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

AIR MONITORING SUMMARY REPORT 05 FOR PARCEL B REMOVAL SITE EVALUATION

HUNTERS POINT NAVAL SHIPYARD

SAN FRANCISCO, CALIFORNIA

July 7th, 2022 through December 22nd, 2022

Approved for public release; distribution is unlimited

DCN: GESL-0005-5305-0066

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Prepared for:

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Naval Facilities Engineering Systems Command Southwest
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Contract Number: N62473-17-D-0005; Task Order No. N6247317F5364

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Acronyms and Abbreviations

AMSR ..... *Air Monitoring Summary Report*
ASRC ..... *Artic Slope Regional Corporation*
Cal/OSHA ..... *California Occupational Safety and Health Administration*
Cfm ..... *cubic feet per minute*
CFR ..... *Code of Federal Regulations*
CTO ..... *Contract Task Order*
DMCP ..... *Dust Monitoring and Control Plan*
DTSC ..... *State of California Department of Toxic Substances Control*
EPA ..... *United States Environmental Protection Agency*
fiber/cm^3 ..... *fibers per cubic centimeter*
Gilbane ..... *Gilbane Federal*
HERO ..... Human and Ecological Risk Office
HPNS ..... *Hunters Point Naval Shipyard*
L/min ..... *liters per minute*
MDC ..... *minimum detectable concentration*
mg/m^3 ..... *milligrams per cubic meter*
Navy ..... *U.S. Department of the Navy*
NIOSH ..... *National Institute for Occupational Safety and Health*
PEL ..... *permissible exposure limit*
PM10 ..... *particulate matter less than 10 microns in diameter*
RAWP ..... *Remedial Action Work Plan*
RDL ..... *required detection limit*
ROC ..... *Radionuclide of concern*
TSP ..... *total suspended particulates*
TWA ..... *time-weighted average*
$\mu g/m^3$ ..... *micrograms per cubic meter*

1.0 Introduction

This Air Monitoring Summary Report (AMSR) was prepared by GES as requested by the United States Department of the Navy (Navy) under Radiological Environmental Multiple Award Contract N62473-17-D-0005, Contract Task Order (CTO) N6247317F5364. GES is performing air monitoring at Hunters Point Naval Shipyard (HPNS) in accordance with the Final Dust Management and Air Monitoring Plan (DMAMP), included as Appendix E to *Final Parcel B Removal Site Evaluation Work Plan, Hunters Point Naval Shipyard, San Francisco, California* (WP; Gilbane, 2022). The DMAMP describes the procedures that minimize dust during work activities and requires air monitoring to ensure these procedures are effective. The methods and procedures detailed in the DMAMP help to prevent exposure of residents and construction crews to potential airborne chemicals of concern, and dust from the work area.

This summary report describes the following:

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

This AMSR summarizes the air monitoring activities conducted by GES at HPNS Parcel B from July 7th, 2022 through December 22nd, 2022 and compares the results with the established action levels presented in the DMAMP (Appendix E of the WP [Gilbane, 2022]).

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2.0 Monitoring Site Locations

Air monitoring stations were deployed at the minimum of one upwind and one downwind location whenever active soil handling operations were in progress. In addition, a southernmost air monitoring station (near Building 113A) was operated as a supplemental air monitoring location during earthmoving activities. Additional radiological air monitors may be placed within the daily work areas to monitor for worker health and safety. Based on past meteorological data, the prevalent wind direction at HPNS was from the west or west-southwest. The locations of Parcel B air monitoring stations are presented on **Figure 2-1**.

Air monitoring was performed to estimate and assess the impact of field activities. The locations of air monitoring stations were determined based on the prevailing wind direction and were modified as needed for accessibility and worker safety considerations. Wind direction was monitored daily using a windsock and confirmed with the prevalent wind direction recorded for the APTIM – KCASANFR1504 or Bayview Manor - KCASANFR1775 published at Weather Underground (www.wunderground.com).

Upwind/downwind station designations were assigned based on the prevalent wind direction. Atmospheric parameters were checked daily at www.wunderground.com (see **Attachment 1**). Monitoring stations remained stationary while sampling was conducted. Each monitoring station included four different monitoring systems:

1. Asbestos
2. Particulate matter less than 10 microns in diameter (PM10) and Metals (Lead and Manganese)
3. Total suspended particulates (TSP)
4. Radionuclides

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3.0 Analytical Methods

3.1 Asbestos

Air samples were sampled and analyzed in accordance with National Institute for Occupational Safety and Health (NIOSH) Method 7400, from the NIOSH Manual of Analytical Methods (NIOSH, 1994). Method 7400 requires that samples be collected on three-piece cellulose ester filters fitted with conductive cowlings at a sampling rate of between 0.5 liters per minute (L/min) and 16 L/min. Each sample was collected over the course of a period not to exceed 25 hours and submitted to A&B Laboratories of Houston, TX for analysis. Asbestos results were reviewed for anomalies and compliance with the action levels listed below.

3.2 PM10, Lead and Manganese

Filter-based PM10 data are collected to ensure the protection of public health and safety during construction operations. Filter-based PM10 data are generated by sampling with calibrated air monitoring equipment that are operated continuously over the course of a period not to exceed 25 hours in accordance with the U.S. Environmental Protection Agency (EPA) reference sampling method for PM10 as described in Title 40 Code of Federal Regulations (CFR), Part 50, Subpart J (EPA, 1999a). During the sampling, measurements are taken to precisely calculate the volume of air that has passed through the filter media sample. The period sampled is dependent on the duration of the work activity. The sample is then shipped to Eurofins, West Sacramento, CA or Eurofins Environment Analytics, Ashland, VA for analysis. The concentration is gravimetrically determined. The sample results are reviewed for field and laboratory anomalies to provide confidence in the data and compared to air quality criteria to ensure compliance with the action levels listed below. In this way the precise amount of PM10 present in each cubic meter of air is determined.

Once the PM10 concentration was gravimetrically determined, the filter was analyzed for manganese and lead in accordance with EPA Method 6020 (equivalent to IO-3.5 in the Compendium of Methods for the Determination of Inorganic Compounds in Ambient Air [EPA, 1999b]).

3.3 TSP

TSP samples were collected with a high-volume (39 to 60 cubic feet per minute [cfm]) air sampler in accordance with EPA's reference sampling method for TSP, described in 40 CFR 50, Subpart B. Each sample was collected on a filter over the course of a period not to exceed 25 hours (depending on the duration of the work activity). The sample is then shipped to Eurofins, West Sacramento, CA or Eurofins Environment Analytics, Ashland, VA for analysis. The filter was then weighed to determine the amount of TSP collected. The resulting concentration was compared to the HPNS

Basewide level listed below to minimize permissible dust releases from the site.

3.4 Radionuclides of Concern

Radiological air samples were collected on filter media with a LV-1 low-volume air sampler. The air filter concentration is counted onsite following a decay period and are compared with public air concentration limits published in 10 CFR Part 20. Radiological air sampling methods and procedures are detailed in Gilbane Radiological Procedure PR-RP-150 *Radiological Survey and Sampling* (Gilbane, 2019).

Perimeter samples for ROCs were analyzed at ARS Aleut Analytical, of Port Allen, LA by the radiological methods listed below.

- Gamma Spectroscopy by EPA Method 901.1
- Alpha Spectroscopy/Eichrom Resin Separation by HASL 300 Pu-02RC
- Alpha Emitting Isotopes by EPA Method 9315
- Gas Flow Proportional Counting/Eichrom Resin Separation by SRW01

The calculated airborne concentration in microcuries per filter was then compared to the effluent concentration limit specified in Table 2 of Appendix B to 10 CFR 20. The effluent concentration of a given radionuclide is the minimum concentration in air which, if inhaled continuously over the course of a year, results in an exposure equal to the annual regulatory limit specified in 10 CFR 20.1302. The threshold for radiological effluent concentration in air samples is 10 percent of the effluent concentration, which ensures work practices are evaluated and modified as necessary to ensure the limit is not reached.

The equipment specifications and sampling procedures have complied with the specifications provided in the regulations for the sampler, filter media, accuracy, calibration, and quality assurance.

4.0 Air Monitoring Data Interpretation and Action Levels

To facilitate the comparison to project action levels, the delta between the upwind and downwind PM10 and TSP analytical results was calculated for detected values. Calculated negative values indicating that the upwind concentration was greater than the downwind concentration and non-detected values where no delta was calculated, are interpreted as acceptable.

The resulting deltas for PM10 and TSP and analytical data from air monitoring metals samples were compared with the threshold criteria listed in **Table 4-1** reproduced from Table 1; and radionuclide activities were compared to the airborne concentration action levels listed reproduced from Table 2 of the approved DMAMP (Appendix E of the WP [Gilbane, 2022]. The PM10 delta was additionally compared to the criterion taken from the *Final Basewide Dust Control Plan, Revision 1, Hunters Point Shipyard, San Francisco, California* (Tetra Tech EC, 2010) of 50 micrograms per cubic meter (ug/m^3).

Table 4-1: Air Monitoring Threshold Criteria

Test Parameter	Threshold Criteria	Threshold Criteria Reference
Asbestos	0.1 fiber/cm^3	Cal/OSHA PEL (on-site workers)
PM10[a]	50 µg/m^3	DTSC HERO developed action level (residents and public receptors)[a]
	5,000 µg/m^3	Cal/OSHA PEL (on-site workers)[b]
TSP	0.5 mg/m^3	Basewide HPNS Level selected to minimize overall permissible dust release from sites
Lead	0.050 mg/m^3	Cal/OSHA PEL (on-site workers)
Manganese	0.200 mg/m^3	Cal/OSHA PEL (on-site workers) 10 CFR, Part 20, Appendix B, Table 2 Column 1 adjusted from 50 mrem per year to maximum annual exposure of 10 mrem per year at the receptor (public receptor)[c]
Cesium-137	4.00E-11µCi/mL	
Plutonium-239	4.00E-15 µCi/mL	
Radium-226	1.80E-13 µCi/mL	
Strontium-90	1.20E-12 µCi/mL	
Cobalt-60	1.00E-11 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/m3 average per 24-hour day. The City and County of San Francisco is currently a nonattainment area for the CSAAQS for PM10.

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

[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

µg/m^3 = micrograms per cubic meter

Cal/OSHA = California Division of Occupational Safety and Health Administration

DTSC HERO = California Department of Toxic Substances Control, Human and Ecological Risk Office

fiber/cm^3 = fibers per cubic centimeter
HPNS = Hunters Point Naval Shipyard
mg/m^3 = milligrams per cubic meter
PEL = permissible exposure limit
PM10 = particulate matter less than 10 microns in diameter
TSP = total suspended particulates

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5.0 Air Monitoring Results

Weather information (including ambient pressure and temperature data) is presented in the table included as **Attachment 1**. Meteorological data for Stations 1, 2, and Building 113A were sourced from the Weather Underground (wunderground.com) station APTIM - KCASANFR1504 and Bayview Manor - KCASANFR1775. **Table 5-1** displays each air monitoring report and the associated dates covered in the report.

Air monitoring results are presented in the following attachments:

- Asbestos – **Attachment 2**
- PM10 – **Attachment 3**
- Lead and Manganese – **Attachment 4**
- TSP – **Attachment 5**
- Radiological – **Attachment 6**

Laboratory reports are included as **Attachment 7** and were subjected to cursory review by the Project Chemist. Radiological data were qualified for low-level contamination below the required detection limit (RDL) in the field filter blanks, negative results, or for minimum detectable concentrations (MDCs) above the RDL and for low carrier recovery. PM10, TSP and metals had some data estimated due to low-level particulates collected on the field blank media. Data, as qualified are considered usable for their intended purposes.

Due to the nature of radiological laboratory analysis, radiological data will be presented as the contractor receives it. Ultimately the radiological results will be slightly delayed in comparison to the Asbestos, PM10, TSP, Lead, and Manganese results.

Table 5-1: Air Monitoring Report Summary

Air Monitoring Report Number	Data Date Range
01	07/07/22 – 09/15/22
02	09/16/22 – 10/13/22
03	10/14/22 – 11/03/22
04	11/04/22 – 12/08/22
05	12/09/22 – 12/22/22

5.1 Report 01

Air monitoring analytical results did not exceed project-specific screening criteria during this reporting period's site operations.

5.2 Report 02

Air monitoring analytical results did not exceed project-specific screening criteria during this reporting period's site operations.

5.3 Report 03

Air monitoring analytical results did not exceed project-specific screening criteria during this reporting period's site operations.

5.4 Report 04

Air monitoring analytical results did not exceed project-specific screening criteria during this reporting period's site operations. The delta was taken by switching the upwind and downwind results due to the change in wind direction for sample end dates 11/10/22, 11/15/22, 11/16/22, 11/22/22, and 11/23/22.

5.5 Report 05

Air monitoring analytical results did not exceed project-specific screening criteria during this reporting period's site operations. The delta was taken by switching the upwind and downwind results due to the change in wind direction for sample end dates 12/15/22, 12/15/22 (second set of samples collected after field activities ceased), 12/21/22, and 12/22/22. The site was shut down for the remainder of the year and therefore no sampling was conducted.

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6.0 References

California Department of Toxic Substances Control, 2021, *Human and Ecological Risk Office (HERO) Memorandum, Dust Action Levels for Parcel B, Hunters Point Naval Shipyard, San Francisco, California*, March 24.

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

United States Environmental Protection Agency (EPA), 1999a. Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II: Ambient Air Specific Methods.

EPA, 1999b. Compendium of Methods for the Determination of Inorganic Compounds in Ambient Air.

Gilbane Federal (Gilbane), 2019. *PR-RP-150* “Radiological Survey and Sampling”. November.

Gilbane, 2022. *Final Parcel B Removal Site Evaluation Work Plan, Former Hunters Point Naval Shipyard, San Francisco, California*. January.

Tetra Tech EC, 2010, *Final Basewide Dust Control Plan, Revision 1, Hunters Point Shipyard, San Francisco, California*, November 29.

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FIGURES

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San Francisco Bay

Wind Compass

N NW NE W E SW SE S

Inset Map

Bayview Manor Weather Station

Parcel B

APTIM HPNS Weather Station

Hilltop Park

Quesada Ave

Palou Ave

Innes Ave

Keith St

Jennings St

Ingalls St

Carroll Ave

Gilman Ave

0 3,000 Feet

Berth 64

DRY DOCK 7

DRY DOCK 6

DRY DOCK 5

Berth 61

146

130

MSB01 (Upwind) Air Monitoring Station

Real-time Dust Monitoring

Windsock

103

Donahue St.

113

114

113A

Lockwood St.

MSB113A (Downwind) Air Monitoring Station

Real-time Dust Monitoring

Galvez Ave.

Fischer Ave.

Robinson St.

Horne Ave.

157

142

140

Real-time Dust Monitoring (Co-located)

MSB02 (Downwind) Air Monitoring Station

DRY DOCK 3

DRY DOCK 2

Air Sampling Station
Real-time Dust Monitoring
Windsock
Phase 1
Phase 2
Parcel B Boundary
Buildings
Impacted Existing
Impacted Demolished
Surface Soil Investigation

Note:
Prevailing wind direction is from west to northwest.

NAVFAC Naval Facilities Engineering Command

Removal Site Evaluation Work Plan
Radiological Investigation, Survey, and Reporting, Parcel B
Hunters Point Naval Shipyard
San Francisco, California

200 0 200
Feet

Figure 2-1
Air Sampling and Dust Monitoring Locations

G:\ArcGIS\Navy\HPS\PROJECTS\Parcel_B_rework\AirDust\ParcelBairDustLoc.mxd 11/4/2022

ATTACHMENT 1

AMBIENT PRESSURE, TEMPERATURE, AND PREVALENT WIND DIRECTION MONITORING RESULTS

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Attachment 1: Ambient Pressure, Temperature, and Prevalent Wind Direction Monitoring Results

Start Date	Ambient Pressure (in Hg)	Ambient Temperature (°F)	Prevalent Wind Direction
7/7/2022[1]	30.01	58.95	WSW
7/11/2022[1]	29.89	58.88	WSW
7/12/2022[1]	29.90	61.20	W
7/13/2022[1]	29.95	59.13	WSW
7/14/2022[1]	29.96	57.43	WSW
7/18/2022[2]	30.04	59.79	W
7/19/2022[2]	30.10	56.27	W
7/20/2022[2]	30.12	55.63	W
7/21/2022[2]	30.07	55.85	W
7/25/2022[2]	29.99	59.20	W
7/26/2022[2]	30.04	60.27	W
7/27/2022[2]	30.05	58.27	W
7/28/2022[2]	29.99	58.28	W
8/1/2022[2]	30.06	63.50	WNW
8/2/2022[2]	30.07	62.18	W
8/3/2022[2]	29.97	61.20	W
8/4/2022[2]	29.98	63.57	W
8/8/2022[2]	30.06	64.64	W
8/9/2022[2]	30.08	65.58	W
8/10/2022[2]	30.13	66.09	W
8/11/2022[2]	30.11	63.63	W
8/15/2022[2]	29.90	63.70	W
8/16/2022[2]	29.87	64.82	WNW
8/17/2022[2]	29.97	60.52	WNW
8/18/2022[2]	30.00	59.94	W
8/22/2022[2]	30.04	62.66	W
8/23/2022[2]	29.89	60.89	WSW
8/24/2022[2]	29.94	60.73	W
8/25/2022[2]	30.04	65.88	WSW
8/29/2022[2]	30.00	62.42	W
8/30/2022[2]	30.07	62.44	WSW
8/31/2022[2]	30.01	61.79	WSW
9/1/2022[2]	29.97	65.10	W
9/6/2022[2]	29.89	75.08	W
9/7/2022[2]	29.98	71.58	NW
9/8/2022[2]	29.87	74.28	WNW
9/12/2022[2]	30.00	61.63	WSW
9/13/2022[2]	29.98	61.93	W
9/14/2022[2]	30.04	63.16	W
9/15/2022[2]	30.11	62.63	W
9/19/2022[2]	29.92	64.57	S

Attachment 1: Ambient Pressure, Temperature, and Prevalent Wind Direction Monitoring Results

Start Date	Ambient Pressure (in Hg)	Ambient Temperature (°F)	Prevalent Wind Direction
9/20/2022[2]	29.99	64.78	NNW
9/21/2022[2]	30.07	65.29	W
9/22/2022[2]	30.15	66.46	WNW
9/26/2022[2]	30.05	58.51	W
9/27/2022[1]	29.99	59.41	WSW
9/28/2022[1]	30.04	59.95	WSW
9/29/2022[1]	30.03	67.48	WSW
10/3/2022[2]	30.10	61.70	W
10/4/2022[2]	30.07	58.62	W
10/5/2022[2]	30.07	58.73	W
10/6/2022[2]	30.12	60.51	WNW
10/10/2022[2]	30.04	56.04	WSW
10/11/2022[1]	30.01	56.86	WSW
10/12/2022[1]	30.08	57.39	WSW
10/13/2022[1]	30.05	57.88	WSW
10/17/2022[1]	30.03	61.97	SE
10/18/2022[1]	30.04	67.52	NW
10/19/2022[1]	30.00	65.67	WSW
10/20/2022[1]	29.97	59.54	WSW
10/24/2022[2]	30.26	59.41	WSW
10/25/2022[2]	30.17	55.60	W
10/26/2022[2]	30.12	57.13	WSW
10/27/2022[2]	30.14	60.51	SSW
10/31/2022[2]	29.95	56.90	SW
11/01/2022[2]	30.03	53.35	WSW
11/02/2022[2]	30.17	52.51	W
11/03/2022[2]	30.29	52.61	NNW
11/07/2022[2]	29.87	53.37	SW
11/09/2022[2]	30.28	53.11	W
11/10/2022[2]	30.35	53.65	ENE
11/14/2022[2]	30.23	53.12	SW
11/15/2022[2]	30.35	54.93	S
11/16/2022[2]	30.40	55.05	W
11/17/2022[2]	30.33	55.56	ENE
11/21/2022[2]	30.25	53.86	N
11/22/2022[2]	30.25	53.74	NNE
11/23/2022[2]	30.03	53.35	WNW
11/28/2022[2]	30.07	51.87	WNW
11/29/2022[2]	30.10	49.04	NNW
11/30/2022[2]	29.99	52.23	S
12/06/2022[2]	30.09	49.88	ESE
12/07/2022[1]	30.25	49.26	S
12/08/2022[1]	30.21	50.71	SSE
12/12/2022[1]	30.01	46.32	NNW

Attachment 1: Ambient Pressure, Temperature, and Prevalent Wind Direction Monitoring Results

Start Date	Ambient Pressure (in Hg)	Ambient Temperature (°F)	Prevalent Wind Direction
12/13/2022[1]	30.16	46.68	SE
12/14/2022[1]	30.22	47.59	NNE
12/15/2022[1]	30.16	51.62	E
12/19/2022[1]	30.30	44.38	NNW
12/20/2022[1]	30.31	48.34	E
12/21/2022[1]	30.21	50.85	N

Notes:

[1]Data collected using wunderground.com from Bayview Manor - KCASANFR1775

[2]Data collected using wunderground.com from APTIM HPNS - KCASANFR1504

°F = degree Fareheit

in Hg = inches of mercury

E = East

N = North

S = South

W = West

ATTACHMENT 2
ASBESTOS MONITORING RESULTS

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Attachment 2: Asbestos Monitoring Results

Sample, Date and Station Information			Sampler Run Information			Asbestos Fibers		
Sample ID	Sample End Date[1]	Monitoring Station	Ave Flow Rate (l/min)	Duration of Run (min)	Total Air Volume Monitored (L)	Asbestos (fibers)	Conc Asbestos (fibers/cm^3)	Exceedance (Yes/No)
MSB01-070722	07/08/22	1	3.0	1,431	4293	13.0	0.001	No
MSB02-070722	07/08/22	2	3.0	1,437	4311	7.5	0.001	No
MSB113A-070722	07/08/22	113A	3.0	1,429	4287	12.5	0.001	No
MSB01-071122	07/11/22	1	2.4	443	1063	5.5	0.003	No
MSB02-071122	07/11/22	2	3.1	448	1388	6.0	0.002	No
MSB113A-071122	07/11/22	113A	2.3	436	1002	2.0	< 0.003	No
MSB01-071222	07/12/22	1	3.3	448	1478	5.5	0.002	No
MSB02-071222	07/12/22	2	2.8	440	1232	5.0	< 0.002	No
MSB113A-071222	07/12/22	113A	1.9	424	805.6	4.0	< 0.003	No
MSB01-071322	07/13/22	1	2.0	524	1048	9.5	0.004	No
MSB02-071322	07/13/22	2	3.0	417	1251	8.5	0.003	No
MSB113A-071322	07/13/22	113A	3.0	420	1260	2.5	< 0.002	No
MSB01-071422	07/15/22	1	2.3	1,466	3371	1.5	< 0.001	No
MSB02-071422	07/15/22	2	3.0	1,443	4329	3.0	< 0.001	No
MSB113A-071422	07/15/22	113A	2.1	1,472	3091	2.0	< 0.001	No
MSB01-071822	07/19/22	1	2.5	1,378	3445	1.0	< 0.001	No
MSB02-071822	07/19/22	2	2.6	1,419	3689	1.0	< 0.001	No
MSB113A-071822	07/19/22	113A	3.6	1,422	5119	1.0	< 0.001	No
MSB01-071922	07/20/22	1	3.2	1,429	4572	0.5	< 0.001	No
MSB02-071922	07/20/22	2	2.5	1,422	3555	2.0	< 0.001	No
MSB113A-071922	07/20/22	113A	2.3	1,424	3275	2.0	< 0.001	No
MSB01-072022	07/21/22	1	2.7	1,473	3387	0.5	< 0.001	No
MSB02-072022	07/21/22	2	2.3	1,462	3947	3.0	< 0.001	No
MSB113A-072022	07/21/22	113A	2.3	1,468	3376	0.0	< 0.001	No
MSB01-072122	07/22/22	1	2.7	1,433	3869	0.5	< 0.001	No
MSB02-072122	07/22/22	2	2.9	1,456	4222	2.0	< 0.001	No
MSB113A-072122	07/22/22	113A	2.3	1,441	3314	1.0	< 0.001	No
MSB01-072522	07/26/22	1	2.4	1,454	3490	3.5	< 0.002	No
MSB02-072522	07/26/22	2	2.9	1,443	4185	2.0	< 0.002	No
MSB113A-072522	07/26/22	113A	2.2	1,454	3199	4.0	< 0.002	No
MSB01-072622	07/27/22	1	3.7	1,431	5295	4.0	< 0.002	No
MSB02-072622	07/27/22	2	3.0	1,432	4296	0.5	< 0.002	No
MSB113A-072622	07/27/22	113A	3.4	1,422	4835	1.5	< 0.002	No
MSB01-072722	07/28/22	1	3.4	1,464	4978	0.5	< 0.002	No
MSB02-072722	07/28/22	2	3.0	1,475	4425	1.5	< 0.002	No
MSB113A-072722	07/28/22	113A	3.4	1,469	4995	7.0	0.002	No
MSB01-072822	07/29/22	1	3.3	1,455	4802	8.0	0.003	No
MSB02-072822	07/29/22	2	2.9	1,466	4251	4.5	< 0.002	No
MSB113A-072822	07/29/22	113A	3.4	1,462	4971	13.0	0.004	No
MSB01-080122	08/02/22	1	3.5	1,450	5075	3.5	< 0.001	No
MSB02-080122	08/02/22	2	3.1	1,439	4460	0.0	< 0.001	No
MSB113A-080122	08/02/22	113A	3.5	1,449	5071	5.0	< 0.001	No
MSB01-080222	08/03/22	1	3.5	1,421	4973	3.5	< 0.001	No
MSB02-080222	08/03/22	2	3.4	1,426	4848	2.0	< 0.001	No
MSB113A-080222	08/03/22	113A	3.6	1,424	5126	2.5	< 0.001	No
MSB01-080322	08/04/22	1	3.4	1,430	4862	3.0	< 0.001	No
MSB02-080322	08/04/22	2	3.6	1,429	5144	8.0	0.001	No
MSB113A-080322	08/04/22	113A	3.4	1,429	4858	1.5	< 0.001	No
MSB01-080422	08/05/22	1	3.4	1,480	5032	3.5	< 0.001	No
MSB02-080422	08/05/22	2	3.4	1,466	4984	11.0	0.001	No
MSB113A-080422	08/05/22	113A	3.5	1,468	5138	28.0	0.003	No
MSB01-080822	08/09/22	1	3.7	1,443	5339	9.0	0.001	No
MSB02-080822	08/09/22	2	3.0	1,438	4314	11.0	0.001	No
MSB113A-080822	08/09/22	113A	3.6	1,442	5191	1.0	<0.001	No
MSB01-080922	08/10/22	1	3.6	1,448	5213	4.5	<0.001	No
MSB02-080922	08/10/22	2	3.8	1,444	5487	8.5	0.001	No
MSB113A-080922	08/10/22	113A	3.3	1,441	4755	4.5	<0.001	No
MSB01-081022	08/11/22	1	3.2	1,446	4627	5.5	0.001	No
MSB02-081022	08/11/22	2	3.4	1,449	4927	3.5	<0.001	No
MSB113A-081022	08/11/22	113A	3.2	1,448	4634	3.0	<0.001	No
MSB01-081122	08/12/22	1	3.0	1,418	4254	2.5	<0.001	No
MSB02-081122	08/12/22	2	3.4	1,414	4808	2.0	<0.001	No
MSB113A-081122	08/12/22	113A	3.0	1,415	4245	1.5	<0.001	No
MSB01-081522	08/16/22	1	3.6	1,444	5198	3.0	<0.001	No
MSB02-081522	08/16/22	2	3.3	1,431	4722	2.0	<0.001	No
MSB113A-081522	08/16/22	113A	3.1	1,444	4476	2.0	<0.001	No
MSB01-081622	08/17/22	1	3.2	1,434	4589	4.5	<0.001	No
MSB02-081622	08/17/22	2	3.3	1,440	4752	4.0	<0.001	No
MSB113A-081622	08/17/22	113A	3.2	1,433	4586	4.5	<0.001	No
MSB01-081722	08/18/22	1	3.7	1,429	5287	0.0	<0.001	No
MSB02-081722	08/18/22	2	3.1	1,428	4427	3.5	<0.001	No
MSB113A-081722	08/18/22	113A	3.2	1,431	4579	3.0	<0.001	No
MSB01-081822	08/19/22	1	3.4	1,457	4954	1.5	<0.001	No
MSB02-081822	08/19/22	2	3.1	1,471	4560	1.0	<0.001	No

Attachment 2: Asbestos Monitoring Results

Sample, Date and Station Information			Sampler Run Information			Asbestos Fibers		
Sample ID	Sample End Date[1]	Monitoring Station	Ave Flow Rate (l/min)	Duration of Run (min)	Total Air Volume Monitored (L)	Asbestos (fibers)	Conc Asbestos (fibers/cm^3)	Exceedance (Yes/No)
MSB113A-081822	08/19/22	113A	3.2	1,462	4678	1.5	<0.001	No
MSB01-082222	08/23/22	1	3.5	1,460	5110	4.0	<0.001	No
MSB02-082222	08/23/22	2	3.2	1,444	4621	10.0	0.001	No
MSB113A-082222	08/23/22	113A	3.0	1,452	4356	4.0	<0.001	No
MSB01-082322	08/22/22	1	3.3	1,413	4663	1.5	<0.001	No
MSB02-082322	08/22/22	2	3.1	1,421	4405	1.5	<0.001	No
MSB113A-082322	08/22/22	113A	2.9	1,417	4109	0.5	<0.001	No
MSB01-082422	08/25/22	1	3.2	1,418	4538	2.5	<0.001	No
MSB02-082422	08/25/22	2	3.3	1,442	4759	3.5	<0.001	No
MSB113A-082422	08/25/22	113A	3.3	1,418	4679	1.0	<0.001	No
MSB01-082522	08/25/22[2]	1	3.0	459	1377	1.0	<0.002	No
MSB02-082522	08/25/22[2]	2	3.1	473	1466	6.0	0.002	No
MSB113A-082522	08/25/22[2]	113A	3.3	462	1525	5.5	0.002	No
MSB01-082922	08/30/22	1	3.1	1,441	4467	7.0	0.001	No
MSB02-082922	08/30/22	2	3.3	1,453	4795	7.5	0.001	No
MSB113A-082922	08/30/22	113A	3.4	1,450	4930	7.0	0.001	No
MSB01-083022	08/31/22	1	3.2	1,438	4602	5.0	<0.001	No
MSB02-083022	08/31/22	2	3.3	1,444	4765	5.0	<0.001	No
MSB113A-083022	08/31/22	113A	3.1	1,438	4458	5.5	0.001	No
MSB01-083122	09/01/22	1	3.5	1,434	5019	6.5	0.001	No
MSB02-083122	09/01/22	2	3.3	1,438	4745	7.0	0.001	No
MSB113A-083122	09/01/22	113A	3.0	1,437	4311	5.5	0.001	No
MSB01-090122	09/01/22[2]	1	3.5	389	1362	6.5	0.002	No
MSB02-090122	09/01/22[2]	2	3.1	397	1231	4.0	<0.002	No
MSB113A-090122	09/01/22[2]	113A	3.1	393	1218	4.5	<0.002	No
MSB01-090622	09/07/22	1	3.5	1,423	4980	6.5	0.001	No
MSB02-090622	09/07/22	2	3.2	1,423	4553	5.0	<0.001	No
MSB113A-090622	09/07/22	113A	3.4	1,424	4841	4.0	<0.001	No
MSB01-090722	09/08/22	1	3.5	1,459	5106	1.0	<0.001	No
MSB02-090722	09/08/22	2	3.6	1,457	5245	4.5	<0.001	No
MSB113A-090722	09/08/22	113A	3.4	1,458	4957	2.5	<0.001	No
MSB01-090822	09/08/22[2]	1	3.3	421	1389	3.5	<0.002	No
MSB02-090822	09/08/22[2]	2	3.5	455	1592	2.5	<0.002	No
MSB113A-090822	09/08/22[2]	113A	3.5	441	1543	2.0	<0.002	No
MSB01-091222	09/13/22	1	3.5	1,429	5001	2.0	<0.001	No
MSB02-091222	09/13/22	2	3.1	1,425	4417	3.0	<0.001	No
MSB113A-091222	09/13/22	113A	3.6	1,426	5133	2.5	<0.001	No
MSB01-091322	09/14/22	1	3.1	1,456	4513	1.5	<0.001	No
MSB02-091322	09/14/22	2	3.5	1,453	5085	5.0	<0.001	No
MSB113A-091322	09/14/22	113A	3.3	1,457	4808	2.5	<0.001	No
MSB01-091422	09/15/22	1	3.3	1,456	4804	4.5	<0.001	No
MSB02-091422	09/15/22	2	3.2	1,456	4659	2.5	<0.001	No
MSB113A-091422	09/15/22	113A	3.4	1,453	4940	7.5	0.001	No
MSB01-091522	09/15/22[2]	1	3.2	407	1302	3.0	<0.002	No
MSB02-091522	09/15/22[2]	2	3.5	451	1578	2.5	<0.002	No
MSB113A-091522	09/15/22[2]	113A	3.2	424	1356	2.0	<0.002	No
MSB01-091922	09/20/22	1	3.4	1,417	4817	1.5	< 0.001	No
MSB02-091922	09/20/22	2	3.4	1,435	4879	4.0	< 0.005	No
MSB113A-091922	09/20/22	113A	3.5	1,424	4984	2.0	< 0.000	No
MSB01-092022	09/21/22	1	3.6	1,466	5277	3.5	< 0.001	No
MSB02-092022	09/21/22	2	3.0	1,463	4389	2.5	< 0.001	No
MSB113A-092022	09/21/22	113A	3.0	1,469	4407	4.0	< 0.001	No
MSB01-092122	09/22/22	1	3.4	1,490	5066	2.5	< 0.001	No
MSB02-092122	09/22/22	2	3.0	1,433	4299	3.0	<0.001	No
MSB113A-092122	09/22/22	113A	3.0	1,428	4284	1.5	< 0.001	No
MSB01-092222	9/22/22[2]	1	3.3	335	1105	1.5	< 0.002	No
MSB02-092222	9/22/22[2]	2	3.4	427	1451	2.0	< 0.002	No
MSB113A-092222	9/22/22[2]	113A	3.3	407	1343	2.0	< 0.002	No
MSB01-092622	09/27/22	1	3.4	1,440	4896	4.5	< 0.001	No
MSB02-092622	09/27/22	2	3.5	1,438	5033	8.5	0.001	No
MSB113A-092622	09/27/22	113A	3.5	1,435	5022	4.0	< 0.001	No
MSB01-092722	09/28/22	1	3.3	1,434	4732	8.0	0.001	No
MSB02-092722	09/28/22	2	3.6	1,436	5169	2.0	< 0.001	No
MSB113A-092722	09/28/22	113A	3.3	1,439	4748	2.5	< 0.001	No
MSB01-092822	09/29/22	1	3.0	1,426	4278	4.5	< 0.001	No
MSB02-092822	09/29/22	2	3.4	1,422	4834	4.5	< 0.001	No
MSB113A-092822	09/29/22	113A	3.0	1,425	4275	3.5	< 0.001	No
MSB01-092922	9/29/22[2]	1	3.5	451	1578	5.0	< 0.002	No
MSB02-092922	9/29/22[2]	2	3.3	478	1577	2.0	< 0.002	No
MSB113A-092922	9/29/22[2]	113A	3.1	458	1419	1.5	< 0.002	No
MSB01-100322	10/04/22	1	3.1	1,471	4560	4.5	< 0.001	No
MSB02-100322	10/04/22	2	3.3	1,462	4824	2.0	< 0.001	No

Attachment 2: Asbestos Monitoring Results

Sample, Date and Station Information			Sampler Run Information			Asbestos Fibers		
Sample ID	Sample End Date[1]	Monitoring Station	Ave Flow Rate (l/min)	Duration of Run (min)	Total Air Volume Monitored (L)	Asbestos (fibers)	Conc Asbestos (fibers/cm^3)	Exceedance (Yes/No)
MSB113A-100322	10/04/22	113A	3.4	1,469	4994	1.5	< 0.001	No
MSB01-100422	10/05/22	1	3.4	1,435	4879	17.0	0.002	No
MSB02-100422	10/05/22	2	3.6	1,442	5191	1.0	< 0.001	No
MSB113A-100422	10/05/22	113A	3.4	1,436	4882	0.5	< 0.001	No
MSB01-100522	10/06/22	1	3.3	1,439	4748	17.5	0.002	No
MSB02-100522	10/06/22	2	3.4	1,434	4875	1.5	< 0.001	No
MSB113A-100522	10/06/22	113A	3.2	1,430	4576	7.0	0.001	No
MSB01-100622	10/6/22[2]	1	3.3	425	1402	3.5	< 0.002	No
MSB02-100622	10/6/22[2]	2	3.4	460	1564	2.0	< 0.002	No
MSB113A-100622	10/6/22[2]	113A	3.1	440	1364	0.0	< 0.002	No
MSB01-101022	10/11/22	1	3.8	1,480	5624	5.5	0.000	No
MSB02-101022	10/11/22	2	3.6	1,441	5187	1.0	< 0.001	No
MSB113A-101022	10/11/22	113A	3.1	1,468	4550	1.0	< 0.001	No
MSB01-101122	10/12/22	1	3.6	1,413	5086	1.5	< 0.001	No
MSB02-101122	10/12/22	2	3.1	1,447	4485	4.0	< 0.001	No
MSB113A-101122	10/12/22	113A	3.1	1,418	4395	3.5	< 0.001	No
MSB01-101222	10/13/22	1	3.5	1,416	4956	2.0	< 0.001	No
MSB02-101222	10/13/22	2	3.2	1,420	4544	2.5	< 0.001	No
MSB113A-101222	10/13/22	113A	3.3	1,417	4676	3.5	< 0.001	No
MSB01-101322	10/13/22[2]	1	3.4	419	1424	3.0	< 0.002	No
MSB02-101322	10/13/22[2]	2	3.1	439	1360	1.0	< 0.002	No
MSB113A-101322	10/13/22[2]	113A	3.2	431	1379	1.0	< 0.002	No
MSB01-101722	10/18/22	1	3.4	1,414	4807	2.0	< 0.001	No
MSB02-101722	10/18/22	2	3.1	1,424	4414	1.0	< 0.001	No
MSB113A-101722	10/18/22	113A	3.3	1,414	4666	2.5	< 0.001	No
MSB01-101822	10/19/22	1	3.3	1,455	4801	9.0	0.001	No
MSB02-101822	10/19/22	2	3.1	1,453	4504	3.0	< 0.001	No
MSB113A-101822	10/19/22	113A	3.5	1,456	5096	4.0	< 0.001	No
MSB01-101922	10/20/22	1	3.4	1,422	4834	4.0	< 0.001	No
MSB02-101922	10/20/22	2	3.1	1,421	4405	3.5	< 0.001	No
MSB113A-101922	10/20/22	113A	3.4	1,421	4831	5.5	0.001	No
MSB01-102022	10/20/22[2]	1	3.5	329	1151	2.5	< 0.002	No
MSB02-102022	10/20/22[2]	2	3.3	384	1267	3.0	< 0.002	No
MSB113A-102022	10/20/22[2]	113A	3.3	354	1168	4.0	< 0.002	No
MSB01-102422	10/25/22	1	3.4	1,449	4926	19.0	0.001	No
MSB02-102422	10/25/22	2	3.3	1,446	4771	8.5	0.000	No
MSB113A-102422	10/25/22	113A	3.5	1,447	5064	13.0	0.001	No
MSB01-102522	10/26/22	1	3.3	1,446	4771	15.5	0.001	No
MSB02-102522	10/26/22	2	3.2	1,449	4636	8.0	0.000	No
MSB113A-102522	10/26/22	113A	3.2	1,449	4636	17.0	0.001	No
MSB01-102622	10/27/22	1	3.2	1,429	4572	15.0	0.001	No
MSB02-102622	10/27/22	2	3.3	1,429	4715	8.5	0.000	No
MSB113A-102622	10/27/22	113A	3.3	1,430	4719	6.5	0.000	No
MSB01-102722	10/27/22[2]	1	3.3	437	1442	13.5	0.003	No
MSB02-102722	10/27/22[2]	2	3.2	472	1510	5.5	0.000	No
MSB113A-102722	10/27/22[2]	113A	3.4	454	1543	11.5	0.002	No
MSB01-103122	11/01/22	1	3.3	1,430	4719	3.5	< 0.001	No
MSB02-103122	11/01/22	2	3.2	1,424	4556.8	2.0	< 0.001	No
MSB113A-103122	11/01/22	113A	3.4	1,428	4855	2.0	< 0.001	No
MSB01-110122	11/02/22	1	3.3	1,434	4732	3.0	< 0.001	No
MSB02-110122	11/02/22	2	3.1	1,443	4473	3.0	< 0.001	No
MSB113A-110122	11/02/22	113A	3.4	1,438	4889	2.0	< 0.001	No
MSB01-110222	11/03/22	1	3.2	1,427	4566	2.0	< 0.001	No
MSB02-110222	11/03/22	2	3.1	1,424	4414	5.0	< 0.001	No
MSB113A-110222	11/03/22	113A	3.3	1,423	4695	14.0	0.001	No
MSB01-110322	11/03/22[2]	1	3.1	437	1354	1.5	< 0.002	No
MSB02-110322	11/03/22[2]	2	3.2	459	1468	3.0	< 0.002	No
MSB113A-110322	11/03/22[2]	113A	3.2	446	1427	3.5	< 0.002	No
MSB01-110722	11/08/22	1	3.1	1,410	4371	3.5	< 0.001	No
MSB02-110722	11/08/22	2	3.3	1,420	4686	6.0	0.001	No
MSB113A-110722	11/08/22	113A	3.6	1,415	5094	3.0	< 0.001	No
MSB01-110122	11/10/22	1	3.8	1,431	5437	3.5	< 0.000	No
MSB02-110122	11/10/22	2	3.5	1,438	5033	2.0	< 0.001	No
MSB113A-110122	11/10/22	113A	3.4	1,434	4875	3.0	< 0.001	No
MSB01-110222	11/10/22[2]	1	3.3	386	1273	1.0	< 0.002	No
MSB02-110222	11/10/22[2]	2	3.4	400	1360	1.0	< 0.002	No
MSB113A-110222	11/10/22[2]	113A	3.2	412	1318	1.5	< 0.002	No
MSB01-111422	11/15/22	1	3.4	1,429	4858.6	4.0	< 0.001	No
MSB02-111422	11/15/22	2	3.5	1,423	4980.5	3.5	< 0.001	No
MSB113A-111422	11/15/22	113A	3.4	1,428	4855.2	3.5	< 0.001	No
MSB01-111522	11/16/22	1	3.3	1,437	4742.1	6.5	0.001	No
MSB02-111522	11/16/22	2	3.5	1,436	5026	3.0	< 0.001	No

Attachment 2: Asbestos Monitoring Results

Sample, Date and Station Information			Sampler Run Information			Asbestos Fibers		
Sample ID	Sample End Date[1]	Monitoring Station	Ave Flow Rate (l/min)	Duration of Run (min)	Total Air Volume Monitored (L)	Asbestos (fibers)	Conc Asbestos (fibers/cm^3)	Exceedance (Yes/No)
MSB113A-111522	11/16/22	113A	3.3	1,437	4742.1	4.0	< 0.001	No
MSB01-111622	11/17/22	1	3.3	1,428	4712.4	7.0	0.001	No
MSB02-111622	11/17/22	2	3.4	1,441	4899.4	7.5	0.001	No
MSB113A-111622	11/17/22	113A	3.7	1,448	5357.6	9.0	0.001	No
MSB01-111722	11/17/22[2]	1	3.7	449	1661.3	3.5	< 0.002	No
MSB02-111722	11/17/22[2]	2	3.5	464	1624	4.5	< 0.002	No
MSB113A-111722	11/17/22[2]	113A	3.5	437	1529.5	2.5	< 0.002	No
MSB01-112122	11/22/22	1	3.7	1,468	5341.6	5.5	0.0004	No
MSB02-112122	11/22/22	2	3.4	1,469	4994.6	5.5	0.001	No
MSB113A-112122	11/22/22	113A	3.8	1,469	5582.2	9.0	0.001	No
MSB01-112222	11/23/22	1	3.5	1,473	5155.5	8.5	0.001	No
MSB02-112222	11/23/22	2	3.4	1,502	5106.8	6.0	0.001	No
MSB113A-112222	11/23/22	113A	3.7	1,485	5494.5	7.5	0.001	No
MSB01-112822	11/29/22	1	3.8	1,355	5149	6.0	0.001	No
MSB02-112822	11/29/22	2	3.6	1,389	5000	5.0	< 0.001	No
MSB113A-112822	11/29/22	113A	3.8	1,325	5035	2.5	< 0.001	No
MSB01-112922	11/30/22	1	3.4	1,443	4906	3.5	< 0.001	No
MSB02-112922	11/30/22	2	3.5	1,439	5036	3.0	< 0.001	No
MSB113A-112922	11/30/22	113A	3.5	1,439	5036	2.5	< 0.001	No
MSB01-113022	12/01/22	1	3.5	1,448	5068	12.0	0.001	No
MSB02-113022	12/01/22	2	3.6	1,450	5220	6.0	0.001	No
MSB113A-113022	12/01/22	113A	3.5	1,447	5064	1.5	< 0.001	No
MSB01-120622	12/07/22	1	3.4	1,437	4885	11.0	0.001	No
MSB02-120622	12/07/22	2	3.4	1,422	4834	2.0	< 0.001	No
MSB113A-120622	12/07/22	113A	3.5	1,480	5180	7.5	0.001	No
MSB01-120722	12/08/22	1	3.2	1,421	4547	4.0	< 0.001	No
MSB02-120722	12/08/22	2	3.7	1,466	5424	2.5	< 0.000	No
MSB113A-120722	12/08/22	113A	3.5	1,380	4830	9.0	0.001	No
MSB01-120822	12/8/2022[2]	1	3.2	379	1212	4.0	< 0.002	No
MSB02-120822	12/8/2022[2]	2	3.6	346	1245	4.5	< 0.002	No
MSB113A-120822	12/8/2022[2]	113A	3.4	382	1298	3.0	< 0.002	No
MSB01-121222	12/13/22	1	3.3	1,424	4699	6.0	0.001	No
MSB02-121222	12/13/22	2	3.5	1,427	4994	3.0	< 0.001	No
MSB113A-121222	12/13/22	113A	3.5	1,428	4998	6.5	0.001	No
MSB01-121322	12/14/22	1	3.2	1,435	4592	5.0	< 0.001	No
MSB02-121322	12/14/22	2	3.5	1,438	5033	3.0	< 0.001	No
MSB113A-121322	12/14/22	113A	3.3	1,437	4742	2.5	< 0.001	No
MSB01-121422	12/15/22	1	3.4	1,445	4913	4.5	< 0.001	No
MSB02-121422	12/15/22	2	3.6	1,443	5194	2.0	< 0.001	No
MSB113A-121422	12/15/22	113A	3.5	1,448	5068	6.5	0.001	No
MSB01-121522	12/15/22[2]	1	3.0	466	1398	1.0	< 0.002	No
MSB02-121522	12/15/22[2]	2	3.6	429	1544	3.0	< 0.002	No
MSB113A-121522	12/15/22[2]	113A	3.4	456	1550	3.0	< 0.002	No
MSB01-121922	12/20/22	1	3.2	1,415	4528	6.0	0.001	No
MSB02-121922	12/20/22	2	3.7	1,418	5246	1.0	< 0.001	No
MSB113A-121922	12/20/22	113A	3.5	1,415	4952	4.5	< 0.001	No
MSB01-122022	12/21/22	1	3.7	1,447	5353	1.5	< 0.001	No
MSB02-122022	12/21/22	2	3.6	1,453	5230	6.5	0.001	No
MSB113A-122022	12/21/22	113A	3.4	1,452	4936	4.5	< 0.001	No
MSB01-122122	12/22/22	1	3.5	1,412	4942	7.0	0.001	No
MSB02-122122	12/22/22	2	3.6	1,426	5133	5.0	< 0.001	No
MSB113A-122122	12/22/22	113A	3.2	1,428	4569	3.5	< 0.001	No

Notes:

[1]Sample "end" date indicates the date upon which sample collection ended.

