-17	U	1.63E-16	U	1.22E-16	U	1.98E-16	JB	1.27E-16	U	No
8/24/20 - 8/28/20	17Downwind	104	-1.67E-14	U	8.38E-17	JB	1.87E-15	JB	-6.81E-16	U	3.19E-16	JB	8.04E-17	U	No
8/31/20 - 9/4/20	1Upwind	104	7.00E-15	U	0.00E+0	U	1.87E-15	JB	3.33E-15	JB	4.93E-16	JB	1.03E-16		No
8/31/20 - 9/4/20	17Downwind	104	-5.00E-15	U	1.01E-16	JB	1.39E-15	JB	1.06E-15	U	5.20E-16	JB	1.98E-16	J	No
9/08/20 - 9/11/20	1Upwind	80	-3.90E-14	U	1.24E-16	JB	1.17E-15	JB	2.00E-15	U	3.90E-16	JB, J	1.96E-16	JB	No
9/08/20 - 9/11/20	17ADownwind	79	-1.20E-14	U	0.00E+0	U	1.96E-15	JB	6.82E-16	U	2.86E-16	JB	-6.97E-17	U	No
9/14/20 - 9/18/20	1Upwind	103	-6.70E-13	U	1.01E-16	J	-2.42E-16	U	2.00E-15	JB	3.29E-16	JB	5.12E-17	U	No
9/14/20 - 9/18/20	17ADownwind	103	-5.48E-12	U	0.00E+0	UJ	9.40E-17	U	-2.00E-15	U	4.76E-16	JB	5.13E-17	U	No
9/21/20 - 9/25/20	1Upwind	99	-8.13E-15	U	-1.25E-16	UJ	3.65E-15	JB	4.00E-15	JB	1.51E-16	JB	1.59E-16	JB	No
9/21/20 - 9/25/20	17ADownwind	103	-3.48E-16	U	-4.11E-17	UJ	1.73E-15	JB	-2.00E-15	U	1.80E-16	JB	1.29E-16	U	No
9/28/20 - 10/2/20	1Upwind	104	1.00E-15	U	-3.96E-17	U	-5.63E-16	U	-7.64E-15	U	2.37E-16	JB	1.99E-16	JB	No
9/28/20 - 10/2/20	17ADownwind	104	-2.50E-14	U	1.98E-17	U	1.50E-15	U	2.23E-15		2.43E-16	JB	-2.65E-17	U	No
10/5/20 - 10/9/20	1Upwind	104	-1.39E-15	U	-1.44E-16	U	3.14E-16	U	1.84E-15		2.54E-16	JB	1.07E-16	U	No
10/5/20 - 10/9/20	17ADownwind	104	-6.25E-15	U	2.03E-17	U	1.36E-15	U	0.00E+00	U	1.61E-16	JB	2.63E-17	U	No
10/12/20 - 10/16/20	1Upwind	104	-8.68E-15	U	4.07E-17	U	-2.83E-16	U	1.05E-15	U	-6.07E-17	U	9.42E-17		No
10/12/20 - 10/16/20	17ADownwind	102	9.87E-15	U	8.38E-17		-3.80E-16	U	2.06E-15	JB	6.22E-17	JB	1.03E-16		No
10/19/20 - 10/24/20	1Upwind	128	-6.00E-15	U	-2.07E-16	U	-1.66E-16	U	-5.08E-16	U	-6.35E-16	U	4.29E-17	U	No
10/19/20 - 10/24/20	17ADownwind	128	7.00E-15	U	-1.31E-16	U	5.01E-16	U	-2.20E-16	U	1.32E-16		0.00E+0	U	No
10/26/20 - 10/31/20	1Upwind	121	1.59E-15	U	-3.46E-17	U	6.93E-16	U	1.26E-15		1.31E-16	JB	2.11E-17	U	No
10/26/20 - 10/31/20	17ADownwind	120	2.65E-14	U	-1.96E-16	U	4.70E-16	U	5.29E-17	U	1.36E-16	JB	-2.29E-17	U	No
10/31/20 - 11/7/20	1Upwind	174	2.78E-14	U	-7.06E-17	U	6.07E-16		1.01E-14	JB	8.80E-17	JB	8.82E-17	JB	No
10/31/20 - 11/7/20	18Downwind	174	1.78E-14	U	4.67E-17	U	5.06E-16	U	6.50E-15	JB	9.67E-17	JB	-4.39E-17	U	No
11/9/20 - 11/14/20	1Upwind	119	4.88E-15	U	-2.11E-16	UJ	5.17E-17	U	-2.14E-16	U	1.27E-16	JB	8.75E-17		No
11/9/20 - 11/14/20	18Downwind	120	1.29E-14	U	-6.77E-17	U	2.70E-16	U	1.03E-15	U	1.58E-16	JB	4.31E-17	U	No
11/16/20 - 11/21/20	1Upwind	127	1.49E-15	U	1.59E-17	U	6.94E-18	U	2.43E-16	U	1.12E-16	JB	0.00E+0	U	No
11/16/20 - 11/21/20	18Downwind	127	-2.08E-14	U	-3.35E-17	U	2.03E-16	U	-9.92E-16	U	1.27E-16	JB	1.93E-17	U	No
11/23/20 - 11/25/20	1Upwind	57	1.78E-14	U	0.00E+0	U	8.96E-16	U	-2.89E-15	U	4.63E-16	JB	4.59E-17	U	No
11/23/20 - 11/25/20	18Downwind	57	-1.39E-14	U	0.00E+0	U	1.38E-15		2.06E-15	U	1.44E-16	JB	4.89E-17	U	No
11/30/20 - 12/5/20	1Upwind	125	-5.18E-15	U	-1.64E-17	UJ	-5.00E-16	U	4.08E-16	U	2.00E-16		4.34E-17	U	No
11/30/20 - 12/5/20	18Downwind	127	6.08E-15	U	0.00E+0	UJ	-1.62E-16	U	7.92E-16	U	2.27E-16		2.11E-17	U	No
12/7/20 - 12/12/2020	1Upwind	127	6.48E-15	U	1.69E-17	U	3.45E-16	U	-6.38E-16	U	3.65E-16	JB	3.55E-17	U	No
12/7/20 - 12/12/2020	18Downwind	127	-3.16E-15	U	-3.43E-17	U	4.59E-16	U	8.37E-16	U	1.31E-16	JB	3.59E-17	U	No
12/14/20 - 12/18/20	1Upwind	105	1.08E-14	U	0.00E+0	U	-1.34E-16	U	-9.87E-16	U	7.79E-16	JB	4.73E-17	U	No
12/14/20 - 12/18/20	18Downwind	105	-5.16E-16	U	-2.14E-16	U	-7.81E-16	U	-1.55E-17	U	7.92E-16	JB	4.91E-17	U	No
12/21/20 - 12/22/20	1Upwind	27	0.00E+0	U	0.00E+0	U	8.76E-16	U	3.73E-16	U	1.97E-15	JB	-9.40E-17	U	Yes (Note 3)
12/21/20 - 12/22/20	18Downwind	27	-6.34E-15	U	0.00E+0	U	1.93E-15	JB	-3.46E-15	U	1.29E-15	JB	3.81E-16		Yes (Note 3)
12/28/20 - 12/31/20	1Upwind	Note 1	Note 1		Note 1		Note 1		Note 1		Note 1		Note 1		Note 1
12/28/20 - 12/31/20	18Downwind	Note 1	Note 1		Note 1		Note 1		Note 1		Note 1		Note 1		Note 1
1/5/21 - 1/8/21	1Upwind	74	9.91E-15	U	5.83E-17	U	-1.63E-16	U	-1.38E-15	U	6.05E-16	JB	6.85E-17	U	No