[2]Air sample was taken down during the afternoon after field activities ceased.

Sample locations are shown on Figure 2-1

l/min = liters per minute

L = liter

min = minutes

fibers/cm^3 = fibers per cubic centimeter

< = below detection limit

ATTACHMENT 3

PARTICULATE MATTER, SMALLER THAN TEN MICRONS (PM10) MONITORING RESULTS

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Attachment 3: Particulate Matter, Smaller than Ten Microns (PM10) Monitoring Results

Sample, Date and Station Information			Sampler Run Information	PM10								
Sample ID	Monitoring Station	Sample End Date[1]	Total Air Volume Monitored (m^3)	Concentration in Air (mg/m^3)	PM10 Perimeter Concentration (Downwind - Upwind) (mg/m^3)	PM10 Perimeter Concentration (Downwind - Upwind) (ug/m^3)	PM10 MSB113A Concentration (Downwind - Upwind) (mg/m^3)	PM10 MSB113A Perimeter Concentration (Downwind - Upwind) (ug/m^3)	Cal/OSHA PEL (ug/m^3)	Exceedance (Yes/No)	HERO Action Level[3] (ug/m^3)	Exceedance (Yes/No)[2]
GES_PM061322-38	MSB01	7/8/2022	1575.14	0.019	-0.0170	-17.000	-0.0060	-6.000	5,000	No	50	No
GES_PM061322-39	MSB02	7/8/2022	1626.27	0.0020								
GES_PM061322-40	MSB113A	7/8/2022	1587.75	0.013								
GES_PM061322-41	MSB01	7/12/2022	1586.87	0.0081	0.0013	1.300	-0.0006	-0.600	5,000	No	50	No
GES_PM061322-42	MSB02	7/12/2022	1593.10	0.0094								
GES_PM061322-43	MSB113A	7/12/2022	1578.52	0.0075								
GES_PM061322-44	MSB01	7/13/2022	1668.76	0.0052	-0.0030	-3.000	-0.0015	-1.500	5,000	No	50	No
GES_PM061322-45	MSB02	7/13/2022	1607.71	0.0022								
GES_PM061322-46	MSB113A	7/13/2022	1600.23	0.0037								
GES_PM061322-47	MSB01	7/14/2022	1571.88	0.015	-0.0020	-2.000	0.0000	0.000	5,000	No	50	No
GES_PM061322-48	MSB02	7/14/2022	1547.49	0.013								
GES_PM061322-49	MSB113A	7/14/2022	1586.39	0.015								
GES_PM061322-50	MSB01	7/15/2022	1671.83	0.021	-0.0020	-2.000	0.0040	4.000	5,000	No	50	No
GES_PM061322-51	MSB02	7/15/2022	1636.90	0.019								
GES_PM061322-52	MSB113A	7/15/2022	1626.56	0.025								
GES_PM061322-53	MSB01	7/19/2022	1604.22	0.025	0.0000	0.000	-0.0010	-1.000	5,000	No	50	No
GES_PM061322-54	MSB02	7/19/2022	1584.87	0.025								
GES_PM070522-73	MSB113A	7/19/2022	1584.48	0.024 J								
GES_PM070522-74	MSB01	7/20/2022	1649.08	0.0082	-0.0007	-0.700	0.0038	3.800	5,000	No	50	No
GES_PM070522-75	MSB02	7/20/2022	1593.23	0.0075								
GES_PM070522-76	MSB113A	7/20/2022	1543.80	0.012 J								
GES_PM070522-78	MSB01	7/21/2022	1681.99	0.0056	0.0040	4.000	0.0020	2.000	5,000	No	50	No
GES_PM070522-79	MSB02	7/21/2022	1631.55	0.0096								
GES_PM070522-80	MSB113A	7/21/2022	1577.49	0.0076 J								
GES_PM070522-81	MSB01	7/22/2022	1645.32	0.012	0.0020	2.000	0.0000	0.000	5,000	No	50	No
GES_PM070522-82	MSB02	7/22/2022	1624.79	0.014								
GES_PM070522-83	MSB113A	7/22/2022	1609.69	0.012 J								
GES_PM070522-84	MSB01	7/26/2022	1656.40	0.0062	0.0009	0.900	-0.0001	-0.100	5,000	No	50	No
GES_PM070522-85	MSB02	7/26/2022	1640.17	0.0071								
GES_PM070522-86	MSB113A	7/26/2022	1621.60	0.0061								
GES_PM070522-87	MSB01	7/27/2022	1630.68	0.0074	0.0000	0.000	-0.0015	-1.500	5,000	No	50	No
GES_PM070522-88	MSB02	7/27/2022	1601.47	0.0074								
GES_PM070522-89	MSB113A	7/27/2022	1585.40	0.0059								
GES_PM071122-91	MSB01	7/28/2022	1652.35	0.0057	-0.0010	-1.000	-0.0036	-3.600	5,000	No	50	No
GES_PM071122-92	MSB02	7/28/2022	1645.25	0.0047								
GES_PM071122-93	MSB113A	7/28/2022	1618.52	0.0021 J+								
GES_PM071122-94	MSB01	7/29/2022	1656.03	0.0053	0.0007	0.700	-0.0035	-3.500	5,000	No	50	No

Attachment 3: Particulate Matter, Smaller than Ten Microns (PM10) Monitoring Results

Sample, Date and Station Information			Sampler Run Information	PM10								
Sample ID	Monitoring Station	Sample End Date[1]	Total Air Volume Monitored (m^3)	Concentration in Air (mg/m^3)	PM10 Perimeter Concentration (Downwind - Upwind) (mg/m^3)	PM10 Perimeter Concentration (Downwind - Upwind) (ug/m^3)	PM10 MSB113A Concentration (Downwind - Upwind) (mg/m^3)	PM10 MSB113A Perimeter Concentration (Downwind - Upwind) (ug/m^3)	Cal/OSHA PEL (ug/m^3)	Exceedance (Yes/No)	HERO Action Level[3] (ug/m^3)	Exceedance (Yes/No)[2]
GES_PM071122-95	MSB02	7/29/2022	1630.44	0.0060								
GES_PM071122-96	MSB113A	7/29/2022	1602.17	0.0018 J+								
GES_PM071122-97	MSB01	08/02/22	1664.38	0.0084	0.001	0.900	0.0016	1.600	5,000	No	50	No
GES_PM071122-98	MSB02	08/02/22	1621.19	0.0093								
GES_PM071122-99	MSB113A	08/02/22	1620.16	0.01								
GES_PM071122-101	MSB01	08/03/22	1633.03	0.0087	0.003	3.300	0.0011	1.100	5,000	No	50	No
GES_PM071122-102	MSB02	08/03/22	1606.01	0.012								
GES_PM071122-103	MSB113A	08/03/22	1586.91	0.0098								
GESPM072622-145	MSB01	08/04/22	1641.25	0.011	0.002	2.000	0.0020	2.000	5,000	No	50	No
GESPM072622-146	MSB02	08/04/22	1607.65	0.013								
GESPM072622-147	MSB113A	08/04/22	1592.35	0.013 J								
GESPM072622-148	MSB01	08/05/22	1703.92	0.013	0.002	2.000	0.0010	1.000	5,000	No	50	No
GESPM072622-149	MSB02	08/05/22	1653.18	0.015								
GESPM072622-150	MSB113A	08/05/22	1484.68	0.014								
GES_PM071122-105	MSB01	08/09/22	1663.70	0.01	0.002	2.000	0.0000	0.000	5,000	No	50	No
GES_PM071122-106	MSB02	08/09/22	1622.89	0.012								
GES_PM071122-107	MSB113A	08/09/22	1623.49	0.01								
GESPM072622-153	MSB01	08/10/22	1699.59	0.008	0.002	1.600	0.0008	0.800	5,000	No	50	No
GESPM072622-154	MSB02	08/10/22	1630.75	0.0096								
GESPM072622-155	MSB113A	08/10/22	1637.96	0.0088								
GES_PM072622-108	MSB01	08/11/22	1657.11	0.0097	0.000	-0.300	-0.0007	-0.700	5,000	No	50	No
GESPM072622-151	MSB02	08/11/22	1635.06	0.0094								
GESPM072622-152	MSB113A	08/11/22	1642.95	0.009								
GESPM072622-156	MSB01	08/12/22	1623.36	0.01	-0.001	-1.300	0.0040	4.000	5,000	No	50	No
GESPM072622-157	MSB02	08/12/22	1598.56	0.0087								
GESPM072622-158	MSB113A	08/12/22	1601.40	0.014								
GESPM072622-159	MSB01	08/16/22	1666.46	0.026	0.000	0.000	-0.0010	-1.000	5,000	No	50	No
GESPM072622-160	MSB02	08/16/22	1629.77	0.026								
GESPM072622-161	MSB113A	08/16/22	1641.67	0.025								
GESPM080822-163	MSB01	08/17/22	1669.85	0.0093	0.002	1.700	0.0047	4.700	5,000	No	50	No
GESPM080822-164	MSB02	08/17/22	1548.50	0.011								
GESPM080822-165	MSB113A	08/17/22	1532.16	0.014								
GESPM080822-166	MSB01	08/18/22	1638.74	0.0047	0.001	0.600	0.0006	0.600	5,000	No	50	No
GESPM080822-167	MSB02	08/18/22	1637.56	0.0053								
GESPM080822-168	MSB113A	08/18/22	1611.00	0.0053								
GESPM080822-169	MSB01	08/19/22	1668.62	0.0025	0.006	6.100	0.0013	1.300	5,000	No	50	No
GESPM080822-170	MSB02	08/19/22	1660.59	0.0086								

Attachment 3: Particulate Matter, Smaller than Ten Microns (PM10) Monitoring Results

Sample, Date and Station Information			Sampler Run Information	PM10								
Sample ID	Monitoring Station	Sample End Date[1]	Total Air Volume Monitored (m^3)	Concentration in Air (mg/m^3)	PM10 Perimeter Concentration (Downwind - Upwind) (mg/m^3)	PM10 Perimeter Concentration (Downwind - Upwind) (ug/m^3)	PM10 MSB113A Concentration (Downwind - Upwind) (mg/m^3)	PM10 MSB113A Perimeter Concentration (Downwind - Upwind) (ug/m^3)	Cal/OSHA PEL (ug/m^3)	Exceedance (Yes/No)	HERO Action Level[3] (ug/m^3)	Exceedance (Yes/No)[2]
GESPM080822-171	MSB113A	08/19/22	1660.29	0.0038								
GESPM080822-172	MSB01	08/23/22	1674.26	0.0066	0.002	1.600	0.0006	0.600	5,000	No	50	No
GESPM080822-173	MSB02	08/23/22	1639.37	0.0082								
GESPM080822-174	MSB113A	08/23/22	1601.43	0.0072								
GESPM080822-176	MSB01	08/24/22	1639.29	0.0068	-0.001	-0.800	0.0010	1.000	5,000	No	50	No
GESPM080822-177	MSB02	08/24/22	1609.09	0.006								
GESPM080822-178	MSB113A	08/24/22	1571.14	0.0078								
GESPM080822-179	MSB01	08/25/22	1655.34	0.0048	-0.001	-0.900	0.0007	0.700	5,000	No	50	No
GESPM080822-180	MSB02	08/25/22	1633.41	0.0039								
GESPM080822-181	MSB113A	08/25/22	1584.08	0.0055								
GESPM080822-182	MSB01	08/25/22[3]	513.61	0.006	-0.005	-5.000	0.0020	2.000	5,000	No	50	No
GESPM080822-183	MSB02	08/25/22[3]	527.62	< 0.00095								
GESPM080822-184	MSB113A	08/25/22[3]	510.18	0.008								
GESPM080822-185	MSB01	08/30/22	1636.24	0.019	-0.001	-1.000	0.0020	2.000	5,000	No	50	No
GESPM080822-186	MSB02	08/30/22	1617.12	0.018								
GESPM080822-187	MSB113A	08/30/22	1582.23	0.021								
GESPM080822-189	MSB01	08/31/22	1648.08	0.018	-0.005	-5.000	-0.0020	-2.000	5,000	No	50	No
GESPM080822-190	MSB02	08/31/22	1637.85	0.013								
GESPM080822-191	MSB113A	08/31/22	1596.26	0.016								
GESPM080822-192	MSB01	09/01/22	1655.98	0.012	-0.001	-1.000	0.0030	3.000	5,000	No	50	No
GESPM080822-193	MSB02	09/01/22	1629.07	0.011								
GESPM080822-194	MSB113A	09/01/22	1588.04	0.015								
GESPM080822-195	MSB01	09/01/22[3]	439.21	0.008	0.002	2.000	0.0010	1.000	5,000	No	50	No
GESPM080822-196	MSB02	09/01/22[3]	450.62	0.01								
GESPM080822-197	MSB113A	09/01/22[3]	431.76	0.009								
GESPM080822-198	MSB01	09/07/22	1649.77	0.037	-0.009	-9.000	-0.0020	-2.000	5,000	No	50	No
GESPM082222-199	MSB02	09/07/22	1630.41	0.028								
GESPM082222-200	MSB113A	09/07/22	1611.43	0.035								
GESPM082222-202	MSB01	09/08/22	1685.89	0.028	-0.003	-3.000	-0.0070	-7.000	5,000	No	50	No
GESPM082222-203	MSB02	09/08/22	1668.92	0.025								
GESPM082222-204	MSB113A	09/08/22	1661.41	0.021								
GESPM082222-205	MSB01	09/08/22[3]	435.50	0.042	-0.016	-16.000	-0.0030	-3.000	5,000	No	50	No
GESPM082222-206	MSB02	09/08/22[3]	512.06	0.026								
GESPM082222-207	MSB113A	09/08/22[3]	491.77	0.039								
GESPM082222-208	MSB01	09/13/22	1589.23	0.024	-0.001	-1.000	0.0030	3.000	5,000	No	50	No
GESPM082222-209	MSB02	09/13/22	1614.36	0.023								
GESPM082222-210	MSB113A	09/13/22	1608.82	0.027								

Attachment 3: Particulate Matter, Smaller than Ten Microns (PM10) Monitoring Results

Sample, Date and Station Information			Sampler Run Information	PM10								
Sample ID	Monitoring Station	Sample End Date[1]	Total Air Volume Monitored (m^3)	Concentration in Air (mg/m^3)	PM10 Perimeter Concentration (Downwind - Upwind) (mg/m^3)	PM10 Perimeter Concentration (Downwind - Upwind) (ug/m^3)	PM10 MSB113A Concentration (Downwind - Upwind) (mg/m^3)	PM10 MSB113A Perimeter Concentration (Downwind - Upwind) (ug/m^3)	Cal/OSHA PEL (ug/m^3)	Exceedance (Yes/No)	HERO Action Level[3] (ug/m^3)	Exceedance (Yes/No)[2]
GESPM082222-212	MSB01	09/14/22	1674.65	0.0094	-0.001	-0.900	0.0002	0.200	5,000	No	50	No
GESPM082222-213	MSB02	09/14/22	1649.19	0.0085								
GESPM082222-214	MSB113A	09/14/22	1643.13	0.0096								
GESPM082222-215	MSB01	09/15/22	1670.91	0.010	-0.002	-2.100	0.0040	4.000	5,000	No	50	No
GESPM082222-216	MSB02	09/15/22	1648.13	0.0079								
GESPM090622-235	MSB113A	09/15/22	1648.11	0.014								
GESPM090622-236	MSB01	09/15/22[3]	469.15	0.0045	-0.001	-0.900	-0.0034	-3.400	5,000	No	50	No
GESPM090622-237	MSB02	09/15/22[3]	495.02	0.0036								
GESPM090622-238	MSB113A	09/15/22[3]	472.73	< 0.0011								
GESPM090622-239	MSB01	09/20/22	1635.64	0.0170	-0.0030	-3.000	0.0010	1.000	5,000	No	50	No
GESPM090622-240	MSB02	09/20/22	1637.45	0.0140								
GESPM090622-241	MSB113A	09/20/22	1593.05	0.0180								
GESPM090622-243	MSB01	09/21/22	1692.11	0.0150 J	-0.0030	-3.000	-0.001	-1.000	5,000	No	50	No
GESPM090622-244	MSB02	09/21/22	1669.66	0.0120								
GESPM090622-245	MSB113A	09/21/22	1630.46	0.0140								
GESPM090622-246	MSB01	09/22/22	1680.46	0.0140	-0.0020	-2.000	-0.0045	-4.500	5,000	No	50	No
GESPM090622-247	MSB02	09/22/22	1637.21	0.0120								
GESPM090622-248	MSB113A	09/22/22	1588.35	0.0095								
GESPM090622-249	MSB01	09/22/22[3]	373.53	< 0.0013 J	-0.0003	-0.300	0.00000	0.000	5,000	No	50	No
GESPM090622-250	MSB02	09/22/22[3]	479.58	< 0.001 J								
GESPM090622-251	MSB113A	09/22/22[3]	451.8	0.0013								
GESPM091922-289	MSB01	09/27/22	1640.65	0.0110	-0.0010	-1.000	0.0010	1.000	5,000	No	50	No
GESPM091922-290	MSB02	09/27/22	1624.03	0.0100								
GESPM091922-291	MSB113A	09/27/22	1603.22	0.0120								
GESPM091922-292	MSB01	09/28/22	1621.57	0.0120	-0.0010	-1.000	0.0020	2.000	5,000	No	50	No
GESPM091922-293	MSB02	09/28/22	1636.33	0.0110								
GESPM091922-294	MSB113A	09/28/22	1592.5	0.0140								
GESPM091922-295	MSB01	09/29/22	1623.64	0.0110	0.0000	0.000	0.0020	2.000	5,000	No	50	No
GESPM091922-296	MSB02	09/29/22	1618.33	0.0110								
GESPM091922-297	MSB113A	09/29/22	1589.08	0.0130								
GESPM091922-298	MSB01	09/29/22[3]	514.58	0.0310	-0.0150	-15.000	-0.0070	-7.000	5,000	No	50	No
GESPM091922-299	MSB02	09/29/22[3]	547.95	0.0160								
GESPM091922-300	MSB113A	09/29/22[3]	516.71	0.0240								
GESPM091922-301	MSB01	10/04/22	1672.44	0.019	-0.0010	-1.000	0.0020	2.000	5,000	No	50	No
GESPM091922-302	MSB02	10/04/22	1656.00	0.018								
GESPM091922-303	MSB113A	10/04/22	1631.28	0.021								
GESPM091922-305	MSB01	10/05/22	1635.08	0.020	-0.0020	-2.000	-0.0040	-4.000	5,000	No	50	No

Attachment 3: Particulate Matter, Smaller than Ten Microns (PM10) Monitoring Results

Sample, Date and Station Information			Sampler Run Information	PM10								
Sample ID	Monitoring Station	Sample End Date[1]	Total Air Volume Monitored (m^3)	Concentration in Air (mg/m^3)	PM10 Perimeter Concentration (Downwind - Upwind) (mg/m^3)	PM10 Perimeter Concentration (Downwind - Upwind) (ug/m^3)	PM10 MSB113A Concentration (Downwind - Upwind) (mg/m^3)	PM10 MSB113A Perimeter Concentration (Downwind - Upwind) (ug/m^3)	Cal/OSHA PEL (ug/m^3)	Exceedance (Yes/No)	HERO Action Level[3] (ug/m^3)	Exceedance (Yes/No)[2]
GESPM091922-306	MSB02	10/05/22	1627.94	0.018								
GESPM092122-307	MSB113A	10/05/22	1597.77	0.016								
GESPM092122-308	MSB01	10/06/22	1636.07	0.0076	-0.0014	-1.400	-0.0005	-0.500	5,000	No	50	No
GESPM092122-309	MSB02	10/06/22	1618.34	0.0062								
GESPM092122-310	MSB113A	10/06/22	1593.63	0.0071								
GESPM092122-311	MSB01	10/06/22[2]	486.80	0.0043	-0.0004	-0.400	-0.0014	-1.400	5,000	No	50	No
GESPM092122-312	MSB02	10/06/22[2]	513.71	0.0039 J								
GESPM092122-313	MSB113A	10/06/22[2]	485.14	0.0029								
GESPM092122-314	MSB01	10/11/22	1673.47	0.0084	-0.0003	-0.300	-0.0003	-0.300	5,000	No	50	No
GESPM092122-315	MSB02	10/11/22	1632.85	0.0081								
GESPM092122-316	MSB113A	10/11/22	1625.79	0.0081								
GESPM092122-318	MSB01	10/12/22	1616.62	0.015	-0.0010	-1.000	0.0040	4.000	5,000	No	50	No
GESPM092122-319	MSB02	10/12/22	1628.68	0.014								
GESPM092122-320	MSB113A	10/12/22	1582.42	0.019								
GESPM092122-321	MSB01	10/13/22	1604.98	0.0097	-0.0020	-2.000	0.0003	0.300	5,000	No	50	No
GESPM092122-322	MSB02	10/13/22	1605.94	0.0077								
GESPM092122-323	MSB113A	10/13/22	1574.95	0.010								
GESPM092122-324	MSB01	10/13/22[2]	476.31	< 0.001 J	0.0004	0.400	0.0014	1.400	5,000	No	50	No
GESPM092122-325	MSB02	10/13/22[2]	498.56	0.0014								
GESPM092122-326	MSB113A	10/13/22[2]	491.16	0.0024								
GESPM092122-327	MSB01	10/18/22	1614.25	0.021	-0.0040	-4.000	0.0000	0.000	5,000	No	50	No
GESPM092122-328	MSB02	10/18/22	1612.96	0.017								
GESPM092122-329	MSB113A	10/18/22	1579.58	0.021								
GESPM092122-331	MSB01	10/19/22	1661.56	0.033	-0.0070	-7.000	0.0000	0.000	5,000	No	50	No
GESPM092122-332	MSB02	10/19/22	1644.44	0.026								
GESPM092122-333	MSB113A	10/19/22	1626.73	0.033								
GESPM092122-334	MSB01	10/20/22	1627.83	0.018	-0.0010	-1.000	0.0030	3.000	5,000	No	50	No
GESPM092122-335	MSB02	10/20/22	1611.53	0.017								
GESPM092122-336	MSB113A	10/20/22	1585.09	0.021								
GESPM092122-337	MSB01	10/20/22[2]	365.09	0.014	-0.0040	-4.000	-0.0056	-5.600	5,000	No	50	No
GESPM092122-338	MSB02	10/20/22[2]	370.39	0.01								
GESPM092122-339	MSB113A	10/20/22[2]	391.25	0.0084								
GESPM092122-340	MSB01	10/25/22	1646.41	0.013	-0.0020	-2.000	-0.0034	-3.400	5,000	No	50	No
GESPM092122-341	MSB02	10/25/22	1633.73	0.011								
GESPM092122-342	MSB113A	10/25/22	1548.34	0.0096								
GESPM100322-344	MSB01	10/26/22	1645.67	0.018	0.0084	8.400	0.0020	2.000	5,000	No	50	No
GESPM100322-345	MSB02	10/26/22	1592.33	0.032								

Attachment 3: Particulate Matter, Smaller than Ten Microns (PM10) Monitoring Results

Sample, Date and Station Information			Sampler Run Information	PM10								
Sample ID	Monitoring Station	Sample End Date[1]	Total Air Volume Monitored (m^3)	Concentration in Air (mg/m^3)	PM10 Perimeter Concentration (Downwind - Upwind) (mg/m^3)	PM10 Perimeter Concentration (Downwind - Upwind) (ug/m^3)	PM10 MSB113A Concentration (Downwind - Upwind) (mg/m^3)	PM10 MSB113A Perimeter Concentration (Downwind - Upwind) (ug/m^3)	Cal/OSHA PEL (ug/m^3)	Exceedance (Yes/No)	HERO Action Level[3] (ug/m^3)	Exceedance (Yes/No)[2]
GESPM100322-346	MSB113A	10/26/22	1610.55	0.02								
GESPM100322-347	MSB01	10/27/22	1665.33	0.012	0.0050	5.000	0.0070	7.000	5,000	No	50	No
GESPM100322-348	MSB02	10/27/22	1609.51	0.017								
GESPM100322-349	MSB113A	10/27/22	1592.94	0.019								
GESPM100322-350	MSB01	10/27/22[2]	496.95	0.0032	0.0039	3.900	0.0010	1.000	5,000	No	50	No
GESPM100322-351	MSB02	10/27/22[2]	534.53	0.0071								
GESPM100322-352	MSB113A	10/27/22[2]	504.08	0.0042								
GESPM100322-356	MSB01	11/01/22	1624.14	0.019	-0.0010	-1.000	0.0010	1.000	5,000	No	50	No
GESPM100322-355	MSB02	11/01/22	1605.49	0.018								
GESPM100322-354	MSB113A	11/01/22	1597.24	0.020								
GESPM100322-357	MSB01	11/02/22	1628.41	0.0092	-0.0017	-1.700	-0.0005	-0.500	5,000	No	50	No
GESPM100322-359	MSB02	11/02/22	1613.51	0.0075								
GESPM100322-358	MSB113A	11/02/22	1594.35	0.0087								
GESPM100322-360	MSB01	11/03/22	1609.52	0.007	-0.0025	-2.500	-0.0051	-5.100	5,000	No	50	No
GESPM100322-379	MSB02	11/03/22	1589.40	0.0045								
GESPM100322-380	MSB113A	11/03/22	1567.30	0.0019								
GESPM100322-381	MSB01	11/03/22[2]	500.38	0.0096 J	-0.0060	-6.000	0.0064	6.400	5,000	No	50	No
GESPM100322-382	MSB02	11/03/22[2]	520.08	0.0036								
GESPM100322-383	MSB113A	11/03/22[2]	495.88	0.016 J								
GESPM100322-384	MSB01	11/08/22	1598.34	0.0083	0.0012	1.200	0.0007	0.700	5,000	No	50	No
GESPM100322-385	MSB02	11/08/22	1579.76	0.0095								
GESPM100322-386	MSB113A	11/08/22	1562.49	0.0090								
GESPM100322-388	MSB01	11/10/22	1620.16	0.0092	-0.0030	-3.000	0.0018	1.800	5,000	No	50	No
GESPM100322-389	MSB02	11/10/22	1201.38	0.0062								
GESPM100322-390	MSB113A	11/10/22	1589.02	0.011								
GESPM100322-391	MSB01	11/10/22[2]	435.87	0.020 J	0.0010	1.000	0.0080	8.000	5,000	No	50	No
GESPM100322-392	MSB02	11/10/22[2]	425.15	0.019 J								
GESPM100322-393	MSB113A	11/10/22[2]	457.37	0.012								
GESPM100322-395	MSB01	11/15/22	1617.39	0.017	0.0040	4.000	0.0020	2.000	5,000	No	50	No
GESPM100322-396	MSB02	11/15/22	1612.86	0.013								
GESPM101722-397	MSB113A	11/15/22	1585.58	0.015								
GESPM101722-398	MSB01	11/16/22	1636.05	0.022	0.0070	7.000	0.0040	4.000	5,000	No	50	No
GESPM101722-399	MSB02	11/16/22	1629.12	0.015								
GESPM101722-400	MSB113A	11/16/22	1595.95	0.018								
GESPM101722-401	MSB01	11/17/22	1634.27	0.016	-0.0010	-1.000	0.0010	1.000	5,000	No	50	No
GESPM101722-402	MSB02	11/17/22	1630.45	0.015								
GESPM101722-403	MSB113A	11/17/22	1606.86	0.017								

Attachment 3: Particulate Matter, Smaller than Ten Microns (PM10) Monitoring Results

Sample, Date and Station Information			Sampler Run Information	PM10								
Sample ID	Monitoring Station	Sample End Date[1]	Total Air Volume Monitored (m^3)	Concentration in Air (mg/m^3)	PM10 Perimeter Concentration (Downwind - Upwind) (mg/m^3)	PM10 Perimeter Concentration (Downwind - Upwind) (ug/m^3)	PM10 MSB113A Concentration (Downwind - Upwind) (mg/m^3)	PM10 MSB113A Perimeter Concentration (Downwind - Upwind) (ug/m^3)	Cal/OSHA PEL (ug/m^3)	Exceedance (Yes/No)	HERO Action Level[3] (ug/m^3)	Exceedance (Yes/No)[2]
GESPM101722-404	MSB01	11/17/22[2]	507.01	0.029	-0.0120	-12.000	-0.0070	-7.000	5,000	No	50	No
GESPM101722-405	MSB02	11/17/22[2]	527.41	0.017								
GESPM101722-406	MSB113A	11/17/22[2]	484.19	0.022								
GESPM101722-408	MSB01	11/22/22	1667.55	0.022	0.0080	8.000	0.0030	3.000	5,000	No	50	No
GESPM101722-409	MSB02	11/22/22	1671.54	0.014								
GESPM101722-410	MSB113A	11/22/22	1629.20	0.019								
GESPM101722-411	MSB01	11/23/22	1677.36	0.019	0.0040	4.000	0.0030	3.000	5,000	No	50	No
GESPM101722-412	MSB02	11/23/22	1697.96	0.015								
GESPM101722-413	MSB113A	11/23/22	1646.43	0.016								
GESPM103122-657	MSB01	11/29/22	1529.47	0.0097	0.0001	0.100	0.0003	0.300	5,000	No	50	No
GESPM103122-658	MSB02	11/29/22	1572.93	0.0098								
GESPM103122-659	MSB113A	11/29/22	1481.59	0.010								
GESPM103122-660	MSB01	11/30/22	1630.88	0.015	-0.0040	-4.000	-0.0030	-3.000	5,000	No	50	No
GESPM103122-661	MSB02	11/30/22	1579.37	0.011								
GESPM103122-662	MSB113A	11/30/22	1586.43	0.012								
GESPM103122-663	MSB01	12/01/22	1645.42	0.0092	-0.0046	-4.600	-0.0040	-4.000	5,000	No	50	No
GESPM103122-664	MSB02	12/01/22	1592.92	0.0046								
GESPM103122-665	MSB113A	12/01/22	1604.75	0.0052								
GESPM103122-667	MSB01	12/07/22	1621.94	0.011	0.0010	1.000	0.0010	1.000	5,000	No	50	No
GESPM103122-668	MSB02	12/07/22	1621.53	0.012								
GESPM103122-669	MSB113A	12/7/22[3]	835.78	0.012								
GESPM103122-670	MSB01	12/08/22	1547.62	0.013	-0.0010	-1.000	0.0010	1.000	5,000	No	50	No
GESPM103122-671	MSB02	12/08/22	1652.97	0.012								
GESPM103122-672	MSB113A	12/08/22	1530.56	0.014 J								
GESPM103122-673	MSB01	12/08/22[2]	422.08	0.018	-0.0157	-15.700	-0.0060	-6.000	5,000	No	50	No
GESPM103122-674	MSB02	12/08/22[2]	387.33	0.0023								
GESPM103122-675	MSB113A	12/08/22[2]	417.69	0.012								
GESPM103122-677	MSB01	12/13/22	1607.54	0.014	0.0030	3.000	0.0000	0.000	5,000	No	50	No
GESPM103122-678	MSB02	12/13/22	1610.22	0.017								
GESPM103122-679	MSB113A	12/13/22	1578.20	0.014								
GESPM103122-680	MSB01	12/14/22	1497.62	0.017	-0.0030	-3.000	-0.0020	-2.000	5,000	No	50	No
GESPM103122-681	MSB02	12/14/22	1615.86	0.014								
GESPM103122-682	MSB113A	12/14/22	1573.45	0.015								
GESPM103122-683	MSB01	12/15/22	1644.54	0.018	0.0010	1.000	0.0030	3.000	5,000	No	50	No
GESPM103122-684	MSB02	12/15/22	1634.09	0.017								
GESPM103122-685	MSB113A	12/15/22	1593.15	0.02								
GESPM103122-686	MSB01	12/15/22[2]	524.94	0.015	0.0030	3.000	0.0000	0.000	5,000	No	50	No

Attachment 3: Particulate Matter, Smaller than Ten Microns (PM10) Monitoring Results

Sample, Date and Station Information			Sampler Run Information	PM10								
Sample ID	Monitoring Station	Sample End Date[1]	Total Air Volume Monitored (m^3)	Concentration in Air (mg/m^3)	PM10 Perimeter Concentration (Downwind - Upwind) (mg/m^3)	PM10 Perimeter Concentration (Downwind - Upwind) (ug/m^3)	PM10 MSB113A Concentration (Downwind - Upwind) (mg/m^3)	PM10 MSB113A Perimeter Concentration (Downwind - Upwind) (ug/m^3)	Cal/OSHA PEL (ug/m^3)	Exceedance (Yes/No)	HERO Action Level[3] (ug/m^3)	Exceedance (Yes/No)[2]
GESPM103122-687	MSB02	12/15/22[2]	481.72	0.012								
GESPM103122-688	MSB113A	12/15/22[2]	498.09	0.015								
PM112922-03	MSB01	12/20/22	1708.82	0.01743893	0.0029	2.936	0.005185	5.185	5,000	No	50	No
PM112922-05	MSB02	12/20/22	1688.36	0.0203748								
PM112922-07	MSB113A	12/20/22	1657.51	0.0226243								
PM112922-09	MSB01	12/21/22	1698.14	0.02178855	-0.000504	-0.504	-0.003422	-3.422	5,000	No	50	No
PM112922-11	MSB02	12/21/22	1677.68	0.02229269								
PM112922-13	MSB113A	12/21/22	1634.25	0.02521034								
PM112922-15	MSB01	12/22/22	1498.33	0.0262292	0.001179	1.179	-0.004164	-4.164	5,000	No	50	No
PM112922-17	MSB02	12/22/22	1520.95	0.02505013								
PM112922-19	MSB113A	12/22/22	1477.30	0.03039329								

Notes:

[1]Air sample was not collected on days with rain.

[2]PM10 data is additionally compared to the recommended dust action level of 50 ug/m3 for total PM10 in accordance with the DTSC Human and Ecological Risk Office (HERO) Parcel E Memorandum dated April 29, 2019 (DTSC, 2019) for informational purposes only.

[2]Air sample was taken down during the afternoon after field activities ceased.

[3]Generator malfunction.

Sample locations are shown on Figure 2-1

min = minutes

Cal/OSHA = California Division of Occupational Safety and Health

HERO = Human and Ecological Risk Office

J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

J+ = estimated concentration biased high

m^3 = cubic meters

mg/m^3 = milligrams per cubic meter

PEL = permissible exposure limit

PM10 = particulate matter smaller than 10 microns in diameter

ug/m^3 = micrograms per cubic meter

m^3 = cubic meters

mg/m^3 = milligrams per cubic meter

PEL = permissible exposure limit

PM10 = particulate matter smaller than 10 microns in diameter

ug/m^3 = micrograms per cubic meter

ATTACHMENT 4
LEAD AND MANGANESE MONITORING RESULTS

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Attachment 4: Lead and Manganese Monitoring Results

Sample, Date and Station Information			Sampler Run Information	Lead		Manganese	
Sample ID	Monitoring Station	Sample End Date[1]	Total Air Volume Monitored (m^3)	Concentration in Air (mg/m^3)	Exceedance (Yes/No)	Concentration in Air (mg/m^3)	Exceedance (Yes/No)
GES_PM061322-38	MSB01	7/8/2022	1575.14	0.0000029	No	0.0000075	No
GES_PM061322-39	MSB02	7/8/2022	1626.27	0.0000012	No	0.0000026	No
GES_PM061322-40	MSB113A	7/8/2022	1587.75	0.00000082	No	0.0000024	No
GES_PM061322-41	MSB01	7/12/2022	1586.87	0.0000012	No	0.0000030	No
GES_PM061322-42	MSB02	7/12/2022	1593.10	0.00000088	No	0.0000026	No
GES_PM061322-43	MSB113A	7/12/2022	1578.52	0.00000078	No	0.0000019	No
GES_PM061322-44	MSB01	7/13/2022	1668.76	0.00000063 J	No	0.0000024	No
GES_PM061322-45	MSB02	7/13/2022	1607.71	0.0000012	No	0.0000014	No
GES_PM061322-46	MSB113A	7/13/2022	1600.23	0.00000069 J	No	0.0000021	No
GES_PM061322-47	MSB01	7/14/2022	1571.88	0.00000076	No	0.0000029	No
GES_PM061322-48	MSB02	7/14/2022	1547.49	0.00000063 J	No	0.0000014	No
GES_PM061322-49	MSB113A	7/14/2022	1586.39	0.00000073 J	No	0.0000019	No
GES_PM061322-50	MSB01	7/15/2022	1671.83	0.00000090	No	0.0000020	No
GES_PM061322-51	MSB02	7/15/2022	1636.90	0.00000070 J	No	0.0000021	No
GES_PM061322-52	MSB113A	7/15/2022	1626.56	0.00000098	No	0.0000028	No
GES_PM061322-53	MSB01	7/19/2022	1604.22	0.0000013	No	0.0000029	No
GES_PM061322-54	MSB02	7/19/2022	1584.87	0.00000075 J	No	0.00000220	No
GES_PM070522-73	MSB113A	7/19/2022	1584.48	0.0000011	No	0.0000027	No
GES_PM070522-74	MSB01	7/20/2022	1649.08	0.00000076	No	0.0000020	No
GES_PM070522-75	MSB02	7/20/2022	1593.23	0.00000044 J	No	0.0000014	No
GES_PM070522-76	MSB113A	7/20/2022	1543.80	0.0000013	No	0.0000028	No
GES_PM070522-78	MSB01	7/21/2022	1681.99	0.0000010	No	0.0000028	No
GES_PM070522-79	MSB02	7/21/2022	1631.55	0.00000072 J	No	0.00000190	No
GES_PM070522-80	MSB113A	7/21/2022	1577.49	0.00000081	No	0.00000220	No
GES_PM070522-81	MSB01	7/22/2022	1645.32	0.0000010	No	0.0000031	No
GES_PM070522-82	MSB02	7/22/2022	1624.79	0.00000066 J	No	0.0000025	No
GES_PM070522-83	MSB113A	7/22/2022	1609.69	0.00000072 J	No	0.0000020	No
GES_PM070522-84	MSB01	7/26/2022	1656.40	0.00000090	No	0.0000025 J+	No
GES_PM070522-85	MSB02	7/26/2022	1640.17	0.00000055 J	No	0.0000015 J+	No
GES_PM070522-86	MSB113A	7/26/2022	1621.60	0.00000052 J	No	0.0000016 J+	No
GES_PM070522-87	MSB01	7/27/2022	1630.68	0.00000091	No	0.0000019 J+	No
GES_PM070522-88	MSB02	7/27/2022	1601.47	0.00000048 J	No	0.0000015 J+	No
GES_PM070522-89	MSB113A	7/27/2022	1585.40	0.00000075 J	No	0.0000018 J+	No
GES_PM071122-91	MSB01	7/28/2022	1652.35	0.0000011	No	0.0000028 J+	No
GES_PM071122-92	MSB02	7/28/2022	1645.25	0.00000064 J	No	0.0000014 J+	No
GES_PM071122-93	MSB113A	7/28/2022	1618.52	0.00000077	No	0.0000014 J+	No
GES_PM071122-94	MSB01	7/29/2022	1656.03	0.00000040 J	No	0.0000017 J+	No
GES_PM071122-95	MSB02	7/29/2022	1630.44	0.00000039 J	No	0.0000024 J+	No
GES_PM071122-96	MSB113A	7/29/2022	1602.17	0.00000058 J	No	0.0000012 J+	No
GES_PM071122-97	MSB01	08/02/22	1664.38	0.0000007 J	No	0.0000026	No
GES_PM071122-98	MSB02	08/02/22	1621.19	0.00000079	No	0.0000019	No
GES_PM071122-99	MSB113A	08/02/22	1620.16	0.00000093	No	0.0000028	No
GES_PM071122-101	MSB01	08/03/22	1633.03	0.00000089	No	0.0000025	No
GES_PM071122-102	MSB02	08/03/22	1606.01	0.0000007 J	No	0.0000031	No
GES_PM071122-103	MSB113A	08/03/22	1586.91	0.00000076	No	0.0000026	No
GESPM072622-145	MSB01	08/04/22	1641.25	0.00000046 J	No	0.0000016	No

Attachment 4: Lead and Manganese Monitoring Results

Sample, Date and Station Information			Sampler Run Information	Lead		Manganese	
Sample ID	Monitoring Station	Sample End Date[1]	Total Air Volume Monitored (m^3)	Concentration in Air (mg/m^3)	Exceedance (Yes/No)	Concentration in Air (mg/m^3)	Exceedance (Yes/No)
GESPM072622-146	MSB02	08/04/22	1607.65	0.00000059 J	No	0.0000025	No
GESPM072622-147	MSB113A	08/04/22	1592.35	0.00000044 J	No	0.0000017	No
GESPM072622-148	MSB01	08/05/22	1703.92	0.0000006 J	No	0.0000021	No
GESPM072622-149	MSB02	08/05/22	1653.18	0.0000012	No	0.0000031	No
GESPM072622-150	MSB113A	08/05/22	1484.68	0.00000069 J	No	0.0000021	No
GES_PM071122-105	MSB01	08/09/22	1663.70	< 0.00000072	No	0.000002	No
GES_PM071122-106	MSB02	08/09/22	1622.89	< 0.00000074	No	0.0000035	No
GES_PM071122-107	MSB113A	08/09/22	1623.49	< 0.00000074	No	0.0000018	No
GESPM072622-153	MSB01	08/10/22	1699.59	< 0.00000071	No	0.0000019	No
GESPM072622-154	MSB02	08/10/22	1630.75	< 0.00000074	No	0.0000026	No
GESPM072622-155	MSB113A	08/10/22	1637.96	< 0.00000073	No	0.000002	No
GES_PM072622-108	MSB01	08/11/22	1657.11	< 0.00000072	No	0.0000021	No
GESPM072622-151	MSB02	08/11/22	1635.06	< 0.00000073	No	0.0000016	No
GESPM072622-152	MSB113A	08/11/22	1642.95	< 0.00000073	No	0.0000018	No
GESPM072622-156	MSB01	08/12/22	1623.36	< 0.00000074	No	0.000002	No
GESPM072622-157	MSB02	08/12/22	1598.56	< 0.00000075	No	0.0000023	No
GESPM072622-158	MSB113A	08/12/22	1601.40	< 0.00000075	No	0.0000045	No
GESPM072622-159	MSB01	08/16/22	1666.46	< 0.00000072	No	0.0000034	No
GESPM072622-160	MSB02	08/16/22	1629.77	< 0.00000074	No	0.0000033	No
GESPM072622-161	MSB113A	08/16/22	1641.67	< 0.00000073	No	0.0000036	No
GESPM080822-163	MSB01	08/17/22	1669.85	< 0.00000072	No	0.0000025	No
GESPM080822-164	MSB02	08/17/22	1548.50	< 0.00000077	No	0.0000036	No
GESPM080822-165	MSB113A	08/17/22	1532.16	< 0.00000078	No	0.0000048	No
GESPM080822-166	MSB01	08/18/22	1638.74	< 0.00000073	No	0.0000022	No
GESPM080822-167	MSB02	08/18/22	1637.56	< 0.00000073	No	0.0000022	No
GESPM080822-168	MSB113A	08/18/22	1611.00	< 0.00000074	No	0.0000027	No
GESPM080822-169	MSB01	08/19/22	1668.62	< 0.00000072	No	0.0000019	No
GESPM080822-170	MSB02	08/19/22	1660.59	< 0.00000072	No	0.0000071	No
GESPM080822-171	MSB113A	08/19/22	1660.29	< 0.00000072	No	0.0000023	No
GESPM080822-172	MSB01	08/23/22	1674.26	0.00000075	No	0.0000028	No
GESPM080822-173	MSB02	08/23/22	1639.37	0.00000068 J	No	0.0000041	No
GESPM080822-174	MSB113A	08/23/22	1601.43	0.00000056 J	No	0.0000018	No
GESPM080822-176	MSB01	08/24/22	1639.29	0.0000006 J	No	0.0000015	No
GESPM080822-177	MSB02	08/24/22	1609.09	0.00000057 J	No	0.0000017	No
GESPM080822-178	MSB113A	08/24/22	1571.14	0.00000067 J	No	0.000002	No
GESPM080822-179	MSB01	08/25/22	1655.34	0.00000044 J	No	0.0000017	No
GESPM080822-180	MSB02	08/25/22	1633.41	0.00000061 J	No	0.0000025	No
GESPM080822-181	MSB113A	08/25/22	1584.08	0.00000051 J	No	0.0000019	No
GESPM080822-182	MSB01	08/25/22[2]	513.61	0.0000014 J	No	0.0000044	No
GESPM080822-183	MSB02	08/25/22[2]	527.62	0.000001 J	No	0.0000034	No
GESPM080822-184	MSB113A	08/25/22[2]	510.18	0.0000011 J	No	0.0000036	No
GESPM080822-185	MSB01	08/30/22	1636.24	0.0000016	No	0.0000035	No
GESPM080822-186	MSB02	08/30/22	1617.12	0.00000071 J	No	0.0000048	No
GESPM080822-187	MSB113A	08/30/22	1582.23	0.00000073 J	No	0.0000028	No
GESPM080822-189	MSB01	08/31/22	1648.08	0.0000016	No	0.0000033	No

Attachment 4: Lead and Manganese Monitoring Results

Sample, Date and Station Information			Sampler Run Information	Lead		Manganese	
Sample ID	Monitoring Station	Sample End Date[1]	Total Air Volume Monitored (m^3)	Concentration in Air (mg/m^3)	Exceedance (Yes/No)	Concentration in Air (mg/m^3)	Exceedance (Yes/No)
GESPM080822-190	MSB02	08/31/22	1637.85	0.00000055 J	No	0.0000035	No
GESPM080822-191	MSB113A	08/31/22	1596.26	0.00000059 J	No	0.0000021	No
GESPM080822-192	MSB01	09/01/22	1655.98	0.00000046 J	No	0.0000017	No
GESPM080822-193	MSB02	09/01/22	1629.07	0.00000048 J	No	0.0000021	No
GESPM080822-194	MSB113A	09/01/22	1588.04	0.00000069 J	No	0.0000024	No
GESPM080822-195	MSB01	09/01/22[2]	439.21	0.0000017 J	No	0.0000043	No
GESPM080822-196	MSB02	09/01/22[2]	450.62	0.0000012 J	No	0.0000068	No
GESPM080822-197	MSB113A	09/01/22[2]	431.76	0.0000019 J	No	0.0000054	No
GESPM080822-198	MSB01	09/07/22	1649.77	0.0000023	No	0.0000084	No
GESPM082222-199	MSB02	09/07/22	1630.41	0.0000012	No	0.0000076	No
GESPM082222-200	MSB113A	09/07/22	1611.43	0.0000019	No	0.0000068	No
GESPM082222-202	MSB01	09/08/22	1685.89	0.0000014	No	0.0000039	No
GESPM082222-203	MSB02	09/08/22	1668.92	0.0000013	No	0.0000043	No
GESPM082222-204	MSB113A	09/08/22	1661.41	0.0000012	No	0.0000033	No
GESPM082222-205	MSB01	09/08/22[2]	435.50	0.0000031	No	0.000021	No
GESPM082222-206	MSB02	09/08/22[2]	512.06	0.0000035	No	0.0000074	No
GESPM082222-207	MSB113A	09/08/22[2]	491.77	0.0000046	No	0.000012	No
GESPM082222-208	MSB01	09/13/22	1589.23	0.00000091	No	0.0000026	No
GESPM082222-209	MSB02	09/13/22	1614.36	0.00000081	No	0.0000068	No
GESPM082222-210	MSB113A	09/13/22	1608.82	0.000001	No	0.0000038	No
GESPM082222-212	MSB01	09/14/22	1674.65	0.00000059 J	No	0.0000016	No
GESPM082222-213	MSB02	09/14/22	1649.19	0.00000043 J	No	0.0000024	No
GESPM082222-214	MSB113A	09/14/22	1643.13	0.00000075	No	0.0000022	No
GESPM082222-215	MSB01	09/15/22	1670.91	0.00000042 J	No	0.0000022	No
GESPM082222-216	MSB02	09/15/22	1648.13	0.00000054 J	No	0.0000022	No
GESPM090622-235	MSB113A	09/15/22	1648.11	0.00000056 J	No	0.0000026	No
GESPM090622-236	MSB01	09/15/22[2]	469.15	0.00000072 J	No	0.0000046	No
GESPM090622-237	MSB02	09/15/22[2]	495.02	0.0000011 J	No	0.0000056	No
GESPM090622-238	MSB113A	09/15/22[2]	472.73	0.0000016 J	No	0.0000062	No
GESPM090622-239	MSB01	09/20/22	1635.64	0.0000011 J	No	0.0000023	No
GESPM090622-240	MSB02	09/20/22	1637.45	< 0.00000073 J	No	0.0000012 J	No
GESPM090622-241	MSB113A	09/20/22	1593.05	0.0000012 J	No	0.0000022	No
GESPM090622-243	MSB01	09/21/22	1692.11	0.00000075 J	No	0.0000029	No
GESPM090622-244	MSB02	09/21/22	1669.66	< 0.00000072 J	No	0.0000015	No
GESPM090622-245	MSB113A	09/21/22	1630.46	< 0.00000074 J	No	0.0000024	No
GESPM090622-246	MSB01	09/22/22	1680.46	< 0.00000071 J	No	0.0000026	No
GESPM090622-247	MSB02	09/22/22	1637.21	< 0.00000073 J	No	0.0000016	No
GESPM090622-248	MSB113A	09/22/22	1588.35	< 0.00000076 J	No	0.0000023	No
GESPM090622-249	MSB01	09/22/22[2]	373.53	< 0.0000032 J	No	0.0000034	No
GESPM090622-250	MSB02	09/22/22[2]	479.58	0.0000028	No	0.0000036	No
GESPM090622-251	MSB113A	09/22/22[2]	451.80	< 0.0000027 J	No	0.0000037	No
GESPM091922-289	MSB01	09/27/22	1640.65	0.00000061 J	No	0.0000027	No
GESPM091922-290	MSB02	09/27/22	1624.03	0.00000044 J	No	0.000002	No
GESPM091922-291	MSB113A	09/27/22	1603.22	0.00000067 J	No	0.0000024	No
GESPM091922-292	MSB01	09/28/22	1621.57	0.00000074	No	0.0000024	No
GESPM091922-293	MSB02	09/28/22	1636.33	0.00000053 J	No	0.0000019	No
GESPM091922-294	MSB113A	09/28/22	1592.50	0.000001	No	0.000003	No
GESPM091922-295	MSB01	09/29/22	1623.64	0.0000004 J	No	0.0000014 J	No

Attachment 4: Lead and Manganese Monitoring Results

Sample, Date and Station Information			Sampler Run Information	Lead		Manganese	
Sample ID	Monitoring Station	Sample End Date[1]	Total Air Volume Monitored (m^3)	Concentration in Air (mg/m^3)	Exceedance (Yes/No)	Concentration in Air (mg/m^3)	Exceedance (Yes/No)
GESPM091922-296	MSB02	09/29/22	1618.33	0.00000055 J	No	0.0000015	No
GESPM091922-297	MSB113A	09/29/22	1589.08	0.00000059 J	No	0.0000018	No
GESPM091922-298	MSB01	09/29/22[2]	514.58	0.0000013 J	No	0.000015	No
GESPM091922-299	MSB02	09/29/22[2]	547.95	0.0000012 J	No	0.0000034	No
GESPM091922-300	MSB113A	09/29/22[2]	516.71	0.0000013 J	No	0.0000046	No
GESPM091922-301	MSB01	10/04/22	1672.44	0.00000073	No	0.0000028 J+	No
GESPM091922-302	MSB02	10/04/22	1656.00	0.00000064 J	No	0.0000026 J+	No
GESPM091922-303	MSB113A	10/04/22	1631.28	0.00000087	No	0.0000033 J+	No
GESPM091922-305	MSB01	10/05/22	1635.08	0.00000072 J	No	0.0000042 J+	No
GESPM091922-306	MSB02	10/05/22	1627.94	0.00000054 J	No	0.0000024 J+	No
GESPM092122-307	MSB113A	10/05/22	1597.77	0.00000095	No	0.0000037 J+	No
GESPM092122-308	MSB01	10/06/22	1636.07	0.00000075	No	0.0000028 J+	No
GESPM092122-309	MSB02	10/06/22	1618.34	0.00000056 J	No	0.0000022 J+	No
GESPM092122-310	MSB113A	10/06/22	1593.63	0.00000098	No	0.0000031 J+	No
GESPM092122-311	MSB01	10/06/22[2]	486.80	0.0000013 J	No	0.0000039 J+	No
GESPM092122-312	MSB02	10/06/22[2]	513.71	0.0000013 J	No	0.0000038 J+	No
GESPM092122-313	MSB113A	10/06/22[2]	485.14	0.0000014 J	No	0.0000042 J+	No
GESPM092122-314	MSB01	10/11/22	1673.47	< 0.00000072	No	0.0000025	No
GESPM092122-315	MSB02	10/11/22	1632.85	< 0.00000073	No	0.0000019	No
GESPM092122-316	MSB113A	10/11/22	1625.79	< 0.00000074	No	0.0000022	No
GESPM092122-318	MSB01	10/12/22	1616.62	< 0.00000074	No	0.0000031	No
GESPM092122-319	MSB02	10/12/22	1628.68	< 0.00000074	No	0.0000024	No
GESPM092122-320	MSB113A	10/12/22	1582.42	< 0.00000076	No	0.000004	No
GESPM092122-321	MSB01	10/13/22	1604.98	< 0.00000075	No	0.0000023	No
GESPM092122-322	MSB02	10/13/22	1605.94	< 0.00000075	No	0.0000018 J+	No
GESPM092122-323	MSB113A	10/13/22	1574.95	< 0.00000076	No	0.0000038	No
GESPM092122-324	MSB01	10/13/22[2]	476.31	0.0000022	No	0.0000048	No
GESPM092122-325	MSB02	10/13/22[2]	498.56	0.0000014	No	0.0000038	No
GESPM092122-326	MSB113A	10/13/22[2]	491.16	0.0000028	No	0.0000057	No
GESPM092122-328	MSB02	10/18/22	1612.96	0.0000013	No	0.000007	No
GESPM092122-329	MSB113A	10/18/22	1579.58	0.0000011	No	0.0000046	No
GESPM092122-331	MSB01	10/19/22	1661.56	0.0000014	No	0.0000063	No
GESPM092122-332	MSB02	10/19/22	1644.44	0.0000026	No	0.000018	No
GESPM092122-333	MSB113A	10/19/22	1626.73	0.0000019	No	0.000011	No
GESPM092122-334	MSB01	10/20/22	1627.83	0.0000029	No	0.000017	No
GESPM092122-335	MSB02	10/20/22	1611.53	0.0000011	No	0.0000062	No
GESPM092122-336	MSB113A	10/20/22	1585.09	0.0000014	No	0.0000079	No
GESPM092122-337	MSB01	01/02/00	365.09	0.0000021 J	No	0.0000084	No
GESPM092122-338	MSB02	01/02/00	370.39	0.0000016 J	No	0.0000061	No
GESPM092122-339	MSB113A	10/20/22[2]	391.25	0.0000024 J	No	0.0000071	No
GESPM092122-340	MSB01	10/25/22	1646.41	0.00000072 J	No	0.0000053	No
GESPM092122-341	MSB02	10/25/22	1633.73	0.00000055 J	No	0.0000027	No
GESPM092122-342	MSB113A	10/25/22	1548.34	0.00000067 J	No	0.0000031	No
GESPM100322-344	MSB01	10/26/22	1645.67	0.00000071 J	No	0.0000026	No
GESPM100322-345	MSB02	10/26/22	1592.33	0.0000019	No	0.000017	No
GESPM100322-346	MSB113A	10/26/22	1610.55	0.00000085	No	0.0000032	No
GESPM100322-347	MSB01	10/27/22	1665.33	0.00000051 J	No	0.0000027	No
GESPM100322-348	MSB02	10/27/22	1609.51	0.00000093	No	0.0000036	No
GESPM100322-349	MSB113A	10/27/22	1592.94	0.0000012	No	0.0000048	No

Attachment 4: Lead and Manganese Monitoring Results

Sample, Date and Station Information			Sampler Run Information	Lead		Manganese	
Sample ID	Monitoring Station	Sample End Date[1]	Total Air Volume Monitored (m^3)	Concentration in Air (mg/m^3)	Exceedance (Yes/No)	Concentration in Air (mg/m^3)	Exceedance (Yes/No)
GESPM100322-350	MSB01	10/27/22[2]	496.95	0.0000017 J	No	0.0000069	No
GESPM100322-351	MSB02	10/27/22[2]	534.53	0.0000024 J	No	0.0000073	No
GESPM100322-352	MSB113A	10/27/22[2]	504.08	0.0000017 J	No	0.0000065	No
GESPM100322-356	MSB01	11/01/22	1624.14	0.00000084	No	0.0000029	No
GESPM100322-355	MSB02	11/01/22	1605.49	0.00000075	No	0.0000027	No
GESPM100322-354	MSB113A	11/01/22	1597.24	0.00000097	No	0.0000034	No
GESPM100322-357	MSB01	11/02/22	1628.41	0.00000037 J	No	0.0000018	No
GESPM100322-359	MSB02	11/02/22	1613.51	0.00000028 J	No	0.000001 J	No
GESPM100322-358	MSB113A	11/02/22	1594.35	0.00000037 J	No	0.0000015 J	No
GESPM100322-360	MSB01	11/03/22	1609.52	0.00000071 J	No	0.000003	No
GESPM100322-379	MSB02	11/03/22	1589.4	0.00000034 J	No	0.0000013 J	No
GESPM100322-380	MSB113A	11/03/22	1567.30	0.00000042 J	No	0.0000017	No
GESPM100322-381	MSB01	11/03/22[2]	500.38	0.0000014 J	No	0.0000047	No
GESPM100322-382	MSB02	11/03/22[2]	520.08	0.0000022 J	No	0.0000033	No
GESPM100322-383	MSB113A	11/03/22[2]	495.88	0.0000014 J	No	0.0000039	No
GESPM100322-384	MSB01	11/08/22	1598.34	< 0.00000075	No	0.0000019 J+	No
GESPM100322-385	MSB02	11/08/22	1579.76	< 0.00000076	No	0.0000012 J	No
GESPM100322-386	MSB113A	11/08/22	1562.49	< 0.00000077	No	0.0000015 J+	No
GESPM100322-388	MSB01	11/10/22	1620.16	0.0000013 J+	No	0.0000026 J+	No
GESPM100322-389	MSB02	11/10/22	1201.38	< 0.000001	No	0.0000019 J+	No
GESPM100322-390	MSB113A	11/10/22	1589.02	0.000001 J+	No	0.0000025 J+	No
GESPM100322-391	MSB01	11/10/22[2]	435.87	< 0.0000028	No	0.0000042 J+	No
GESPM100322-392	MSB02	11/10/22[2]	425.15	< 0.0000028	No	0.0000038 J+	No
GESPM100322-393	MSB113A	11/10/22[2]	457.37	< 0.0000026	No	0.0000041 J+	No
GESPM100322-395	MSB01	11/15/22	1617.39	0.00000170	No	0.0000042	No
GESPM100322-396	MSB02	11/15/22	1612.86	0.00000120	No	0.0000027	No
GESPM101722-397	MSB113A	11/15/22	1585.58	0.00000150	No	0.0000038	No
GESPM101722-398	MSB01	11/16/22	1636.05	0.0000017	No	0.0000069	No
GESPM101722-399	MSB02	11/16/22	1629.12	0.00000150	No	0.0000055	No
GESPM101722-400	MSB113A	11/16/22	1595.95	0.0000020	No	0.0000076	No
GESPM101722-401	MSB01	11/17/22	1634.27	0.00000170	No	0.0000056	No
GESPM101722-402	MSB02	11/17/22	1630.45	0.0000018	No	0.0000049	No
GESPM101722-403	MSB113A	11/17/22	1606.86	0.0000020	No	0.0000057	No
GESPM101722-404	MSB01	11/17/22[2]	507.01	0.0000035	No	0.000009	No
GESPM101722-405	MSB02	11/17/22[2]	527.41	0.0000042	No	0.000007	No
GESPM101722-406	MSB113A	11/17/22[2]	484.19	0.0000046	No	0.00001	No
GESPM101722-408	MSB01	11/22/22	1667.55	0.0000029	No	0.0000091	No
GESPM101722-409	MSB02	11/22/22	1671.54	0.0000021	No	0.0000064	No
GESPM101722-410	MSB113A	11/22/22	1629.20	0.0000027	No	0.0000093	No
GESPM101722-411	MSB01	11/23/22	1677.36	0.0000026	No	0.0000074	No
GESPM101722-412	MSB02	11/23/22	1697.96	0.0000021	No	0.000006	No
GESPM101722-413	MSB113A	11/23/22	1646.43	0.0000022	No	0.0000065	No
GESPM103122-657	MSB01	11/29/22	1529.47	0.0000012	No	0.0000032	No
GESPM103122-658	MSB02	11/29/22	1572.93	0.00000094	No	0.0000018	No
GESPM103122-659	MSB113A	11/29/22	1481.59	0.00000097	No	0.0000026	No
GESPM103122-660	MSB01	11/30/22	1630.88	0.0000016	No	0.0000047	No
GESPM103122-661	MSB02	11/30/22	1579.37	0.0000010	No	0.0000026	No
GESPM103122-662	MSB113A	11/30/22	1586.43	0.0000012	No	0.0000037	No
GESPM103122-663	MSB01	12/01/22	1645.42	0.0000010	No	0.0000031	No

Attachment 4: Lead and Manganese Monitoring Results

Sample, Date and Station Information			Sampler Run Information	Lead		Manganese	
Sample ID	Monitoring Station	Sample End Date[1]	Total Air Volume Monitored (m^3)	Concentration in Air (mg/m^3)	Exceedance (Yes/No)	Concentration in Air (mg/m^3)	Exceedance (Yes/No)
GESPM103122-664	MSB02	12/01/22	1592.92	0.00000068 J	No	0.0000017 J	No
GESPM103122-665	MSB113A	12/01/22	1604.75	0.00000083	No	0.0000027	No
GESPM103122-667	MSB01	12/07/22	1621.94	0.00000085 J+	No	0.000003 J+	No
GESPM103122-668	MSB02	12/07/22	1621.53	< 0.00000074	No	0.0000019 J+	No
GESPM103122-669	MSB113A	12/7/2022[3]	835.78	< 0.0000014	No	0.0000025 J+	No
GESPM103122-670	MSB01	12/08/22	1547.62	< 0.00000078	No	0.0000021 J+	No
GESPM103122-671	MSB02	12/08/22	1652.97	< 0.00000073	No	0.0000018 J+	No
GESPM103122-672	MSB113A	12/08/22	1530.56	< 0.00000078	No	0.0000025 J+	No
GESPM103122-673	MSB01	12/08/22[2]	422.08	< 0.0000028	No	0.000004 J+	No
GESPM103122-674	MSB02	12/08/22[2]	387.33	< 0.0000031	No	< 0.0000031	No
GESPM103122-675	MSB113A	12/08/22[2]	417.69	< 0.0000029	No	0.0000047 J+	No
GESPM103122-677	MSB01	12/13/22	1607.54	0.00000099	No	0.0000024	No
GESPM103122-678	MSB02	12/13/22	1610.22	0.00000091	No	0.0000024	No
GESPM103122-679	MSB113A	12/13/22	1578.20	0.00000078	No	0.0000025	No
GESPM103122-680	MSB01	12/14/22	1497.62	0.0000011	No	0.0000028	No
GESPM103122-681	MSB02	12/14/22	1615.86	0.00000071 J	No	0.0000021	No
GESPM103122-682	MSB113A	12/14/22	1573.45	0.00000099	No	0.0000028	No
GESPM103122-683	MSB01	12/15/22	1644.54	0.0000018	No	0.0000048	No
GESPM103122-684	MSB02	12/15/22	1634.09	0.0000013	No	0.0000027	No
GESPM103122-685	MSB113A	12/15/22	1593.15	0.0000019	No	0.0000051	No
GESPM103122-686	MSB01	12/15/22[2]	524.94	0.000002 J	No	0.000005	No
GESPM103122-687	MSB02	12/15/22[2]	481.72	0.0000011 J	No	0.0000028	No
GESPM103122-688	MSB113A	12/15/22[2]	498.09	0.0000014 J	No	0.0000043	No
PM112922-03	MSB01	12/20/22	1708.82	< 0.00000819	No	< 0.00005735	No
PM112922-05	MSB02	12/20/22	1688.36	< 0.00000829	No	< 0.00005804	No
PM112922-07	MSB113A	12/20/22	1657.51	< 0.00000845	No	< 0.00005912	No
PM112922-09	MSB01	12/21/22	1698.14	< 0.00000824	No	< 0.00005771	No
PM112922-11	MSB02	12/21/22	1677.68	< 0.00000834	No	< 0.00005841	No
PM112922-13	MSB113A	12/21/22	1634.25	< 0.00000857	No	< 0.00005997	No
PM112922-15	MSB01	12/22/22	1498.33	< 0.00000934	No	< 0.00006541	No
PM112922-17	MSB02	12/22/22	1520.95	< 0.0000092	No	< 0.00006443	No
PM112922-19	MSB113A	12/22/22	1477.30	< 0.00000948	No	< 0.00006634	No

Notes:

[1]Air sample was not collected on days with rain.

[2]Air sample was taken down during the afternoon after field activities ceased.

[3]Generator malfunction.

Sample locations are shown on Figure 2-1

m^3 = cubic meters

mg/m^3 = milligrams per cubic meter

J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

J+ = estimated concentration biased high

< = below detection limit

< = below detection limit

ATTACHMENT 5

TOTAL SUSPENDED PARTICULATES MONITORING RESULTS

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Attachment 5: Total Suspended Particulates Monitoring Results

Sample, Date and Station Information			Sampler Run Information	TSP								
Sample ID	Monitoring Station	Sample End Date[1]	Total Air Volume Monitored (m^3)	Concen-tration in Air (mg/m^3)	TSP Perimeter Concentration (Downwind - Upwind) (mg/m^3)	TSP Perimeter Concentration (Downwind - Upwind) (ug/m^3)	TSP MSB113A Concentration (Downwind - Upwind) (mg/m^3)	TSP MSB113A Concentration (Downwind - Upwind) (ug/m^3)	Cal/OSHA PEL (ug/m^3)	Exceedance (Yes/No)	HERO Action Level (ug/m^3)	Exceedance (Yes/No)
GES_TSP061322-38	MSB01	7/8/2022	1752.44	0.0180891	0.002305	2.305	0.0056	5.594	5,000	No	50	No
GES_TSP061322-39	MSB02	7/8/2022	1740.72	0.0203939								
GES_TSP061322-40	MSB113A	7/8/2022	1567.65	0.0236828								
GES_TSP061322-41	MSB01	7/12/2022	1764.96	0.0162610	0.0064	6.373	0.0026	2.590	5,000	No	50	No
GES_TSP061322-42	MSB02	7/12/2022	1745.16	0.0226340								
GES_TSP061322-43	MSB113A	7/12/2022	1554.26	0.0188514								
GES_TSP061322-44	MSB01	7/13/2022	1767.79	0.0098461	-0.000592	-0.592	0.0046	4.600	5,000	No	50	No
GES_TSP061322-45	MSB02	7/13/2022	1739.85	0.0092537								
GES_TSP061322-46	MSB113A	7/13/2022	1578.31	0.0144458								
GES_TSP061322-47	MSB01	7/14/2022	1755.31	0.0225031	-0.0008	-0.843	0.0056	5.631	5,000	No	50	No
GES_TSP061322-48	MSB02	7/14/2022	1675.92	0.0216597								
GES_TSP061322-49	MSB113A	7/14/2022	1567.5	0.0281340								
GES_TSP061322-50	MSB01	7/15/2022	1816.52	0.0218550	0.0084	8.438	0.0199	19.915	5,000	No	50	No
GES_TSP061322-51	MSB02	7/15/2022	1792.47	0.0302934								
GES_TSP061322-52	MSB113A	7/15/2022	1601.64	0.0417697								
GES_TSP061322-53	MSB01	7/19/2022	1735.87	0.0288616	0.0048	4.821	-0.0179	-17.859	5,000	No	50	No
GES_TSP061322-54	MSB02	7/19/2022	1730.85	0.0336829								
GES_TSP070522-73	MSB113A	7/19/2022	1645.04	0.0110028 J								
GES_TSP070522-74	MSB01	7/20/2022	1761.31	0.0118662	0.0009	0.927	-0.0028	-2.797	5,000	No	50	No
GES_TSP070522-75	MSB02	7/20/2022	1750.99	0.0127928								
GES_TSP070522-76	MSB113A	7/20/2022	1742.11	0.0090695 J								
GES_TSP070522-78	MSB01	7/21/2022	1808.34	0.0068018	0.0048	4.765	-0.0011	-1.131	5,000	No	50	No
GES_TSP070522-79	MSB02	7/21/2022	1806.85	0.0115671								
GES_TSP070522-80	MSB113A	7/21/2022	1639.99	0.0056708 J								
GES_TSP070522-81	MSB01	7/22/2022	1747.17	0.0186015	0.0125	12.465	-0.0133	-13.257	5,000	No	50	No
GES_TSP070522-82	MSB02	7/22/2022	1757.52	0.0310665								
GES_TSP070522-83	MSB113A	7/22/2022	1627.68	0.005345 J								
GES_TSP070522-84	MSB01	7/26/2022	1771.32	0.0108958	-0.0013	-1.322	-0.0035	-3.488	5,000	No	50	No
GES_TSP070522-85	MSB02	7/26/2022	1754.87	0.0095734								
GES_TSP070522-86	MSB113A	7/26/2022	1647.00	0.0074074								

Attachment 5: Total Suspended Particulates Monitoring Results

Sample, Date and Station Information			Sampler Run Information	TSP								
Sample ID	Monitoring Station	Sample End Date[1]	Total Air Volume Monitored (m^3)	Concen-tration in Air (mg/m^3)	TSP Perimeter Concentration (Downwind - Upwind) (mg/m^3)	TSP Perimeter Concentration (Downwind - Upwind) (ug/m^3)	TSP MSB113A Concentration (Downwind - Upwind) (mg/m^3)	TSP MSB113A Concentration (Downwind - Upwind) (ug/m^3)	Cal/OSHA PEL (ug/m^3)	Exceedance (Yes/No)	HERO Action Level (ug/m^3)	Exceedance (Yes/No)
GES_TSP070522-87	MSB01	7/27/2022	1743.98	0.0115254	0.0015	1.493	-0.0034	-3.375	5,000	No	50	No
GES_TSP070522-88	MSB02	7/27/2022	1736.02	0.0130183								
GES_TSP070522-89	MSB113A	7/27/2022	1607.22	0.0081507								
GES_TSP071122-91	MSB01	7/28/2022	1795.60	0.0074070	0.0021	2.120	-0.0035	-3.532	5,000	No	50	No
GES_TSP071122-92	MSB02	7/28/2022	1815.93	0.0095268								
GES_TSP071122-93	MSB113A	7/28/2022	1651.72	0.0038747 J+								
GES_TSP071122-94	MSB01	7/29/2022	1767.63	0.0067322	0.0037	3.659	-0.0039	-3.945	5,000	No	50	No
GES_TSP071122-95	MSB02	7/29/2022	1790.03	0.0103909								
GES_TSP071122-96	MSB113A	7/29/2022	1650.33	0.0027873 J+								
GES_TSP071122-97	MSB01	08/02/22	1786.84	0.0169573	0.001	0.703	-0.0073	-7.250	5,000	No	50	No
GES_TSP071122-98	MSB02	08/02/22	1755.31	0.0176607								
GES_TSP071122-99	MSB113A	08/02/22	1637.99	0.009707								
GES_TSP071122-101	MSB01	08/03/22	1777.20	0.0108598	0.018	17.965	0.00013	0.131	5,000	No	50	No
GES_TSP071122-102	MSB02	08/03/22	1734.64	0.0288244								
GES_TSP071122-103	MSB113A	08/03/22	1610.42	0.0109909								
GES_TSP071122-104	MSB01	08/04/22	1767.28	0.0158436	0.010	9.656	-0.0054	-5.387	5,000	No	50	No
GES_TSP071122-105	MSB02	08/04/22	1745.16	0.0254991								
GES_TSP071122-106	MSB113A	08/04/22	1616.17	0.0104568 J								
GES_TSP071122-107	MSB01	08/05/22	1802.32	0.0221381	0.009	8.920	-0.0085	-8.539	5,000	No	50	No
GES_TSP071122-108	MSB02	08/05/22	1790.20	0.031058								
GESTSP072622-145	MSB113A	08/05/22	1500.13	0.0135988								
GESTSP072622-147	MSB01	08/09/22	1788.65	0.0134179	0.009	8.551	-0.0010	-1.011	5,000	No	50	No
GESTSP072622-148	MSB02	08/09/22	1761.55	0.0219693								
GESTSP072622-149	MSB113A	08/09/22	1636.18	0.0124069								
GESTSP072622-150	MSB01	08/10/22	1784.74	0.0141757	0.003	3.039	0.0025	2.526	5,000	No	50	No
GESTSP072622-151	MSB02	08/10/22	1777.57	0.0172145								
GESTSP072622-152	MSB113A	08/10/22	1628.55	0.016702								

Attachment 5: Total Suspended Particulates Monitoring Results

Sample, Date and Station Information			Sampler Run Information	TSP								
Sample ID	Monitoring Station	Sample End Date[1]	Total Air Volume Monitored (m^3)	Concen-tration in Air (mg/m^3)	TSP Perimeter Concentration (Downwind - Upwind) (mg/m^3)	TSP Perimeter Concentration (Downwind - Upwind) (ug/m^3)	TSP MSB113A Concentration (Downwind - Upwind) (mg/m^3)	TSP MSB113A Concentration (Downwind - Upwind) (ug/m^3)	Cal/OSHA PEL (ug/m^3)	Exceedance (Yes/No)	HERO Action Level (ug/m^3)	Exceedance (Yes/No)
GESTSP072622-153	MSB01	08/11/22	1781.62	0.0146496	-0.001	-1.096	-0.0029	-2.933	5,000	No	50	No
GESTSP072622-154	MSB02	08/11/22	1785.54	0.0135533								
GESTSP072622-155	MSB113A	08/11/22	1664.35	0.0117163								
GESTSP072622-156	MSB01	08/12/22	1746.69	0.0168891	0.006	6.443	0.0212	21.213	5,000	No	50	No
GESTSP072622-157	MSB02	08/12/22	1735.79	0.0233323								
GESTSP072622-158	MSB113A	08/12/22	1585.22	0.038102								
GESTSP072622-159	MSB01	08/16/22	1812.54	0.0263167	0.010	9.794	0.0185	18.510	5,000	No	50	No
GESTSP072622-160	MSB02	08/16/22	1747.40	0.0361108								
GESTSP072622-161	MSB113A	08/16/22	1621.82	0.0448262								
GESTSP080822-163	MSB01	08/17/22	1755.57	0.0213036	0.002	1.720	0.0022	2.176	5,000	No	50	No
GESTSP080822-164	MSB02	08/17/22	1763.42	0.0230234								
GESTSP080822-165	MSB113A	08/17/22	1605.64	0.0234797								
GESTSP080822-166	MSB01	08/18/22	1747.10	0.0170568	0.003	3.056	-0.0071	-7.127	5,000	No	50	No
GESTSP080822-167	MSB02	08/18/22	1740.22	0.0201124								
GESTSP080822-168	MSB113A	08/18/22	1631.46	0.0099298								
GESTSP080822-169	MSB01	08/19/22	1766.07	0.010362	0.019	19.342	-0.0025	-2.478	5,000	No	50	No
GESTSP080822-170	MSB02	08/19/22	1794.36	0.0297042								
GESTSP080822-171	MSB113A	08/19/22	1648.85	0.0078843								
GESTSP080822-172	MSB01	08/23/22	1781.10	0.0152153	0.016	16.216	-0.0043	-4.263	5,000	No	50	No
GESTSP080822-173	MSB02	08/23/22	1759.39	0.0314313								
GESTSP080822-174	MSB113A	08/23/22	1625.25	0.0109522								
GESTSP080822-176	MSB01	08/24/22	1735.43	0.013138	0.001	0.959	0.0021	2.075	5,000	No	50	No
GESTSP080822-177	MSB02	08/24/22	1745.01	0.0140973								
GESTSP080822-178	MSB113A	08/24/22	1564.48	0.0152127								
GESTSP080822-179	MSB01	08/25/22	1759.01	0.0128481	-0.001	-0.848	-0.0028	-2.833	5,000	No	50	No
GESTSP080822-180	MSB02	08/25/22	1783.36	0.0119998								
GESTSP080822-181	MSB113A	08/25/22	1607.64	0.0100147								

Attachment 5: Total Suspended Particulates Monitoring Results

Sample, Date and Station Information			Sampler Run Information	TSP								
Sample ID	Monitoring Station	Sample End Date[1]	Total Air Volume Monitored (m^3)	Concen-tration in Air (mg/m^3)	TSP Perimeter Concentration (Downwind - Upwind) (mg/m^3)	TSP Perimeter Concentration (Downwind - Upwind) (ug/m^3)	TSP MSB113A Concentration (Downwind - Upwind) (mg/m^3)	TSP MSB113A Concentration (Downwind - Upwind) (ug/m^3)	Cal/OSHA PEL (ug/m^3)	Exceedance (Yes/No)	HERO Action Level (ug/m^3)	Exceedance (Yes/No)
GESTSP080822-182	MSB01	08/25/22[2]	552.01	0.0217387	-0.009	-8.750	-0.0061	-6.078	5,000	No	50	No
GESTSP080822-183	MSB02	08/25/22[2]	577.41	0.012989								
GESTSP080822-184	MSB113A	08/25/22[2]	510.83	0.0156608								
GESTSP080822-185	MSB01	08/30/22	1755.42	0.0225017	0.008	8.500	0.0082	8.241	5,000	No	50	No
GESTSP080822-186	MSB02	08/30/22	1761.22	0.0310012								
GESTSP080822-187	MSB113A	08/30/22	1567.83	0.0307431								
GESTSP080822-189	MSB01	08/31/22	1716.69	0.0155532	0.015	15.187	0.0082	8.153	5,000	No	50	No
GESTSP080822-190	MSB02	08/31/22	1763.17	0.0307401								
GESTSP080822-191	MSB113A	08/31/22	1590.28	0.0237065								
GESTSP080822-192	MSB01	09/01/22	1799.18	0.0161185	0.004	4.276	0.0052	5.210	5,000	No	50	No
GESTSP080822-193	MSB02	09/01/22	1765.21	0.0203942								
GESTSP080822-194	MSB113A	09/01/22	1580.07	0.0213282								
GESTSP080822-195	MSB01	09/01/22[2]	467.94	0.0170962	0.007	7.326	0.0007	0.689	5,000	No	50	No
GESTSP080822-196	MSB02	09/01/22[2]	483.17	0.024422								
GESTSP080822-197	MSB113A	09/01/22[2]	432.94	0.0177854								
GESTSP080822-198	MSB01	09/07/22	1781.31	0.0407565	0.005	5.394	0.0046	4.573	5,000	No	50	No
GESTSP082222-199	MSB02	09/07/22	1776.78	0.0461509								
GESTSP082222-200	MSB113A	09/07/22	1590.59	0.0453291								
GESTSP082222-202	MSB01	09/08/22	1824.13	0.0323442	0.004	3.854	0.0066	6.556	5,000	No	50	No
GESTSP082222-203	MSB02	09/08/22	1806.72	0.0361982								
GESTSP082222-204	MSB113A	09/08/22	1616.98	0.0388997								
GESTSP082222-205	MSB01	09/08/22[2]	510.35	0.0656412	-0.028	-28.256	-0.0138	-13.755	5,000	No	50	No
GESTSP082222-206	MSB02	09/08/22[2]	553.69	0.0373855				`				
GESTSP082222-207	MSB113A	09/08/22[2]	481.82	0.0518866								
GESTSP082222-208	MSB01	09/13/22	1736.06	0.0326602	0.032	31.865	0.0058	5.849	5,000	No	50	No
GESTSP082222-209	MSB02	09/13/22	1729.56	0.0645251								
GESTSP082222-210	MSB113A	09/13/22	1560.66	0.0385093								

Attachment 5: Total Suspended Particulates Monitoring Results

Sample, Date and Station Information			Sampler Run Information	TSP								
Sample ID	Monitoring Station	Sample End Date[1]	Total Air Volume Monitored (m^3)	Concen-tration in Air (mg/m^3)	TSP Perimeter Concentration (Downwind - Upwind) (mg/m^3)	TSP Perimeter Concentration (Downwind - Upwind) (ug/m^3)	TSP MSB113A Concentration (Downwind - Upwind) (mg/m^3)	TSP MSB113A Concentration (Downwind - Upwind) (ug/m^3)	Cal/OSHA PEL (ug/m^3)	Exceedance (Yes/No)	HERO Action Level (ug/m^3)	Exceedance (Yes/No)
GESTSP082222-212	MSB01	09/14/22	1770.83	0.0164894	0.004	4.374	0.0004	0.377	5,000	No	50	No
GESTSP082222-213	MSB02	09/14/22	1783.03	0.0208634								
GESTSP082222-214	MSB113A	09/14/22	1606.74	0.0168665								
GESTSP082222-215	MSB01	09/15/22	1769.49	0.0161628	0.003	3.408	0.0006	0.584	5,000	No	50	No
GESTSP082222-216	MSB02	09/15/22	1773.07	0.0195706								
GESTSP090622-235	MSB113A	09/15/22	1606.32	0.0167464								
GESTSP090622-236	MSB01	09/15/22[2]	493.50	0.0190476	0.004	3.986	0.0035	3.460	5,000	No	50	No
GESTSP090622-237	MSB02	09/15/22[2]	534.01	0.0230333								
GESTSP090622-238	MSB113A	09/15/22[2]	457.62	0.0225078								
GESTSP090622-239	MSB01	09/20/22	1730.63	0.0222462	-0.005280	-5.280	0.000812	0.812	5,000	No	50	No
GESTSP090622-240	MSB02	09/20/22	1750.57	0.0169659								
GESTSP090622-241	MSB113A	09/20/22	1552.58	0.0230584								
GESTSP090622-243	MSB01	09/21/22	1843.57	0.0117706 J	0.00242	2.420	0.006481	6.481	5,000	No	50	No
GESTSP090622-244	MSB02	09/21/22	1796.97	0.0141906								
GESTSP090622-245	MSB113A	09/21/22	1605.33	0.0182517								
GESTSP090622-246	MSB01	09/22/22	1799.65	0.0174478	-0.003225	-3.225	0.001690	1.690	5,000	No	50	No
GESTSP090622-247	MSB02	09/22/22	1771.84	0.0142225								
GESTSP090622-248	MSB113A	09/22/22	1562.37	0.0191376								
GESTSP090622-249	MSB01	09/22/22[2]	397.88	0.0178446	0.001092	1.092	-0.004405	-4.405	5,000	No	50	No
GESTSP090622-250	MSB02	09/22/22[2]	517.52	0.0189365								
GESTSP090622-251	MSB113A	09/22/22[2]	446.44	0.0134397								
GESTSP091922-289	MSB01	09/27/22	1779.12	0.0147264	0.0000841	0.08410	0.0021317	2.1317	5,000	No	50	No
GESTSP091922-290	MSB02	09/27/22	1769.02	0.0148105								
GESTSP091922-291	MSB113A	09/27/22	1613.47	0.0168581								

Attachment 5: Total Suspended Particulates Monitoring Results

Sample, Date and Station Information			Sampler Run Information	TSP								
Sample ID	Monitoring Station	Sample End Date[1]	Total Air Volume Monitored (m^3)	Concen-tration in Air (mg/m^3)	TSP Perimeter Concentration (Downwind - Upwind) (mg/m^3)	TSP Perimeter Concentration (Downwind - Upwind) (ug/m^3)	TSP MSB113A Concentration (Downwind - Upwind) (mg/m^3)	TSP MSB113A Concentration (Downwind - Upwind) (ug/m^3)	Cal/OSHA PEL (ug/m^3)	Exceedance (Yes/No)	HERO Action Level (ug/m^3)	Exceedance (Yes/No)
GESTSP091922-292	MSB01	09/28/22	1737.44	0.0179577	0.002240	2.240	0.003971	3.971	5,000	No	50	No
GESTSP091922-293	MSB02	09/28/22	1757.61	0.0201981								
GESTSP091922-294	MSB113A	09/28/22	1586.00	0.0219283								
GESTSP091922-295	MSB01	09/29/22	1743.77	0.0192112	-0.0000366	-0.03660	0.002841	2.8410	5,000	No	50	No
GESTSP091922-296	MSB02	09/29/22	1757.53	0.0191746								
GESTSP091922-297	MSB113A	09/29/22	1582.61	0.0220522								
GESTSP091922-298	MSB01	09/29/22[2]	552.30	0.0563100	-0.033822	-33.822	-0.029669	-29.669	5,000	No	50	No
GESTSP091922-299	MSB02	09/29/22[2]	591.43	0.0224879								
GESTSP091922-300	MSB113A	09/29/22[2]	510.49	0.0266411								
GESTSP091922-301	MSB01	10/04/22	1787.57	0.0245585	0.000261	0.261	0.004486	4.486	5,000	No	50	No
GESTSP091922-302	MSB02	10/04/22	1780.89	0.0248191								
GESTSP091922-303	MSB113A	10/04/22	1618.19	0.0290448								
GESTSP091922-305	MSB01	10/05/22	1757.08	0.0310743	-0.0075855	-7.58550	-0.0070168	-7.0168	5,000	No	50	No
GESTSP091922-306	MSB02	10/05/22	1766.8	0.0234888								
GESTSP092122-307	MSB113A	10/05/22	1587.86	0.0240575								
GESTSP092122-308	MSB01	10/06/22	1751.65	0.0225502	-0.007436	-7.436	-0.007153	-7.153	5,000	No	50	No
GESTSP092122-309	MSB02	10/06/22	1759.92	0.0151143								
GESTSP092122-310	MSB113A	10/06/22	1584.68	0.0153974								
GESTSP092122-311	MSB01	10/06/22[2]	513.65	0.0165482	-0.0138466	-13.84660	-0.012808	-12.8076	5,000	No	50	No
GESTSP092122-312	MSB02	10/06/22[2]	555.23	0.0027016 J								
GESTSP092122-313	MSB113A	10/06/22[2]	481.21	0.0037406								
GESTSP092122-314	MSB01	10/11/22	1802.49	0.0161443	-0.003705	-3.705	-0.001389	-1.389	5,000	No	50	No
GESTSP092122-315	MSB02	10/11/22	1752.47	0.0124396								
GESTSP092122-316	MSB113A	10/11/22	1612.94	0.0147557								

Attachment 5: Total Suspended Particulates Monitoring Results

Sample, Date and Station Information			Sampler Run Information	TSP								
Sample ID	Monitoring Station	Sample End Date[1]	Total Air Volume Monitored (m^3)	Concen-tration in Air (mg/m^3)	TSP Perimeter Concentration (Downwind - Upwind) (mg/m^3)	TSP Perimeter Concentration (Downwind - Upwind) (ug/m^3)	TSP MSB113A Concentration (Downwind - Upwind) (mg/m^3)	TSP MSB113A Concentration (Downwind - Upwind) (ug/m^3)	Cal/OSHA PEL (ug/m^3)	Exceedance (Yes/No)	HERO Action Level (ug/m^3)	Exceedance (Yes/No)
GESTSP092122-318	MSB01	10/12/22	1731.11	0.02819	-0.0068465	-6.84650	-0.0019413	-1.9413	5,000	No	50	No
GESTSP092122-319	MSB02	10/12/22	1780.4	0.0213435								
GESTSP092122-320	MSB113A	10/12/22	1584.84	0.0262487								
GESTSP092122-321	MSB01	10/13/22	1750.7	0.0112526	0.002684	2.684	0.008636	8.636	5,000	No	50	No
GESTSP092122-322	MSB02	10/13/22	1736.43	0.0139366								
GESTSP092122-323	MSB113A	10/13/22	1568.74	0.0198886								
GESTSP092122-324	MSB01	10/13/22[2]	509.23	0.0060876	0.0003870	0.38700	0.0006861	0.6861	5,000	No	50	No
GESTSP092122-325	MSB02	10/13/22[2]	540.57	0.0064746								
GESTSP092122-326	MSB113A	10/13/22[2]	487.18	0.0067737								
GESTSP092122-327	MSB01	10/18/22	1733.23	0.0315	-0.007700	-7.700	-0.002900	-2.900	5,000	No	50	No
GESTSP092122-328	MSB02	10/18/22	1678.02	0.0238								
GESTSP092122-329	MSB113A	10/18/22	1574.69	0.0286								
GESTSP092122-331	MSB01	10/19/22	1787.52	0.0505	-0.00780	-7.800	-0.001700	-1.700	5,000	No	50	No
GESTSP092122-332	MSB02	10/19/22	1784.04	0.0427								
GESTSP092122-333	MSB113A	10/19/22	1615.64	0.0488								
GESTSP092122-334	MSB01	10/20/22	1735.15	0.0274	-0.002200	-2.200	-0.001800	-1.800	5,000	No	50	No
GESTSP092122-335	MSB02	10/20/22	1740.50	0.0252								
GESTSP092122-336	MSB113A	10/20/22	1582.32	0.0256								
GESTSP092122-337	MSB01	10/20/22[2]	389.41	0.018	0.000900	0.900	0.005500	5.500	5,000	No	50	No
GESTSP092122-338	MSB02	10/20/22[2]	401.69	0.0189								
GESTSP092122-339	MSB113A	10/20/22[2]	387.63	0.0235								
GESTSP092122-340	MSB01	10/25/22	1765.19	0.0269	-0.0071000	-7.10000	-0.0096000	-9.6000	5,000	No	50	No
GESTSP092122-341	MSB02	10/25/22	1760.71	0.0198								
GESTSP092122-342	MSB113A	10/25/22	1607.80	0.0173								

Attachment 5: Total Suspended Particulates Monitoring Results

Sample, Date and Station Information			Sampler Run Information	TSP								
Sample ID	Monitoring Station	Sample End Date[1]	Total Air Volume Monitored (m^3)	Concen-tration in Air (mg/m^3)	TSP Perimeter Concentration (Downwind - Upwind) (mg/m^3)	TSP Perimeter Concentration (Downwind - Upwind) (ug/m^3)	TSP MSB113A Concentration (Downwind - Upwind) (mg/m^3)	TSP MSB113A Concentration (Downwind - Upwind) (ug/m^3)	Cal/OSHA PEL (ug/m^3)	Exceedance (Yes/No)	HERO Action Level (ug/m^3)	Exceedance (Yes/No)
GESTSP100322-344	MSB01	10/26/22	1753.17	0.031	-0.001800	-1.800	-0.000100	-0.100	5,000	No	50	No
GESTSP100322-345	MSB02	10/26/22	1771.46	0.0292								
GESTSP100322-346	MSB113A	10/26/22	1597.10	0.0309								
GESTSP100322-347	MSB01	10/27/22	1743.85	0.0369	-0.0047000	-4.70000	-0.005700	-5.7000	5,000	No	50	No
GESTSP100322-348	MSB02	10/27/22	1738.29	0.0322								
GESTSP100322-349	MSB113A	10/27/22	1582.60	0.0312								
GESTSP100322-350	MSB01	10/27/22[2]	529.97	0.0304	-0.013500	-13.500	-0.020930	-20.930	5,000	No	50	No
GESTSP100322-351	MSB02	10/27/22[2]	574.70	0.0169								
GESTSP100322-352	MSB113A	10/27/22[2]	506.80	0.00947								
GESTSP100322-356	MSB01	11/01/22	1736.22	0.0285	-0.000100	-0.100	-0.001100	-1.100	5,000	No	50	No
GESTSP100322-355	MSB02	11/01/22	1726.65	0.0284								
GESTSP100322-354	MSB113A	11/01/22	1648.44	0.0274								
GESTSP100322-357	MSB01	11/02/22	1763.47	0.0174	-0.0013000	-1.30000	0.0023000	2.3000	5,000	No	50	No
GESTSP100322-359	MSB02	11/02/22	1739.84	0.0161								
GESTSP100322-358	MSB113A	11/02/22	1506.65	0.0197								
GESTSP100322-360	MSB01	11/03/22	1721.92	0.0136	-0.002400	-2.400	-0.003850	-3.850	5,000	No	50	No
GESTSP100322-379	MSB02	11/03/22	1727.34	0.0112								
GESTSP100322-380	MSB113A	11/03/22	1549.35	0.00975								
GESTSP100322-381	MSB01	11/03/22[2]	537.38	0.00707 J	-0.0014100	-1.41000	0.000040	0.0400	5,000	No	50	No
GESTSP100322-382	MSB02	11/03/22[2]	565.00	0.005660								
GESTSP100322-383	MSB113A	11/03/22[2]	492.35	0.00711 J								
GESTSP100322-384	MSB01	11/08/22	1716.45	0.0187	0.0043000	4.30	0.0020	2.00	5,000	No	50	No
GESTSP100322-385	MSB02	11/08/22	1716.47	0.023								
GESTSP100322-386	MSB113A	11/08/22	1549.17	0.0207								