Attachment 1, Table 5: Radionuclides of Concern Air Sampling Results

Date	Sample Location	Sampling Period	Cesium-137		Plutonium-239/240		Radium-226		Strontium-90		Thorium-232		Uranium-235/236		Exceedance? (Yes/No)
Action Level			4.00E-11		4.00E-15		1.80E-13		1.20E-12		1.20E-15		6.00E-13		
Units		hours	µCi/mL		µCi/mL		µCi/mL		µCi/mL		µCi/mL		µCi/mL		
1/5/21 - 1/8/21	18Downwind	74	-2.93E-14	U	-3.16E-16	U	1.31E-15	JB	-2.55E-15	U	1.05E-15	JB	7.09E-17	U	No
1/11/21 - 1/15/21	1Upwind	103	-1.43E-14	U	2.10E-17	U	7.74E-17	U	-3.69E-16	U	6.11E-16	JB	2.56E-17	U	No
1/11/21 - 1/15/21	18Downwind	103	-6.16E-15	U	2.05E-17	U	2.40E-16	U	-1.03E-15	U	3.73E-16	JB	1.05E-16		No
1/20/21 - 1/22/21	1Upwind	55	5.36E-16	U	-3.81E-17	U	1.46E-15		6.74E-16	U	1.12E-15	JB	7.79E-17	U	No
1/20/21 - 1/22/21	18Downwind	55	7.09E-15	U	0.00E+0	U	9.23E-16		1.21E-15	U	8.49E-16	JB	-2.07E-16	U	No
1/25/21 - 1/29/21	1Upwind	Note 1, 2	Note 1, 2		Note 1, 2		Note 1, 2		Note 1, 2		Note 1, 2		Note 1, 2		Note 1, 2
1/25/21 - 1/29/21	18Downwind	Note 1, 2	Note 1, 2		Note 1, 2		Note 1, 2		Note 1, 2		Note 1, 2		Note 1, 2		Note 1, 2
2/1/21 - 2/5/21	1Upwind	Note 1, 4	Note 1, 4		Note 1, 4		Note 1, 4		Note 1, 4		Note 1, 4		Note 1, 4		Note 1, 4
2/1/21 - 2/5/21	18Downwind	Note 1, 4	Note 1, 4		Note 1, 4		Note 1, 4		Note 1, 4		Note 1, 4		Note 1, 4		Note 1, 4