Attachment 5: Total Suspended Particulates Monitoring Results

Sample, Date and Station Information			Sampler Run Information	TSP								
Sample ID	Monitoring Station	Sample End Date[1]	Total Air Volume Monitored (m^3)	Concen-tration in Air (mg/m^3)	TSP Perimeter Concentration (Downwind - Upwind) (mg/m^3)	TSP Perimeter Concentration (Downwind - Upwind) (ug/m^3)	TSP MSB113A Concentration (Downwind - Upwind) (mg/m^3)	TSP MSB113A Concentration (Downwind - Upwind) (ug/m^3)	Cal/OSHA PEL (ug/m^3)	Exceedance (Yes/No)	HERO Action Level (ug/m^3)	Exceedance (Yes/No)
GESTSP100322-388	MSB01	11/10/22	1732.65	0.0199	-0.001600	-1.60	0.00320	3.20	5,000	No	50	No
GESTSP100322-389	MSB02	11/10/22	1297.52	0.0183								
GESTSP100322-390	MSB113A	11/10/22	1573.19	0.0231								
GESTSP100322-391	MSB01	11/10/22[2]	462.20	0.0132 J	0.003322	3.322	-0.003900	-3.900	5,000	No	50	No
GESTSP100322-392	MSB02	11/10/22[2]	455.63	0.00988 J								
GESTSP100322-393	MSB113A	11/10/22[2]	449.01	0.0171								
GESTSP100322-395	MSB01	11/15/22	1764.80	0.0198	-0.0027000	-2.70000	-0.0034000	-3.4000	5,000	No	50	No
GESTSP100322-396	MSB02	11/15/22	1733.28	0.0225								
GESTSP101722-397	MSB113A	11/15/22	1563.88	0.0232								
GESTSP101722-398	MSB01	11/16/22	1744.39	0.032	0.006900	6.900	0.004700	4.700	5,000	No	50	No
GESTSP101722-399	MSB02	11/16/22	1744.77	0.0251								
GESTSP101722-400	MSB113A	11/16/22	1574.95	0.0273								
GESTSP101722-401	MSB01	11/17/22	1744.18	0.0256	-0.0010000	-1.00000	-0.002700	-2.7000	5,000	No	50	No
GESTSP101722-402	MSB02	11/17/22	1743.46	0.0246								
GESTSP101722-403	MSB113A	11/17/22	1586.98	0.0229								
GESTSP101722-404	MSB01	11/17/22[2]	542.45	0.0308	0.0011000	1.10000	0.003200	3.2000	5,000	No	50	No
GESTSP101722-405	MSB02	11/17/22[2]	561.74	0.0319								
GESTSP101722-406	MSB113A	11/17/22[2]	478.77	0.034								
GESTSP101722-408	MSB01	11/22/22	1801.18	0.0211	-0.003100	-3.100	-0.002000	-2.000	5,000	No	50	No
GESTSP101722-409	MSB02	11/22/22	1795.67	0.0242								
GESTSP101722-410	MSB113A	11/22/22	1616.44	0.0231								
GESTSP101722-411	MSB01	11/23/22	1821.48	0.0233	-0.000800	-0.800	-0.003200	-3.200	5,000	No	50	No
GESTSP101722-412	MSB02	11/23/22	1819.42	0.0241								
GESTSP101722-413	MSB113A	11/23/22	1627.35	0.0265								

Attachment 5: Total Suspended Particulates Monitoring Results

Sample, Date and Station Information			Sampler Run Information	TSP								
Sample ID	Monitoring Station	Sample End Date[1]	Total Air Volume Monitored (m^3)	Concen-tration in Air (mg/m^3)	TSP Perimeter Concentration (Downwind - Upwind) (mg/m^3)	TSP Perimeter Concentration (Downwind - Upwind) (ug/m^3)	TSP MSB113A Concentration (Downwind - Upwind) (mg/m^3)	TSP MSB113A Concentration (Downwind - Upwind) (ug/m^3)	Cal/OSHA PEL (ug/m^3)	Exceedance (Yes/No)	HERO Action Level (ug/m^3)	Exceedance (Yes/No)
GESTSP103122-657	MSB01	11/29/22	1644.00	0.0174	0.0036000	3.60000	0.0003000	0.3000	5,000	No	50	No
GESTSP103122-658	MSB02	11/29/22	1690.71	0.021								
GESTSP103122-659	MSB113A	11/29/22	1476.85	0.0177								
GESTSP103122-660	MSB01	11/30/22	1752.66	0.0139	0.005700	5.700	0.003700	3.700	5,000	No	50	No
GESTSP103122-661	MSB02	11/30/22	1749.07	0.0196								
GESTSP103122-662	MSB113A	11/30/22	1571.17	0.0176								
GESTSP103122-663	MSB01	12/01/22	1752.50	0.0210	-0.0067000	-6.70000	-0.000800	-0.8000	5,000	No	50	No
GESTSP103122-664	MSB02	12/01/22	1770.52	0.01430								
GESTSP103122-665	MSB113A	12/01/22	1596.90	0.0202								
GESTSP103122-667	MSB01	12/07/22	1758.18	0.0205	-0.003400	-3.400	0.006800	6.800	5,000	No	50	No
GESTSP103122-668	MSB02	12/07/22	1747.94	0.0171								
GESTSP103122-669	MSB113A	12/7/2022[3]	838.18	0.0273								
GESTSP103122-670	MSB01	12/08/22	1751.31	0.0187	0.0015000	1.50000	-0.003900	-3.9000	5,000	No	50	No
GESTSP103122-671	MSB02	12/08/22	1777.26	0.0202								
GESTSP103122-672	MSB113A	12/08/22	1534.09	0.0148								
GESTSP103122-673	MSB01	12/08/22[2]	458.17	0.0301	-0.0186000	-18.60000	-0.008200	-8.2000	5,000	No	50	No
GESTSP103122-674	MSB02	12/08/22[2]	416.13	0.0115								
GESTSP103122-675	MSB113A	12/08/22[2]	415.24	0.0219								
GESTSP103122-677	MSB01	12/13/22	1729.17	0.0235	-0.0008000	-0.80000	0.0011	1.1000	5,000	No	50	No
GESTSP103122-678	MSB02	12/13/22	1743.44	0.0227								
GESTSP103122-679	MSB113A	12/13/22	1563.78	0.0246								
GESTSP103122-680	MSB01	12/14/22	1738.32	0.0226	-0.001200	-1.200	-0.001400	-1.400	5,000	No	50	No
GESTSP103122-681	MSB02	12/14/22	1740.21	0.0214								
GESTSP103122-682	MSB113A	12/14/22	1563.35	0.0212								

Attachment 5: Total Suspended Particulates Monitoring Results

Sample, Date and Station Information			Sampler Run Information	TSP								
Sample ID	Monitoring Station	Sample End Date[1]	Total Air Volume Monitored (m^3)	Concen-tration in Air (mg/m^3)	TSP Perimeter Concentration (Downwind - Upwind) (mg/m^3)	TSP Perimeter Concentration (Downwind - Upwind) (ug/m^3)	TSP MSB113A Concentration (Downwind - Upwind) (mg/m^3)	TSP MSB113A Concentration (Downwind - Upwind) (ug/m^3)	Cal/OSHA PEL (ug/m^3)	Exceedance (Yes/No)	HERO Action Level (ug/m^3)	Exceedance (Yes/No)
GESTSP103122-683	MSB01	12/15/22	1756.35	0.0291	0.0029000	2.90000	0.000300	0.3000	5,000	No	50	No
GESTSP103122-684	MSB02	12/15/22	1764.57	0.0262								
GESTSP103122-685	MSB113A	12/15/22	1582.27	0.0288								
GESTSP103122-686	MSB01	12/15/22[2]	557.43	0.0285	0.0058000	5.80000	-0.0076	-7.6000	5,000	No	50	No
GESTSP103122-687	MSB02	12/15/22[2]	520.83	0.0227								
GESTSP103122-688	MSB113A	12/15/22[2]	493.12	0.0361								
TSP112922-04	MSB01	12/20/22	1826.44	0.03	-0.0043000	-4.30000	0.0013000	1.3000	5,000	No	50	No
TSP112922-06	MSB02	12/20/22	1816.34	0.0257								
TSP112922-08	MSB113A	12/20/22	1635.10	0.0313								
TSP112922-10	MSB01	12/21/22	1804.63	0.0326	0.000700	0.700	0.002900	2.900	5,000	No	50	No
TSP112922-12	MSB02	12/21/22	1802.29	0.0319								
TSP112922-14	MSB113A	12/21/22	1628.17	0.0297								
TSP112922-16	MSB01	12/22/22	1601.00	0.035	-0.0011000	-1.10000	0.000400	0.4000	5,000	No	50	No
TSP112922-18	MSB02	12/22/22	1641.66	0.0361								
TSP112922-21	MSB113A	12/22/22	1469.27	0.0346								

Notes:

[1]Air sample was not collected on days with rain or when contaminated soil was not disturbed.

[2]Air sample was taken down during the afternoon after field activities ceased.

[3]Generator malfunction.

Sample locations are shown on Figure 2-1

HPNS = Hunters Point Naval Shipyard

J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

J+ = estimated concentration biased high

m^3 = cubic meters

mg/m^3 = milligrams per cubic meter

ATTACHMENT 6
RADIONUCLIDES OF CONCERN AIR SAMPLING RESULTS

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Attachment 6: Radionuclides of Concern Air Sampling Results

Date	Sample Location	Duration of Run (min)	Cesium-137	Plutonium-239/240	Radium-226	Strontium-90	Cobalt-60	Exceedance (Yes/No)
Action Level			4.00E-11	4.00E-15	1.80E-13	1.20E-12	1.00E-11	
Units			µCi/mL	µCi/mL	µCi/mL	µCi/mL	µCi/mL	
7/7/22 -7/8/22	1	1335	9.14E-15 U	1.16E-14 U	3.21E-15 UJ	7.43E-15 J	3.37E-14 U	No
	2	1443	2.17E-14 U	1.58E-14 U	2.93E-15 UJ	1.05E-14 J	2.58E-14 U	No
	113A	1362	8.82E-15 U	1.19E-14 U	3.28E-15 UJ	1.05E-14 UJ	2.41E-14 U	No
7/11/22-7/15/22	1	5803	1.97E-15 U	2.4E-15 U	7.51E-16 UJ	3.9E-15 J	5.81E-15 U	No
	2	5789	2.41E-15 U	3.14E-15 U	7.71E-16 UJ	2.37E-15 J	5.53E-15 U	No
	113A	5791	2.66E-15 U	3.05E-15 U	9.18E-16 UJ	3.35E-15 J	5.44E-15 U	No
7/18/22-7/22/22	1	5966	4.82E-15 U	4.71E-15 U	6.57E-16 UJ	3.03E-15 J	5.59E-15 U	No
	2	5944	2.04E-15 U	2.31E-15 U	7.33E-16 UJ	1.26E-15 U	6.28E-15 U	No
	113A	5954	2.57E-15 U	2.87E-15 U	8.37E-16 UJ	1.15E-15 U	6.02E-15 U	No
7/25/22-7/29/22	1	5988	2.75E-15 U	2.94E-15 U	1.04E-15 UJ	2.47E-15 U	5.95E-15 U	No
	1*	5987	1.94E-15 U	2.8E-15 U	5.65E-16 UJ	2.98E-15 U	7.63E-15 U	No
	2	5945	2.36E-15 U	2.31E-15 U	7.47E-16 UJ	3.46E-15	5.71E-15 UJ	No
	113A	5965	2.49E-15 U	2.47E-15 U	7.49E-16 UJ	3.4E-15 U	5.82E-15 U	No
8/1/22-8/5/22	1	5962	4.8E-15 U	5.16E-15 U	4.6E-16 UJ	1.3E-15	1.32E-14 U	No
	2	5925	2.54E-15 U	2.05E-15 U	6.54E-16 UJ	1.74E-15	5.71E-15 U	No
	113A	5942	2.57E-15 U	3.06E-15 U	7.79E-16 UJ	1.84E-15	6.17E-15 U	No
8/8/22-8/12/22	1	5988	2.05E-15 U	2.58E-15 UJ	5.93E-16 UJ	1.07E-15 UJ	7.65E-15 U	No
	2	5945	2.17E-15 U	2.47E-15 UJ	8.48E-16 UJ	1.03E-15 UJ	5.97E-15 U	No
	113A	5976	2.72E-15 U	3.18E-15 UJ	4.01E-16 UJ	1.15E-15 UJ	5.47E-15 U	No
8/15/22-8/19/22	1	6002	2.16E-15 U	2.87E-15 U	5.92E-16 UJ	1.01E-15 UJ	5.61E-15 U	No
	2	5967	2.6E-15 U	2.34E-15 U	6.19E-16 UJ	9.58E-16 UJ	5.76E-15 U	No
	113A	5971	2.45E-15 U	2.82E-15 U	4.9E-16 UJ	9.74E-16 UJ	5.84E-15 U	No
8/22/22-8/25/22	1	4992	4.68E-15 U	6.06E-15 U	6.54E-16 U	2.49E-15 U	9.06E-15 U	No
	2	4999	3.25E-15 U	3.11E-15 U	5.12E-16 U	9.3E-15 J	1.07E-14 J	No
	2*	4999	2.43E-15 U	2.77E-15 U	7.22E-16 U	2.65E-15 U	1.25E-14 UJ	No
	113A	5002	2.87E-15 U	3.55E-15 U	8.04E-16 U	2.47E-15 U	6.36E-15 U	No
8/29/22-9/1/22	1	4932	2.35E-15 U	3.24E-15 U	4.39E-16 U	2.82E-15 U	5.94E-15 U	No
	2	4944	3.24E-15 U	3.73E-15 U	6.33E-16 U	2.74E-15 U	1.22E-14 U	No
	113A	4949	5.53E-15 U	5.68E-15 U	5.02E-16 U	2.16E-14 J	6.42E-15 U	No
9/5/22-9/8/22	1	3535	3.86E-15 U	4.1E-15 U	3.81E-16 U	2.51E-15 J	2.32E-14 U	No
	2	3562	4.23E-15 U	5.01E-15 U	5.16E-16 U	1.67E-15 U	1.86E-14 U	No
	113A	3558	3.4E-15 U	4.74E-15 U	5.87E-16 U	3.86E-15 J	1.94E-14 U	No
9/12/22-9/15/22	1	4967	2.89E-15 U	3.35E-15 U	1.87E-16 U	1.77E-15	1.25E-14 U	No
	2	4995	5.7E-15 U	6.32E-15 U	1.55E-16 U	2.22E-15	1.21E-14 U	No
	113A	4972	5.67E-15 U	4.84E-15 U	3.03E-16 U	1.71E-15	1.3E-14 U	No
8/22/22-8/25/22	1	4992	4.68E-15 U	6.54E-16 U	2.49E-15 U	9.06E-15 U	6.06E-15 U	No
	2	4999	3.25E-15 U	5.12E-16 U	9.3E-15 J	1.07E-14 J	3.11E-15 U	No
	2*	4999	2.43E-15 U	7.22E-16 U	2.65E-15 U	1.25E-14 UJ	2.77E-15 U	No
	113A	5002	2.87E-15 U	8.04E-16 U	2.47E-15 U	6.36E-15 U	3.55E-15 U	No

Attachment 6: Radionuclides of Concern Air Sampling Results

Date	Sample Location	Duration of Run (min)	Cesium-137	Plutonium-239/240	Radium-226	Strontium-90	Cobalt-60	Exceedance (Yes/No)
Action Level			4.00E-11	4.00E-15	1.80E-13	1.20E-12	1.00E-11	
Units			µCi/mL	µCi/mL	µCi/mL	µCi/mL	µCi/mL	
8/29/22-9/1/22	1	4932	2.35E-15 U	4.39E-16 U	2.82E-15 U	5.94E-15 U	3.24E-15 U	No
	2	4944	3.24E-15 U	6.33E-16 U	2.74E-15 U	1.22E-14 U	3.73E-15 U	No
	113A	4949	5.53E-15 U	5.02E-16 U	2.16E-14 J	6.42E-15 U	5.68E-15 U	No
9/6/22-9/8/22	1	3535	3.86E-15 U	3.81E-16 UJ	2.51E-15 J	2.32E-14 U	4.1E-15 U	No
	2	3562	4.23E-15 U	5.16E-16 UJ	1.67E-15 U	1.86E-14 U	5.01E-15 U	No
	113A	3558	3.4E-15 U	5.87E-16 UJ	3.86E-15 J	1.94E-14 U	4.74E-15 U	No
9/12/22-9/15/22	1	4967	2.89E-15 U	1.87E-16 U	1.77E-15	1.25E-14 U	3.35E-15 U	No
	2	4995	5.7E-15 U	1.55E-16 U	2.22E-15	1.21E-14 U	6.32E-15 U	No
	113A	4972	5.67E-15 U	3.03E-16 UJ	1.71E-15	1.3E-14 U	4.84E-15 U	No
9/19/22-9/22/22	1	4943	2.43E-15 U	3.96E-16 U	3.81E-15	1.64E-14 U	3.68E-15 U	No
	2	4965	5.5E-15 U	3.23E-16 U	2.79E-15	1.37E-14 U	5.89E-15 U	No
	113A	4956	2.75E-15 U	3.46E-16 U	4.13E-15 J	1.28E-14 U	3.16E-15 U	No
	113A*	4955	2.74E-15 U	3.45E-16 U	6.6E-15 J	1.3E-14 U	3.08E-15 U	No
9/26/22-9/29/22	1	4980	2.28E-15 U	3.09E-16 UJ	3.67E-15	1.77E-14 U	2.95E-15 U	No
	2	4998	2.18E-15 U	3.63E-16 UJ	4.07E-15	1.41E-14 U	3.06E-15 U	No
	113A	4985	4.93E-15 U	3.91E-16 UJ	5.53E-15	1.39E-14 U	6.46E-15 U	No
10/03/22-10/06/22	1	4976	4.77E-15 U	3.74E-16 UJ	2.33E-15 U	1.85E-14 U	6.46E-15 U	No
	2	5004	3.18E-15 U	4.92E-16 UJ	5.33E-15 J	1.42E-14 U	3.26E-15 U	No
	113A	4990	2.74E-15 U	2.75E-16 UJ	2.21E-15 U	1.5E-14 U	3.13E-15 U	No
10/10/22-10/13/22	1	4731	3.23E-15 U	2.12E-16 UJ	3.15E-15 U	1.85E-14 UJ	3.78E-15 U	No
	2	4741	2.64E-15 U	3.67E-16 UJ	2.9E-15 U	1.49E-14 U	3.76E-15 U	No
	113A	4736	3.5E-15 U	3.84E-16 UJ	5.44E-15 J	1.49E-14 U	3.56E-15 U	No
10/17/22-10/20/22	1	4870	5.18E-15 U	4.4E-16 UJ	2.59E-15 U	1.53E-14 U	4.64E-15 U	No
	1*	4870	2.87E-15 U	2.82E-16 UJ	2.63E-15 U	1.61E-14	3.8E-15 U	No
	2	4861	3.16E-15 U	4.04E-16 UJ	2.64E-15 U	1.41E-14 U	3.37E-15 U	No
	113A	4891	3.15E-15 U	4.64E-16 UJ	2.9E-15 U	1.3E-14 U	3.31E-15 U	No
10/24/22-10/27/22	1	4985	2.39E-15 U	4.33E-16 UJ	2E-15 U	1.2E-14 U	2.7E-15 U	No
	2	5016	2.51E-15 U	2.57E-16 UJ	2.23E-15 U	1.23E-14 U	2.46E-15 U	No
	113A	5006	2.9E-15 U	2.64E-16 UJ	2.32E-15 U	1.33E-14 U	3.05E-15 U	No
10/31/22-11/03/22	1	4991	2.84E-15 U	2.64E-16 UJ	1.8E-15 U	1.79E-14 U	3.87E-15 U	No
	2	5006	3.15E-15 U	5.09E-16 UJ	2.83E-15 U	1.28E-14 U	3.09E-15 U	No
	113A	4991	2.18E-15 U	3.55E-16 UJ	2.9E-15 U	1.43E-14 U	2.38E-15 U	No
11/07/22-11/10/22	1	4928	3.3E-15 U	4.68E-16 UJ	2.57E-15 U	1.8E-14 U	5.07E-15 U	No
	2	4927	2.5E-15 U	3.96E-16 UJ	2.61E-15 U	1.4E-14 U	2.65E-15 U	No
	113A	4952	2.54E-15 U	3.75E-16 UJ	2.86E-15 U	1.35E-14 U	2.77E-15 U	No

Attachment 6: Radionuclides of Concern Air Sampling Results

Date	Sample Location	Duration of Run (min)	Cesium-137		Plutonium-239/240		Radium-226		Strontium-90		Cobalt-60		Exceedance (Yes/No)
Action Level			4.00E-11		4.00E-15		1.80E-13		1.20E-12		1.00E-11		
Units			µCi/mL		µCi/mL		µCi/mL		µCi/mL		µCi/mL		
11/14/22-11/17/22	1	4965	2.23E-15	U	3.73E-16	UJ	3.72E-15		1.37E-14	U	3.26E-15	U	No
	2	4980	2.4E-15	U	4.3E-16	UJ	2.83E-15	U	1.28E-14	U	2.62E-15	U	No
	2*	4980	2.69E-15	U	2.8E-16	UJ	2.82E-15	U	1.27E-14	U	2.75E-15	U	No
	113A	4979	2.5E-15	U	2.27E-16	UJ	3.14E-15	U	1.42E-14	U	3.22E-15	U	No
11/21/22-11/23/22	1	3185	4.18E-15	U	4.42E-16	UJ	4.37E-15	U	2E-14	U	4.71E-15	U	No
	2	3215	3.53E-15	U	5.43E-16	UJ	4.23E-15	U	2.46E-14	U	4.58E-15	U	No
	113A	3175	4.83E-15	U	5.81E-16	UJ	5.58E-15		2.17E-14	U	5.43E-15	U	No
11/28/22-12/01/22	1	4239	3.72E-15	U	2.26E-16	UJ	2.71E-15	U	2.16E-14	U	3.86E-15	U	No
	2	4290	3.88E-15	U	4.04E-16	UJ	3.56E-15	U	1.52E-14	U	3.67E-15	U	No
	113A	4225	3E-15	U	4.16E-16	UJ	3.87E-15	U	1.61E-14	U	3.31E-15	U	No
12/06/22-12/08/22	1	3409	4.22E-15	U	7.34E-16	UJ	3.5E-15	U	2.7E-14		4.2E-15	U	No
	2	3420	3.13E-15	U	5.55E-16	UJ	4.02E-15	U	1.99E-14	UJ	4.52E-15	U	No
	113A	3429	4.44E-15	U	1.31E-15	UJ	3.69E-15	U	2.12E-14		5.41E-15	U	No
12/12/22-12/15/22	1	4969	5.2E-15	U	4.25E-16	UJ	4.32E-15	J	1.34E-14	U	4.65E-15	U	No
	2	4983	2.52E-15	U	3.16E-16	UJ	2.83E-15	J	1.27E-14	U	2.9E-15	U	No
	113A	4992	2.37E-15	U	2.86E-16	UJ	5.4E-15	J	1.19E-14	U	2.43E-15	U	No
12/19/22-12/22/22	1	4471	3.41E-15	U	4.11E-16	U	6.69E-15	J	1.36E-14	U	4.51E-15	U	No
	2	4490	2.68E-15	U	4.35E-16	U	3.5E-15	J	1.42E-14	U	3.05E-15	U	No
	113A	4490	2.8E-15	U	4.48E-16	U	2.66E-15	U	1.36E-14	U	3.49E-15	U	No
	113A*	4490	2.85E-15	U	5.76E-16	U	3.38E-15	J	1.55E-14	U	3.21E-15	U	No

Notes:

* = duplicate sample

J = Activity is an approximate value.

min = minutes

U = Activity is less than the MDC.

µCi/mL=microcuries per milliliter

ATTACHMENT 7
LABORATORY REPORTS

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Laboratory Analysis Report

Job ID : 22121735

10100 East Freeway, Suite 100, Houston, TX 77029 tel: 713-453-6060, fax: 713-453-6091, http://www.ablabs.com

Client Project Name :
Hunters Point Shipyard, Parcel B Removal Site Evaluation / J310000900

Report To :	Client Name:	GES - ASRC Industrial	Total Number of Pages:	9
	Attn:	[redacted]	P.O.#. :	J310000900-005
	Client Address:	1501 West Fountainhead Parkway, Ste. #550	Date Received :	12/19/2022 09:22
	City, State, Zip:	Tempe, Arizona, 85282	Sample Collected By :	

A&B Labs has analyzed the following samples...

Client Sample ID	Sample Collection Date & Time	Matrix	A&B Job Sample ID
FB-121222	12/12/2022 8:00	Cassette	22121735.01
MSB01-121222	12/13/2022 7:18	Cassette	22121735.02
MSB02-121222	12/13/2022 7:45	Cassette	22121735.03
MSB113A-121222	12/13/2022 7:33	Cassette	22121735.04
MSB01-121322	12/14/2022 7:11	Cassette	22121735.05
MSB02-121322	12/14/2022 7:44	Cassette	22121735.06
MSB113A-121322	12/14/2022 7:30	Cassette	22121735.07
MSB01-121422	12/15/2022 7:15	Cassette	22121735.08
MSB02-121422	12/15/2022 7:48	Cassette	22121735.09
MSB113A-121422	12/15/2022 7:36	Cassette	22121735.10
MSB01-121522	12/15/2022 15:03	Cassette	22121735.11
MSB02-121522	12/15/2022 14:58	Cassette	22121735.12
MSB113A-121522	12/15/2022 15:12	Cassette	22121735.13

[redacted]

Released By: [redacted]

Title: Vice President Operations

Analyst: [redacted]

ANALYSIS OF AIRBORNE FIBER SAMPLING
SAMPLING PERFORMED BY CLIENT
ANALYSIS CONDUCTED BY A & B ENVIRONMENTAL SERVICES, INC.
AIHA Lab Accreditation # 101470 TDH PLM/PCM Lab License # 300080

Date 12/27/202

Job ID : 22121735
Analytical Method: NIOSH 7400-I2-Aug1994

Client: GES - ASRC Industrial Project: Hunters Point Shipyard, Parcel B Removal Site Evaluation / J310000900 Attn: [redacted]

A&B Sample ID	Client Sample ID	Collected Date	Area/Person	Flow Rate L/m	Time On	Time Off	Total Time (min)	Volume (Liters)	Total Fields	Total Fibers	F/mm2	Fiber/cc	8 Hour TWA	Analysis Date	Analyzed By
22121735.01	FB-121222	12/12/2022	Area					0	100	1	1.274			12/27/22	[redacted]
22121735.02	MSB01-121222	12/13/2022	Area	3.3			1424	4699.	100	6.0	7.643	0.001		12/27/22	
22121735.03	MSB02-121222	12/13/2022	Area	3.5			1427	4994.	100	3	3.822	< 0.001		12/27/22	
22121735.04	MSB113A-121222	12/13/2022	Area	3.5			1428	4998	100	6.5	8.280	0.001		12/27/22	
22121735.05	MSB01-121322	12/14/2022	Area	3.2			1435	4592	100	5.0	6.369	< 0.001		12/27/22	
22121735.06	MSB02-121322	12/14/2022	Area	3.5			1438	5033	100	3.0	3.822	< 0.001		12/27/22	
22121735.07	MSB113A-121322	12/14/2022	Area	3.3			1437	4742.	100	2.5	3.185	< 0.001		12/27/22	
22121735.08	MSB01-121422	12/15/2022	Area	3.4			1445	4913	100	4.5	5.732	< 0.001		12/27/22	
22121735.09	MSB02-121422	12/15/2022	Area	3.6			1443	5194.	100	2	2.548	< 0.001		12/27/22	
22121735.10	MSB113A-121422	12/15/2022	Area	3.5			1448	5068	100	6.5	8.280	0.001		12/27/22	
22121735.11	MSB01-121522	12/15/2022	Area	3			466	1398	100	1	1.274	< 0.002		12/27/22	
22121735.12	MSB02-121522	12/15/2022	Area	3.6			429	1544.	100	3	3.822	< 0.002		12/27/22	
22121735.13	MSB113A-121522	12/15/2022	Area	3.4			456	1550.	100	3	3.822	< 0.002		12/27/22	

Detection limit of this method is estimated at 7 f/mm2 (5.5 fibers per 100 fields)

Sr Value

(Fiber Range*; Sr Value): (5-20; Sr = 0.06), (20-50; Sr = 0.05), (50-100; Sr = 0.04), (>100; Sr = 0.04)

*Fiber Range = # of Fibers / 100 Counts

Intralaboratory Sr 5-20:0.06 20-50:0.04 50-100:0.02

Sample Condition Checklist

A&B JobID : **22121735**	Date Received : **12/19/2022**	Time Received : **9:22AM**
Client Name : **GES - ASRC Industrial**		
Temperature : **22.1°C**	Sample pH : **NA**	
Thermometer ID : **IR4**	pH Paper ID : **NA**	
Perservative :		

	Check Points	Yes	No	N/A
1.	**Cooler Seal present and signed.**	X		
2.	**Sample(s) in a cooler.**		X	
3.	**If yes, ice in cooler.**			X
4.	**Sample(s) received with chain-of-custody.**	X		
5.	**C-O-C signed and dated.**	X		
6.	**Sample(s) received with signed sample custody seal.**		X	
7.	**Sample containers arrived intact. (If No comment)**	X		
8.	**Matrix:** Water ☐ Soil ☐ Liquid ☐ Sludge ☐ Solid ☐ Cassette ☑ Tube ☐ Bulk ☐ Badge ☐ Food ☐ Other ☐			
9.	**Samples were received in appropriate container(s)**	X		
10.	**Sample(s) were received with Proper preservative**			X
11.	**All samples were tagged or labeled.**	X		
12.	**Sample ID labels match C-O-C ID's.**	X		
13.	**Bottle count on C-O-C matches bottles found.**	X		
14.	**Sample volume is sufficient for analyses requested.**	X		
15.	**Samples were received with in the hold time.**	X		
16.	**VOA vials completely filled.**			X
17.	**Sample accepted.**	X		
18.	**Has client been contacted about sub-out**			X

Comments : Include actions taken to resolve discrepancies/problem:

No cooler was received, however samples are received in a box with a custody seal. Received black cassettes. ~[redacted] 12/19/2022

Received by : [redacted]

Check in by/date : [redacted] / 12/19/2022

ab-s005-0321

CHAIN-OF-CUSTODY RECORD

Gilbane Federal [redacted]
1655 Grant Street, Suite 1200, Concord, CA 94520
[redacted]

COC ID # MC121622ASBB

GES

Project Name: Hunters Point Shipyard, Parcel B Removal Site Evaluation	Laboratory: A&B Labs	Event: **Parcel B Asbestos**
Project Number: J310000900	POC: [redacted]	
WBS Code: J310000900	Ship to: 10100 East Fwy Ste. 100 Houston TX 77029	

Comments: Please conslidate all COC pages that share the same COC ID into one SDG.

Equipment:

Code	Matrix
A	Air
AQ	Air Quality Control Matrix

Code	Container/Preservative
1	Filter/No Preservatives

Page 1 of 4

Event: Parcel B Asbestos

	Sample ID	Matrix	Date	Time	Samp Ind.	Analytical Test Method: Asbestos	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
						1						
01A	1 FB-121222	AQ	12/12/2022	0800	[redacted]	x	FB	FB1	0.00	0.00	1	
02A	2 MSB01-121222	A	12/13/2022	0718		x	MSB01	N1	0.00	0.00	1	
03A	3 MSB02-121222	A	12/13/2022	0745		x	MSB02	N1	0.00	0.00	1	
04A	4 MSB113A-121222	A	12/13/2022	0733		x	MSB113A	N1	0.00	0.00	1	
	5											
	6											
	7											
	8											
	9											
	10											
	11											

Job ID:22121735

12/19/2022 GES - ASRC Industrial ACH

[redacted] 12/16/22

Turnaround Time: 7 days

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time	Shipping Date / Carrier / Airbill Number
[redacted]	12/16/22	1200	FedEx	12/16/22	1200	Shipping Date: 12/16/22 / FEDEX 7707 3605 8078
Fedex	12/19/22	9:22	[redacted]	[redacted]	9:22	**Received by Laboratory:** *(Signature, Date, Time)* **& condition**
				12/19/22		

22.1°C
IR4
[redacted]

CHAIN-OF-CUSTODY RECORD

Gilbane Federal [redacted]
1655 Grant Street, Suite 1200, Concord, CA 94520
[redacted]

COC ID # MC121622ASBB

Project Name: Hunters Point Shipyard, Parcel B Removal Site Evaluation	Laboratory: A&B Labs	Event: **Parcel B Asbestos**
Project Number: J310000900	POC [redacted]	
WBS Code: J310000900	Ship to: 10100 East Fwy Ste. 100 Houston TX 77029	

Comments: Please conslidate all COC pages that share the same COC ID into one SDG.

Equipment:

Event: Parcel B Asbestos

Code	Matrix
A	Air
AQ	Air Quality Control Matrix

Code	Container/Preservative
1	Filter/No Preservatives

	Sample ID	Matrix	Date	Time	Samp Init.	Analytical Test Method: Asbestos	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
						1						
OSA	1 MSB01-121322	A	12/14/2022	0711	[redacted]	x	MSB01	N1	0.00	0.00	1	
06A	2 MSB02-121322	A	12/14/2022	0744		x	MSB02	N1	0.00	0.00	1	
07A	3 MSB113A-121322	A	12/14/2022	0730		x	MSB113A	N1	0.00	0.00	1	
	4											
	5											
	6											
	7											
	8											
	9											
	10											
	11											[redacted]

12/16/22

Turnaround Time: 7 days

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time	Shipping Date / Carrier / Airbill Number
[redacted]	12/16/22	1200	FedEx	12/16/22	1600	Shipping Date: 12/16/22 / FEDEX 7707 3605 8078
FedEx	12/19/22	9:22	[redacted]	12/19/22	9:22	**Received by Laboratory:** *(Signature, Date, Time)* **& condition**

CHAIN-OF-CUSTODY RECORD

Gilbane Federal [redacted]
1655 Grant Street, Suite 1200, Concord, CA 94520
[redacted]

COC ID # MC121622ASBB

GES

Project Name: Hunters Point Shipyard, Parcel B Removal Site Evaluation	Laboratory: A&B Labs	Event: **Parcel B Asbestos**
Project Number: J310000900	POC: [redacted]	
WBS Code: J310000900	Ship to: 10100 East Fwy Ste. 100 Houston TX 77029	

Comments: Please conslidate all COC pages that share the same COC ID into one SDG.

Code	Matrix
A	Air
AQ	Air Quality Control Matrix

Code	Container/Preservative
1	Filter/No Preservatives

Equipment:

Event: Parcel B Asbestos

Analytical Test Method: Asbestos (1)

	Sample ID	Matrix	Date	Time	Samp Init.	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
1	MSB01-121422	A	12/15/2022	0715	[redacted]	MSB01	N1	0.00	0.00	1	
2	MSB02-121422	A	12/15/2022	0748		MSB02	N1	0.00	0.00	1	
3	MSB113A-121422	A	12/15/2022	0736		MSB113A	N1	0.00	0.00	1	
4											
5											
6											
7											
8											
9											
10											
11											

08A
09A
10A

[redacted] 12/16/22

Turnaround Time: 7 days

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time	Shipping Date / Carrier / Airbill Number
[redacted]	12/16/22	1200	FedEx	12/16/22	1200	Shipping Date 12/16/22 / FEDEX 7707 3605 8078
FedEx	12/19/22	9:22	[redacted]	12/19/22	9:22	**Received by Laboratory:** *(Signature, Date, Time)* **& condition**

CHAIN-OF-CUSTODY RECORD

Gilbane Federal [redacted]
1655 Grant Street, Suite 1200, Concord, CA 94520
[redacted]

COC ID # MC121622ASBB

Project Name: Hunters Point Shipyard, Parcel B Removal Site Evaluation	Laboratory: A&B Labs	Event: **Parcel B Asbestos**
Project Number: J310000900	POC [redacted]	
WBS Code: J310000900	Ship to: 10100 East Fwy Ste. 100 Houston TX 77029	

Comments: Please conslidate all COC pages that share the same COC ID into one SDG.

Equipment:

Event: Parcel B Asbestos

Code	Matrix
A	Air
AQ	Air Quality Control Matrix

Code	Container/Preservative
1	Filter/No Preservatives

	Sample ID	Matrix	Date	Time	Samp Init.	Analytical Test Method: Asbestos	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
11A	1 MSB01-121522	A	12/15/2022	1503	[redacted]	x	MSB01	N1	0.00	0.00	1	
12A	2 MSB02-121522	A	12/15/2022	1458		x	MSB02	N1	0.00	0.00	1	
13A	3 MSB113A-121522	A	12/15/2022	1512		x	MSB113A	N1	0.00	0.00	1	
	4											
	5											
	6											
	7											
	8											
	9											[redacted]
	10											
	11											

12/19/22

Turnaround Time: 7 days

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time	Shipping Date / Carrier / Airbill Number
[redacted]	12/16/22	1200	FedEx	12/16/22	1200	Shipping Date 12/16/22 / FEDEX 7707 3605 8078
Fedex	12/19/22	9:22	[redacted]	12/19/22	9:22	**Received by Laboratory:** *(Signature, Date, Time)* **& condition**

COC ID # MC121622ASBB

Flow Rate, Total Time

Sample ID	End Date	End Time	Flow Rate (L/min), Total Time (mins)
FB-121222	12/12/22	8:00:00 AM	--
MSB01-121222	12/13/22	7:18:00 AM	3.3; 1424
MSB02-121222	12/13/22	7:45:00 AM	3.5; 1427
MSB113A-121222	12/13/22	7:33:00 AM	3.5; 1428
MSB01-121322	12/14/22	7:11:00 AM	3.2; 1435
MSB02-121322	12/14/22	7:44:00 AM	3.5; 1438
MSB113A-121322	12/14/22	7:30:00 AM	3.3; 1437
MSB01-121422	12/15/22	7:15:00 AM	3.4; 1445
MSB02-121422	12/15/22	7:48:00 AM	3.6; 1443
MSB113A-121422	12/15/22	7:36:00 AM	3.5; 1448
MSB01-121522	12/15/22	3:03:00 PM	3; 466
MSB02-121522	12/15/22	2:58:00 PM	3.6; 429
MSB113A-121522	12/15/22	3:12:00 PM	3.4; 456

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Laboratory Analysis Report

Job ID : 22122771

10100 East Freeway, Suite 100, Houston, TX 77029 tel: 713-453-6060, fax: 713-453-6091, http://www.ablabs.com

Client Project Name :
J310000900 / Hunters Point Shipyard, Parcel B Removal Site Evaluation

Report To :	Client Name:	GES - ASRC Industrial	Total Number of Pages:	8
	Attn:	[redacted]	P.O.#. :	J310000900-005
	Client Address:	1501 West Fountainhead Parkway, Ste. #550	Date Received :	12/29/2022 15:06
	City, State, Zip:	Tempe, Arizona, 85282	Sample Collected By :	

A&B Labs has analyzed the following samples...

Client Sample ID	Sample Collection Date & Time	Matrix	A&B Job Sample ID
FBB-121922	12/19/2022 8:00	Cassette	22122771.01
MSB01-121922	12/20/2022 7:35	Cassette	22122771.02
MSB02-121922	12/20/2022 7:16	Cassette	22122771.03
MSB113A-121922	12/20/2022 7:25	Cassette	22122771.04
MSB01-122022	12/21/2022 7:45	Cassette	22122771.05
MSB02-122022	12/21/2022 7:30	Cassette	22122771.06
MSB113A-122022	12/21/2022 7:39	Cassette	22122771.07
MSB01-122122	12/22/2022 7:18	Cassette	22122771.08
MSB02-122122	12/22/2022 7:17	Cassette	22122771.09
MSB113A-122122	12/22/2022 7:28	Cassette	22122771.10

[redacted]

Released By: [redacted]

Title: Vice President Operations

Analyst: [redacted]

ANALYSIS OF AIRBORNE FIBER SAMPLING
SAMPLING PERFORMED BY CLIENT
ANALYSIS CONDUCTED BY A & B ENVIRONMENTAL SERVICES, INC.
AIHA Lab Accreditation # 101470 TDH PLM/PCM Lab License # 300080

Date 1/6/2023

Job ID : 22122771
Analytical Method: NIOSH 7400-I2-Aug1994

Client: GES - ASRC Industrial Project: J310000900 / Hunters Point Shipyard, Parcel B Removal Site Evaluation Attn: [redacted]

A&B Sample ID	Client Sample ID	Collected Date	Area/Person	Flow Rate L/m	Time On	Time Off	Total Time (min)	Volume (Liters)	Total Fields	Total Fibers	F/mm2	Fiber/cc	8 Hour TWA	Analysis Date	Analyzed By
22122771.01	FBB-121922	12/19/2022						0	100	2.5	0.000			01/06/23	[redacted]
22122771.02	MSB01-121922	12/20/2022	Area	3.2			1415	4528	100	6.0	7.643	0.001		01/06/23	[redacted]
22122771.03	MSB02-121922	12/20/2022	Area	3.7			1418	5246.	100	1	1.274	< 0.001		01/06/23	[redacted]
22122771.04	MSB113A-121922	12/20/2022	Area	3.5			1415	4952.	100	4.5	5.732	< 0.001		01/06/23	[redacted]
22122771.05	MSB01-122022	12/21/2022	Area	3.7			1447	5353.	100	1.5	1.911	< 0.001		01/06/23	[redacted]
22122771.06	MSB02-122022	12/21/2022	Area	3.6			1453	5230.	100	6.5	8.280	0.001		01/06/23	[redacted]
22122771.07	MSB113A-122022	12/21/2022	Area	3.4			1452	4936.	100	4.5	5.732	< 0.001		01/06/23	[redacted]
22122771.08	MSB01-122122	12/22/2022	Area	3.5			1412	4942	100	7	8.917	0.001		01/06/23	[redacted]
22122771.09	MSB02-122122	12/22/2022	Area	3.6			1426	5133.	100	5	6.369	< 0.001		01/06/23	[redacted]
22122771.10	MSB113A-122122	12/22/2022	Area	3.2			1428	4569.	100	3.5	4.459	< 0.001		01/06/23	[redacted]

Detection limit of this method is estimated at 7 f/mm2 (5.5 fibers per 100 fields)

Sr Value

(Fiber Range*; Sr Value): (5-20; Sr = 0.06), (20-50; Sr = 0.05), (50-100; Sr = 0.04), (>100; Sr = 0.04)

*Fiber Range = # of Fibers / 100 Counts

OUTR = Overload,Unable To Read

Intralaboratory Sr 5-20:0.06 20-50:0.04 50-100:0.02

Sample Condition Checklist

A&B JobID : **22122771**	Date Received : **12/29/2022**	Time Received : **3:06PM**
Client Name : **GES - ASRC Industrial**		
Temperature : **23.2°C**	Sample pH : **NA**	
Thermometer ID : **IR4**	pH Paper ID : **NA**	
Perservative :		

	Check Points	Yes	No	N/A
1.	**Cooler Seal present and signed.**	X		
2.	**Sample(s) in a cooler.**		X	
3.	**If yes, ice in cooler.**			X
4.	**Sample(s) received with chain-of-custody.**	X		
5.	**C-O-C signed and dated.**	X		
6.	**Sample(s) received with signed sample custody seal.**		X	
7.	**Sample containers arrived intact. (If No comment)**	X		
8.	**Matrix:** Water ☐ Soil ☐ Liquid ☐ Sludge ☐ Solid ☐ Cassette ☑ Tube ☐ Bulk ☐ Badge ☐ Food ☐ Other ☐			
9.	**Samples were received in appropriate container(s)**	X		
10.	**Sample(s) were received with Proper preservative**			X
11.	**All samples were tagged or labeled.**	X		
12.	**Sample ID labels match C-O-C ID's.**	X		
13.	**Bottle count on C-O-C matches bottles found.**	X		
14.	**Sample volume is sufficient for analyses requested.**	X		
15.	**Samples were received with in the hold time.**	X		
16.	**VOA vials completely filled.**			X
17.	**Sample accepted.**	X		
18.	**Has client been contacted about sub-out**			X

Comments : Include actions taken to resolve discrepancies/problem:

No cooler was received, however samples are received in a box with a custody seal. Black Cassettes ~[redacted] 12/29/22

Received by : [redacted]

Check in by/date : [redacted] / 12/29/2022

ab-s005-0321

CHAIN-OF-CUSTODY RECORD

Gilbane Federal [redacted]
1655 Grant Street, Suite 1200, Concord, CA 94520
[redacted]

COC ID # MC122822ASBB

GES

Project Name: Hunters Point Shipyard, Parcel B Removal Site Evaluation	Laboratory: A&B Labs	Event: Parcel B Asbestos
Project Number: J310000900	POC: [redacted]	
WBS Code: J310000900	Ship to: 10100 East Fwy Ste. 100 Houston TX 77029	

Comments: Please conslidate all COC pages that share the same COC ID into one SDG.

Equipment:

Analytical Test Method: Asbestos

Code	Matrix
A	Air
AQ	Air Quality Control Matrix

Code	Container/Preservative
1	Filter/No Preservatives

Page ~~1 of 4~~ 1 of 3 [redacted] 12/28/22

Event: Parcel B Asbestos — 1

	Sample ID	Matrix	Date	Time	Samp Init	Asbestos	Location ID	Sample Type	Depth (ft bgs) Top	Bottom	Cooler	Comments
1	FBB-121922 01A	AQ	12/19/2022	0800	[redacted]	x	FB	FB1	0.00	0.00	1	
2	MSB01-121922 02A	A	12/20/2022	0735		x	MSB01	N1	0.00	0.00	1	
3	MSB02-121922 03A	A	12/20/2022	0716		x	MSB02	N1	0.00	0.00	1	
4	MSB113A-121922 04A	A	12/20/2022	0725		x	MSB113A	N1	0.00	0.00	1	
5												
6												
7												
8												
9												
10												
11												

[redacted] [redacted] 12-28-22

Job ID:22122771
12/29/2022 GES - ASRC Industrial ACH

Turnaround Time: 7 days

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time	Shipping Date / Carrier / Airbill Number
[redacted]	12-28-22	1600	FEDEX	12-28-22	1600	Shipping Date: 12/28/22 / FEDEX 7707 9822 0847
Fedex			[redacted]	~~12-29-22~~ [redacted]		Received by Laboratory ... condition [redacted] 12-29-22 ~~3.06~~ 15:04 23.2 [redacted]

CHAIN-OF-CUSTODY RECORD

Gilbane Federal [redacted]
1655 Grant Street, Suite 1200, Concord, CA 94520
[redacted]

COC ID # MC122822ASBB

GES

Project Name: Hunters Point Shipyard, Parcel B Removal Site Evaluation	Laboratory: A&B Labs	Event: **Parcel B Asbestos**
Project Number: J310000900	POC: [redacted]	
WBS Code: J310000900	Ship to: 10100 East Fwy Ste. 100 Houston TX 77029	

Comments: Please conslidate all COC pages that share the same COC ID into one SDG.

Equipment:

Code	Matrix
A	Air
AQ	Air Quality Control Matrix

Code	Container/Preservative
1	Filter/No Preservatives

Page ~~2 of 4~~ 2 of 3 [redacted] 12/28/2

Event: Parcel B Asbestos

	Sample ID	Matrix	Date	Time	Samp Init.	Analytical Test Method: Asbestos	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
1	MSB01-122022 05A	A	12/21/2022	0745	[redacted]	x	MSB01	N1	0.00	0.00	1	
2	MSB02-122022 06A	A	12/21/2022	0730		x	MSB02	N1	0.00	0.00	1	
3	MSB113A-122022 07A	A	12/21/2022	0739		x	MSB113A	N1	0.00	0.00	1	
4												
5												
6												
7												
8												
9												
10												
11												

[redacted] 12-28-22

Turnaround Time: 7 days

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time	Shipping Date / Carrier / Airbill Number
[redacted]	12-28-22	1600	FEDEX	12-28-22	1600	Shipping Date: 12/28/22 / FEDEX 7707 9822 0847
Fedex			[redacted]	12-29-22		**Received by Laboratory:** *(Signature, Date, Time)* **& condition** [redacted] 12-29-22 15:06 23.2°C

[redacted]

CHAIN-OF-CUSTODY RECORD

Gilbane Federal [redacted]
1655 Grant Street, Suite 1200, Concord, CA 94520
[redacted]

COC ID # MC122822ASBB

GES

Project Name: Hunters Point Shipyard, Parcel B Removal Site Evaluation	Laboratory: A&B Labs	Event: Parcel B Asbestos
Project Number: J310000900	POC: [redacted]	
WBS Code: J310000900	Ship to: 10100 East Fwy Ste. 100 Houston TX 77029	

Comments: Please consildate all COC pages that share the same COC ID into one SDG.

Equipment:

Event: Parcel B Asbestos

Analytical Test Method: Asbestos

Code	Matrix
A	Air
AQ	Air Quality Control Matrix

Code	Container/Preservative
1	Filter/No Preservatives

~~Page 3 of 4~~
Page 3 OF 3

[redacted] 12/28/22

	Sample ID	Matrix	Date	Time	Samp Init.	1	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
1	MSB01-122122 03A	A	12/22/2022	0718	[redacted]	x	MSB01	N1	0.00	0.00	1	
2	MSB02-122122 04A	A	12/22/2022	0717		x	MSB02	N1	0.00	0.00	1	
3	MSB113A-122122 10A	A	12/22/2022	0728		x	MSB113A	N1	0.00	0.00	1	
4												
5												
6												
7												
8												
9												
10												
11												

[redacted] 12-28-22

Turnaround Time: 7 days

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time	Shipping Date / Carrier / Airbill Number
[redacted]	12-28-22	1600	FEDEX	12-28-22	1600	Shipping Date: 12/28/22 / FEDEX 7707 9822 0847
Fedex			[redacted]	~~12-29-22~~		Received by Laboratory: *(Signature, Date, Time)* & condition [redacted] 12-29-22 15:06 23.2°C [redacted]

COC ID # MC122822ASBB

Flow Rate, Total Time

Sample ID	End Date	End Time	Flow Rate (L/min), Total Time (mins)
FBB-121922	12/19/22	8:00:00 AM	N/A
MSB01-121922	12/20/22	7:35:00 AM	3.2; 1415
MSB02-121922	12/20/22	7:16:00 AM	3.7; 1418
MSB113A-121922	12/20/22	7:25:00 AM	3.5; 1415
MSB01-122022	12/21/22	7:45:00 AM	3.7; 1447
MSB02-122022	12/21/22	7:30:00 AM	3.6; 1453
MSB113A-122022	12/21/22	7:39:00 AM	3.4; 1452
MSB01-122122	12/22/22	7:18:00 AM	3.5; 1412
MSB02-122122	12/22/22	7:17:00 AM	3.6; 1426
MSB113A-122122	12/22/22	7:28:00 AM	3.2; 1428

ORIGIN ID:JCCA [redacted]
GES-AIS
200 FISCHER AVE

SAN FRANCISCO, CA 94124
UNITED STATES US

SHIP DATE: 22DEC22
ACTWGT: 1.00 LB
CAD: 254128867/INET4530

BILL SENDER

TO [redacted]

A&B LABS
10100 EAST FREEWAY, SUITE 100

HOUSTON TX 77029
(713) 453-6060
INV
PO
REF:
DEPT

FedEx Express

E

FRI - 23 DEC 4:30P
STANDARD OVERNIGHT

TRK# 0201 **7707 9822 0847**

77029
UA HBYA TX-US **IAH**

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2609 North River Road
Port Allen, Louisiana 70767
(225) 228-1394

ARS Aleut Analytical, LLC

Laboratory Analytical Report

ARS1-22-02667

Gilbane Federal
[redacted]
1655 Grant Street
Suite 1200
Concord, CA 94520
[redacted]

COC Number: **MC120722RADB**
Job Number: **J310000900**
Job Location: **Parcel B Air Monitoring RAD**
Project Name: **Parcel B Removal Site Evaluation**

Questions regarding this analytical report should be addressed to ARS project manager, [redacted], who can be reached by email at projectmanagers@aaa.aleutfederal.com.

I certify that the test results presented in this report (in either hardcopy or electronic file (EDD)) meet the requirements of the laboratory's certifications and other applicable contract terms and conditions. A full list of the Port Allen, LA laboratory's certifications is provided with this report. Any exceptions to the certification or contract will be noted within the case narratives presented in the report. Any subcontracted sample results will be identified within the case narratives presented in the report. In the event this report is an amendment to a previously released report, the case narrative will clearly identify the original report as well as the reason(s) for reissuance. A statement of uncertainty for each analysis is available upon request. I authorize release and issuance of this report on the date signed below.

[redacted] Laboratory Management, ARS Aleut Analytical

Signature **Date** **Title**

2609 North River Road • Port Allen, Louisiana 70767
(225) 228-1394

Table Of Contents

Certifications and Accreditations List

State or Accrediting Body (AB)	Certificate Number
AIHA LAP, LLC	209312
Alaska	LA01131
California	3085
ANAB DoD	ADE-1489
ANAB DOE	ADE-1489.01
Louisiana DEQ - NELAC	01949
Louisiana DHH	LA022
Nevada	LA011312023-1
New Jersey	LA009
New York	65039
Pennsylvania	68-04294-011
Texas	T104704447-22-18
Utah	LA011312022-13
Washington	C1010

For additional information related to the specific matrices, methods,and analytes recognized by each accrediting body, contact us at QA@aaa.aleutfederal.com for additional information.

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ARS Aleut Analytical, LLC
Analytical Reports

for

Gilbane Federal

Case Narrative

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PROJECT SAMPLE IDENTIFICATION CROSS-REFERENCE
TO ARS SAMPLE LABORATORY IDs

Client Sample ID	ARS Aleut Analytical Sample ID
FB-112822	ARS1-22-02667-001
MSB01-112822	ARS1-22-02667-002
MSB02-112822	ARS1-22-02667-003
MSB113A-112822	ARS1-22-02667-004

Sample	Date Collected	Date Received	Analysis	Basis	Prep Date/Time	Analysis Date/Time
001	11/28/22 08:00	12/08/22	ASP-PU239-AF	As Received	12/19/22 09:30	12/22/22 00:48
001	11/28/22 08:00	12/08/22	GAM-A-AF	As Received	NA	12/12/22 14:07
001	11/28/22 08:00	12/08/22	GPC-RA226-AF	As Received	12/20/22 14:14	12/29/22 10:56
001	11/28/22 08:00	12/08/22	GPC-SR90-AF	As Received	12/28/22 08:52	01/03/23 12:24
002	12/01/22 07:58	12/08/22	ASP-PU239-AF	As Received	12/19/22 09:30	12/22/22 00:48
002	12/01/22 07:58	12/08/22	GAM-A-AF	As Received	NA	12/12/22 14:09
002	12/01/22 07:58	12/08/22	GPC-RA226-AF	As Received	12/20/22 14:14	12/29/22 10:56
002	12/01/22 07:58	12/08/22	GPC-SR90-AF	As Received	12/28/22 08:52	01/03/23 12:24
003	12/01/22 07:45	12/08/22	ASP-PU239-AF	As Received	12/19/22 09:30	12/22/22 00:48
003	12/01/22 07:45	12/08/22	GAM-A-AF	As Received	NA	12/13/22 14:17
003	12/01/22 07:45	12/08/22	GPC-RA226-AF	As Received	12/20/22 14:14	12/29/22 10:56
003	12/01/22 07:45	12/08/22	GPC-SR90-AF	As Received	12/28/22 08:52	01/03/23 12:24
004	12/01/22 08:09	12/08/22	ASP-PU239-AF	As Received	12/19/22 09:30	12/22/22 00:48
004	12/01/22 08:09	12/08/22	GAM-A-AF	As Received	NA	12/13/22 14:38

Sample	Date Collected	Date Received	Analysis	Basis	Prep Date/Time	Analysis Date/Time
004	12/01/22 08:09	12/08/22	GPC-RA226-AF	As Received	12/20/22 14:14	12/29/22 10:56
004	12/01/22 08:09	12/08/22	GPC-SR90-AF	As Received	12/28/22 08:52	01/03/23 12:24

SAMPLE RECEIPT/PREP

The samples arrived in good condition. The samples were screened for radioactive contamination as per procedure **PALA-SR-001-SOP Sample Receiving**. Sample date(s) and time(s) are listed as provided by the client. In regard to the Air Filters, no flow rate information was provided by the client. Turnaround time was set at 28 calendar days.

ANALYTICAL METHODS

Pu-239/240 analysis was performed using **PALA-RAD-026, "Americium, Plutonium and Uranium in Water, Soil and Vegetation Matrices by Sequential Separation Using Eichrom Stabilized Chemistry Resin (with Vacuum Box System Option) (Eichrom ACW-02 & Eichrom ACW-03)"**.

Co-60, Cs-137, Ra-226 analyses were performed using **PALA-RAD-007, "Modified Gamma Emitting Radionuclides in Soil, Air, and Biota Matrices (EPA 901.1 Mod, SM 7120B, & HASL-300 Ga-01-R)"**.

Ra-226 analysis was performed using **PALA-RAD-008, "Alpha Emitting Radium Isotopes in Water (EPA 903.0, EPA 9315, SM 7500-Ra C, SM 7500-Ra C)"**.

Sr-90 analysis was performed using **PALA-RAD-032, "Strontium 89, 90 and Total Strontium in Water, Soil and Vegetation Matrices by Eichrom Resin Separation (Eichrom SRW01, EPA 905.0, HASL 300 Sr-01-RC)"**.

ANALYTICAL RESULTS

Fraction 001 has elevated MDC for Pu-239/240 with ACT of -2.219E-8 uCi/filter, MDC of 7.397E-8 uCi/filter and CRDL of 4.8E-08 uCi/filter.
Fraction 001 has elevated MDC for Ra-226 with ACT of -8.657E-5 uCi/filter, MDC of 3.046E-5 uCi/filter and CRDL of 4.4E-06 uCi/filter.
Fraction 002 has elevated MDC for Pu-239/240 with ACT of 1.150E-8 uCi/filter, MDC of 5.760E-8 uCi/filter and CRDL of 4.8E-08 uCi/filter.
Fraction 002 has elevated MDC for Ra-226 with ACT of -9.421E-6 uCi/filter, MDC of 1.580E-5 uCi/filter and CRDL of 4.4E-06 uCi/filter.
Fraction 003 has elevated MDC for Pu-239/240 with ACT of -5.510E-8 uCi/filter, MDC of 1.040E-7 uCi/filter and CRDL of 4.8E-08 uCi/filter.
Fraction 003 has elevated MDC for Ra-226 with ACT of -1.971E-5 uCi/filter, MDC of 1.545E-5 uCi/filter and CRDL of 4.4E-06 uCi/filter.
Fraction 004 has elevated MDC for Pu-239/240 with ACT of 4.133E-8 uCi/filter, MDC of 1.056E-7 uCi/filter and CRDL of 4.8E-08 uCi/filter.
Fraction 004 has elevated MDC for Ra-226 with ACT of 8.582E-7 uCi/filter, MDC of 9.588E-6 uCi/filter and CRDL of 4.4E-06 uCi/filter.

ARS1-B22-01969: ROI's adjusted to better fit the peaks of interest.

Notes (Case Narrative)

Definitions:

CRDL Contract Required Detection Limit
CSU Combined Standard Uncertainty
DLC Decision Level Concentration (ANSI N42.23)
DO Duplicate Original
DUP Sample Duplicate
LCS/LCSD Laboratory Control Sample/Laboratory Control Sample Duplicate
LOD Limit of Detection
LOQ Limit of Quantitation
MBL Method Blank
MCL Maximum Contaminant Level
MDA Minimum Detectable Activity
MDL Method Detection Limit
MS/MSD Matrix Spike/Matrix Spike Duplicate
N/A Not Applicable
NC Not Calculated
NP Not Provided
NR Not Referenced
PQL Practical Quantitation Limit

Data Qualifiers:

B The result of both the method blank and the target sample are above the MDL.
D Sample analysis accomplished through dilution.
J The reported result is an estimated value above the LOD but below the LOQ, or above the MDL but below the PQL.
Q One or more quality control criteria failed.
U Result is below the MDA, MDL, PQL, LOD, or LOQ
***** LCS/LCSD or Sample DUP fails all Duplicate criteria.
S Spike
SC Subcontracted out to another qualified laboratory
H Holding time exceeded
E Exceeds MCL
****** Reporting Limit is higher than MCL; Target cannot be detected
ǂ Method/Matrix/Analyte not accredited for this certification

Radiochemistry Comments:

1.0) All MDA/MDC values are calculated on a sample specific basis.
2.0) Data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.
3.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than the actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.
4.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228 (Gamma Spectroscopy only).
5.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234 (Gamma Spectroscopy only).
6.0) All gamma spectroscopy was performed utilizing high purity germanium detectors (**HPGe**).
7.0) ARS makes every attempt to match sample density to calibrated density; however, in some cases, it is not practical or possible to do so and data results may be affected (Gamma Spectroscopy only).
8.0) Gamma spectroscopy results are calculated values based on the **ORTEC®** GammaVision ENV32 Analysis Engine.
9.0) DoD/DOE and ISO 17025 certifications through ANAB apply only to the following methods in **Non-Potable Water**:
Gross Alpha and Gross Beta (EPA 900.0, EPA 9310); Radium 226 (EPA 903.0, EPA 903.1, EPA 9315); Radium 228 (EPA 904.0, EPA 9320); ICP/MS (EPA 6020B); ICP-OES (EPA 6010D); Mercury CVAA (EPA 7470A); Strontium-89 (EPA 905.0, Eichrom SRW01, HASL 300 Sr-01); Strontium-90 (EPA 905.0, Eichrom SRW01, HASL 300 Sr-02-RC); Tritium (EPA 906.0); Enriched Tritium (ARS-040), Carbon-14 (ARS-019), Tritium/Carbon (ARS-151); Gamma Emitters (EPA 901.1, SM 7120B, HASL 300 Ga-01-R); Americium-241 (Eichrom ACW03, HASL 300 Se-03, HASL 300 Am-03); Plutonium 238, Plutonium 239/240, Plutonium-241 (Eichrom ACW03, HASL 300 Se-03, HASL 300 Pu-10); Thorium-228, Thorium 230, Thorium-232 (Eichrom ACW10); Uranium-234, Uranium-235, Uranium-238 (Eichrom ACW03, HASL 300 Se-03); Technetium-99 (Eichrom TCW02)
10.0) DoD/DOE and ISO 17025 certifications through ANAB apply only to the following methods in **Solid and Chemical Materials**:
Gross Alpha and Gross Beta (EPA 900.0 Mod, EPA 9310); ICP/MS (EPA 6020B); ICP-OES (EPA 6010D); Mercury CVAA (EPA 7471B); Strontium-89 (EPA 905.0 Mod, Eichrom SRW01, HASL 300 Sr-01); Strontium-90 (EPA 905.0 Mod, Eichrom SRW01, HASL 300 Sr-02); Tritium (EPA 906.0 Mod); Gamma Emitters (EPA 901.1, HASL 300 Ga-01-R); Americium-241 (Eichrom ACW03, HASL 300 Se-03, HASL 300 Am-01-RC); Plutonium 238, Plutonium 239/240, Plutonium-241 (Eichrom ACW03, HASL 300 Se-03, HASL 300 Pu-02-RC, HASL 300 Pu-03-RC); Thorium-228, Thorium 230, Thorium-232 (Eichrom ACW10); Uranium-234, Uranium-235, Uranium-238 (Eichrom ACW03, HASL 300 Se-03, HASL 300 U-02, HASL 300 U-04); Technetium-99 (Eichrom TCS01)
11.0) DoD/DOE and ISO 17025 certifications through ANAB apply only to the following methods in **Air and Emissions**:
Gross Alpha and Gross Beta (EPA 900.0 Mod, EPA 9310); Strontium-89 (Eichrom SRW01, HASL 300 Sr-01-RC); Strontium-90 (Eichrom SRW01, HASL 300 Sr-02-RC); Gamma Emitters (EPA 901.1, HASL 300 Ga-01-R); Americium-241 (Eichrom ACW03, HASL 300 Se-03); Plutonium 238, Plutonium 239/240, Plutonium-241 (Eichrom ACW03, HASL 300 Se-03); Thorium-228, Thorium 230, Thorium-232 (Eichrom ACW10); Uranium-234, Uranium-235, Uranium-238 (Eichrom ACW03, HASL 300 Se-03); Technetium-99 (Eichrom TCW02, Eichrom TCS01)

General Comments:

1.0 Modified analysis procedures are procedures that are modified to meet certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix. Modified analyses are indicated by the subsequent addition of “M” or “Mod” to the procedure number (i.e. 901.1M, 901.1 Mod).
2.0 All NIOSH method results are reported without blank corrections applied.
3.0 Basis: “As Received” = analyzed as received from client; “Dry” = dried prior to being analyzed; “Dry Weight Corrected” = analyzed as received; result corrected for percent moisture.

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ARS Aleut Analytical, LLC
Analytical Reports

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Analytical Results

2609 North River Road • Port Allen, Louisiana 70767
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ARS Sample Delivery Group: ARS1-22-02667
Client Sample ID: FB-112822
Sample Collection Date: 11/28/22 8:00
Sample Matrix: Air Filter
Percent Solids: N/A

Request or PO Number: J310000900
ARS Sample ID: ARS1-22-02667-001
Date Received: 12/08/22
Report Date: 01/03/23

Radiochemistry

Analysis Method: Eichrom ACW03

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Pu-239/240	-2.219E-8	3.148E-8	7.397E-8	3.097E-8	4.8E-08	U	uCi/filter	12/22/22 0:48	[redacted]	70.7%

Analysis Method: EPA 901.1M

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Co-60	-4.310E-7	1.735E-6	1.778E-6	8.890E-7	0.00024	U	uCi/filter	12/12/22 14:07	[redacted]	N/A
Cs-137	1.091E-6	8.215E-7	1.123E-6	5.615E-7	0.00048	U	uCi/filter	12/12/22 14:07	[redacted]	N/A
Ra-226	-8.657E-5	3.278E-5	3.046E-5	1.523E-5	4.4E-06	U	uCi/filter	12/12/22 14:07	[redacted]	N/A

Analysis Method: EPA 9315

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	9.676E-7	6.780E-7	8.411E-7	3.119E-7	4.4E-06		uCi/filter	12/29/22 10:56	[redacted]	91.5%

Analysis Method: Eichrom SRW01

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
SR-90	3.978E-7	2.131E-6	3.804E-6	1.755E-6	2.4E-05	U	uCi/filter	01/03/23 12:24	[redacted]	96.1%

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ARS Sample Delivery Group: ARS1-22-02667
Client Sample ID: MSB01-112822
Sample Collection Date: 12/01/22 7:58
Sample Matrix: Air Filter
Percent Solids: N/A

Request or PO Number: J310000900
ARS Sample ID: ARS1-22-02667-002
Date Received: 12/08/22
Report Date: 01/03/23

Radiochemistry

Analysis Method: Eichrom ACW03

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Pu-239/240	1.150E-8	3.102E-8	5.760E-8	2.360E-8	4.8E-08	U	uCi/filter	12/22/22 0:48	[redacted]	83.7%

Analysis Method: EPA 901.1M

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Co-60	1.941E-7	8.962E-7	9.842E-7	4.921E-7	0.00024	U	uCi/filter	12/12/22 14:09	[redacted]	N/A
Cs-137	3.498E-7	8.146E-7	9.467E-7	4.734E-7	0.00048	U	uCi/filter	12/12/22 14:09	[redacted]	N/A
Ra-226	-9.421E-6	1.468E-5	1.580E-5	7.900E-6	4.4E-06	U	uCi/filter	12/12/22 14:09	[redacted]	N/A

Analysis Method: EPA 9315

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	9.601E-7	6.213E-7	6.901E-7	2.424E-7	4.4E-06		uCi/filter	12/29/22 10:56	[redacted]	92.8%

Analysis Method: Eichrom SRW01

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
SR-90	-8.903E-7	3.042E-6	5.497E-6	2.601E-6	2.4E-05	U	uCi/filter	01/03/23 12:24	[redacted]	97.8%

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ARS Sample Delivery Group: ARS1-22-02667
Client Sample ID: MSB02-112822
Sample Collection Date: 12/01/22 7:45
Sample Matrix: Air Filter
Percent Solids: N/A

Request or PO Number: J310000900
ARS Sample ID: ARS1-22-02667-003
Date Received: 12/08/22
Report Date: 01/03/23

Radiochemistry

Analysis Method: Eichrom ACW03

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Pu-239/240	-5.510E-8	4.673E-8	1.040E-7	4.625E-8	4.8E-08	U	uCi/filter	12/22/22 0:48	[redacted]	69.8%

Analysis Method: EPA 901.1M

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Co-60	4.751E-7	8.697E-7	9.449E-7	4.725E-7	0.00024	U	uCi/filter	12/13/22 14:17	[redacted]	N/A
Cs-137	-2.412E-7	8.588E-7	1.001E-6	5.005E-7	0.00048	U	uCi/filter	12/13/22 14:17	[redacted]	N/A
Ra-226	-1.971E-5	1.454E-5	1.545E-5	7.725E-6	4.4E-06	U	uCi/filter	12/13/22 14:17	[redacted]	N/A

Analysis Method: EPA 9315

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	8.583E-7	6.757E-7	9.179E-7	3.506E-7	4.4E-06	U	uCi/filter	12/29/22 10:56	[redacted]	85.5%

Analysis Method: Eichrom SRW01

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
SR-90	-1.590E-6	2.021E-6	3.938E-6	1.820E-6	2.4E-05	U	uCi/filter	01/03/23 12:24	[redacted]	97.8%

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ARS Sample Delivery Group: ARS1-22-02667
Client Sample ID: MSB113A-112822
Sample Collection Date: 12/01/22 8:09
Sample Matrix: Air Filter
Percent Solids: N/A

Request or PO Number: J310000900
ARS Sample ID: ARS1-22-02667-004
Date Received: 12/08/22
Report Date: 01/03/23

Radiochemistry

Analysis Method: Eichrom ACW03

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Pu-239/240	4.133E-8	6.191E-8	1.056E-7	4.657E-8	4.8E-08	U	uCi/filter	12/22/22 0:48	[redacted]	65.9%

Analysis Method: EPA 901.1M

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Co-60	5.527E-8	8.125E-7	8.401E-7	4.201E-7	0.00024	U	uCi/filter	12/13/22 14:38	[redacted]	N/A
Cs-137	-1.197E-7	7.000E-7	7.605E-7	3.803E-7	0.00048	U	uCi/filter	12/13/22 14:38	[redacted]	N/A
Ra-226	8.582E-7	7.567E-6	9.588E-6	4.794E-6	4.4E-06	U	uCi/filter	12/13/22 14:38	[redacted]	N/A

Analysis Method: EPA 9315

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	5.814E-7	6.297E-7	9.817E-7	3.794E-7	4.4E-06	U	uCi/filter	12/29/22 10:56	[redacted]	83.1%

Analysis Method: Eichrom SRW01

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
SR-90	2.993E-6	2.568E-6	4.092E-6	1.886E-6	2.4E-05	U	uCi/filter	01/03/23 12:24	[redacted]	93.6%

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QC Summary

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QC Sample Results

Analytical Batch: ARS1-B22-01912
Lab Sample ID: ARS1-B22-01912-01
Method: EPA 901.1M

Sample Type: LCS
Matrix: Air Filter
Analysis Date: 12/13/22 14:14

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits
Am-241	33.065	31.701		uCi/filter	95.9	75 - 125
Co-60	20.928	20.394		uCi/filter	97.4	75 - 125
Cs-137	12.996	13.226		uCi/filter	101.8	75 - 125

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QC Sample Results

Analytical Batch: ARS1-B22-01912
Lab Sample ID: ARS1-B22-01912-02
Method: EPA 901.1M

Sample Type: LCSD
Matrix: Air Filter
Analysis Date: 12/13/22 14:25

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits	RPD	RPD Limit	DER	DER Limit
Am-241	33.065	31.469		uCi/filter	95.2	75 - 125	0.7	25	0.131	3
Co-60	20.928	21.740		uCi/filter	103.9	75 - 125	6.4	25	1.547	3
Cs-137	12.996	13.444		uCi/filter	103.4	75 - 125	1.6	25	0.425	3

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QC Sample Results

Analytical Batch: ARS1-B22-01912
Lab Sample ID: ARS1-B22-01912-03
Method: EPA 901.1M

Sample Type: MBL
Matrix: Air Filter
Analysis Date: 12/13/22 14:16

Analyte	Analysis Result	CSU +/- 2 s	MDC	DLC	Qual	Analysis Units
Co-60	-1.618E-5	0.002	0.002	8.850E-4	U	uCi/filter
Cs-137	-5.240E-4	0.001	0.002	8.150E-4	U	uCi/filter
Ra-226	-0.081	0.033	0.032	0.016	U	uCi/filter

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QC Association Summary

ARS Sample Delivery Group: ARS1-22-02667 **Analytical Batch:** ARS1-B22-01912

Analysis: Gamma Spec (Short) in (Air Filters, Smears [AF])

Batch Sample ID	Lab Sample ID	Client Sample ID	Matrix	Method	Prep Method
ARS1-B22-01912-01		Lab Control Sample	Air Filter	EPA 901.1M	N/A
ARS1-B22-01912-02		Lab Control Sample Duplicate	Air Filter	EPA 901.1M	N/A
ARS1-B22-01912-03		Method Blank	Air Filter	EPA 901.1M	N/A
ARS1-B22-01912-04	ARS1-22-02667-001	FB-112822	Air Filter	EPA 901.1M	N/A
ARS1-B22-01912-05	ARS1-22-02667-002	MSB01-112822	Air Filter	EPA 901.1M	N/A
ARS1-B22-01912-06	ARS1-22-02667-003	MSB02-112822	Air Filter	EPA 901.1M	N/A
ARS1-B22-01912-07	ARS1-22-02667-004	MSB113A-112822	Air Filter	EPA 901.1M	N/A

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QC Sample Results

Analytical Batch: ARS1-B22-01969
Lab Sample ID: ARS1-B22-01969-01
Method: Eichrom ACW03

Sample Type: LCS
Matrix: Air Filter
Analysis Date: 12/22/22 0:48

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits
Pu-239/240	7.691E-6	7.977E-6		uCi/filter	103.7	75 - 125

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QC Sample Results

Analytical Batch: ARS1-B22-01969
Lab Sample ID: ARS1-B22-01969-02
Method: Eichrom ACW03

Sample Type: LCSD
Matrix: Air Filter
Analysis Date: 12/22/22 0:48

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits	RPD	RPD Limit	DER	DER Limit
Pu-239/240	7.726E-6	7.882E-6		uCi/filter	102.0	75 - 125	1.2	25	0.134	3

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QC Sample Results

Analytical Batch: ARS1-B22-01969
Lab Sample ID: ARS1-B22-01969-03
Method: Eichrom ACW03

Sample Type: MBL
Matrix: Air Filter
Analysis Date: 12/22/22 0:48

Analyte	Analysis Result	CSU +/- 2 s	MDC	DLC	Qual	Analysis Units
Pu-238	4.777E-8	4.623E-8	7.175E-8	2.940E-8	U	uCi/filter
Pu-239/240	-1.911E-8	5.776E-8	1.148E-7	5.093E-8	U	uCi/filter

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QC Association Summary

ARS Sample Delivery Group: ARS1-22-02667

Analytical Batch: ARS1-B22-01969

Analysis: Plutonium (239, 240Pu) in (Air Filters, Smears, Leak Test [AF, SM, LT])

Batch Sample ID	Lab Sample ID	Client Sample ID	Matrix	Method	Prep Method
ARS1-B22-01969-01		Lab Control Sample	Air Filter	Eichrom ACW03	N/A
ARS1-B22-01969-02		Lab Control Sample Duplicate	Air Filter	Eichrom ACW03	N/A
ARS1-B22-01969-03		Method Blank	Air Filter	Eichrom ACW03	N/A
ARS1-B22-01969-04	ARS1-22-02667-001	FB-112822	Air Filter	Eichrom ACW03	N/A
ARS1-B22-01969-05	ARS1-22-02667-002	MSB01-112822	Air Filter	Eichrom ACW03	N/A
ARS1-B22-01969-06	ARS1-22-02667-003	MSB02-112822	Air Filter	Eichrom ACW03	N/A
ARS1-B22-01969-07	ARS1-22-02667-004	MSB113A-112822	Air Filter	Eichrom ACW03	N/A

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QC Sample Results

Analytical Batch: ARS1-B22-01982
Lab Sample ID: ARS1-B22-01982-01
Method: EPA 9315

Sample Type: LCS
Matrix: Air Filter
Analysis Date: 12/29/22 10:56

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits
Ra-226	2.707E-5	2.379E-5		uCi/filter	87.9	75 - 125

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QC Sample Results

Analytical Batch: ARS1-B22-01982
Lab Sample ID: ARS1-B22-01982-02
Method: EPA 9315

Sample Type: LCSD
Matrix: Air Filter
Analysis Date: 12/29/22 10:56

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits	RPD	RPD Limit	DER	DER Limit
Ra-226	2.692E-5	2.392E-5		uCi/filter	88.9	75 - 125	0.6	25	0.048	3

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QC Sample Results

Analytical Batch: ARS1-B22-01982
Lab Sample ID: ARS1-B22-01982-03
Method: EPA 9315

Sample Type: MBL
Matrix: Air Filter
Analysis Date: 12/29/22 10:56

Analyte	Analysis Result	CSU +/- 2 s	MDC	DLC	Qual	Analysis Units
Ra-226	7.646E-8	6.482E-8	9.273E-8	3.627E-8	U	uCi/filter

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QC Association Summary

ARS Sample Delivery Group: ARS1-22-02667

Analytical Batch: ARS1-B22-01982

Analysis: Radium-226 in Air Filter

Batch Sample ID	Lab Sample ID	Client Sample ID	Matrix	Method	Prep Method
ARS1-B22-01982-01		Lab Control Sample	Air Filter	EPA 9315	N/A
ARS1-B22-01982-02		Lab Control Sample Duplicate	Air Filter	EPA 9315	N/A
ARS1-B22-01982-03		Method Blank	Air Filter	EPA 9315	N/A
ARS1-B22-01982-04	ARS1-22-02667-001	FB-112822	Air Filter	EPA 9315	N/A
ARS1-B22-01982-05	ARS1-22-02667-002	MSB01-112822	Air Filter	EPA 9315	N/A
ARS1-B22-01982-06	ARS1-22-02667-003	MSB02-112822	Air Filter	EPA 9315	N/A
ARS1-B22-01982-07	ARS1-22-02667-004	MSB113A-112822	Air Filter	EPA 9315	N/A

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QC Sample Results

Analytical Batch: ARS1-B22-02015
Lab Sample ID: ARS1-B22-02015-01
Method: Eichrom SRW01

Sample Type: LCS
Matrix: Air Filter
Analysis Date: 01/03/23 12:24

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits
SR-90	1.950E-5	2.145E-5		uCi/filter	110.0	75 - 125

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QC Sample Results

Analytical Batch: ARS1-B22-02015
Lab Sample ID: ARS1-B22-02015-02
Method: Eichrom SRW01

Sample Type: LCSD
Matrix: Air Filter
Analysis Date: 01/03/23 12:24

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits	RPD	RPD Limit	DER	DER Limit
SR-90	1.958E-5	2.246E-5		uCi/filter	114.7	75 - 125	4.6	25	0.416	3

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QC Sample Results

Analytical Batch: ARS1-B22-02015
Lab Sample ID: ARS1-B22-02015-03
Method: Eichrom SRW01

Sample Type: MBL
Matrix: Air Filter
Analysis Date: 01/03/23 12:24

Analyte	Analysis Result	CSU +/- 2 s	MDC	DLC	Qual	Analysis Units
SR-90	1.799E-6	2.518E-6	4.243E-6	1.952E-6	U	uCi/filter

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QC Association Summary

ARS Sample Delivery Group: ARS1-22-02667

Analytical Batch: ARS1-B22-02015

Analysis: Strontium-90 in (Air Filters, Smears [AF])

Batch Sample ID	Lab Sample ID	Client Sample ID	Matrix	Method	Prep Method
ARS1-B22-02015-01		Lab Control Sample	Air Filter	Eichrom SRW01	N/A
ARS1-B22-02015-02		Lab Control Sample Duplicate	Air Filter	Eichrom SRW01	N/A
ARS1-B22-02015-03		Method Blank	Air Filter	Eichrom SRW01	N/A
ARS1-B22-02015-04	ARS1-22-02667-001	FB-112822	Air Filter	Eichrom SRW01	N/A
ARS1-B22-02015-05	ARS1-22-02667-002	MSB01-112822	Air Filter	Eichrom SRW01	N/A
ARS1-B22-02015-06	ARS1-22-02667-003	MSB02-112822	Air Filter	Eichrom SRW01	N/A
ARS1-B22-02015-07	ARS1-22-02667-004	MSB113A-112822	Air Filter	Eichrom SRW01	N/A

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Analytical Reports

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Batch QC

QC Results per Analytical Batch

Analytical Batch	ARS1-B22-01912
SDG	ARS1-22-02667
Analysis	Gamma Spec (Short) in (Air Filters, Smears [AF])
Method	EPA 901.1M
Analysis Code	GAM-A-AF
Report Units	uCi/filter

Acceptable QC Performance Ranges

QC Sample Type	Performance Items and Ranges		
Laboratory Control Sample	Recovery (%):	> 75	< 125
Matrix Spike	Recovery (%):	> 60	< 140
Duplicate	Duplicate Error Ratio (DER):		< 3
	Relative Percent Difference (RPD %):		≤ 25

Laboratory Control Sample

Analysis Date: 12/13/22 14:14 | Analysis Technician: [redacted]

Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	Expected Value	LCS Rec (%)	MDC
ARS1-B22-01912-01	LCS	AM-241	31.701	2.463	33.065	95.9	0.121
ARS1-B22-01912-01	LCS	CO-60	20.394	1.267	20.928	97.4	0.412
ARS1-B22-01912-01	LCS	CS-137	13.226	0.705	12.996	101.8	0.075

Duplicate RER/DER/RPD

Analysis Date: 12/13/22 14:25 | Analysis Technician: [redacted]

Analyte	Results LCS	CSU LCS (2s)	Results LCSD	CSU LCSD (2s)	DER	RPD
AM-241	31.701	2.463	31.469	2.445	0.131	0.7
CO-60	20.394	1.267	21.740	1.141	1.547	6.4
CS-137	13.226	0.705	13.444	0.716	0.425	1.6

Method Blank

Analysis Date: 12/13/22 14:16 | Analysis Technician: [redacted]

Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	MDC	Qual
ARS1-B22-01912-03	MBL	CO-60	-1.618E-5	0.002	0.002	U
ARS1-B22-01912-03	MBL	CS-137	-5.240E-4	0.001	0.002	U
ARS1-B22-01912-03	MBL	RA-226	-0.081	0.033	0.032	U

QC Results per Analytical Batch

Analytical Batch	ARS1-B22-01969
SDG	ARS1-22-02667
Analysis	Plutonium (239, 240Pu) in (Air Filters, Smears, Leak Test [AF, SM, LT])
Method	Eichrom ACW03
Analysis Code	ASP-PU239-AF
Report Units	uCi/filter

Acceptable QC Performance Ranges

QC Sample Type	Performance Items and Ranges		
Laboratory Control Sample	Recovery (%):	> 75	< 125
Matrix Spike	Recovery (%):	> 60	< 140
Duplicate	Duplicate Error Ratio (DER):		< 3
	Relative Percent Difference (RPD %):		≤ 25

Laboratory Control Sample

Analysis Date: 12/22/22 00:48 | Analysis Technician: [redacted]

Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	Expected Value	LCS Rec (%)	MDC
ARS1-B22-01969-01	LCS	PU-239/240	7.977E-6	9.953E-7	7.691E-6	103.7	3.594E-8

Duplicate RER/DER/RPD

Analysis Date: 12/22/22 00:48 | Analysis Technician: [redacted]

Analyte	Results LCS	CSU LCS (2s)	Results LCSD	CSU LCSD (2s)	DER	RPD
PU-239/240	7.977E-6	9.953E-7	7.882E-6	9.869E-7	0.134	1.2

Method Blank

Analysis Date: 12/22/22 00:48 | Analysis Technician: [redacted]

Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	MDC	Qual
ARS1-B22-01969-03	MBL	PU-238	4.777E-8	4.623E-8	7.175E-8	U
ARS1-B22-01969-03	MBL	PU-239/240	-1.911E-8	5.776E-8	1.148E-7	U

QC Results per Analytical Batch

Analytical Batch	ARS1-B22-01982
SDG	ARS1-22-02667
Analysis	Radium-226 in Air Filter
Method	EPA 9315
Analysis Code	GPC-RA226-AF
Report Units	uCi/filter

Acceptable QC Performance Ranges

QC Sample Type	Performance Items and Ranges		
Laboratory Control Sample	Recovery (%):	> 75	< 125
Matrix Spike	Recovery (%):	> 60	< 140
Duplicate	Duplicate Error Ratio (DER):		< 3
	Relative Percent Difference (RPD %):		≤ 25

Laboratory Control Sample

Analysis Date: 12/29/22 10:56 | Analysis Technician: [redacted]

Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	Expected Value	LCS Rec (%)	MDC
ARS1-B22-01982-01	**LCS**	RA-226	2.379E-5	3.847E-6	2.707E-5	87.9	7.022E-8

Duplicate RER/DER/RPD

Analysis Date: 12/29/22 10:56 | Analysis Technician: [redacted]

Analyte	Results LCS	CSU LCS (2s)	Results LCSD	CSU LCSD (2s)	DER	RPD
RA-226	2.379E-5	3.847E-6	2.392E-5	3.862E-6	0.048	0.6

Method Blank

Analysis Date: 12/29/22 10:56 | Analysis Technician: [redacted]

Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	MDC	Qual
ARS1-B22-01982-03	**MBL**	RA-226	7.646E-8	6.482E-8	9.273E-8	U

QC Results per Analytical Batch

Analytical Batch	ARS1-B22-02015
SDG	ARS1-22-02667
Analysis	Strontium-90 in (Air Filters, Smears [AF])
Method	Eichrom SRW01
Analysis Code	GPC-SR90-AF
Report Units	uCi/filter

Acceptable QC Performance Ranges

QC Sample Type	Performance Items and Ranges		
Laboratory Control Sample	Recovery (%):	> 75	< 125
Matrix Spike	Recovery (%):	> 60	< 140
Duplicate	Duplicate Error Ratio (DER):		< 3
	Relative Percent Difference (RPD %):		≤ 25

Laboratory Control Sample

Analysis Date: 01/03/23 12:24 | Analysis Technician: [redacted]

Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	Expected Value	LCS Rec (%)	MDC
ARS1-B22-02015-01	**LCS**	SR-90	2.145E-5	3.276E-6	1.950E-5	110.0	3.688E-7

Duplicate RER/DER/RPD

Analysis Date: 01/03/23 12:24 | Analysis Technician: [redacted]

Analyte	Results LCS	CSU LCS (2s)	Results LCSD	CSU LCSD (2s)	DER	RPD
SR-90	2.145E-5	3.276E-6	2.246E-5	3.429E-6	0.416	4.6

Method Blank

Analysis Date: 01/03/23 12:24 | Analysis Technician: [redacted]

Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	MDC	Qual
ARS1-B22-02015-03	**MBL**	SR-90	1.799E-6	2.518E-6	4.243E-6	U

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ARS Aleut Analytical, LLC
Analytical Reports

for

Gilbane Federal

Sample Management Records

CHAIN-OF-CUSTODY RECORD

Gilbane Federal [redacted]
1655 Grant Street, Suite 1200, Concord, CA 94520
[redacted]

COC ID #: MC120722RADB

Project Name: Hunters Point Shipyard, Parcel B Removal Site Evaluation	Laboratory: ARS Aleut Analytical (AAA), Port Allen, LA	Event: **Parcel B Air Monitoring RAD**
Project Number: J310000900	POC: [redacted]	
WBS Code: J310000900	Ship to: 2609 North River Road, Port Allen, LA 70767-3469	

Comments:

Equipment:

Code	Matrix
A	Air
AQ	Air Quality Control Matrix

Code	Container/Preservative
1	1x Filter, None
5	1x 1-L Plastic, HNO3, pH < 2
15	1x 250-mL Plastic, 4 Degrees C

Event: Parcel B Air Monitoring RAD

	Sample ID	Matrix	Date	Time	Samp Init.	E901.1 - Gamma Spec Air (15)	RC0240 - Pu Isotopes (15)	SR02RC - Sr90 (5)	SW9315 - Ra226 (1)	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
1	FB-112822	AQ	11-28-22	0800	[redacted]	x	x	x	x	FB	FB	0.00	0.00	1	
2	MSB01-112822	A	12-01-22	0758		x	x	x	x	MSB01	N1	0.00	0.00	1	
3	MSB02-112822	A	12-01-22	0745		x	x	x	x	MSB02	N1	0.00	0.00	1	
4	MSB113A-112822	A	12-01-22	0809		x	x	x	x	MSB113A	N1	0.00	0.00	1	
5															
6															
7															
8															
9															
10															
11															

[redacted] 12-07-22

Turnaround Time: 7 days

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time	Shipping Date / Carrier / Airbill Number
[redacted]	12-07-22	1600	FEDEX	12-07-22	1600	Shipping Date: 12/07/22 / FEDEX 7706 0682 2073
			[redacted]	12-8-22	1000	**Received by Laboratory:** *(Signature, Date, Time)* **& condition**

Procedures: GES-003 / EPA 900.0M

File ID Number: MC120722RADB

Start Date 11/28/22
Stop Date 12/1/22
112822

Field Entry

	Station	Sample ID	Date In:	Time In:	Date Out:	Time Out:	Initial Flow Rate (LPM)	Final Flow Rate (LPM)	Flow volume Cu.M	Julian Date for Date Out	Total Run Time (Days)	Total Run Time (Hours)	Total Run Time (Minutes)	Average Flow Rate (LPM)	Initial Flow Rate (CFM)	Final Flow Rate (CFM)	Average Flow Rate (CFM)	Average Flow Rate (Cu.M/h)	Flow Rate (Cu.M/min)	Total Flow (L)
1	MSB01	MSB01-112822	11/28/22	9:19	12/01/22	7:58	60	60	254.3	335	2.94	70.65	4239.0	60	2.11888	2.11888	2.11888	3.6	0.06	254,340
2	MSB02	MSB02-112822	11/28/22	8:15	12/01/22	7:45	60	60	257.4	335	2.98	71.50	4290.0	60	2.11888	2.11888	2.11888	3.6	0.06	257,400
3	MSB113A	MSB113A-112822	11/28/22	9:44	12/01/22	8:09	60	60	253.5	335	2.93	70.42	4225.0	60	2.11888	2.11888	2.11888	3.6	0.06	253,500

FORMULAS:

Number of Days = (Date Out +Time Out) minus (Date In+Time In)
Number of Minutes = # of Days X 24hr X 60min
Flow Rate (m3/h) = Flow Rate (CFM) x 60min x (12in x 2.54cm/in / 100cm/m)^3
Mid-Sample Date/Time = [(Date+Time Out) + (Date+Time In)] / 2
Flow Rate (Cu.M/min) = CFM X 0.0283168466 Cu.M/CF
Flow Rate (LPM) = Cu.M X 1000
Total Flow (L) = LPM X Total Minutes

SDG Report - Samples and Containers

SDG Specific Data							
SDG	ARS1-22-02667		TAT Days	28 Calendar Days	Project Type	Environmental
Sample Count	4	Rpt Level 4	Date Received	12/08/2022	COC Number	MC120722RADB
Client	Gilbane Federal		Discrepancy Resol	N/A	PO Number	
Client Code	1138		Client Deadline	01/05/2023	Job Number	J310000900
Profile Number	PN-01411				Job Location	Parcel B Air Monitoring RAD
Comment						

Samples and Containers Checked In Thus Far

FR	Name	Matrix	Start Date	End Date	Disp	Hold	Arch	Storage	Comments
001	FB-112822	Air Filter	11/28/2022 07:59	11/28/2022 08:00	H	30	10	PrePrep	
	IC_ID	**Cnt**	**Container Type**	**AF Volume (L)**	**AF Units**		**Rate**	**Mins**	**Comments**
	427982	1	HDP Container	1	LPM			1	
			Mid-Sample Date:	11/28/2022 07:59	AF Volume (CuM):		0.001		
002	MSB01-112822	Air Filter	12/01/2022 07:57	12/01/2022 07:58	H	30	10	PrePrep	
	IC_ID	**Cnt**	**Container Type**	**AF Volume (L)**	**AF Units**		**Rate**	**Mins**	**Comments**
	427983	1	HDP Container	1	LPM			1	
			Mid-Sample Date:	12/01/2022 07:57	AF Volume (CuM):		0.001		
003	MSB02-112822	Air Filter	12/01/2022 07:44	12/01/2022 07:45	H	30	10	PrePrep	
	IC_ID	**Cnt**	**Container Type**	**AF Volume (L)**	**AF Units**		**Rate**	**Mins**	**Comments**
	427984	1	HDP Container	1	LPM			1	
			Mid-Sample Date:	12/01/2022 07:44	AF Volume (CuM):		0.001		
004	MSB113A-112822	Air Filter	12/01/2022 08:08	12/01/2022 08:09	H	30	10	PrePrep	
	IC_ID	**Cnt**	**Container Type**	**AF Volume (L)**	**AF Units**		**Rate**	**Mins**	**Comments**
	427985	1	HDP Container	1	LPM			1	
			Mid-Sample Date:	12/01/2022 08:08	AF Volume (CuM):		0.001		

SDG Report - Analysis Assignments

SDG	ARS1-22-02667	Sample Count	4
Client	Gilbane Federal	Analysis Count	4-16

Sample Count Totals Per Analysis

Analysis Code	Analysis Description	In/Out	Samples Count
ASP-PU239-AF	Plutonium (239, 240Pu) in (Air Filters, Smears, Leak Test [AF, SM, LT])	I	4
GAM-A-AF	Gamma Spec (Short) in (Air Filters, Smears [AF])	I	4
GPC-RA226-AF	Radium-226 in Air Filter	I	4
GPC-SR90-AF	Strontium-90 in (Air Filters, Smears [AF])	I	4

Analyses Assigned Per Fraction

Fraction	Analysis Code	X = Assigned
001	ASP-PU239-AF	X
001	GAM-A-AF	X
001	GPC-RA226-AF	X
001	GPC-SR90-AF	X
002	ASP-PU239-AF	X
002	GAM-A-AF	X
002	GPC-RA226-AF	X
002	GPC-SR90-AF	X
003	ASP-PU239-AF	X
003	GAM-A-AF	X
003	GPC-RA226-AF	X
003	GPC-SR90-AF	X
004	ASP-PU239-AF	X
004	GAM-A-AF	X
004	GPC-RA226-AF	X
004	GPC-SR90-AF	X

Client Name: Gilbane Federal Profile Name: Parcel B Rad Sampling Report Level: 4

Analysis Code	Prep Type	Units	Aliquot	Prep Code	Procedure	Count Time					
ASP-PU239-AF	WRAD	uCi	filter	N/A	PALA-RAD-026						
	Analyte			**RDL**	**LCS LL/UL**	**MS LL/UL**	**RadY LL/UL**	**GravY LL/UL**	**RER**	**RPD**	**Surr LL/UL**
	Pu-239/240 (15117-48-3)			4.8E-08 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
GAM-A-AF	WGAM	uCi	filter	N/A	PALA-RAD-007						
	Analyte			**RDL**	**LCS LL/UL**	**MS LL/UL**	**RadY LL/UL**	**GravY LL/UL**	**RER**	**RPD**	**Surr LL/UL**
	Co-60 (10198-40-0)			0.00024 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Cs-137 (10045-97-3)			0.00048 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Ra-226 (13982-63-3)			4.4E-06 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
GPC-RA226-AF	WRAD	uCi	filter		PALA-RAD-008						
	Analyte			**RDL**	**LCS LL/UL**	**MS LL/UL**	**RadY LL/UL**	**GravY LL/UL**	**RER**	**RPD**	**Surr LL/UL**
	Ra-226 (13982-63-3)			4.4E-06 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
GPC-SR90-AF	WRAD	uCi	filter	N/A	PALA-RAD-032						
	Analyte			**RDL**	**LCS LL/UL**	**MS LL/UL**	**RadY LL/UL**	**GravY LL/UL**	**RER**	**RPD**	**Surr LL/UL**
	Sr-90 (10098-97-2)			2.4E-05 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A

Analysis Code	Fraction	Units	Aliquot	Conductivity	Analyte Count
ASP-PU239-AF	001	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Pu-239/240	
ASP-PU239-AF	002	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Pu-239/240	

ASP-PU239-AF	003	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Pu-239/240	
ASP-PU239-AF	004	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Pu-239/240	
GAM-A-AF	001	uCi	filter	N/A	3
		Group		**Analyte**	
		Parcel B Rad Sampling		Cs-137	
		Parcel B Rad Sampling		Co-60	
		Parcel B Rad Sampling		Ra-226	
GAM-A-AF	002	uCi	filter	N/A	3
		Group		**Analyte**	
		Parcel B Rad Sampling		Cs-137	
		Parcel B Rad Sampling		Co-60	
		Parcel B Rad Sampling		Ra-226	
GAM-A-AF	003	uCi	filter	N/A	3
		Group		**Analyte**	
		Parcel B Rad Sampling		Cs-137	
		Parcel B Rad Sampling		Co-60	
		Parcel B Rad Sampling		Ra-226	
GAM-A-AF	004	uCi	filter	N/A	3
		Group		**Analyte**	
		Parcel B Rad Sampling		Cs-137	
		Parcel B Rad Sampling		Co-60	
		Parcel B Rad Sampling		Ra-226	
GPC-RA226-AF	001	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Ra-226	
GPC-RA226-AF	002	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Ra-226	
GPC-RA226-AF	003	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Ra-226	

GPC-RA226-AF	004	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Ra-226	
GPC-SR90-AF	001	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Sr-90	
GPC-SR90-AF	002	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Sr-90	
GPC-SR90-AF	003	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Sr-90	
GPC-SR90-AF	004	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Sr-90	

ARS Aleut Analytical

PALA Sample Receipt Inspection Form

Client Name: Gilbane

SDG: ARS1-22-02667

Sample Custodian: [redacted] Survey Start Date: 12/8/22 Survey Start Time: 1140

Thermometer ID: E0064010085 Calibration Due Date: 2/28/23 pH Paper Lot#: NA

Exposure Rate Meter + Probe Unit ID: 26492647 Calibration Due Date: 9/13/23 Background: 4 µR/hr

Count Rate Meter + Probe Unit ID: PR287372 Calibration Due Date: 9/13/23 Background: 20 cpm

Delivery Type (circle one): Direct Lock Box (Commercial Carrier: FEDEX) Total # of ESCs: 1

*True temperature is recorded which includes any applicable correction factors.