Attachment 1, Table 5: Radionuclides of Concern Air Sampling Results

Notes:
Note 1: Sample not collected because the site was temporarily shut down and no workers were onsite.
Note 2: Sample not collected or not analyzed due to inclement weather conditions (rain).
Note 3: Sample exceeded the thorium-232 action limit; field blank sample also exceeded the thorium-232 action limit. Results may be due to naturally occurring radioactive material (NORM) contained in the glass fiber filters.
Note 4: Sample not collected because the site was temporarily shut down and workers were performing storm damage repairs only.
Sampling period for week 9/08/20 - 9/11/20 is less than 104 hours due to the Labor Day holiday.
Sampling period for the upwind air sampling station week 9/21/20 - 9/25/20 is less than 104 hours due to a generator malfunction.
Sampling period for the downwind air sampling station week 10/12/20 - 10/16/20 is less than 104 hours due to relocating the station outside the radiologically controlled area.
Sampling period for week 11/23/20 - 11/25/20 is less than 104 hours due to company holidays (Thanksgiving and the day after Thanskgiving).
Sampling period for week 12/21/20 - 12/22/20 is less than 104 hours due to weather conditions (rain)
Sampling period for week 1/5/21 - 1/8/21 is less than 104 hours due to weather conditions (rain)
Sampling period for week 1/20/21 - 1/22/21 is less than 104 hours due to weather conditions (wind and rain)
Sample locations are shown on Figure 1.
µCi/mL - microcurie per milliliter
J - the concentration is an approximate value
JB - indicates the detected concentrations is estimated due to blank/background detections
U - not detected at specified reporting limit
UJ - not detected at specified reporting limit; the concentration is an approximate value

ATTACHMENT 2
AIR MONITORING RESULTS SUBTRACTION CRITERIA

Parcel G Air Monitoring Results Subtraction Criteria

Predominant Wind Direction		Air Monitoring Results Analysis [a, b]
N	Wind blows from N to S	Deduct upwind station results from downwind station results
NNE	Wind blows from NNE to SSW	No deduction but may compare site results, location of site activities, and offsite activities potentially generating particulates to determine site-related impacts
NE	Wind blows from NE to SW	No deduction but may compare site results, location of site activities, and offsite activities potentially generating particulates to determine site-related impacts
ENE	Wind blows from ENE to WSW	No deduction but may compare site results, location of site activities, and offsite activities potentially generating particulates to determine site-related impacts
E	Wind blows from E to W	No deduction but may compare site results, location of site activities, and offsite activities potentially generating particulates to determine site-related impacts
ESE	Wind blows from ESE to WNW	Deduct downwind station results from upwind station results (i.e., switch downwind/upwind when predominant wind blowing in this direction)
SE	Wind blows from SE to NW	Deduct downwind station results from upwind station results (i.e., switch downwind/upwind when predominant wind blowing in this direction)
SSE	Wind blows from SSE to NNW	Deduct downwind station results from upwind station results (i.e., switch downwind/upwind when predominant wind blowing in this direction)
S	Wind blows from S to N	Deduct downwind station results from upwind station results (i.e., switch downwind/upwind when predominant wind blowing in this direction)
SSW	Wind blows from SSW to NNE	No deduction but may compare site results, location of site activities, and offsite activities potentially generating particulates to determine site-related impacts
SW	Wind blows from SW to NE	No deduction but may compare site results, location of site activities, and offsite activities potentially generating particulates to determine site-related impacts

Predominant Wind Direction		Air Monitoring Results Analysis [a, b]
WSW	Wind blows from WSW to ENE	No deduction but may compare site results, location of site activities, and offsite activities potentially generating particulates to determine site-related impacts
W	Wind blows from W to E	No deduction but may compare site results, location of site activities, and offsite activities potentially generating particulates to determine site-related impacts
WNW	Wind blows from WNW to ESE	Deduct upwind station results from downwind station results
NW	Wind blows from NW to SE	Deduct upwind station results from downwind station results
NNW	Wind blows from NNW to SSE	Deduct upwind station results from downwind station results

Notes:

[a] Air monitoring includes filter-based air sampling and real-time dust monitoring.

[b] Air monitoring results will be subtracted based on predominant wind direction when wind speeds are greater than 5 miles per hour.