External Shipping Container Tracking:	Exposure Rate (µR/hr) (limit <500 µR/hr)	Max External Swipe Counts (cpm)	Max Internal Swipe Counts (cpm)	ESC True Temps* (°C)
A: 770660682	5	40	40	NA
B:				
C:				
D:				
E:				
F:				

TRAX Matrix ID (circle all that apply): (See Section 4.3 of SOP)

AQ WD WG WO
WS WW SI UR
SO OL BI VG
WP SM (AF)

Visual Inspection: External Shipping Container *(Circle response)*

Good Condition with no Leaks or Tears	(Yes)	No	
Marked Radioactive	Yes	(No)	
UN2910	Yes	(No)	
Security Seals	(Yes)	No	
If yes, intact?	(Yes)	No	N/A

Internal Shipping Container

COC's Present	(Yes)	No	
Well packaged container with no signs of leakage	(Yes)	No	

COC/Sample Inspection *(Circle response)*

Sample Containers in good condition	(Yes)	No	
No spills or leaks	(Yes)	No	
Marked Radioactive	CAN (Yes)	(No)	
Durable labels w/indelible ink	(Yes)	No	
COC relinquished/received correctly	(Yes)	No	
Adequate volume/filled correctly	(Yes)	No	
Hold Time sufficient for analysis	(Yes)	No	
For VOC/Radon, Head space?	Yes	No	(N/A)
If yes, <6mm?	Yes	No	(N/A)
# of containers received matches # on COC	(Yes)	No	
Samples received on ice?	Yes	(No)	
Type (circle one):	Bagged Ice	Loose Ice	Blue Ice (N/A)

Comments:

ARS Aleut Analytical

PALA Sample Survey Form

Client Name: Gilbane

SDG: ARS1-22-02667

Sample Survey Form
PALA-SR-001-FM-02 r 0.1
Effective 08/30/2019

Pipette ID: NA Tip Lot#: NA

Disposible pipette lot#: NA

Sample ID from Client on COC or Sample	ESC Letter	Sample Container Type	Approx. Fill Level (%)	pH <2 is Acceptable: pH As Rec'd	pH <2 is Acceptable: pH Adjusted	Acid Lot # or Ind container temp (°C)	Vol. of Acid Used (mL)	Acceptance Limits <100 cpm/cm: cpm
FB-112822	A	ziploc	25	NA	NA	NA	NA	40
MSB01-	↓	↓	↓	↓	↓	↓	↓	↓
MSB02-								
MSB113A-								

Sample Custodian [redacted] Survey End Date: 12/8/22 Survey/pH End Time: 1145

pH re-check required? YES or NO *NOTE: Any metals sample acidified at sample receiving must be re-checked after a 24 hour hold.*

If YES: pH re-check date/time: _____/_____ Analyst: _____ pH strip lot #: _____

Were all re-checked samples' pH < 2? YES or NO*

**If no, complete and send to Project Management:*
1. *Section A of PALA-SR-001-FM-05 (24 Hour Hold pH Readjustment)*
2. *SR section of PALA-SR-001-FM-03 (Discrepant Sample Receipt Report).*

ENVIRONMENTAL SOLUTIONS / QUALITY CONSCIOUS

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

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ARS Aleut Analytical, LLC

Laboratory Analytical Report

ARS1-22-02726

Gilbane Federal
[redacted]
1655 Grant Street
Suite 1200
Concord, CA 94520
[redacted]

COC Number: **MC121422RADB**
PO Number: **Parcel B Air Monitoring RAD**
Job Number: **J310000900**
Job Location: **Hunters Point Shipyard, Parcel B Removal Site Evaluation**
Project Name: **Parcel B Removal Site Evaluation**

Questions regarding this analytical report should be addressed to ARS project manager, [redacted], who can be reached by email at projectmanagers@aaa.aleutfederal.com.

I certify that the test results presented in this report (in either hardcopy or electronic file (EDD)) meet the requirements of the laboratory's certifications and other applicable contract terms and conditions. A full list of the Port Allen, LA laboratory's certifications is provided with this report. Any exceptions to the certification or contract will be noted within the case narratives presented in the report. Any subcontracted sample results will be identified within the case narratives presented in the report. In the event this report is an amendment to a previously released report, the case narrative will clearly identify the original report as well as the reason(s) for reissuance. A statement of uncertainty for each analysis is available upon request. I authorize release and issuance of this report on the date signed below.

[redacted] Laboratory Management, ARS Aleut Analytical

Signature **Date** **Title**

This report provides analytical results of the requested analysis and does not include any opinions or interpretations. ARS Aleut Analytical, LLC assumes no liability for the use or interpretation of analytical results. Results relate only to items tested. A partial reproduction of this test report is prohibited. Reproduction of this report in full requires the written approval of the laboratory.

LELAP Cert # 01949

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Certifications and Accreditations List

State or Accrediting Body (AB)	Certificate Number
AIHA LAP, LLC	209312
Alaska	LA01131
California	3085
ANAB DoD	ADE-1489
ANAB DOE	ADE-1489.01
Louisiana DEQ - NELAC	01949
Louisiana DHH	LA022
Nevada	LA011312023-1
New Jersey	LA009
New York	65039
Pennsylvania	68-04294-011
Texas	T104704447-22-18
Utah	LA011312022-13
Washington	C1010

For additional information related to the specific matrices, methods,and analytes recognized by each accrediting body, contact us at QA@aaa.aleutfederal.com for additional information.

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ARS Aleut Analytical, LLC
Analytical Reports

for

Gilbane Federal

Case Narrative

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PROJECT SAMPLE IDENTIFICATION CROSS-REFERENCE
TO ARS SAMPLE LABORATORY IDs

Client Sample ID	ARS Aleut Analytical Sample ID
FB-120622	ARS1-22-02726-001
MSB01-120622	ARS1-22-02726-002
MSB02-120622	ARS1-22-02726-003
MSB113A-120622	ARS1-22-02726-004

Sample	Date Collected	Date Received	Analysis	Basis	Prep Date/Time	Analysis Date/Time
001	12/08/22 08:00	12/15/22	ASP-PU239-AF	As Received	12/28/22 07:31	01/07/23 03:09
001	12/08/22 08:00	12/15/22	GAM-A-AF	As Received	NA	12/19/22 14:49
001	12/08/22 08:00	12/15/22	GPC-RA226-AF	As Received	12/28/22 07:14	01/05/23 10:52
001	12/08/22 08:00	12/15/22	GPC-SR90-AF	As Received	01/03/23 07:41	01/06/23 11:05
002	12/08/22 13:44	12/15/22	ASP-PU239-AF	As Received	12/28/22 07:31	01/07/23 03:09
002	12/08/22 13:44	12/15/22	GAM-A-AF	As Received	NA	12/19/22 14:51
002	12/08/22 13:44	12/15/22	GPC-RA226-AF	As Received	12/28/22 07:14	01/05/23 10:52
002	12/08/22 13:44	12/15/22	GPC-SR90-AF	As Received	01/03/23 07:41	01/06/23 11:05
003	12/08/22 13:40	12/15/22	ASP-PU239-AF	As Received	12/28/22 07:31	01/07/23 03:09
003	12/08/22 13:40	12/15/22	GAM-A-AF	As Received	NA	12/20/22 14:14
003	12/08/22 13:40	12/15/22	GPC-RA226-AF	As Received	12/28/22 07:14	01/05/23 10:52
003	12/08/22 13:40	12/15/22	GPC-SR90-AF	As Received	01/03/23 07:41	01/06/23 11:05
004	12/08/22 13:56	12/15/22	ASP-PU239-AF	As Received	12/28/22 07:31	01/07/23 03:09
004	12/08/22 13:56	12/15/22	GAM-A-AF	As Received	NA	12/20/22 14:16

Sample	Date Collected	Date Received	Analysis	Basis	Prep Date/Time	Analysis Date/Time
004	12/08/22 13:56	12/15/22	GPC-RA226-AF	As Received	12/28/22 07:14	01/05/23 10:52
004	12/08/22 13:56	12/15/22	GPC-SR90-AF	As Received	01/03/23 07:41	01/06/23 11:05

SAMPLE RECEIPT/PREP

The samples arrived in good condition. The samples were screened for radioactive contamination as per procedure **PALA-SR-001-SOP Sample Receiving**. Sample date(s) and time(s) are listed as provided by the client. In regard to the Air Filters, no flow rate information was provided by the client. Turnaround time was set at 28 calendar days.

ANALYTICAL METHODS

Pu-239/240 analysis was performed using **PALA-RAD-026, "Americium, Plutonium and Uranium in Water, Soil and Vegetation Matrices by Sequential Separation Using Eichrom Stabilized Chemistry Resin (with Vacuum Box System Option) (Eichrom ACW-02 & Eichrom ACW-03)"**.

Co-60, Cs-137, Ra-226 analyses were performed using **PALA-RAD-007, "Modified Gamma Emitting Radionuclides in Soil, Air, and Biota Matrices (EPA 901.1 Mod, SM 7120B, & HASL-300 Ga-01-R)"**.

Ra-226 analysis was performed using **PALA-RAD-008, "Alpha Emitting Radium Isotopes (EPA 903.0, EPA 9315, SM 7500-Ra C, SM 7500-Ra C)"**.

Sr-90 analysis was performed using **PALA-RAD-032, "Strontium 89, 90 and Total Strontium in Water, Soil and Vegetation Matrices by Eichrom Resin Separation (Eichrom SRW01, EPA 905.0, HASL 300 Sr-01-RC)"**.

ANALYTICAL RESULTS

Batch ARS1-B22-02011: Fraction 004 has tracer recovery of 21.1%, which is outside limits of 30%-110%. The sample results have been qualified with a "Q".

Fraction 001 has elevated MDC for Pu-239/240 with ACT of -7.569E-8 uCi/filter, MDC of 1.888E-7 uCi/filter and CRDL of 4.8E-08 uCi/filter.
Fraction 001 has elevated MDC for Ra-226 with ACT of -8.115E-5 uCi/filter, MDC of 3.074E-5 uCi/filter and CRDL of 4.4E-06 uCi/filter.
Fraction 002 has elevated MDC for Pu-239/240 with ACT of -4.351E-8 uCi/filter, MDC of 1.503E-7 uCi/filter and CRDL of 4.8E-08 uCi/filter.
Fraction 002 has elevated MDC for Ra-226 with ACT of -1.261E-5 uCi/filter, MDC of 1.297E-5 uCi/filter and CRDL of 4.4E-06 uCi/filter.
Fraction 003 has elevated MDC for Pu-239/240 with ACT of -6.657E-8 uCi/filter, MDC of 1.139E-7 uCi/filter and CRDL of 4.8E-08 uCi/filter.
Fraction 003 has elevated MDC for Ra-226 with ACT of -3.911E-6 uCi/filter, MDC of 9.829E-6 uCi/filter and CRDL of 4.4E-06 uCi/filter.
Fraction 004 has elevated MDC for Pu-239/240 with ACT of -6.940E-8 uCi/filter, MDC of 2.705E-7 uCi/filter and CRDL of 4.8E-08 uCi/filter.

Fraction 004 has elevated MDC for Ra-226 with ACT of -1.092E-5 uCi/filter, MDC of 1.570E-5 uCi/filter and CRDL of 4.4E-06 uCi/filter.

ARS1-B22-02011: ROI's adjusted to better fit the peaks of interest.

Notes (Case Narrative)

Definitions:

CRDL	Contract Required Detection Limit
CSU	Combined Standard Uncertainty
DLC	Decision Level Concentration (ANSI N42.23)
DO	Duplicate Original
DUP	Sample Duplicate
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
LOD	Limit of Detection
LOQ	Limit of Quantitation
MBL	Method Blank
MCL	Maximum Contaminant Level
MDA	Minimum Detectable Activity
MDL	Method Detection Limit
MS/MSD	Matrix Spike/Matrix Spike Duplicate
N/A	Not Applicable
NC	Not Calculated
NP	Not Provided
NR	Not Referenced
PQL	Practical Quantitation Limit

Data Qualifiers:

B	The result of both the method blank and the target sample are above the MDL.
D	Sample analysis accomplished through dilution.
J	The reported result is an estimated value above the LOD but below the LOQ, or above the MDL but below the PQL.
Q	One or more quality control criteria failed.
U	Result is below the MDA, MDL, PQL, LOD, or LOQ
*	LCS/LCSD or Sample DUP fails all Duplicate criteria.
S	Spike
SC	Subcontracted out to another qualified laboratory
H	Holding time exceeded
E	Exceeds MCL
**	Reporting Limit is higher than MCL; Target cannot be detected
ǂ	Method/Matrix/Analyte not accredited for this certification

Radiochemistry Comments:

1.0) All MDA/MDC values are calculated on a sample specific basis.

2.0) Data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.

3.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than the actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.

4.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228 (Gamma Spectroscopy only).

5.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234 (Gamma Spectroscopy only).

6.0) All gamma spectroscopy was performed utilizing high purity germanium detectors (**HPGe**).

7.0) ARS makes every attempt to match sample density to calibrated density; however, in some cases, it is not practical or possible to do so and data results may be affected (Gamma Spectroscopy only).

8.0) Gamma spectroscopy results are calculated values based on the **ORTEC®** GammaVision ENV32 Analysis Engine.

9.0) DoD/DOE and ISO 17025 certifications through ANAB apply only to the following methods in **Non-Potable Water**:
Gross Alpha and Gross Beta (EPA 900.0, EPA 9310); Radium 226 (EPA 903.0, EPA 903.1, EPA 9315); Radium 228 (EPA 904.0, EPA 9320); ICP/MS (EPA 6020B); ICP-OES (EPA 6010D); Mercury CVAA (EPA 7470A); Strontium-89 (EPA 905.0, Eichrom SRW01, HASL 300 Sr-01); Strontium-90 (EPA 905.0, Eichrom SRW01, HASL 300 Sr-02-RC); Tritium (EPA 906.0); Enriched Tritium (ARS-040), Carbon-14 (ARS-019), Tritium/Carbon (ARS-151); Gamma Emitters (EPA 901.1, SM 7120B, HASL 300 Ga-01-R); Americium-241 (Eichrom ACW03, HASL 300 Se-03, HASL 300 Am-03); Plutonium 238, Plutonium 239/240, Plutonium-241 (Eichrom ACW03, HASL 300 Se-03, HASL 300 Pu-10); Thorium-228, Thorium 230, Thorium-232 (Eichrom ACW10); Uranium-234, Uranium-235, Uranium-238 (Eichrom ACW03, HASL 300 Se-03); Technetium-99 (Eichrom TCW02)

10.0) DoD/DOE and ISO 17025 certifications through ANAB apply only to the following methods in **Solid and Chemical Materials**:
Gross Alpha and Gross Beta (EPA 900.0 Mod, EPA 9310); ICP/MS (EPA 6020B); ICP-OES (EPA 6010D); Mercury CVAA (EPA 7471B); Strontium-89 (EPA 905.0 Mod, Eichrom SRW01, HASL 300 Sr-01); Strontium-90 (EPA 905.0 Mod, Eichrom SRW01, HASL 300 Sr-02); Tritium (EPA 906.0 Mod); Gamma Emitters (EPA 901.1, HASL 300 Ga-01-R); Americium-241 (Eichrom ACW03, HASL 300 Se-03, HASL 300 Am-01-RC); Plutonium 238, Plutonium 239/240, Plutonium-241 (Eichrom ACW03, HASL 300 Se-03, HASL 300 Pu-02-RC, HASL 300 Pu-03-RC); Thorium-228, Thorium 230, Thorium-232 (Eichrom ACW10); Uranium-234, Uranium-235, Uranium-238 (Eichrom ACW03, HASL 300 Se-03, HASL 300 U-02, HASL 300 U-04); Technetium-99 (Eichrom TCS01)

11.0) DoD/DOE and ISO 17025 certifications through ANAB apply only to the following methods in **Air and Emissions**:
Gross Alpha and Gross Beta (EPA 900.0 Mod, EPA 9310); Strontium-89 (Eichrom SRW01, HASL 300 Sr-01-RC); Strontium-90 (Eichrom SRW01, HASL 300 Sr-02-RC); Gamma Emitters (EPA 901.1, HASL 300 Ga-01-R); Americium-241 (Eichrom ACW03, HASL 300 Se-03); Plutonium 238, Plutonium 239/240, Plutonium-241 (Eichrom ACW03, HASL 300 Se-03); Thorium-228, Thorium 230, Thorium-232 (Eichrom ACW10); Uranium-234, Uranium-235, Uranium-238 (Eichrom ACW03, HASL 300 Se-03); Technetium-99 (Eichrom TCW02, Eichrom TCS01)

General Comments:

1.0 Modified analysis procedures are procedures that are modified to meet certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix. Modified analyses are indicated by the subsequent addition of “M” or “Mod” to the procedure number (i.e. 901.1M, 901.1 Mod).

2.0 All NIOSH method results are reported without blank corrections applied.

3.0 Basis: “As Received” = analyzed as received from client; “Dry” = dried prior to being analyzed; “Dry Weight Corrected” = analyzed as received; result corrected for percent moisture.

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ARS Aleut Analytical, LLC
Analytical Reports

for

Gilbane Federal

Analytical Results

2609 North River Road • Port Allen, Louisiana 70767
(225) 228-1394

ARS Sample Delivery Group: ARS1-22-02726
Client Sample ID: FB-120622
Sample Collection Date: 12/08/22 8:00
Sample Matrix: Air Filter
Percent Solids: N/A

Request or PO Number: Parcel B Air Monitoring RAD
ARS Sample ID: ARS1-22-02726-001
Date Received: 12/15/22
Report Date: 01/11/23

Radiochemistry

Analysis Method: Eichrom ACW03

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Pu-239/240	-7.569E-8	8.614E-8	1.888E-7	8.300E-8	4.8E-08	U	uCi/filter	01/07/23 3:09	[redacted]	36.0%

Analysis Method: EPA 901.1M

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Co-60	7.555E-7	1.587E-6	1.619E-6	8.095E-7	0.00024	U	uCi/filter	12/19/22 14:49	[redacted]	N/A
Cs-137	1.674E-8	1.355E-6	1.533E-6	7.665E-7	0.00048	U	uCi/filter	12/19/22 14:49	[redacted]	N/A
Ra-226	-8.115E-5	3.357E-5	3.074E-5	1.537E-5	4.4E-06	U	uCi/filter	12/19/22 14:49	[redacted]	N/A

Analysis Method: EPA 9315

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	1.180E-6	7.220E-7	8.212E-7	3.045E-7	4.4E-06		uCi/filter	01/05/23 10:52	[redacted]	94.3%

Analysis Method: Eichrom SRW01

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
SR-90	1.901E-7	2.217E-6	3.999E-6	1.845E-6	2.4E-05	U	uCi/filter	01/06/23 11:05	[redacted]	92.0%

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ARS Sample Delivery Group: ARS1-22-02726
Client Sample ID: MSB01-120622
Sample Collection Date: 12/08/22 13:44
Sample Matrix: Air Filter
Percent Solids: N/A

Request or PO Number: Parcel B Air Monitoring RAD
ARS Sample ID: ARS1-22-02726-002
Date Received: 12/15/22
Report Date: 01/11/23

Radiochemistry

Analysis Method: Eichrom ACW03

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Pu-239/240	-4.351E-8	6.982E-8	1.503E-7	6.533E-8	4.8E-08	U	uCi/filter	01/07/23 3:09	[redacted]	41.8%

Analysis Method: EPA 901.1M

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Co-60	5.077E-7	8.453E-7	8.606E-7	4.303E-7	0.00024	U	uCi/filter	12/19/22 14:51	[redacted]	N/A
Cs-137	4.031E-7	7.742E-7	8.639E-7	4.320E-7	0.00048	U	uCi/filter	12/19/22 14:51	[redacted]	N/A
Ra-226	-1.261E-5	1.182E-5	1.297E-5	6.485E-6	4.4E-06	U	uCi/filter	12/19/22 14:51	[redacted]	N/A

Analysis Method: EPA 9315

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	9.259E-7	6.017E-7	7.177E-7	2.679E-7	4.4E-06		uCi/filter	01/05/23 10:52	[redacted]	92.3%

Analysis Method: Eichrom SRW01

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
SR-90	-8.104E-6	2.778E-6	5.530E-6	2.617E-6	2.4E-05	U	uCi/filter	01/06/23 11:05	[redacted]	97.8%

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ARS Sample Delivery Group: ARS1-22-02726
Client Sample ID: MSB02-120622
Sample Collection Date: 12/08/22 13:40
Sample Matrix: Air Filter
Percent Solids: N/A

Request or PO Number: Parcel B Air Monitoring RAD
ARS Sample ID: ARS1-22-02726-003
Date Received: 12/15/22
Report Date: 01/11/23

Radiochemistry

Analysis Method: Eichrom ACW03

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Pu-239/240	-6.657E-8	4.352E-8	1.139E-7	4.877E-8	4.8E-08	U	uCi/filter	01/07/23 3:09	[redacted]	48.8%

Analysis Method: EPA 901.1M

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Co-60	-3.146E-7	9.096E-7	9.293E-7	4.647E-7	0.00024	U	uCi/filter	12/20/22 14:14	[redacted]	N/A
Cs-137	3.373E-7	5.963E-7	6.437E-7	3.219E-7	0.00048	U	uCi/filter	12/20/22 14:14	[redacted]	N/A
Ra-226	-3.911E-6	7.816E-6	9.829E-6	4.915E-6	4.4E-06	U	uCi/filter	12/20/22 14:14	[redacted]	N/A

Analysis Method: EPA 9315

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	8.748E-7	6.411E-7	8.267E-7	3.106E-7	4.4E-06		uCi/filter	01/05/23 10:52	[redacted]	88.0%

Analysis Method: Eichrom SRW01

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
SR-90	2.349E-6	2.499E-6	4.099E-6	1.895E-6	2.4E-05	U	uCi/filter	01/06/23 11:05	[redacted]	94.5%

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ARS Sample Delivery Group: ARS1-22-02726
Client Sample ID: MSB113A-120622
Sample Collection Date: 12/08/22 13:56
Sample Matrix: Air Filter
Percent Solids: N/A

Request or PO Number: Parcel B Air Monitoring RAD
ARS Sample ID: ARS1-22-02726-004
Date Received: 12/15/22
Report Date: 01/11/23

Radiochemistry

Analysis Method: Eichrom ACW03

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Pu-239/240	-6.940E-8	1.250E-7	2.705E-7	1.164E-7	4.8E-08	UQ	uCi/filter	01/07/23 3:09	[redacted]	21.1%

Analysis Method: EPA 901.1M

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Co-60	-5.977E-7	1.031E-6	1.115E-6	5.575E-7	0.00024	U	uCi/filter	12/20/22 14:16	[redacted]	N/A
Cs-137	1.432E-7	7.807E-7	9.139E-7	4.570E-7	0.00048	U	uCi/filter	12/20/22 14:16	[redacted]	N/A
Ra-226	-1.092E-5	1.462E-5	1.570E-5	7.850E-6	4.4E-06	U	uCi/filter	12/20/22 14:16	[redacted]	N/A

Analysis Method: EPA 9315

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	3.977E-7	4.731E-7	7.597E-7	2.929E-7	4.4E-06	U	uCi/filter	01/05/23 10:52	[redacted]	96.5%

Analysis Method: Eichrom SRW01

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
SR-90	4.375E-6	2.600E-6	3.857E-6	1.778E-6	2.4E-05		uCi/filter	01/06/23 11:05	[redacted]	102%

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QC Summary

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QC Sample Results

Analytical Batch: ARS1-B22-01961
Lab Sample ID: ARS1-B22-01961-01
Method: EPA 901.1M

Sample Type: LCS
Matrix: Air Filter
Analysis Date: 12/16/22 13:39

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits
Am-241	33.065	31.791		uCi/filter	96.1	75 - 125
Co-60	20.928	22.519		uCi/filter	107.6	75 - 125
Cs-137	12.996	13.115		uCi/filter	100.9	75 - 125

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QC Sample Results

Analytical Batch: ARS1-B22-01961
Lab Sample ID: ARS1-B22-01961-02
Method: EPA 901.1M

Sample Type: LCSD
Matrix: Air Filter
Analysis Date: 12/16/22 13:53

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits	RPD	RPD Limit	DER	DER Limit
Am-241	33.065	31.805		uCi/filter	96.2	75 - 125	0.0	25	0.008	3
Co-60	20.928	21.151		uCi/filter	101.1	75 - 125	6.3	25	1.519	3
Cs-137	12.996	13.079		uCi/filter	100.6	75 - 125	0.3	25	0.071	3

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QC Sample Results

Analytical Batch: ARS1-B22-01961
Lab Sample ID: ARS1-B22-01961-03
Method: EPA 901.1M

Sample Type: MBL
Matrix: Air Filter
Analysis Date: 12/19/22 14:47

Analyte	Analysis Result	CSU +/- 2 s	MDC	DLC	Qual	Analysis Units
Co-60	1.679E-4	9.304E-4	0.001	5.100E-4	U	uCi/filter
Cs-137	-3.961E-4	8.400E-4	9.750E-4	4.875E-4	U	uCi/filter
Ra-226	-0.014	0.015	0.016	0.008	U	uCi/filter

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QC Association Summary

ARS Sample Delivery Group: ARS1-22-02726 **Analytical Batch:** ARS1-B22-01961

Analysis: Gamma Spec (Short) in (Air Filters, Smears [AF])

Batch Sample ID	Lab Sample ID	Client Sample ID	Matrix	Method	Prep Method
ARS1-B22-01961-01		Lab Control Sample	Air Filter	EPA 901.1M	N/A
ARS1-B22-01961-02		Lab Control Sample Duplicate	Air Filter	EPA 901.1M	N/A
ARS1-B22-01961-03		Method Blank	Air Filter	EPA 901.1M	N/A
ARS1-B22-01961-07	ARS1-22-02726-001	FB-120622	Air Filter	EPA 901.1M	N/A
ARS1-B22-01961-08	ARS1-22-02726-002	MSB01-120622	Air Filter	EPA 901.1M	N/A
ARS1-B22-01961-09	ARS1-22-02726-003	MSB02-120622	Air Filter	EPA 901.1M	N/A
ARS1-B22-01961-10	ARS1-22-02726-004	MSB113A-120622	Air Filter	EPA 901.1M	N/A

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QC Sample Results

Analytical Batch: ARS1-B22-01990
Lab Sample ID: ARS1-B22-01990-01
Method: EPA 9315

Sample Type: LCS
Matrix: Air Filter
Analysis Date: 01/05/23 10:52

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits
Ra-226	2.713E-5	2.538E-5		uCi/filter	93.5	75 - 125

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QC Sample Results

Analytical Batch: ARS1-B22-01990
Lab Sample ID: ARS1-B22-01990-02
Method: EPA 9315

Sample Type: LCSD
Matrix: Air Filter
Analysis Date: 01/05/23 10:52

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits	RPD	RPD Limit	DER	DER Limit
Ra-226	2.694E-5	2.582E-5		uCi/filter	95.8	75 - 125	1.7	25	0.150	3

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QC Sample Results

Analytical Batch: ARS1-B22-01990
Lab Sample ID: ARS1-B22-01990-03
Method: EPA 9315

Sample Type: MBL
Matrix: Air Filter
Analysis Date: 01/05/23 10:52

Analyte	Analysis Result	CSU +/- 2 s	MDC	DLC	Qual	Analysis Units
Ra-226	7.249E-8	6.005E-8	8.416E-8	3.245E-8	U	uCi/filter

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QC Association Summary

ARS Sample Delivery Group: ARS1-22-02726

Analytical Batch: ARS1-B22-01990

Analysis: Radium-226 in Air Filter

Batch Sample ID	Lab Sample ID	Client Sample ID	Matrix	Method	Prep Method
ARS1-B22-01990-01		Lab Control Sample	Air Filter	EPA 9315	N/A
ARS1-B22-01990-02		Lab Control Sample Duplicate	Air Filter	EPA 9315	N/A
ARS1-B22-01990-03		Method Blank	Air Filter	EPA 9315	N/A
ARS1-B22-01990-07	ARS1-22-02726-001	FB-120622	Air Filter	EPA 9315	N/A
ARS1-B22-01990-08	ARS1-22-02726-002	MSB01-120622	Air Filter	EPA 9315	N/A
ARS1-B22-01990-09	ARS1-22-02726-003	MSB02-120622	Air Filter	EPA 9315	N/A
ARS1-B22-01990-10	ARS1-22-02726-004	MSB113A-120622	Air Filter	EPA 9315	N/A

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QC Sample Results

Analytical Batch: ARS1-B22-02011
Lab Sample ID: ARS1-B22-02011-01
Method: Eichrom ACW03

Sample Type: LCS
Matrix: Air Filter
Analysis Date: 01/07/23 3:09

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits
Pu-239/240	7.677E-6	7.568E-6		uCi/filter	98.6	75 - 125

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QC Sample Results

Analytical Batch: ARS1-B22-02011
Lab Sample ID: ARS1-B22-02011-02
Method: Eichrom ACW03

Sample Type: LCSD
Matrix: Air Filter
Analysis Date: 01/07/23 3:09

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits	RPD	RPD Limit	DER	DER Limit
Pu-239/240	7.684E-6	7.972E-6		uCi/filter	103.7	75 - 125	5.2	25	0.563	3

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QC Sample Results

Analytical Batch: ARS1-B22-02011
Lab Sample ID: ARS1-B22-02011-03
Method: Eichrom ACW03

Sample Type: MBL
Matrix: Air Filter
Analysis Date: 01/07/23 3:09

Analyte	Analysis Result	CSU +/- 2 s	MDC	DLC	Qual	Analysis Units
Pu-238	-1.822E-8	9.451E-8	1.888E-7	8.208E-8	U	uCi/filter
Pu-239/240	-2.732E-8	1.171E-7	2.279E-7	1.016E-7	U	uCi/filter

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QC Association Summary

ARS Sample Delivery Group: ARS1-22-02726

Analytical Batch: ARS1-B22-02011

Analysis: Plutonium (239, 240Pu) in (Air Filters, Smears, Leak Test [AF, SM, LT])

Batch Sample ID	Lab Sample ID	Client Sample ID	Matrix	Method	Prep Method
ARS1-B22-02011-01		Lab Control Sample	Air Filter	Eichrom ACW03	N/A
ARS1-B22-02011-02		Lab Control Sample Duplicate	Air Filter	Eichrom ACW03	N/A
ARS1-B22-02011-03		Method Blank	Air Filter	Eichrom ACW03	N/A
ARS1-B22-02011-07	ARS1-22-02726-001	FB-120622	Air Filter	Eichrom ACW03	N/A
ARS1-B22-02011-08	ARS1-22-02726-002	MSB01-120622	Air Filter	Eichrom ACW03	N/A
ARS1-B22-02011-09	ARS1-22-02726-003	MSB02-120622	Air Filter	Eichrom ACW03	N/A
ARS1-B22-02011-10	ARS1-22-02726-004	MSB113A-120622	Air Filter	Eichrom ACW03	N/A

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QC Sample Results

Analytical Batch: ARS1-B23-00002
Lab Sample ID: ARS1-B23-00002-01
Method: Eichrom SRW01

Sample Type: LCS
Matrix: Air Filter
Analysis Date: 01/06/23 11:05

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits
SR-90	2.019E-5	1.907E-5		uCi/filter	94.4	75 - 125

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QC Sample Results

Analytical Batch: ARS1-B23-00002
Lab Sample ID: ARS1-B23-00002-02
Method: Eichrom SRW01

Sample Type: LCSD
Matrix: Air Filter
Analysis Date: 01/06/23 11:05

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits	RPD	RPD Limit	DER	DER Limit
SR-90	2.017E-5	2.055E-5		uCi/filter	101.9	75 - 125	7.5	25	0.677	3

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QC Sample Results

Analytical Batch: ARS1-B23-00002
Lab Sample ID: ARS1-B23-00002-03
Method: Eichrom SRW01

Sample Type: MBL
Matrix: Air Filter
Analysis Date: 01/06/23 11:05

Analyte	Analysis Result	CSU +/- 2 s	MDC	DLC	Qual	Analysis Units
SR-90	8.511E-7	2.231E-6	3.906E-6	1.797E-6	U	uCi/filter

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QC Association Summary

ARS Sample Delivery Group: ARS1-22-02726

Analytical Batch: ARS1-B23-00002

Analysis: Strontium-90 in (Air Filters, Smears [AF])

Batch Sample ID	Lab Sample ID	Client Sample ID	Matrix	Method	Prep Method
ARS1-B23-00002-01		Lab Control Sample	Air Filter	Eichrom SRW01	N/A
ARS1-B23-00002-02		Lab Control Sample Duplicate	Air Filter	Eichrom SRW01	N/A
ARS1-B23-00002-03		Method Blank	Air Filter	Eichrom SRW01	N/A
ARS1-B23-00002-04	ARS1-22-02726-001	FB-120622	Air Filter	Eichrom SRW01	N/A
ARS1-B23-00002-05	ARS1-22-02726-002	MSB01-120622	Air Filter	Eichrom SRW01	N/A
ARS1-B23-00002-06	ARS1-22-02726-003	MSB02-120622	Air Filter	Eichrom SRW01	N/A
ARS1-B23-00002-07	ARS1-22-02726-004	MSB113A-120622	Air Filter	Eichrom SRW01	N/A

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Batch QC

QC Results per Analytical Batch

Analytical Batch	**ARS1-B22-01961**
SDG	**ARS1-22-02726**
Analysis	**Gamma Spec (Short) in (Air Filters, Smears [AF])**
Method	**EPA 901.1M**
Analysis Code	**GAM-A-AF**
Report Units	**uCi/filter**

Acceptable QC Performance Ranges

QC Sample Type	Performance Items and Ranges		
Laboratory Control Sample	**Recovery (%):**	**> 75**	**< 125**
Matrix Spike	**Recovery (%):**	**> 60**	**< 140**
Duplicate	**Duplicate Error Ratio (DER):**		**< 3**
	Relative Percent Difference (RPD %):		**≤ 25**

Laboratory Control Sample

			Analysis Date	12/16/22 13:39	Analysis Technician	[redacted]	
Analysis Batch Sample ID	**QC Type**	**Analyte**	**Results**	**CSU (2s)**	**Expected Value**	**LCS Rec (%)**	**MDC**
ARS1-B22-01961-01	**LCS**	AM-241	31.791	2.469	33.065	96.1	0.117
ARS1-B22-01961-01	**LCS**	CO-60	22.519	1.191	20.928	107.6	0.444
ARS1-B22-01961-01	**LCS**	CS-137	13.115	0.699	12.996	100.9	0.070

Duplicate RER/DER/RPD

		Analysis Date	12/16/22 13:53	Analysis Technician	[redacted]	
Analyte	**Results LCS**	**CSU LCS (2s)**	**Results LCSD**	**CSU LCSD (2s)**	**DER**	**RPD**
AM-241	31.791	2.469	31.805	2.471	0.008	0.0
CO-60	22.519	1.191	21.151	1.303	1.519	6.3
CS-137	13.115	0.699	13.079	0.698	0.071	0.3

Method Blank

			Analysis Date	12/19/22 14:47	Analysis Technician	[redacted]	
Analysis Batch Sample ID	**QC Type**	**Analyte**	**Results**	**CSU (2s)**	**MDC**	**Qual**	
ARS1-B22-01961-03	**MBL**	CO-60	1.679E-4	9.304E-4	0.001	U	
ARS1-B22-01961-03	**MBL**	CS-137	-3.961E-4	8.400E-4	9.750E-4	U	
ARS1-B22-01961-03	**MBL**	RA-226	-0.014	0.015	0.016	U	

QC Results per Analytical Batch

Analytical Batch	ARS1-B22-01990
SDG	ARS1-22-02726
Analysis	Radium-226 in Air Filter
Method	EPA 9315
Analysis Code	GPC-RA226-AF
Report Units	uCi/filter

Acceptable QC Performance Ranges

QC Sample Type	Performance Items and Ranges		
Laboratory Control Sample	Recovery (%):	> 75	< 125
Matrix Spike	Recovery (%):	> 60	< 140
Duplicate	Duplicate Error Ratio (DER):		< 3
	Relative Percent Difference (RPD %):		≤ 25

Laboratory Control Sample

Analysis Date	01/05/23 10:52	Analysis Technician	[redacted]

Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	Expected Value	LCS Rec (%)	MDC
ARS1-B22-01990-01	**LCS**	RA-226	2.538E-5	4.099E-6	2.713E-5	93.5	7.640E-8

Duplicate RER/DER/RPD

Analysis Date	01/05/23 10:52	Analysis Technician	[redacted]

Analyte	Results LCS	CSU LCS (2s)	Results LCSD	CSU LCSD (2s)	DER	RPD
RA-226	2.538E-5	4.099E-6	2.582E-5	4.165E-6	0.150	1.7

Method Blank

Analysis Date	01/05/23 10:52	Analysis Technician	[redacted]

Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	MDC	Qual
ARS1-B22-01990-03	**MBL**	RA-226	7.249E-8	6.005E-8	8.416E-8	U

QC Results per Analytical Batch

Analytical Batch	ARS1-B22-02011
SDG	ARS1-22-02726
Analysis	Plutonium (239, 240Pu) in (Air Filters, Smears, Leak Test [AF, SM, LT])
Method	Eichrom ACW03
Analysis Code	ASP-PU239-AF
Report Units	uCi/filter

Acceptable QC Performance Ranges

QC Sample Type	Performance Items and Ranges		
Laboratory Control Sample	Recovery (%):	> 75	< 125
Matrix Spike	Recovery (%):	> 60	< 140
Duplicate	Duplicate Error Ratio (DER):		< 3
	Relative Percent Difference (RPD %):		≤ 25

Laboratory Control Sample

Analysis Date	01/07/23 03:09	Analysis Technician	[redacted]

Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	Expected Value	LCS Rec (%)	MDC
ARS1-B22-02011-01	LCS	PU-239/240	7.568E-6	9.665E-7	7.677E-6	98.6	5.291E-8

Duplicate RER/DER/RPD

Analysis Date	01/07/23 03:09	Analysis Technician	[redacted]

Analyte	Results LCS	CSU LCS (2s)	Results LCSD	CSU LCSD (2s)	DER	RPD
PU-239/240	7.568E-6	9.665E-7	7.972E-6	1.022E-6	0.563	5.2

Method Blank

Analysis Date	01/07/23 03:09	Analysis Technician	[redacted]

Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	MDC	Qual
ARS1-B22-02011-03	MBL	PU-238	-1.822E-8	9.451E-8	1.888E-7	U
ARS1-B22-02011-03	MBL	PU-239/240	-2.732E-8	1.171E-7	2.279E-7	U

QC Results per Analytical Batch

Analytical Batch	ARS1-B23-00002
SDG	ARS1-22-02726
Analysis	Strontium-90 in (Air Filters, Smears [AF])
Method	Eichrom SRW01
Analysis Code	GPC-SR90-AF
Report Units	uCi/filter

Acceptable QC Performance Ranges

QC Sample Type	Performance Items and Ranges		
Laboratory Control Sample	Recovery (%):	> 75	< 125
Matrix Spike	Recovery (%):	> 60	< 140
Duplicate	Duplicate Error Ratio (DER):		< 3
	Relative Percent Difference (RPD %):		≤ 25

Laboratory Control Sample

Analysis Date	01/06/23 11:05	Analysis Technician	[redacted]

Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	Expected Value	LCS Rec (%)	MDC
ARS1-B23-00002-01	**LCS**	SR-90	1.907E-5	2.932E-6	2.019E-5	94.4	3.776E-7

Duplicate RER/DER/RPD

Analysis Date	01/06/23 11:05	Analysis Technician	[redacted]

Analyte	Results LCS	CSU LCS (2s)	Results LCSD	CSU LCSD (2s)	DER	RPD
SR-90	1.907E-5	2.932E-6	2.055E-5	3.150E-6	0.677	7.5

Method Blank

Analysis Date	01/06/23 11:05	Analysis Technician	[redacted]

Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	MDC	Qual
ARS1-B23-00002-03	**MBL**	SR-90	8.511E-7	2.231E-6	3.906E-6	U

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for

Gilbane Federal

Sample Management Records

CHAIN-OF-CUSTODY RECORD

Gilbane Federal
[redacted]
2300 Clayton Road, Suite 1050, Concord, CA 94520

COC # MC121422RADB

Gilbane

Project Name: Hunters Point Shipyard, Parcel B Removal Site Evaluation	Laboratory: ARS Aleut Analytical (AAA), Port Allen, LA	Event: **Parcel B Air Monitoring RAD**
Project Number: J310000900	POC: [redacted]	
WBS Code: J310000900	Ship to: 2609 North River Road, Port Allen, LA 70767-3469	

Comments:

Equipment:

Code	Matrix
A	Air
AQ	Air Quality Control Matrix

Code	Container/Preservative
1	1x Filter, None
5	1x 1-L Plastic, HNO3, pH < 2
15	1x 250-mL Plastic, 4 Degrees C

Event: Parcel B Air Monitoring RAD

	Sample ID	Matrix	Date	Time	Samp Init.	Analytical Test Method: E901.1 - Gamma Spec Air	RC0240 - Pu Isotopes	SR02RC - Sr90	SW9315 - Ra226	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
						15	15	5	1						
1	FB-120622	AQ	12/08/22	0800	[redacted]	X	X	X	X	FIELDQC	FB1	0.00	0.00	1	
2	MSB01-120622	A	12/08/22	1344		X	X	X	X	MSB01	N1	0.00	0.00	1	
3	MSB02-120622	A	12/08/22	1340		X	X	X	X	MSB02	N1	0.00	0.00	1	
4	MSB113A-120622	A	12/08/22	1356		X	X	X	X	MSB113A	N1	0.00	0.00	1	
6									[redacted]						
7															

12.14.22

Turnaround Time: NA

Relinquished by: *(Signature)*	**Date**	**Time**	**Received by: *(Signature)***	**Date**	**Time**
[redacted]	12-14-22	1600	FEDEX	12.14.22	1600
			[redacted]	12/15/22	1030

Shipping Date / Carrier / Airbill Number

Shipping Date: / FEDEX / 7706 8289 3755

Received by Laboratory: *(Signature, Date, Time)* **& condition**

GES.Navy_COC_Field
December 05, 2022

Procedures: GES-003 / EPA 900.0M

File ID Number: MC121422RADB

Start Date 12/6/22
Stop Date 12/8/22
120622

12/14/2022 121422

Field Entry

	Station	Sample ID	Date In:	Time In:	Date Out:	Time Out:	Initial Flow Rate (LPM)	Final Flow Rate (LPM)	Flow volume Cu.M	Julian Date for Date Out	Total Run Time (Days)	Total Run Time (Hours)	Total Run Time (Minutes)	Average Flow Rate (LPM)	Initial Flow Rate (CFM)	Final Flow Rate (CFM)	Average Flow Rate (CFM)	Average Flow Rate (Cu.M/h)	Flow Rate (Cu.M/min)	Total Flow (L)
1	MSB01	MSB01-120622	12/06/22	4:55	12/08/22	13:44	60	60	204.5	342	2.37	56.82	3409.0	60	2.11888	2.11888	2.11888	3.6	0.06	204,540
2	MSB02	MSB02-120622	12/06/22	4:40	12/08/22	13:40	60	60	205.2	342	2.38	57.00	3420.0	60	2.11888	2.11888	2.11888	3.6	0.06	205,200
3	MSB113A	MSB113A-120622	12/06/22	4:47	12/08/22	13:56	60	60	205.7	342	2.38	57.15	3429.0	60	2.11888	2.11888	2.11888	3.6	0.06	205,740

FORMULAS:

Number of Days = (Date Out +Time Out) minus (Date In+Time In)
Number of Minutes = # of Days X 24hr X 60min
Flow Rate (m3/h) = Flow Rate (CFM) x 60min x (12in x 2.54cm/in / 100cm/m)^3
Mid-Sample Date/Time = [(Date+Time Out) + (Date+Time In)] / 2
Flow Rate (Cu.M/min) = CFM X 0.0283168466 Cu.M/CF
Flow Rate (LPM) = Cu.M X 1000
Total Flow (L) = LPM X Total Minutes

SDG Report - Samples and Containers

SDG Specific Data							
SDG	ARS1-22-02726		TAT Days	28 Calendar Days	Project Type	Environmental
Sample Count	4	Rpt Level 4	Date Received	12/15/2022	COC Number	MC121422RADB
Client	Gilbane Federal		Discrepancy Resol	N/A	PO Number	Parcel B Air Monitoring RAD
Client Code	1138		Client Deadline	01/17/2023	Job Number	J310000900
Profile Number	PN-01411				Job Location	Hunters Point Shipyard, Parcel B Removal Site Evaluation
Comment						

Samples and Containers Checked In Thus Far

FR	Name	Matrix	Start Date	End Date	Disp	Hold	Arch	Storage	Comments
001	FB-120622	Air Filter	12/08/2022 07:59	12/08/2022 08:00	H	30	10	PrePrep	
	IC_ID	**Cnt**	**Container Type**	**AF Volume (L)**	**AF Units**		**Rate**	**Mins**	**Comments**
	428420	1	HDP Container	1	LPM			1	
			Mid-Sample Date:	12/08/2022 07:59	AF Volume (CuM):		0.001		
002	MSB01-120622	Air Filter	12/08/2022 13:43	12/08/2022 13:44	H	30	10	PrePrep	
	IC_ID	**Cnt**	**Container Type**	**AF Volume (L)**	**AF Units**		**Rate**	**Mins**	**Comments**
	428421	1	HDP Container	1	LPM			1	
			Mid-Sample Date:	12/08/2022 13:43	AF Volume (CuM):		0.001		
003	MSB02-120622	Air Filter	12/08/2022 13:39	12/08/2022 13:40	H	30	10	PrePrep	
	IC_ID	**Cnt**	**Container Type**	**AF Volume (L)**	**AF Units**		**Rate**	**Mins**	**Comments**
	428422	1	HDP Container	1	LPM			1	
			Mid-Sample Date:	12/08/2022 13:39	AF Volume (CuM):		0.001		
004	MSB113A-120622	Air Filter	12/08/2022 13:55	12/08/2022 13:56	H	30	10	PrePrep	
	IC_ID	**Cnt**	**Container Type**	**AF Volume (L)**	**AF Units**		**Rate**	**Mins**	**Comments**
	428423	1	HDP Container	1	LPM			1	
			Mid-Sample Date:	12/08/2022 13:55	AF Volume (CuM):		0.001		

SDG Report - Analysis Assignments

SDG	ARS1-22-02726	Sample Count	4
Client	Gilbane Federal	Analysis Count	4-16

Sample Count Totals Per Analysis

Analysis Code	Analysis Description	In/Out	Samples Count
ASP-PU239-AF	Plutonium (239, 240Pu) in (Air Filters, Smears, Leak Test [AF, SM, LT])	I	4
GAM-A-AF	Gamma Spec (Short) in (Air Filters, Smears [AF])	I	4
GPC-RA226-AF	Radium-226 in Air Filter	I	4
GPC-SR90-AF	Strontium-90 in (Air Filters, Smears [AF])	I	4

Analyses Assigned Per Fraction

Fraction	Analysis Code	X = Assigned
001	ASP-PU239-AF	X
001	GAM-A-AF	X
001	GPC-RA226-AF	X
001	GPC-SR90-AF	X
002	ASP-PU239-AF	X
002	GAM-A-AF	X
002	GPC-RA226-AF	X
002	GPC-SR90-AF	X
003	ASP-PU239-AF	X
003	GAM-A-AF	X
003	GPC-RA226-AF	X
003	GPC-SR90-AF	X
004	ASP-PU239-AF	X
004	GAM-A-AF	X
004	GPC-RA226-AF	X
004	GPC-SR90-AF	X

DQO Report for SDG

ARS1-22-02726

Client Name: Gilbane Federal Profile Name: Parcel B Rad Sampling Report Level: 4

Analysis Code	Prep Type	Units	Aliquot	Prep Code	Procedure	Count Time					
ASP-PU239-AF	WRAD	uCi	filter	N/A	PALA-RAD-026						
	Analyte			**RDL**	**LCS LL/UL**	**MS LL/UL**	**RadY LL/UL**	**GravY LL/UL**	**RER**	**RPD**	**Surr LL/UL**
	Pu-239/240 (15117-48-3)			4.8E-08 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
GAM-A-AF	WGAM	uCi	filter	N/A	PALA-RAD-007						
	Analyte			**RDL**	**LCS LL/UL**	**MS LL/UL**	**RadY LL/UL**	**GravY LL/UL**	**RER**	**RPD**	**Surr LL/UL**
	Co-60 (10198-40-0)			0.00024 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Cs-137 (10045-97-3)			0.00048 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Ra-226 (13982-63-3)			4.4E-06 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
GPC-RA226-AF	WRAD	uCi	filter		PALA-RAD-008						
	Analyte			**RDL**	**LCS LL/UL**	**MS LL/UL**	**RadY LL/UL**	**GravY LL/UL**	**RER**	**RPD**	**Surr LL/UL**
	Ra-226 (13982-63-3)			4.4E-06 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
GPC-SR90-AF	WRAD	uCi	filter	N/A	PALA-RAD-032						
	Analyte			**RDL**	**LCS LL/UL**	**MS LL/UL**	**RadY LL/UL**	**GravY LL/UL**	**RER**	**RPD**	**Surr LL/UL**
	Sr-90 (10098-97-2)			2.4E-05 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A

Analysis Code	Fraction	Units	Aliquot	Conductivity	Analyte Count
ASP-PU239-AF	001	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Pu-239/240	
ASP-PU239-AF	002	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Pu-239/240	

ASP-PU239-AF	003	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Pu-239/240	
ASP-PU239-AF	004	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Pu-239/240	
GAM-A-AF	001	uCi	filter	N/A	3
		Group		**Analyte**	
		Parcel B Rad Sampling		Cs-137	
		Parcel B Rad Sampling		Co-60	
		Parcel B Rad Sampling		Ra-226	
GAM-A-AF	002	uCi	filter	N/A	3
		Group		**Analyte**	
		Parcel B Rad Sampling		Cs-137	
		Parcel B Rad Sampling		Co-60	
		Parcel B Rad Sampling		Ra-226	
GAM-A-AF	003	uCi	filter	N/A	3
		Group		**Analyte**	
		Parcel B Rad Sampling		Cs-137	
		Parcel B Rad Sampling		Co-60	
		Parcel B Rad Sampling		Ra-226	
GAM-A-AF	004	uCi	filter	N/A	3
		Group		**Analyte**	
		Parcel B Rad Sampling		Cs-137	
		Parcel B Rad Sampling		Co-60	
		Parcel B Rad Sampling		Ra-226	
GPC-RA226-AF	001	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Ra-226	
GPC-RA226-AF	002	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Ra-226	
GPC-RA226-AF	003	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Ra-226	

GPC-RA226-AF	004	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Ra-226	
GPC-SR90-AF	001	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Sr-90	
GPC-SR90-AF	002	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Sr-90	
GPC-SR90-AF	003	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Sr-90	
GPC-SR90-AF	004	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Sr-90	

ARS Aleut Analytical

PALA Sample Receipt Inspection Form

Client Name: Gilbane

SDG: ARS1-22-02726

Sample Custodian: [redacted] Survey Start Date: 12/15/22 Survey Start Time: 1100

Thermometer ID: E0064010085 Calibration Due Date: 2/28/23 pH Paper Lot#: NA

Exposure Rate Meter + Probe Unit ID: 269264 Calibration Due Date: 9/13/23 Background: 4 µR/hr

Count Rate Meter + Probe Unit ID: PR287372 Calibration Due Date: 9/13/23 Background: 20 cpm

Delivery Type (circle one): Direct Lock Box (Commercial Carrier) FEDEX Total # of ESCs: 1

*True temperature is recorded which includes any applicable correction factors.

External Shipping Container Tracking:	Exposure Rate (µR/hr) (limit <500 µR/hr)	Max External Swipe Counts (cpm)	Max Internal Swipe Counts (cpm)	ESC True Temps* (°C)	TRAX Matrix ID (circle all that apply): (See Section 4.3 of SOP)
A: 770682893755	5	30	30	NA	AQ WD WG WO
B:					WS WW SI UR
C:					SO OL BI VG
D:					WP SM (AF)
E:					
F:					

Visual Inspection: External Shipping Container (Circle response)

Good Condition with no Leaks or Tears	(Yes)	No
Marked Radioactive	Yes	(No)
UN2910	Yes	(No)
Security Seals	(Yes)	No
If yes, intact?	(Yes)	No N/A
Internal Shipping Container		
COC's Present	(Yes)	No
Well packaged container with no signs of leakage	(Yes)	No

COC/Sample Inspection (Circle response)

Sample Containers in good condition	(Yes)	No	
No spills or leaks	(Yes)	No	
Marked Radioactive	Yes	(No)	
Durable labels w/indelible ink	(Yes)	No	
COC reliquished/received correctly	(Yes)	No	
Adequate volume/filled correctly	(Yes)	No	
Hold Time sufficient for analysis	(Yes)	No	
For VOC/Radon, Head space?	Yes	No	(N/A)
If yes, <6mm?	Yes	No	(N/A)
# of containers received matches # on COC	(Yes)	No	
Samples received on ice?	Yes	(No)	
Type (circle one):	Bagged Ice	Loose Ice	Blue Ice (N/A)

Comments:

ARS Aleut Analytical

PALA Sample Survey Form

Client Name: Gilbane

SDG: ARS1-22-02726

Sample Survey Form
PALA-SR-001-FM-02 r 0.1
Effective 08/30/2019

Pipette ID: NA Tip Lot#: NA

Disposible pipette lot#: NA

Sample ID from Client on COC or Sample	ESC Letter	Sample Container Type	Approx. Fill Level (%)	pH <2 is Acceptable: pH As Rec'd	pH <2 is Acceptable: pH Adjusted	Acid Lot # or Ind container temp (°C)	Vol. of Acid Used (mL)	Acceptance Limits <100 cpm/cm: cpm
FB - 120622	A	ziploc	25	NA	NA	NA	NA	30
MSB01 - 120622	↓	↓	↓	↓	↓	↓	↓	↓
MSB02 - 120622	↓	↓	↓	↓	↓	↓	↓	↓
MSB113A - 120622	↓	↓	↓	↓	↓	↓	↓	↓

Sample Custodian: [redacted] Survey End Date: 12/15/22 Survey/pH End Time: 1107

pH re-check required? YES or NO

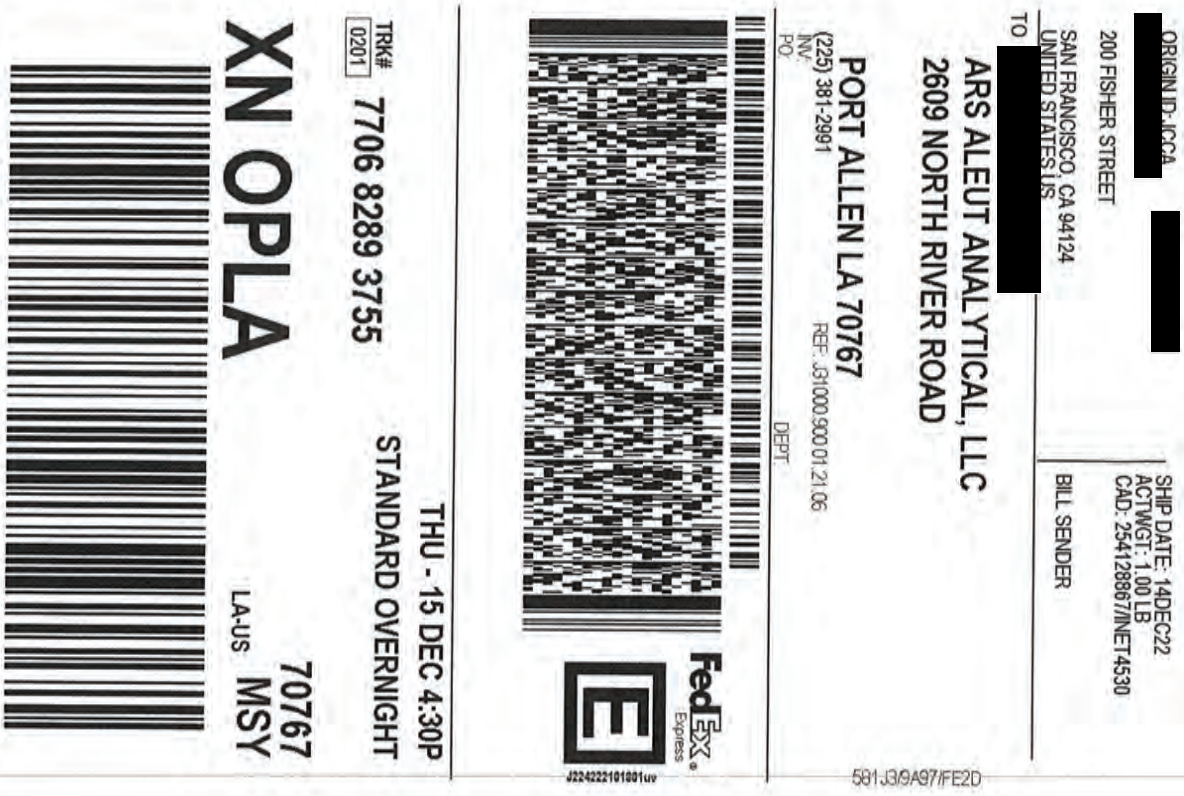
NOTE: Any metals sample acidified at sample receiving must be re-checked after a 24 hour hold.

If YES: pH re-check date/time: _____/_____ Analyst: _____ pH strip lot #: _____

Were all re-checked samples' pH < 2? YES or NO*

**If no, complete and send to Project Management:*
1. Section A of PALA-SR-001-FM-05 (24 Hour Hold pH Readjustment)
2. SR section of PALA-SR-001-FM-03 (Discrepant Sample Receipt Report).

ENVIRONMENTAL SOLUTIONS / QUALITY CONSCIOUS



After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

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Port Allen, Louisiana 70767
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ARS Aleut Analytical, LLC

Laboratory Analytical Report

ARS1-22-02759

Gilbane Federal
[redacted]
1655 Grant Street
Suite 1200
Concord, CA 94520
[redacted]

COC Number: **MC121622RADB**
Job Number: **J310000900**
Job Location: **Hunters Point Shipyard, Parcel B Removal Site Evaluation**
Project Name: **Parcel B Air Monitoring RAD**

Questions regarding this analytical report should be addressed to ARS project manager, [redacted], who can be reached by email at projectmanagers@aaa.aleutfederal.com.

I certify that the test results presented in this report (in either hardcopy or electronic file (EDD)) meet the requirements of the laboratory's certifications and other applicable contract terms and conditions. A full list of the Port Allen, LA laboratory's certifications is provided with this report. Any exceptions to the certification or contract will be noted within the case narratives presented in the report. Any subcontracted sample results will be identified within the case narratives presented in the report. In the event this report is an amendment to a previously released report, the case narrative will clearly identify the original report as well as the reason(s) for reissuance. A statement of uncertainty for each analysis is available upon request. I authorize release and issuance of this report on the date signed below.

[redacted] Laboratory Management, ARS Aleut Analytical

Signature **Date** **Title**

This report provides analytical results of the requested analysis and does not include any opinions or interpretations. ARS Aleut Analytical, LLC assumes no liability for the use or interpretation of analytical results. Results relate only to items tested. A partial reproduction of this test report is prohibited. Reproduction of this report in full requires the written approval of the laboratory.

LELAP Cert # 01949

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Table Of Contents

Certifications and Accreditations List

State or Accrediting Body (AB)	Certificate Number
AIHA LAP, LLC	209312
Alaska	LA01131
California	3085
ANAB DoD	ADE-1489
ANAB DOE	ADE-1489.01
Louisiana DEQ - NELAC	01949
Louisiana DHH	LA022
Nevada	LA011312023-1
New Jersey	LA009
New York	65039
Pennsylvania	68-04294-011
Texas	T104704447-22-18
Utah	LA011312022-13
Washington	C1010

For additional information related to the specific matrices, methods,and analytes recognized by each accrediting body, contact us at QA@aaa.aleutfederal.com for additional information.

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ARS Aleut Analytical, LLC
Analytical Reports

for

Gilbane Federal

Case Narrative

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PROJECT SAMPLE IDENTIFICATION CROSS-REFERENCE
TO ARS SAMPLE LABORATORY IDs

Client Sample ID	ARS Aleut Analytical Sample ID
FBB-121222	ARS1-22-02759-001
MSB01-121222	ARS1-22-02759-002
MSB02-121222	ARS1-22-02759-003
MSB113A-121222	ARS1-22-02759-004

Sample	Date Collected	Date Received	Analysis	Basis	Prep Date/Time	Analysis Date/Time
001	12/14/22 08:00	12/20/22	ASP-PU239-AF	As Received	01/10/23 10:30	01/19/23 20:41
001	12/14/22 08:00	12/20/22	GAM-A-AF	As Received	NA	12/27/22 14:16
001	12/14/22 08:00	12/20/22	GPC-RA226-AF	As Received	01/03/23 08:12	01/11/23 12:35
001	12/14/22 08:00	12/20/22	GPC-SR90-AF	As Received	01/10/23 13:08	01/12/23 12:26
002	12/15/22 14:59	12/20/22	ASP-PU239-AF	As Received	01/10/23 10:30	01/19/23 20:41
002	12/15/22 14:59	12/20/22	GAM-A-AF	As Received	NA	12/22/22 14:59
002	12/15/22 14:59	12/20/22	GPC-RA226-AF	As Received	01/03/23 08:12	01/11/23 12:35
002	12/15/22 14:59	12/20/22	GPC-SR90-AF	As Received	01/10/23 13:08	01/12/23 12:26
003	12/15/22 14:58	12/20/22	ASP-PU239-AF	As Received	01/10/23 10:30	01/19/23 20:41
003	12/15/22 14:58	12/20/22	GAM-A-AF	As Received	NA	12/22/22 15:01
003	12/15/22 14:58	12/20/22	GPC-RA226-AF	As Received	01/03/23 08:12	01/11/23 12:35
003	12/15/22 14:58	12/20/22	GPC-SR90-AF	As Received	01/10/23 13:08	01/12/23 12:26
004	12/15/22 15:12	12/20/22	ASP-PU239-AF	As Received	01/10/23 10:30	01/19/23 20:41
004	12/15/22 15:12	12/20/22	GAM-A-AF	As Received	NA	12/29/22 14:19

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Sample	Date Collected	Date Received	Analysis	Basis	Prep Date/Time	Analysis Date/Time
004	12/15/22 15:12	12/20/22	GPC-RA226-AF	As Received	01/03/23 08:12	01/11/23 12:35
004	12/15/22 15:12	12/20/22	GPC-SR90-AF	As Received	01/10/23 13:08	01/12/23 12:26

SAMPLE RECEIPT/PREP

The samples arrived in good condition. The samples were screened for radioactive contamination as per procedure **PALA-SR-001-SOP Sample Receiving**. Sample date(s) and time(s) are listed as provided by the client. In regard to the Air Filters, no flow rate information was provided by the client. Turnaround time was set at 28 calendar days.

ANALYTICAL METHODS

Pu-239/240 analysis was performed using **PALA-RAD-026, "Americium, Plutonium and Uranium in Water, Soil and Vegetation Matrices by Sequential Separation Using Eichrom Stabilized Chemistry Resin (with Vacuum Box System Option) (Eichrom ACW-02 & Eichrom ACW-03)"**.

Co-60, Cs-137, Ra-226 analyses were performed using **PALA-RAD-007, "Modified Gamma Emitting Radionuclides in Soil, Air, and Biota Matrices (EPA 901.1 Mod, SM 7120B, & HASL-300 Ga-01-R)"**.

Ra-226 analysis was performed using **PALA-RAD-008, "Alpha Emitting Radium Isotopes (EPA 903.0, EPA 9315, SM 7500-Ra C, SM 7500-Ra C)"**.

Sr-90 analysis was performed using **PALA-RAD-032, "Strontium 89, 90 and Total Strontium in Water, Soil and Vegetation Matrices by Eichrom Resin Separation (Eichrom SRW01, EPA 905.0, HASL 300 Sr-01-RC)"**.

ANALYTICAL RESULTS

Batch ARS1-B23-00001: The Method Blank is greater than the MDC for Ra-226; all positive detects for Ra-226 in this analytical batch are qualified with a 'B'.

Fraction 001 has elevated MDC for Pu-239/240 with ACT of -9.286E-8 uCi/filter, MDC of 1.488E-7 uCi/filter and CRDL of 4.8E-08 uCi/filter.
Fraction 001 has elevated MDC for Ra-226 with ACT of -3.789E-6 uCi/filter, MDC of 9.929E-6 uCi/filter and CRDL of 4.4E-06 uCi/filter.
Fraction 002 has elevated MDC for Pu-239/240 with ACT of -3.041E-8 uCi/filter, MDC of 1.268E-7 uCi/filter and CRDL of 4.8E-08 uCi/filter.
Fraction 002 has elevated MDC for Ra-226 with ACT of -7.946E-5 uCi/filter, MDC of 2.992E-5 uCi/filter and CRDL of 4.4E-06 uCi/filter.
Fraction 003 has elevated MDC for Pu-239/240 with ACT of -5.326E-8 uCi/filter, MDC of 9.464E-8 uCi/filter and CRDL of 4.8E-08 uCi/filter.
Fraction 003 has elevated MDC for Ra-226 with ACT of 6.459E-6 uCi/filter, MDC of 9.027E-6 uCi/filter and CRDL of 4.4E-06 uCi/filter.
Fraction 004 has elevated MDC for Pu-239/240 with ACT of -4.922E-9 uCi/filter, MDC of 8.576E-8 uCi/filter and CRDL of 4.8E-08 uCi/filter.

Fraction 004 has elevated MDC for Ra-226 with ACT of 3.616E-6 uCi/filter, MDC of 8.626E-6 uCi/filter and CRDL of 4.4E-06 uCi/filter.

ARS1-B23-00001: The Method Blank had a detect for Ra-226. All client fractions either had activities over 5x the blank activity or were non-detects for Ra-226, therefore the activity in the Method Blank did not contribute to the concentration in client samples. All positive detects for Ra-226 in this analytical batch are qualified with a “B”.

ARS1-B23-00052: ROI's adjusted to better fit the peaks of interest.

Notes (Case Narrative)

Definitions:

CRDL	Contract Required Detection Limit
CSU	Combined Standard Uncertainty
DLC	Decision Level Concentration (ANSI N42.23)
DO	Duplicate Original
DUP	Sample Duplicate
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
LOD	Limit of Detection
LOQ	Limit of Quantitation
MBL	Method Blank
MCL	Maximum Contaminant Level
MDA	Minimum Detectable Activity
MDL	Method Detection Limit
MS/MSD	Matrix Spike/Matrix Spike Duplicate
N/A	Not Applicable
NC	Not Calculated
NP	Not Provided
NR	Not Referenced
PQL	Practical Quantitation Limit

Data Qualifiers:

B	The result of both the method blank and the target sample are above the MDL.
D	Sample analysis accomplished through dilution.
J	The reported result is an estimated value above the LOD but below the LOQ, or above the MDL but below the PQL.
Q	One or more quality control criteria failed.
U	Result is below the MDA, MDL, PQL, LOD, or LOQ
*	LCS/LCSD or Sample DUP fails all Duplicate criteria.
S	Spike
SC	Subcontracted out to another qualified laboratory
H	Holding time exceeded
E	Exceeds MCL
**	Reporting Limit is higher than MCL; Target cannot be detected
ǂ	Method/Matrix/Analyte not accredited for this certification

Radiochemistry Comments:

1.0) All MDA/MDC values are calculated on a sample specific basis.

2.0) Data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.

3.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than the actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.

4.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228 (Gamma Spectroscopy only).

5.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234 (Gamma Spectroscopy only).

6.0) All gamma spectroscopy was performed utilizing high purity germanium detectors (**HPGe**).

7.0) ARS makes every attempt to match sample density to calibrated density; however, in some cases, it is not practical or possible to do so and data results may be affected (Gamma Spectroscopy only).

8.0) Gamma spectroscopy results are calculated values based on the **ORTEC®** GammaVision ENV32 Analysis Engine.

9.0) DoD/DOE and ISO 17025 certifications through ANAB apply only to the following methods in **Non-Potable Water**:
Gross Alpha and Gross Beta (EPA 900.0, EPA 9310); Radium 226 (EPA 903.0, EPA 903.1, EPA 9315); Radium 228 (EPA 904.0, EPA 9320); ICP/MS (EPA 6020B); ICP-OES (EPA 6010D); Mercury CVAA (EPA 7470A); Strontium-89 (EPA 905.0, Eichrom SRW01, HASL 300 Sr-01); Strontium-90 (EPA 905.0, Eichrom SRW01, HASL 300 Sr-02-RC); Tritium (EPA 906.0); Enriched Tritium (ARS-040), Carbon-14 (ARS-019), Tritium/Carbon (ARS-151); Gamma Emitters (EPA 901.1, SM 7120B, HASL 300 Ga-01-R); Americium-241 (Eichrom ACW03, HASL 300 Se-03, HASL 300 Am-03); Plutonium 238, Plutonium 239/240, Plutonium-241 (Eichrom ACW03, HASL 300 Se-03, HASL 300 Pu-10); Thorium-228, Thorium 230, Thorium-232 (Eichrom ACW10); Uranium-234, Uranium-235, Uranium-238 (Eichrom ACW03, HASL 300 Se-03); Technetium-99 (Eichrom TCW02)

10.0) DoD/DOE and ISO 17025 certifications through ANAB apply only to the following methods in **Solid and Chemical Materials**:
Gross Alpha and Gross Beta (EPA 900.0 Mod, EPA 9310); ICP/MS (EPA 6020B); ICP-OES (EPA 6010D); Mercury CVAA (EPA 7471B); Strontium-89 (EPA 905.0 Mod, Eichrom SRW01, HASL 300 Sr-01); Strontium-90 (EPA 905.0 Mod, Eichrom SRW01, HASL 300 Sr-02); Tritium (EPA 906.0 Mod); Gamma Emitters (EPA 901.1, HASL 300 Ga-01-R); Americium-241 (Eichrom ACW03, HASL 300 Se-03, HASL 300 Am-01-RC); Plutonium 238, Plutonium 239/240, Plutonium-241 (Eichrom ACW03, HASL 300 Se-03, HASL 300 Pu-02-RC, HASL 300 Pu-03-RC); Thorium-228, Thorium 230, Thorium-232 (Eichrom ACW10); Uranium-234, Uranium-235, Uranium-238 (Eichrom ACW03, HASL 300 Se-03, HASL 300 U-02, HASL 300 U-04); Technetium-99 (Eichrom TCS01)

11.0) DoD/DOE and ISO 17025 certifications through ANAB apply only to the following methods in **Air and Emissions**:
Gross Alpha and Gross Beta (EPA 900.0 Mod, EPA 9310); Strontium-89 (Eichrom SRW01, HASL 300 Sr-01-RC); Strontium-90 (Eichrom SRW01, HASL 300 Sr-02-RC); Gamma Emitters (EPA 901.1, HASL 300 Ga-01-R); Americium-241 (Eichrom ACW03, HASL 300 Se-03); Plutonium 238, Plutonium 239/240, Plutonium-241 (Eichrom ACW03, HASL 300 Se-03); Thorium-228, Thorium 230, Thorium-232 (Eichrom ACW10); Uranium-234, Uranium-235, Uranium-238 (Eichrom ACW03, HASL 300 Se-03); Technetium-99 (Eichrom TCW02, Eichrom TCS01)

General Comments:

1.0 Modified analysis procedures are procedures that are modified to meet certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix. Modified analyses are indicated by the subsequent addition of "M" or "Mod" to the procedure number (i.e. 901.1M, 901.1 Mod).

2.0 All NIOSH method results are reported without blank corrections applied.

3.0 Basis: "As Received" = analyzed as received from client; "Dry" = dried prior to being analyzed; "Dry Weight Corrected" = analyzed as received; result corrected for percent moisture.

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ARS Aleut Analytical, LLC
Analytical Reports

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Analytical Results

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ARS Sample Delivery Group: ARS1-22-02759
Client Sample ID: FBB-121222
Sample Collection Date: 12/14/22 8:00
Sample Matrix: Air Filter
Percent Solids: N/A

Request or PO Number: J310000900
ARS Sample ID: ARS1-22-02759-001
Date Received: 12/20/22
Report Date: 01/20/23

Radiochemistry

Analysis Method: Eichrom ACW03

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Pu-239/240	-9.286E-8	6.404E-8	1.488E-7	6.600E-8	4.8E-08	U	uCi/filter	01/19/23 20:41	[redacted]	54.9%

Analysis Method: EPA 901.1M

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Co-60	-3.275E-7	8.763E-7	8.955E-7	4.478E-7	0.00024	U	uCi/filter	12/27/22 14:16	[redacted]	N/A
Cs-137	2.394E-8	6.708E-7	7.320E-7	3.660E-7	0.00048	U	uCi/filter	12/27/22 14:16	[redacted]	N/A
Ra-226	-3.789E-6	7.894E-6	9.929E-6	4.965E-6	4.4E-06	U	uCi/filter	12/27/22 14:16	[redacted]	N/A

Analysis Method: EPA 9315

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	9.992E-7	6.255E-7	7.163E-7	2.637E-7	4.4E-06	B	uCi/filter	01/11/23 12:35	[redacted]	97.1%

Analysis Method: Eichrom SRW01

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
SR-90	-1.373E-6	2.162E-6	4.154E-6	1.921E-6	2.4E-05	U	uCi/filter	01/12/23 12:26	[redacted]	96.1%

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ARS Sample Delivery Group: ARS1-22-02759
Client Sample ID: MSB01-121222
Sample Collection Date: 12/15/22 14:59
Sample Matrix: Air Filter
Percent Solids: N/A

Request or PO Number: J310000900
ARS Sample ID: ARS1-22-02759-002
Date Received: 12/20/22
Report Date: 01/20/23

Radiochemistry

Analysis Method: Eichrom ACW03

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Pu-239/240	-3.041E-8	6.293E-8	1.268E-7	5.654E-8	4.8E-08	U	uCi/filter	01/19/23 20:41	[redacted]	58.6%

Analysis Method: EPA 901.1M

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Co-60	7.786E-7	1.360E-6	1.388E-6	6.940E-7	0.00024	U	uCi/filter	12/22/22 14:59	[redacted]	N/A
Cs-137	6.135E-8	1.373E-6	1.552E-6	7.760E-7	0.00048	U	uCi/filter	12/22/22 14:59	[redacted]	N/A
Ra-226	-7.946E-5	3.256E-5	2.992E-5	1.496E-5	4.4E-06	U	uCi/filter	12/22/22 14:59	[redacted]	N/A

Analysis Method: EPA 9315

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	1.288E-6	7.360E-7	8.144E-7	3.069E-7	4.4E-06	B	uCi/filter	01/11/23 12:35	[redacted]	91.9%

Analysis Method: Eichrom SRW01

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
SR-90	-5.705E-7	2.165E-6	4.016E-6	1.861E-6	2.4E-05	U	uCi/filter	01/12/23 12:26	[redacted]	98.6%

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ARS Sample Delivery Group: ARS1-22-02759
Client Sample ID: MSB02-121222
Sample Collection Date: 12/15/22 14:58
Sample Matrix: Air Filter
Percent Solids: N/A

Request or PO Number: J310000900
ARS Sample ID: ARS1-22-02759-003
Date Received: 12/20/22
Report Date: 01/20/23

Radiochemistry

Analysis Method: Eichrom ACW03

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Pu-239/240	-5.326E-8	3.944E-8	9.464E-8	4.130E-8	4.8E-08	U	uCi/filter	01/19/23 20:41	[redacted]	70.7%

Analysis Method: EPA 901.1M

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Co-60	-1.188E-7	8.445E-7	8.699E-7	4.350E-7	0.00024	U	uCi/filter	12/22/22 15:01	[redacted]	N/A
Cs-137	3.988E-8	6.935E-7	7.556E-7	3.778E-7	0.00048	U	uCi/filter	12/22/22 15:01	[redacted]	N/A
Ra-226	6.459E-6	7.233E-6	9.027E-6	4.514E-6	4.4E-06	U	uCi/filter	12/22/22 15:01	[redacted]	N/A

Analysis Method: EPA 9315

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	8.489E-7	6.516E-7	8.594E-7	3.219E-7	4.4E-06	U	uCi/filter	01/11/23 12:35	[redacted]	88.0%

Analysis Method: Eichrom SRW01

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
SR-90	-2.205E-8	2.096E-6	3.821E-6	1.761E-6	2.4E-05	U	uCi/filter	01/12/23 12:26	[redacted]	96.9%

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ARS Sample Delivery Group: ARS1-22-02759
Client Sample ID: MSB113A-121222
Sample Collection Date: 12/15/22 15:12
Sample Matrix: Air Filter
Percent Solids: N/A

Request or PO Number: J310000900
ARS Sample ID: ARS1-22-02759-004
Date Received: 12/20/22
Report Date: 01/20/23

Radiochemistry

Analysis Method: Eichrom ACW03

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Pu-239/240	-4.922E-9	4.205E-8	8.576E-8	3.621E-8	4.8E-08	U	uCi/filter	01/19/23 20:41	[redacted]	65.2%

Analysis Method: EPA 901.1M

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Co-60	4.523E-7	7.147E-7	7.281E-7	3.641E-7	0.00024	U	uCi/filter	12/29/22 14:19	[redacted]	N/A
Cs-137	1.676E-7	6.558E-7	7.123E-7	3.562E-7	0.00048	U	uCi/filter	12/29/22 14:19	[redacted]	N/A
Ra-226	3.616E-6	6.854E-6	8.626E-6	4.313E-6	4.4E-06	U	uCi/filter	12/29/22 14:19	[redacted]	N/A

Analysis Method: EPA 9315

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	1.619E-6	8.089E-7	7.797E-7	2.871E-7	4.4E-06	B	uCi/filter	01/11/23 12:35	[redacted]	96.3%

Analysis Method: Eichrom SRW01

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
SR-90	1.511E-6	2.130E-6	3.589E-6	1.660E-6	2.4E-05	U	uCi/filter	01/12/23 12:26	[redacted]	101%

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QC Summary

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QC Sample Results

Analytical Batch: ARS1-B22-01989
Lab Sample ID: ARS1-B22-01989-01
Method: EPA 901.1M

Sample Type: LCS
Matrix: Air Filter
Analysis Date: 12/21/22 13:52

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits
Am-241	33.065	31.641		uCi/filter	95.7	75 - 125
Co-60	20.928	21.464		uCi/filter	102.6	75 - 125
Cs-137	12.996	13.318		uCi/filter	102.5	75 - 125

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QC Sample Results

Analytical Batch: ARS1-B22-01989
Lab Sample ID: ARS1-B22-01989-02
Method: EPA 901.1M

Sample Type: LCSD
Matrix: Air Filter
Analysis Date: 12/21/22 14:07

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits	RPD	RPD Limit	DER	DER Limit
Am-241	33.065	31.566		uCi/filter	95.5	75 - 125	0.2	25	0.042	3
Co-60	20.928	21.785		uCi/filter	104.1	75 - 125	1.5	25	0.359	3
Cs-137	12.996	13.362		uCi/filter	102.8	75 - 125	0.3	25	0.086	3

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QC Sample Results

Analytical Batch: ARS1-B22-01989
Lab Sample ID: ARS1-B22-01989-03
Method: EPA 901.1M

Sample Type: MBL
Matrix: Air Filter
Analysis Date: 12/21/22 14:12

Analyte	Analysis Result	CSU +/- 2 s	MDC	DLC	Qual	Analysis Units
Co-60	1.375E-4	0.002	0.002	8.650E-4	U	uCi/filter
Cs-137	-1.193E-4	0.001	0.002	8.000E-4	U	uCi/filter
Ra-226	-0.071	0.024	0.031	0.015	U	uCi/filter

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QC Association Summary

ARS Sample Delivery Group: ARS1-22-02759 **Analytical Batch:** ARS1-B22-01989

Analysis: Gamma Spec (Short) in (Air Filters, Smears [AF])

Batch Sample ID	Lab Sample ID	Client Sample ID	Matrix	Method	Prep Method
ARS1-B22-01989-01		Lab Control Sample	Air Filter	EPA 901.1M	N/A
ARS1-B22-01989-02		Lab Control Sample Duplicate	Air Filter	EPA 901.1M	N/A
ARS1-B22-01989-03		Method Blank	Air Filter	EPA 901.1M	N/A
ARS1-B22-01989-07	ARS1-22-02759-001	FBB-121222	Air Filter	EPA 901.1M	N/A
ARS1-B22-01989-08	ARS1-22-02759-002	MSB01-121222	Air Filter	EPA 901.1M	N/A
ARS1-B22-01989-09	ARS1-22-02759-003	MSB02-121222	Air Filter	EPA 901.1M	N/A
ARS1-B22-01989-10	ARS1-22-02759-004	MSB113A-121222	Air Filter	EPA 901.1M	N/A

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QC Sample Results

Analytical Batch: ARS1-B23-00001
Lab Sample ID: ARS1-B23-00001-01
Method: EPA 9315

Sample Type: LCS
Matrix: Air Filter
Analysis Date: 01/11/23 12:35

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits
Ra-226	2.710E-5	2.398E-5		uCi/filter	88.5	75 - 125

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QC Sample Results

Analytical Batch: ARS1-B23-00001
Lab Sample ID: ARS1-B23-00001-02
Method: EPA 9315

Sample Type: LCSD
Matrix: Air Filter
Analysis Date: 01/11/23 12:35

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits	RPD	RPD Limit	DER	DER Limit
Ra-226	2.718E-5	2.055E-5		uCi/filter	75.6	75 - 125	15.4	25	1.318	3

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QC Sample Results

Analytical Batch: ARS1-B23-00001
Lab Sample ID: ARS1-B23-00001-03
Method: EPA 9315

Sample Type: MBL
Matrix: Air Filter
Analysis Date: 01/11/23 12:35

Analyte	Analysis Result	CSU +/- 2 s	MDC	DLC	Qual	Analysis Units
Ra-226	9.222E-8	5.955E-8	7.173E-8	2.711E-8		uCi/filter

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QC Association Summary

ARS Sample Delivery Group: ARS1-22-02759

Analytical Batch: ARS1-B23-00001

Analysis: Radium-226 in Air Filter

Batch Sample ID	Lab Sample ID	Client Sample ID	Matrix	Method	Prep Method
ARS1-B23-00001-01		Lab Control Sample	Air Filter	EPA 9315	N/A
ARS1-B23-00001-02		Lab Control Sample Duplicate	Air Filter	EPA 9315	N/A
ARS1-B23-00001-03		Method Blank	Air Filter	EPA 9315	N/A
ARS1-B23-00001-07	ARS1-22-02759-001	FBB-121222	Air Filter	EPA 9315	N/A
ARS1-B23-00001-08	ARS1-22-02759-002	MSB01-121222	Air Filter	EPA 9315	N/A
ARS1-B23-00001-09	ARS1-22-02759-003	MSB02-121222	Air Filter	EPA 9315	N/A
ARS1-B23-00001-10	ARS1-22-02759-004	MSB113A-121222	Air Filter	EPA 9315	N/A

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QC Sample Results

Analytical Batch: ARS1-B23-00052
Lab Sample ID: ARS1-B23-00052-01
Method: Eichrom ACW03

Sample Type: LCS
Matrix: Air Filter
Analysis Date: 01/19/23 20:41

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits
Pu-239/240	7.705E-6	7.897E-6		uCi/filter	102.5	75 - 125

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QC Sample Results

Analytical Batch: ARS1-B23-00052
Lab Sample ID: ARS1-B23-00052-02
Method: Eichrom ACW03

Sample Type: LCSD
Matrix: Air Filter
Analysis Date: 01/19/23 20:41

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits	RPD	RPD Limit	DER	DER Limit
Pu-239/240	7.698E-6	7.750E-6		uCi/filter	100.7	75 - 125	1.9	25	0.207	3

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QC Sample Results

Analytical Batch: ARS1-B23-00052
Lab Sample ID: ARS1-B23-00052-03
Method: Eichrom ACW03

Sample Type: MBL
Matrix: Air Filter
Analysis Date: 01/19/23 20:41

Analyte	Analysis Result	CSU +/- 2 s	MDC	DLC	Qual	Analysis Units
Pu-238	-1.356E-8	8.196E-8	1.595E-7	7.056E-8	U	uCi/filter
Pu-239/240	6.781E-9	4.409E-8	8.892E-8	3.527E-8	U	uCi/filter

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QC Association Summary

ARS Sample Delivery Group: ARS1-22-02759

Analytical Batch: ARS1-B23-00052

Analysis: Plutonium (239, 240Pu) in (Air Filters, Smears, Leak Test [AF, SM, LT])

Batch Sample ID	Lab Sample ID	Client Sample ID	Matrix	Method	Prep Method
ARS1-B23-00052-01		Lab Control Sample	Air Filter	Eichrom ACW03	N/A
ARS1-B23-00052-02		Lab Control Sample Duplicate	Air Filter	Eichrom ACW03	N/A
ARS1-B23-00052-03		Method Blank	Air Filter	Eichrom ACW03	N/A
ARS1-B23-00052-04	ARS1-22-02759-001	FBB-121222	Air Filter	Eichrom ACW03	N/A
ARS1-B23-00052-05	ARS1-22-02759-002	MSB01-121222	Air Filter	Eichrom ACW03	N/A
ARS1-B23-00052-06	ARS1-22-02759-003	MSB02-121222	Air Filter	Eichrom ACW03	N/A
ARS1-B23-00052-07	ARS1-22-02759-004	MSB113A-121222	Air Filter	Eichrom ACW03	N/A

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QC Sample Results

Analytical Batch: ARS1-B23-00054
Lab Sample ID: ARS1-B23-00054-01
Method: Eichrom SRW01

Sample Type: LCS
Matrix: Air Filter
Analysis Date: 01/12/23 12:26

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits
SR-90	2.006E-5	2.115E-5		uCi/filter	105.4	75 - 125

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QC Sample Results

Analytical Batch: ARS1-B23-00054
Lab Sample ID: ARS1-B23-00054-02
Method: Eichrom SRW01

Sample Type: LCSD
Matrix: Air Filter
Analysis Date: 01/12/23 12:26

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits	RPD	RPD Limit	DER	DER Limit
SR-90	2.006E-5	2.055E-5		uCi/filter	102.4	75 - 125	2.9	25	0.262	3

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QC Sample Results

Analytical Batch: ARS1-B23-00054
Lab Sample ID: ARS1-B23-00054-03
Method: Eichrom SRW01

Sample Type: MBL
Matrix: Air Filter
Analysis Date: 01/12/23 12:26

Analyte	Analysis Result	CSU +/- 2 s	MDC	DLC	Qual	Analysis Units
SR-90	2.430E-7	2.259E-6	4.070E-6	1.875E-6	U	uCi/filter

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QC Association Summary

ARS Sample Delivery Group: ARS1-22-02759

Analytical Batch: ARS1-B23-00054

Analysis: Strontium-90 in (Air Filters, Smears [AF])

Batch Sample ID	Lab Sample ID	Client Sample ID	Matrix	Method	Prep Method
ARS1-B23-00054-01		Lab Control Sample	Air Filter	Eichrom SRW01	N/A
ARS1-B23-00054-02		Lab Control Sample Duplicate	Air Filter	Eichrom SRW01	N/A
ARS1-B23-00054-03		Method Blank	Air Filter	Eichrom SRW01	N/A
ARS1-B23-00054-07	ARS1-22-02759-001	FBB-121222	Air Filter	Eichrom SRW01	N/A
ARS1-B23-00054-08	ARS1-22-02759-002	MSB01-121222	Air Filter	Eichrom SRW01	N/A
ARS1-B23-00054-09	ARS1-22-02759-003	MSB02-121222	Air Filter	Eichrom SRW01	N/A
ARS1-B23-00054-10	ARS1-22-02759-004	MSB113A-121222	Air Filter	Eichrom SRW01	N/A

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Batch QC

QC Results per Analytical Batch

Analytical Batch	**ARS1-B22-01989**
SDG	**ARS1-22-02759**
Analysis	**Gamma Spec (Short) in (Air Filters, Smears [AF])**
Method	**EPA 901.1M**
Analysis Code	**GAM-A-AF**
Report Units	**uCi/filter**

Acceptable QC Performance Ranges

QC Sample Type	Performance Items and Ranges		
Laboratory Control Sample	**Recovery (%):**	**> 75**	**< 125**
Matrix Spike	**Recovery (%):**	**> 60**	**< 140**
Duplicate	**Duplicate Error Ratio (DER):**		**< 3**
	Relative Percent Difference (RPD %):		**≤ 25**

Laboratory Control Sample

			Analysis Date	12/21/22 13:52	Analysis Technician	[redacted]	
Analysis Batch Sample ID	**QC Type**	**Analyte**	**Results**	**CSU (2s)**	**Expected Value**	**LCS Rec (%)**	**MDC**
ARS1-B22-01989-01	**LCS**	AM-241	31.641	2.458	33.065	95.7	0.120
ARS1-B22-01989-01	**LCS**	CO-60	21.464	1.320	20.928	102.6	0.410
ARS1-B22-01989-01	**LCS**	CS-137	13.318	0.709	12.996	102.5	0.066

Duplicate RER/DER/RPD

		Analysis Date	12/21/22 14:07	Analysis Technician	[redacted]	
Analyte	**Results LCS**	**CSU LCS (2s)**	**Results LCSD**	**CSU LCSD (2s)**	**DER**	**RPD**
AM-241	31.641	2.458	31.566	2.452	0.042	0.2
CO-60	21.464	1.320	21.785	1.153	0.359	1.5
CS-137	13.318	0.709	13.362	0.712	0.086	0.3

Method Blank

		Analysis Date	12/21/22 14:12	Analysis Technician	[redacted]	
Analysis Batch Sample ID	**QC Type**	**Analyte**	**Results**	**CSU (2s)**	**MDC**	**Qual**
ARS1-B22-01989-03	**MBL**	CO-60	1.375E-4	0.002	0.002	U
ARS1-B22-01989-03	**MBL**	CS-137	-1.193E-4	0.001	0.002	U
ARS1-B22-01989-03	**MBL**	RA-226	-0.071	0.024	0.031	U

QC Results per Analytical Batch

Analytical Batch	**ARS1-B23-00001**
SDG	**ARS1-22-02759**
Analysis	**Radium-226 in Air Filter**
Method	**EPA 9315**
Analysis Code	**GPC-RA226-AF**
Report Units	**uCi/filter**

Acceptable QC Performance Ranges

QC Sample Type	Performance Items and Ranges		
Laboratory Control Sample	**Recovery (%):**	**> 75**	**< 125**
Matrix Spike	**Recovery (%):**	**> 60**	**< 140**
Duplicate	**Duplicate Error Ratio (DER):**		**< 3**
	Relative Percent Difference (RPD %):		**≤ 25**

Laboratory Control Sample

Analysis Date	01/11/23 12:35	Analysis Technician	[redacted]

Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	Expected Value	LCS Rec (%)	MDC
ARS1-B23-00001-01	**LCS**	RA-226	2.398E-5	3.872E-6	2.710E-5	88.5	7.315E-8

Duplicate RER/DER/RPD

Analysis Date	01/11/23 12:35	Analysis Technician	[redacted]

Analyte	Results LCS	CSU LCS (2s)	Results LCSD	CSU LCSD (2s)	DER	RPD
RA-226	2.398E-5	3.872E-6	2.055E-5	3.326E-6	1.318	15.4

Method Blank

Analysis Date	01/11/23 12:35	Analysis Technician	[redacted]

Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	MDC	Qual
ARS1-B23-00001-03	**MBL**	RA-226	9.222E-8	5.955E-8	7.173E-8	

QC Results per Analytical Batch

Analytical Batch	**ARS1-B23-00052**
SDG	**ARS1-22-02759**
Analysis	**Plutonium (239, 240Pu) in (Air Filters, Smears, Leak Test [AF, SM, LT])**
Method	**Eichrom ACW03**
Analysis Code	**ASP-PU239-AF**
Report Units	**uCi/filter**

Acceptable QC Performance Ranges

QC Sample Type	Performance Items and Ranges		
Laboratory Control Sample	**Recovery (%):**	**> 75**	**< 125**
Matrix Spike	**Recovery (%):**	**> 60**	**< 140**
Duplicate	**Duplicate Error Ratio (DER):**		**< 3**
	Relative Percent Difference (RPD %):		**≤ 25**

Laboratory Control Sample

			Analysis Date	01/19/23 20:41	**Analysis Technician**	[redacted]	
Analysis Batch Sample ID	**QC Type**	**Analyte**	**Results**	**CSU (2s)**	**Expected Value**	**LCS Rec (%)**	**MDC**
ARS1-B23-00052-01	**LCS**	PU-239/240	7.897E-6	9.924E-7	7.705E-6	102.5	5.014E-8

Duplicate RER/DER/RPD

			Analysis Date	01/19/23 20:41	**Analysis Technician**	[redacted]	
Analyte	**Results LCS**	**CSU LCS (2s)**	**Results LCSD**	**CSU LCSD (2s)**	**DER**	**RPD**	
PU-239/240	7.897E-6	9.924E-7	7.750E-6	9.748E-7	0.207	1.9	

Method Blank

			Analysis Date	01/19/23 20:41	**Analysis Technician**	[redacted]	
Analysis Batch Sample ID	**QC Type**	**Analyte**	**Results**	**CSU (2s)**	**MDC**	**Qual**	
ARS1-B23-00052-03	**MBL**	PU-238	-1.356E-8	8.196E-8	1.595E-7	U	
ARS1-B23-00052-03	**MBL**	PU-239/240	6.781E-9	4.409E-8	8.892E-8	U	

QC Results per Analytical Batch

Analytical Batch	**ARS1-B23-00054**
SDG	**ARS1-22-02759**
Analysis	**Strontium-90 in (Air Filters, Smears [AF])**
Method	**Eichrom SRW01**
Analysis Code	**GPC-SR90-AF**
Report Units	**uCi/filter**

Acceptable QC Performance Ranges

QC Sample Type	Performance Items and Ranges		
Laboratory Control Sample	**Recovery (%):**	**> 75**	**< 125**
Matrix Spike	**Recovery (%):**	**> 60**	**< 140**
Duplicate	**Duplicate Error Ratio (DER):**		**< 3**
	Relative Percent Difference (RPD %):		**≤ 25**

Laboratory Control Sample

Analysis Date	01/12/23 12:26	Analysis Technician	[redacted]

Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	Expected Value	LCS Rec (%)	MDC
ARS1-B23-00054-01	**LCS**	SR-90	2.115E-5	3.229E-6	2.006E-5	105.4	3.686E-7

Duplicate RER/DER/RPD

Analysis Date	01/12/23 12:26	Analysis Technician	[redacted]

Analyte	Results LCS	CSU LCS (2s)	Results LCSD	CSU LCSD (2s)	DER	RPD
SR-90	2.115E-5	3.229E-6	2.055E-5	3.153E-6	0.262	2.9

Method Blank

Analysis Date	01/12/23 12:26	Analysis Technician	[redacted]

Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	MDC	Qual
ARS1-B23-00054-03	**MBL**	SR-90	2.430E-7	2.259E-6	4.070E-6	U

2609 North River Road • Port Allen, Louisiana 70767
(225) 228-1394

ARS Aleut Analytical, LLC
Analytical Reports

for

Gilbane Federal

Sample Management Records

Revised
12-20-22/1403

CHAIN-OF-CUSTODY RECORD

Gilbane Federal
[redacted]
2300 Clayton Road, Suite 1050, Concord, CA 94520
[redacted]

COC # MC121622RADB

Gilbane

Project Name: Hunters Point Shipyard, Parcel B Removal Site Evaluation	Laboratory: ARS Aleut Analytical (AAA), Port Allen, LA	Event: **Parcel B Air Monitoring RAD**
Project Number: J310000900	POC: [redacted]	
WBS Code: J310000900	Ship to: 2609 North River Road, Port Allen, LA 70767-3469	

Comments:

RC0240: Pu-239/240 only
SM 12/20/22

Equipment:

Code	Matrix
A	Air
AQ	Air Quality Control Matrix

Code	Container/Preservative
1	1x Filter, None
5	1x 1-L Plastic, HNO3, pH < 2
15	1x 250-mL Plastic, 4 Degrees C

Event: Parcel B Air Monitoring RAD

	Sample ID	Matrix	Date	Time	Samp Init.	Analytical Test Method: E901.1 - Gamma Spec Air	RC0240 - Pu Tot Isotopes	SR02RC - Sr90	SW9315 - Ra226	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
						15	15	5	1						
1	~~FB-121222~~ FBB-121222	AQ	12/14/2022	0800	[redacted]	X	X	X	X	FIELDQC	FB1	0.00	0.00	1	
2	MSB01-121222	A	12/15/2022	1459		X	X	X	X	MSB01	N1	0.00	0.00	1	
3	MSB02-121222	A	12/15/2022	1458		X	X	X	X	MSB02	N1	0.00	0.00	1	
4	MSB113A-121222	A	12/15/2022	1512		X	X	X	X	MSB113A	N1	0.00	0.00	1	
5															
6															
7															
8															[redacted] 12/19

Turnaround Time: 28 days

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time	Shipping Date / Carrier / Airbill Number
[redacted]	~~12/19/22~~ 12/19/22	1200	Ed Gx	~~12/19/22~~ 12/19/22	1200	Shipping Date: ~~12/15/2022~~ 12/19/22 / FEDEX / 7707 3601 0717
	KT 12/19/22			12/19/22		
			[redacted]	12/20/22	1115	**Received by Laboratory:** *(Signature, Date, Time)* **& condition**

GES Navy_COC_Field
December 09, 2022

SDG Report - Samples and Containers

SDG Specific Data							
SDG	ARS1-22-02759			TAT Days	28 Calendar Days	Project Type	Environmental
Sample Count	4	Rpt Level	4	Date Received	12/20/2022	COC Number	MC121622RADB
Client	Gilbane Federal			Discrepancy Resol	N/A	PO Number	
Client Code	1138			Client Deadline	01/20/2023	Job Number	J310000900
Profile Number	PN-01411					Job Location	Hunters Point Shipyard, Parcel B Removal Site Evaluation
Comment							

Samples and Containers Checked In Thus Far

FR	Name	Matrix	Start Date	End Date	Disp	Hold	Arch	Storage	Comments
001	FBB-121222	Air Filter	12/14/2022 07:59	12/14/2022 08:00	H	30	10	PrePrep	
	IC_ID	**Cnt**	**Container Type**	**AF Volume (L)**	**AF Units**		**Rate**	**Mins**	**Comments**
	428680	1	HDP Container	1	LPM			1	
			Mid-Sample Date:	12/14/2022 07:59	AF Volume (CuM):		0.001		
002	MSB01-121222	Air Filter	12/15/2022 14:58	12/15/2022 14:59	H	30	10	PrePrep	
	IC_ID	**Cnt**	**Container Type**	**AF Volume (L)**	**AF Units**		**Rate**	**Mins**	**Comments**
	428681	1	HDP Container	1	LPM			1	
			Mid-Sample Date:	12/15/2022 14:58	AF Volume (CuM):		0.001		
003	MSB02-121222	Air Filter	12/15/2022 14:57	12/15/2022 14:58	H	30	10	PrePrep	
	IC_ID	**Cnt**	**Container Type**	**AF Volume (L)**	**AF Units**		**Rate**	**Mins**	**Comments**
	428682	1	HDP Container	1	LPM			1	
			Mid-Sample Date:	12/15/2022 14:57	AF Volume (CuM):		0.001		
004	MSB113A-121222	Air Filter	12/15/2022 15:11	12/15/2022 15:12	H	30	10	PrePrep	
	IC_ID	**Cnt**	**Container Type**	**AF Volume (L)**	**AF Units**		**Rate**	**Mins**	**Comments**
	428683	1	HDP Container	1	LPM			1	
			Mid-Sample Date:	12/15/2022 15:11	AF Volume (CuM):		0.001		

SDG Report - Analysis Assignments

SDG	ARS1-22-02759	Sample Count	4
Client	Gilbane Federal	Analysis Count	4-16

Sample Count Totals Per Analysis

Analysis Code	Analysis Description	In/Out	Samples Count
ASP-PU239-AF	Plutonium (239, 240Pu) in (Air Filters, Smears, Leak Test [AF, SM, LT])	I	4
GAM-A-AF	Gamma Spec (Short) in (Air Filters, Smears [AF])	I	4
GPC-RA226-AF	Radium-226 in Air Filter	I	4
GPC-SR90-AF	Strontium-90 in (Air Filters, Smears [AF])	I	4

Analyses Assigned Per Fraction

Fraction	Analysis Code	X = Assigned
001	ASP-PU239-AF	X
001	GAM-A-AF	X
001	GPC-RA226-AF	X
001	GPC-SR90-AF	X
002	ASP-PU239-AF	X
002	GAM-A-AF	X
002	GPC-RA226-AF	X
002	GPC-SR90-AF	X
003	ASP-PU239-AF	X
003	GAM-A-AF	X
003	GPC-RA226-AF	X
003	GPC-SR90-AF	X
004	ASP-PU239-AF	X
004	GAM-A-AF	X
004	GPC-RA226-AF	X
004	GPC-SR90-AF	X

DQO Report for SDG

ARS1-22-02759

Client Name: Gilbane Federal Profile Name: Parcel B Rad Sampling Report Level: 4

Analysis Code	Prep Type	Units	Aliquot	Prep Code	Procedure	Count Time					
ASP-PU239-AF	WRAD	uCi	filter	N/A	PALA-RAD-026						
	Analyte			**RDL**	**LCS LL/UL**	**MS LL/UL**	**RadY LL/UL**	**GravY LL/UL**	**RER**	**RPD**	**Surr LL/UL**
	Pu-239/240 (15117-48-3)			4.8E-08 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
GAM-A-AF	WGAM	uCi	filter	N/A	PALA-RAD-007						
	Analyte			**RDL**	**LCS LL/UL**	**MS LL/UL**	**RadY LL/UL**	**GravY LL/UL**	**RER**	**RPD**	**Surr LL/UL**
	Co-60 (10198-40-0)			0.00024 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Cs-137 (10045-97-3)			0.00048 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Ra-226 (13982-63-3)			4.4E-06 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
GPC-RA226-AF	WRAD	uCi	filter		PALA-RAD-008						
	Analyte			**RDL**	**LCS LL/UL**	**MS LL/UL**	**RadY LL/UL**	**GravY LL/UL**	**RER**	**RPD**	**Surr LL/UL**
	Ra-226 (13982-63-3)			4.4E-06 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
GPC-SR90-AF	WRAD	uCi	filter	N/A	PALA-RAD-032						
	Analyte			**RDL**	**LCS LL/UL**	**MS LL/UL**	**RadY LL/UL**	**GravY LL/UL**	**RER**	**RPD**	**Surr LL/UL**
	Sr-90 (10098-97-2)			2.4E-05 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A

Analysis Code	Fraction	Units	Aliquot	Conductivity	Analyte Count
ASP-PU239-AF	001	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Pu-239/240	
ASP-PU239-AF	002	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Pu-239/240	

ASP-PU239-AF	003	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Pu-239/240	
ASP-PU239-AF	004	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Pu-239/240	
GAM-A-AF	001	uCi	filter	N/A	3
		Group		**Analyte**	
		Parcel B Rad Sampling		Cs-137	
		Parcel B Rad Sampling		Co-60	
		Parcel B Rad Sampling		Ra-226	
GAM-A-AF	002	uCi	filter	N/A	3
		Group		**Analyte**	
		Parcel B Rad Sampling		Cs-137	
		Parcel B Rad Sampling		Co-60	
		Parcel B Rad Sampling		Ra-226	
GAM-A-AF	003	uCi	filter	N/A	3
		Group		**Analyte**	
		Parcel B Rad Sampling		Cs-137	
		Parcel B Rad Sampling		Co-60	
		Parcel B Rad Sampling		Ra-226	
GAM-A-AF	004	uCi	filter	N/A	3
		Group		**Analyte**	
		Parcel B Rad Sampling		Cs-137	
		Parcel B Rad Sampling		Co-60	
		Parcel B Rad Sampling		Ra-226	
GPC-RA226-AF	001	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Ra-226	
GPC-RA226-AF	002	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Ra-226	
GPC-RA226-AF	003	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Ra-226	

GPC-RA226-AF	004	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Ra-226	
GPC-SR90-AF	001	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Sr-90	
GPC-SR90-AF	002	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Sr-90	
GPC-SR90-AF	003	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Sr-90	
GPC-SR90-AF	004	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Sr-90	

ARS Aleut Analytical

PALA Sample Receipt Inspection Form

Client Name: Gilbane

SDG: ARS1-22-02759

Sample Custodian: [redacted] Survey Start Date: 12/20/22 Survey Start Time: 1230

Thermometer ID: E0064010085 Calibration Due Date: 2/28/23 pH Paper Lot#: NA

Exposure Rate Meter + Probe Unit ID: 2692264 Calibration Due Date: 9/15/23 Background: 4 µR/hr

Count Rate Meter + Probe Unit ID: PR287372 Calibration Due Date: 9/13/23 Background: 20 cpm

Delivery Type (circle one): Direct Lock Box (Commercial Carrier: FEDEX) Total # of ESCs: 1

*True temperature is recorded which includes any applicable correction factors.

External Shipping Container Tracking:	Exposure Rate (µR/hr) (limit <500 µR/hr)	Max External Swipe Counts (cpm)	Max Internal Swipe Counts (cpm)	ESC True Temps* (°C)	TRAX Matrix ID (circle all that apply): (See Section 4.3 of SOP)
A: 770736010717	5	30	40	NA	AQ WD WG WO WS WW SI UR SO OL BI VG WP SM (AF)
B:					
C:					
D:					
E:					
F:					

Visual Inspection: External Shipping Container

(Circle response)

Good Condition with no Leaks or Tears	(Yes)	No	
Marked Radioactive	Yes	(No)	
UN2910	Yes	(No)	
Security Seals	(Yes)	No	
If yes, intact?	(Yes)	No	N/A

Internal Shipping Container

COC's Present	(Yes)	No	
Well packaged container with no signs of leakage	(Yes)	No	

COC/Sample Inspection

(Circle response)

Sample Containers in good condition	(Yes)	No	
No spills or leaks	(Yes)	No	
Marked Radioactive	Yes	(No)	
Durable labels w/indelible ink	(Yes)	No	
COC reliquished/received correctly	(Yes)	No	
Adequate volume/filled correctly	(Yes)	No	
Hold Time sufficient for analysis	(Yes)	No	
For VOC/Radon, Head space?	Yes	No	(N/A)
If yes, <6mm?	Yes	No	(N/A)
# of containers received matches # on COC	(Yes)	No	
Samples received on ice?	Yes	(No)	
Type (circle one):	Bagged Ice	Loose Ice	Blue Ice (N/A)

Comments:

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ARS Aleut Analytical

PALA Sample Survey Form

Client Name: Gilbane

SDG: ARS1-22-02759

Sample Survey Form
PALA-SR-001-FM-02 r 0.1
Effective 08/30/2019

Pipette ID: NA Tip Lot#: NA

Disposible pipette lot#: NA

Sample ID from Client on COC or Sample	ESC Letter	Sample Container Type	Approx. Fill Level (%)	pH <2 is Acceptable: pH As Rec'd	pH <2 is Acceptable: pH Adjusted	Acid Lot # or Ind container temp (°C)	Vol. of Acid Used (mL)	Acceptance Limits <100 cpm/cm: cpm
FBB-121222	A	ziploc	25	NA	NA	NA	NA	40
MSB01-121222	↓	↓	↓	↓	↓	↓	↓	↓
MSB02-121222								
MSB1134-121222								

Sample Custodian: [redacted] Survey End Date: 12/20/22 Survey/pH End Time: 1240

pH re-check required? YES or NO

NOTE: Any metals sample acidified at sample receiving must be re-checked after a 24 hour hold.

If YES: pH re-check date/time: _____/_____ Analyst: _____ pH strip lot #: _____

Were all re-checked samples' pH < 2? YES or NO*

**If no, complete and send to Project Management:*
1. Section A of PALA-SR-001-FM-05 (24 Hour Hold pH Readjustment)
2. SR section of PALA-SR-001-FM-03 (Discrepant Sample Receipt Report).

ENVIRONMENTAL SOLUTIONS / QUALITY CONSCIOUS

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

GES
AN ASRC INDUSTRIAL COMPANY

Procedures: GES-003 / EPA 500.0M

File ID Number: MC121622RADB

Start Date 12/12/22
Stop Date 12/15/22

121222

12/16/2022 121622

Field Entry

Station	Sample ID	Date In:	Time In:	Date Out:	Time Out:	Flow Rate (LPM)	Flow Rate (LPM)	Flow volume Cu.M	Julian Date for Date Out	Total Run Time (Days)	Total Run Time (Hours)	Run Time (Minutes)	Average Flow Rate (LPM)	Initial Flow Rate (CFM)	Final Flow Rate (CFM)	Average Flow Rate (CFM)	Average Flow Rate (Cu.M/h)	Flow Rate (Cu.M/min)	Total Flow (L)
	FB-12122	12/12/22	800	12/15/22															
# MSB01	MSB01-121222	12/12/22	4:10	12/15/22	14:59	60	60	298.1	349	3.45	82.82	4969.0	60	2.11888	2.11888	2.11888	3.6	0.06	298,140
# MSB02	MSB02-121222	12/12/22	3:55	12/15/22	14:58	60	60	299.0	349	3.46	83.05	4983.0	60	2.11888	2.11888	2.11888	3.6	0.06	298,980
# MSB113A	MSB113A-12122	12/12/22	4:00	12/15/22	15:12	60	60	299.5	349	3.47	83.20	4992.0	60	2.11888	2.11888	2.11888	3.6	0.06	299,520

FORMULAS:

Number of Days = (Date Out +Time Out) minus (Date In+Time In)
Number of Minutes = # of Days X 24hr X 60min
Flow Rate (m3/h) = Flow Rate (CFM) x 60min x (12in x 2.54cm/in / 100cm/m)^3 :
Mid-Sample Date/Time = [(Date+Time Out) + (Date+Time In)] / 2
Flow Rate (Cu.M/min) = CFM X 0.0283168466 Cu.M/CF
Flow Rate (LPM) = Cu.M X 1000
Total Flow (L) = LPM X Total Minutes

2609 North River Road
Port Allen, Louisiana 70767
(225) 228-1394

ARS Aleut Analytical, LLC

Laboratory Analytical Report

ARS1-22-02819

Gilbane Federal
[redacted]
1655 Grant Street
Suite 1200
Concord, CA 94520
[redacted]

COC Number: **MC122822RADB**
Job Number: **J310000900**
Job Location: **Hunters Point Shipyard, Parcel B Removal Site Evaluation**
Project Name: **Parcel B Air Monitoring RAD**

Questions regarding this analytical report should be addressed to ARS project manager, [redacted], who can be reached by email at projectmanagers@aaa.aleutfederal.com.

I certify that the test results presented in this report (in either hardcopy or electronic file (EDD)) meet the requirements of the laboratory's certifications and other applicable contract terms and conditions. A full list of the Port Allen, LA laboratory's certifications is provided with this report. Any exceptions to the certification or contract will be noted within the case narratives presented in the report. Any subcontracted sample results will be identified within the case narratives presented in the report. In the event this report is an amendment to a previously released report, the case narrative will clearly identify the original report as well as the reason(s) for reissuance. A statement of uncertainty for each analysis is available upon request. I authorize release and issuance of this report on the date signed below.

[redacted] Laboratory Management, ARS Aleut Analytical

Signature **Date** **Title**

This report provides analytical results of the requested analysis and does not include any opinions or interpretations. ARS Aleut Analytical, LLC assumes no liability for the use or interpretation of analytical results. Results relate only to items tested. A partial reproduction of this test report is prohibited. Reproduction of this report in full requires the written approval of the laboratory.

NELAP ACCREDITED TNI LABORATORY LELAP Cert # 01949

ANAB ACCREDITED ISO/IEC 17025 DOD ELAP

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Certifications and Accreditations List

State or Accrediting Body (AB)	Certificate Number
AIHA LAP, LLC	209312
Alaska	LA01131
California	3085
ANAB DoD	ADE-1489
ANAB DOE	ADE-1489.01
Louisiana DEQ - NELAC	01949
Louisiana DHH	LA022
Nevada	LA011312023-1
New Jersey	LA009
New York	65039
Pennsylvania	68-04294-011
Texas	T104704447-22-18
Utah	LA011312022-13
Washington	C1010

For additional information related to the specific matrices, methods,and analytes recognized by each accrediting body, contact us at QA@aaa.aleutfederal.com for additional information.

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ARS Aleut Analytical, LLC
Analytical Reports

for

Gilbane Federal

Case Narrative

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PROJECT SAMPLE IDENTIFICATION CROSS-REFERENCE
TO ARS SAMPLE LABORATORY IDs

Client Sample ID	ARS Aleut Analytical Sample ID
FBB-121922	ARS1-22-02819-001
MSB01-121922	ARS1-22-02819-002
MSB02-121922	ARS1-22-02819-003
MSB113A-121922	ARS1-22-02819-004
MSB113A-121922D	ARS1-22-02819-005

Sample	Date Collected	Date Received	Analysis	Basis	Prep Date/Time	Analysis Date/Time
001	12/19/22 08:00	12/29/22	ASP-PU239-AF	As Received	01/10/23 10:30	01/19/23 20:41
001	12/19/22 08:00	12/29/22	GAM-A-AF	As Received	NA	12/30/22 13:52
001	12/19/22 08:00	12/29/22	GPC-RA226-AF	As Received	01/13/23 11:47	01/24/23 13:44
001	12/19/22 08:00	12/29/22	GPC-SR90-AF	As Received	01/17/23 08:20	01/25/23 12:10
002	12/22/22 07:16	12/29/22	ASP-PU239-AF	As Received	01/10/23 10:30	01/19/23 20:41
002	12/22/22 07:16	12/29/22	GAM-A-AF	As Received	NA	01/03/23 14:06
002	12/22/22 07:16	12/29/22	GPC-RA226-AF	As Received	01/13/23 11:47	01/24/23 13:44
002	12/22/22 07:16	12/29/22	GPC-SR90-AF	As Received	01/17/23 08:20	01/25/23 12:10
003	12/22/22 07:20	12/29/22	ASP-PU239-AF	As Received	01/10/23 10:30	01/19/23 20:41
003	12/22/22 07:20	12/29/22	GAM-A-AF	As Received	NA	01/03/23 14:08
003	12/22/22 07:20	12/29/22	GPC-RA226-AF	As Received	01/13/23 11:47	01/24/23 13:44
003	12/22/22 07:20	12/29/22	GPC-SR90-AF	As Received	01/17/23 08:20	01/25/23 12:10
004	12/22/22 07:30	12/29/22	ASP-PU239-AF	As Received	01/10/23 10:30	01/19/23 20:41
004	12/22/22 07:30	12/29/22	GAM-A-AF	As Received	NA	01/06/23 15:28

Sample	Date Collected	Date Received	Analysis	Basis	Prep Date/Time	Analysis Date/Time
004	12/22/22 07:30	12/29/22	GPC-RA226-AF	As Received	01/13/23 11:47	01/24/23 13:44
004	12/22/22 07:30	12/29/22	GPC-SR90-AF	As Received	01/17/23 08:20	01/25/23 12:10
005	12/22/22 07:30	12/29/22	ASP-PU239-AF	As Received	01/10/23 10:30	01/19/23 20:41
005	12/22/22 07:30	12/29/22	GAM-A-AF	As Received	NA	01/05/23 14:06
005	12/22/22 07:30	12/29/22	GPC-RA226-AF	As Received	01/13/23 11:47	01/24/23 13:44
005	12/22/22 07:30	12/29/22	GPC-SR90-AF	As Received	01/17/23 08:20	01/25/23 12:10

SAMPLE RECEIPT/PREP

The samples arrived in good condition. The samples were screened for radioactive contamination as per procedure **PALA-SR-001-SOP Sample Receiving**. Sample date(s) and time(s) are listed as provided by the client. In regard to the Air Filters, no flow rate information was provided by the client. Turnaround time was set at 28 calendar days.

ANALYTICAL METHODS

Pu-239/240 analysis was performed using **PALA-RAD-026, "Americium, Plutonium and Uranium in Water, Soil and Vegetation Matrices by Sequential Separation Using Eichrom Stabilized Chemistry Resin (with Vacuum Box System Option) (Eichrom ACW-02 & Eichrom ACW-03)"**.

Co-60, Cs-137, Ra-226 analyses were performed using **PALA-RAD-007, "Modified Gamma Emitting Radionuclides in Soil, Air, and Biota Matrices (EPA 901.1 Mod, SM 7120B, & HASL-300 Ga-01-R)"**.

Ra-226 analysis was performed using **PALA-RAD-008, "Alpha Emitting Radium Isotopes (EPA 903.0, EPA 9315, SM 7500-Ra C, SM 7500-Ra C)"**.

Sr-90 analysis was performed using **PALA-RAD-032, "Strontium 89, 90 and Total Strontium in Water, Soil and Vegetation Matrices by Eichrom Resin Separation (Eichrom SRW01, EPA 905.0, HASL 300 Sr-01-RC)"**.

ANALYTICAL RESULTS

Batch ARS1-B23-00077: The Method Blank is greater than the MDC for Ra-226; all positive detects for Ra-226 in this analytical batch are qualified with a 'B'.

Fraction 001 has elevated MDC for Pu-239/240 with ACT of -5.400E-8 uCi/filter, MDC of 1.130E-7 uCi/filter and CRDL of 4.8E-08 uCi/filter.
Fraction 001 has elevated MDC for Ra-226 with ACT of -1.680E-5 uCi/filter, MDC of 1.578E-5 uCi/filter and CRDL of 4.4E-06 uCi/filter.

Fraction 002 has elevated MDC for Pu-239/240 with ACT of -2.836E-8 uCi/filter, MDC of 1.105E-7 uCi/filter and CRDL of 4.8E-08 uCi/filter.
Fraction 002 has elevated MDC for Ra-226 with ACT of -1.382E-5 uCi/filter, MDC of 1.617E-5 uCi/filter and CRDL of 4.4E-06 uCi/filter.
Fraction 003 has elevated MDC for Pu-239/240 with ACT of -5.384E-8 uCi/filter, MDC of 1.173E-7 uCi/filter and CRDL of 4.8E-08 uCi/filter.
Fraction 003 has elevated MDC for Ra-226 with ACT of -2.191E-6 uCi/filter, MDC of 9.824E-6 uCi/filter and CRDL of 4.4E-06 uCi/filter.
Fraction 004 has elevated MDC for Pu-239/240 with ACT of -6.410E-9 uCi/filter, MDC of 1.207E-7 uCi/filter and CRDL of 4.8E-08 uCi/filter.
Fraction 004 has elevated MDC for Ra-226 with ACT of -2.936E-6 uCi/filter, MDC of 1.015E-5 uCi/filter and CRDL of 4.4E-06 uCi/filter.
Fraction 005 has elevated MDC for Pu-239/240 with ACT of -8.232E-8 uCi/filter, MDC of 1.554E-7 uCi/filter and CRDL of 4.8E-08 uCi/filter.
Fraction 005 has elevated MDC for Ra-226 with ACT of -1.197E-6 uCi/filter, MDC of 9.748E-6 uCi/filter and CRDL of 4.4E-06 uCi/filter.

ARS1-B23-00052: ROI's adjusted to better fit the peaks of interest.

Notes (Case Narrative)

Definitions:

CRDL	Contract Required Detection Limit
CSU	Combined Standard Uncertainty
DLC	Decision Level Concentration (ANSI N42.23)
DO	Duplicate Original
DUP	Sample Duplicate
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
LOD	Limit of Detection
LOQ	Limit of Quantitation
MBL	Method Blank
MCL	Maximum Contaminant Level
MDA	Minimum Detectable Activity
MDL	Method Detection Limit
MS/MSD	Matrix Spike/Matrix Spike Duplicate
N/A	Not Applicable
NC	Not Calculated
NP	Not Provided
NR	Not Referenced
PQL	Practical Quantitation Limit

Data Qualifiers:

B	The result of both the method blank and the target sample are above the MDL.
D	Sample analysis accomplished through dilution.
J	The reported result is an estimated value above the LOD but below the LOQ, or above the MDL but below the PQL.
Q	One or more quality control criteria failed.
U	Result is below the MDA, MDL, PQL, LOD, or LOQ
*	LCS/LCSD or Sample DUP fails all Duplicate criteria.
S	Spike
SC	Subcontracted out to another qualified laboratory
H	Holding time exceeded
E	Exceeds MCL
**	Reporting Limit is higher than MCL; Target cannot be detected
ǂ	Method/Matrix/Analyte not accredited for this certification

Radiochemistry Comments:

1.0) All MDA/MDC values are calculated on a sample specific basis.

2.0) Data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.

3.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than the actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.

4.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228 (Gamma Spectroscopy only).

5.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234 (Gamma Spectroscopy only).

6.0) All gamma spectroscopy was performed utilizing high purity germanium detectors (**HPGe**).

7.0) ARS makes every attempt to match sample density to calibrated density; however, in some cases, it is not practical or possible to do so and data results may be affected (Gamma Spectroscopy only).

8.0) Gamma spectroscopy results are calculated values based on the **ORTEC®** GammaVision ENV32 Analysis Engine.

9.0) DoD/DOE and ISO 17025 certifications through ANAB apply only to the following methods in **Non-Potable Water**:
Gross Alpha and Gross Beta (EPA 900.0, EPA 9310); Radium 226 (EPA 903.0, EPA 903.1, EPA 9315); Radium 228 (EPA 904.0, EPA 9320); ICP/MS (EPA 6020B); ICP-OES (EPA 6010D); Mercury CVAA (EPA 7470A); Strontium-89 (EPA 905.0, Eichrom SRW01, HASL 300 Sr-01); Strontium-90 (EPA 905.0, Eichrom SRW01, HASL 300 Sr-02-RC); Tritium (EPA 906.0); Enriched Tritium (ARS-040), Carbon-14 (ARS-019), Tritium/Carbon (ARS-151); Gamma Emitters (EPA 901.1, SM 7120B, HASL 300 Ga-01-R); Americium-241 (Eichrom ACW03, HASL 300 Se-03, HASL 300 Am-03); Plutonium 238, Plutonium 239/240, Plutonium-241 (Eichrom ACW03, HASL 300 Se-03, HASL 300 Pu-10); Thorium-228, Thorium 230, Thorium-232 (Eichrom ACW10); Uranium-234, Uranium-235, Uranium-238 (Eichrom ACW03, HASL 300 Se-03); Technetium-99 (Eichrom TCW02)

10.0) DoD/DOE and ISO 17025 certifications through ANAB apply only to the following methods in **Solid and Chemical Materials**:
Gross Alpha and Gross Beta (EPA 900.0 Mod, EPA 9310); ICP/MS (EPA 6020B); ICP-OES (EPA 6010D); Mercury CVAA (EPA 7471B); Strontium-89 (EPA 905.0 Mod, Eichrom SRW01, HASL 300 Sr-01); Strontium-90 (EPA 905.0 Mod, Eichrom SRW01, HASL 300 Sr-02); Tritium (EPA 906.0 Mod); Gamma Emitters (EPA 901.1, HASL 300 Ga-01-R); Americium-241 (Eichrom ACW03, HASL 300 Se-03, HASL 300 Am-01-RC); Plutonium 238, Plutonium 239/240, Plutonium-241 (Eichrom ACW03, HASL 300 Se-03, HASL 300 Pu-02-RC, HASL 300 Pu-03-RC); Thorium-228, Thorium 230, Thorium-232 (Eichrom ACW10); Uranium-234, Uranium-235, Uranium-238 (Eichrom ACW03, HASL 300 Se-03, HASL 300 U-02, HASL 300 U-04); Technetium-99 (Eichrom TCS01)

11.0) DoD/DOE and ISO 17025 certifications through ANAB apply only to the following methods in **Air and Emissions**:
Gross Alpha and Gross Beta (EPA 900.0 Mod, EPA 9310); Strontium-89 (Eichrom SRW01, HASL 300 Sr-01-RC); Strontium-90 (Eichrom SRW01, HASL 300 Sr-02-RC); Gamma Emitters (EPA 901.1, HASL 300 Ga-01-R); Americium-241 (Eichrom ACW03, HASL 300 Se-03); Plutonium 238, Plutonium 239/240, Plutonium-241 (Eichrom ACW03, HASL 300 Se-03); Thorium-228, Thorium 230, Thorium-232 (Eichrom ACW10); Uranium-234, Uranium-235, Uranium-238 (Eichrom ACW03, HASL 300 Se-03); Technetium-99 (Eichrom TCW02, Eichrom TCS01)

General Comments:

1.0 Modified analysis procedures are procedures that are modified to meet certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix. Modified analyses are indicated by the subsequent addition of “M” or “Mod” to the procedure number (i.e. 901.1M, 901.1 Mod).

2.0 All NIOSH method results are reported without blank corrections applied.

3.0 Basis: “As Received” = analyzed as received from client; “Dry” = dried prior to being analyzed; “Dry Weight Corrected” = analyzed as received; result corrected for percent moisture.

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ARS Aleut Analytical, LLC
Analytical Reports

for

Gilbane Federal

Analytical Results

2609 North River Road • Port Allen, Louisiana 70767
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ARS Sample Delivery Group: ARS1-22-02819
Client Sample ID: FBB-121922
Sample Collection Date: 12/19/22 8:00
Sample Matrix: Air Filter
Percent Solids: N/A

Request or PO Number: J310000900
ARS Sample ID: ARS1-22-02819-001
Date Received: 12/29/22
Report Date: 01/26/23

Radiochemistry

Analysis Method: Eichrom ACW03

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Pu-239/240	-5.400E-8	4.601E-8	1.130E-7	4.835E-8	4.8E-08	U	uCi/filter	01/19/23 20:41	[redacted]	49.2%

Analysis Method: EPA 901.1M

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Co-60	4.897E-7	8.020E-7	8.710E-7	4.355E-7	0.00024	U	uCi/filter	12/30/22 13:52	[redacted]	N/A
Cs-137	-4.730E-7	9.108E-7	1.054E-6	5.270E-7	0.00048	U	uCi/filter	12/30/22 13:52	[redacted]	N/A
Ra-226	-1.680E-5	1.564E-5	1.578E-5	7.890E-6	4.4E-06	U	uCi/filter	12/30/22 13:52	[redacted]	N/A

Analysis Method: EPA 9315

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	8.425E-7	5.594E-7	6.917E-7	2.635E-7	4.4E-06	B	uCi/filter	01/24/23 13:44	[redacted]	98.3%

Analysis Method: Eichrom SRW01

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
SR-90	3.647E-7	2.297E-6	4.115E-6	1.897E-6	2.4E-05	U	uCi/filter	01/25/23 12:10	[redacted]	92.8%

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ARS Sample Delivery Group: ARS1-22-02819
Client Sample ID: MSB01-121922
Sample Collection Date: 12/22/22 7:16
Sample Matrix: Air Filter
Percent Solids: N/A

Request or PO Number: J310000900
ARS Sample ID: ARS1-22-02819-002
Date Received: 12/29/22
Report Date: 01/26/23

Radiochemistry

Analysis Method: Eichrom ACW03

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Pu-239/240	-2.836E-8	5.106E-8	1.105E-7	4.757E-8	4.8E-08	U	uCi/filter	01/19/23 20:41	[redacted]	51.6%

Analysis Method: EPA 901.1M

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Co-60	-6.182E-7	1.120E-6	1.210E-6	6.050E-7	0.00024	U	uCi/filter	01/03/23 14:06	[redacted]	N/A
Cs-137	4.425E-7	7.902E-7	9.156E-7	4.578E-7	0.00048	U	uCi/filter	01/03/23 14:06	[redacted]	N/A
Ra-226	-1.382E-5	1.586E-5	1.617E-5	8.085E-6	4.4E-06	U	uCi/filter	01/03/23 14:06	[redacted]	N/A

Analysis Method: EPA 9315

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	1.796E-6	7.924E-7	6.680E-7	2.430E-7	4.4E-06	B	uCi/filter	01/24/23 13:44	[redacted]	100%

Analysis Method: Eichrom SRW01

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
SR-90	3.121E-6	2.352E-6	3.666E-6	1.689E-6	2.4E-05	U	uCi/filter	01/25/23 12:10	[redacted]	101%

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ARS Sample Delivery Group: ARS1-22-02819
Client Sample ID: MSB02-121922
Sample Collection Date: 12/22/22 7:20
Sample Matrix: Air Filter
Percent Solids: N/A

Request or PO Number: J310000900
ARS Sample ID: ARS1-22-02819-003
Date Received: 12/29/22
Report Date: 01/26/23

Radiochemistry

Analysis Method: Eichrom ACW03

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Pu-239/240	-5.384E-8	4.615E-8	1.173E-7	4.951E-8	4.8E-08	U	uCi/filter	01/19/23 20:41	[redacted]	45.8%

Analysis Method: EPA 901.1M

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Co-60	5.527E-8	7.947E-7	8.223E-7	4.112E-7	0.00024	U	uCi/filter	01/03/23 14:08	[redacted]	N/A
Cs-137	1.675E-7	6.650E-7	7.221E-7	3.611E-7	0.00048	U	uCi/filter	01/03/23 14:08	[redacted]	N/A
Ra-226	-2.191E-6	7.780E-6	9.824E-6	4.912E-6	4.4E-06	U	uCi/filter	01/03/23 14:08	[redacted]	N/A

Analysis Method: EPA 9315

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	9.435E-7	6.293E-7	7.574E-7	2.809E-7	4.4E-06	B	uCi/filter	01/24/23 13:44	[redacted]	97.1%

Analysis Method: Eichrom SRW01

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
SR-90	3.177E-6	2.455E-6	3.839E-6	1.765E-6	2.4E-05	U	uCi/filter	01/25/23 12:10	[redacted]	93.6%

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ARS Sample Delivery Group: ARS1-22-02819
Client Sample ID: MSB113A-121922
Sample Collection Date: 12/22/22 7:30
Sample Matrix: Air Filter
Percent Solids: N/A

Request or PO Number: J310000900
ARS Sample ID: ARS1-22-02819-004
Date Received: 12/29/22
Report Date: 01/26/23

Radiochemistry

Analysis Method: Eichrom ACW03

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Pu-239/240	-6.410E-9	6.026E-8	1.207E-7	5.166E-8	4.8E-08	U	uCi/filter	01/19/23 20:41	[redacted]	50.1%

Analysis Method: EPA 901.1M

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Co-60	-2.596E-7	9.202E-7	9.415E-7	4.708E-7	0.00024	U	uCi/filter	01/06/23 15:28	[redacted]	N/A
Cs-137	2.394E-8	6.935E-7	7.560E-7	3.780E-7	0.00048	U	uCi/filter	01/06/23 15:28	[redacted]	N/A
Ra-226	-2.936E-6	8.057E-6	1.015E-5	5.075E-6	4.4E-06	U	uCi/filter	01/06/23 15:28	[redacted]	N/A

Analysis Method: EPA 9315

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	4.962E-7	4.823E-7	7.180E-7	2.736E-7	4.4E-06	U	uCi/filter	01/24/23 13:44	[redacted]	98.9%

Analysis Method: Eichrom SRW01

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
SR-90	4.190E-7	2.069E-6	3.686E-6	1.701E-6	2.4E-05	U	uCi/filter	01/25/23 12:10	[redacted]	94.5%

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ARS Sample Delivery Group: ARS1-22-02819
Client Sample ID: MSB113A-121922D
Sample Collection Date: 12/22/22 7:30
Sample Matrix: Air Filter
Percent Solids: N/A

Request or PO Number: J310000900
ARS Sample ID: ARS1-22-02819-005
Date Received: 12/29/22
Report Date: 01/26/23

Radiochemistry

Analysis Method: Eichrom ACW03

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Pu-239/240	-8.232E-8	6.982E-8	1.554E-7	6.910E-8	4.8E-08	U	uCi/filter	01/19/23 20:41	[redacted]	48.3%

Analysis Method: EPA 901.1M

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Co-60	6.382E-8	8.401E-7	8.673E-7	4.337E-7	0.00024	U	uCi/filter	01/05/23 14:06	[redacted]	N/A
Cs-137	-4.057E-7	7.155E-7	7.699E-7	3.850E-7	0.00048	U	uCi/filter	01/05/23 14:06	[redacted]	N/A
Ra-226	-1.197E-6	7.701E-6	9.748E-6	4.874E-6	4.4E-06	U	uCi/filter	01/05/23 14:06	[redacted]	N/A

Analysis Method: EPA 9315

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	9.106E-7	5.807E-7	6.790E-7	2.518E-7	4.4E-06	B	uCi/filter	01/24/23 13:44	[redacted]	98.5%

Analysis Method: Eichrom SRW01

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
SR-90	1.466E-6	2.449E-6	4.177E-6	1.935E-6	2.4E-05	U	uCi/filter	01/25/23 12:10	[redacted]	93.6%

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QC Summary

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QC Sample Results

Analytical Batch: ARS1-B22-02036
Lab Sample ID: ARS1-B22-02036-01
Method: EPA 901.1M

Sample Type: LCS
Matrix: Air Filter
Analysis Date: 01/03/23 7:44

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits
Am-241	33.065	31.699		uCi/filter	95.9	75 - 125
Co-60	20.928	20.782		uCi/filter	99.3	75 - 125
Cs-137	12.996	13.133		uCi/filter	101.1	75 - 125

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QC Sample Results

Analytical Batch: ARS1-B22-02036
Lab Sample ID: ARS1-B22-02036-02
Method: EPA 901.1M

Sample Type: LCSD
Matrix: Air Filter
Analysis Date: 01/03/23 7:57

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits	RPD	RPD Limit	DER	DER Limit
Am-241	33.065	31.774		uCi/filter	96.1	75 - 125	0.2	25	0.042	3
Co-60	20.928	21.913		uCi/filter	104.7	75 - 125	5.3	25	1.277	3
Cs-137	12.996	13.151		uCi/filter	101.2	75 - 125	0.1	25	0.036	3

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QC Sample Results

Analytical Batch: ARS1-B22-02036
Lab Sample ID: ARS1-B22-02036-03
Method: EPA 901.1M

Sample Type: MBL
Matrix: Air Filter
Analysis Date: 01/03/23 14:05

Analyte	Analysis Result	CSU +/- 2 s	MDC	DLC	Qual	Analysis Units
Co-60	-2.346E-4	0.002	0.002	8.200E-4	U	uCi/filter
Cs-137	-1.115E-5	0.001	0.002	7.850E-4	U	uCi/filter
Ra-226	-0.002	0.022	0.025	0.013	U	uCi/filter

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QC Association Summary

ARS Sample Delivery Group: ARS1-22-02819 **Analytical Batch:** ARS1-B22-02036

Analysis: Gamma Spec (Short) in (Air Filters, Smears [AF])

Batch Sample ID	Lab Sample ID	Client Sample ID	Matrix	Method	Prep Method
ARS1-B22-02036-01		Lab Control Sample	Air Filter	EPA 901.1M	N/A
ARS1-B22-02036-02		Lab Control Sample Duplicate	Air Filter	EPA 901.1M	N/A
ARS1-B22-02036-03		Method Blank	Air Filter	EPA 901.1M	N/A
ARS1-B22-02036-07	ARS1-22-02819-001	FBB-121922	Air Filter	EPA 901.1M	N/A
ARS1-B22-02036-08	ARS1-22-02819-002	MSB01-121922	Air Filter	EPA 901.1M	N/A
ARS1-B22-02036-09	ARS1-22-02819-003	MSB02-121922	Air Filter	EPA 901.1M	N/A
ARS1-B22-02036-10	ARS1-22-02819-004	MSB113A-121922	Air Filter	EPA 901.1M	N/A
ARS1-B22-02036-11	ARS1-22-02819-005	MSB113A-121922D	Air Filter	EPA 901.1M	N/A

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QC Sample Results

Analytical Batch: ARS1-B23-00052
Lab Sample ID: ARS1-B23-00052-01
Method: Eichrom ACW03

Sample Type: LCS
Matrix: Air Filter
Analysis Date: 01/19/23 20:41

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits
Pu-239/240	7.705E-6	7.897E-6		uCi/filter	102.5	75 - 125

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QC Sample Results

Analytical Batch: ARS1-B23-00052
Lab Sample ID: ARS1-B23-00052-02
Method: Eichrom ACW03

Sample Type: LCSD
Matrix: Air Filter
Analysis Date: 01/19/23 20:41

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits	RPD	RPD Limit	DER	DER Limit
Pu-239/240	7.698E-6	7.750E-6		uCi/filter	100.7	75 - 125	1.9	25	0.207	3

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QC Sample Results

Analytical Batch: ARS1-B23-00052
Lab Sample ID: ARS1-B23-00052-03
Method: Eichrom ACW03

Sample Type: MBL
Matrix: Air Filter
Analysis Date: 01/19/23 20:41

Analyte	Analysis Result	CSU +/- 2 s	MDC	DLC	Qual	Analysis Units
Pu-238	-1.356E-8	8.196E-8	1.595E-7	7.056E-8	U	uCi/filter
Pu-239/240	6.781E-9	4.409E-8	8.892E-8	3.527E-8	U	uCi/filter

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QC Association Summary

ARS Sample Delivery Group: ARS1-22-02819

Analytical Batch: ARS1-B23-00052

Analysis: Plutonium (239, 240Pu) in (Air Filters, Smears, Leak Test [AF, SM, LT])

Batch Sample ID	Lab Sample ID	Client Sample ID	Matrix	Method	Prep Method
ARS1-B23-00052-01		Lab Control Sample	Air Filter	Eichrom ACW03	N/A
ARS1-B23-00052-02		Lab Control Sample Duplicate	Air Filter	Eichrom ACW03	N/A
ARS1-B23-00052-03		Method Blank	Air Filter	Eichrom ACW03	N/A
ARS1-B23-00052-11	ARS1-22-02819-001	FBB-121922	Air Filter	Eichrom ACW03	N/A
ARS1-B23-00052-12	ARS1-22-02819-002	MSB01-121922	Air Filter	Eichrom ACW03	N/A
ARS1-B23-00052-13	ARS1-22-02819-003	MSB02-121922	Air Filter	Eichrom ACW03	N/A
ARS1-B23-00052-14	ARS1-22-02819-004	MSB113A-121922	Air Filter	Eichrom ACW03	N/A
ARS1-B23-00052-15	ARS1-22-02819-005	MSB113A-121922D	Air Filter	Eichrom ACW03	N/A

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QC Sample Results

Analytical Batch: ARS1-B23-00076
Lab Sample ID: ARS1-B23-00076-01
Method: Eichrom SRW01

Sample Type: LCS
Matrix: Air Filter
Analysis Date: 01/25/23 12:10

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits
SR-90	2.016E-5	2.174E-5		uCi/filter	107.8	75 - 125

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QC Sample Results

Analytical Batch: ARS1-B23-00076
Lab Sample ID: ARS1-B23-00076-02
Method: Eichrom SRW01

Sample Type: LCSD
Matrix: Air Filter
Analysis Date: 01/25/23 12:10

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits	RPD	RPD Limit	DER	DER Limit
SR-90	2.022E-5	2.242E-5		uCi/filter	110.8	75 - 125	3.1	25	0.278	3

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QC Sample Results

Analytical Batch: ARS1-B23-00076
Lab Sample ID: ARS1-B23-00076-03
Method: Eichrom SRW01

Sample Type: MBL
Matrix: Air Filter
Analysis Date: 01/25/23 12:10

Analyte	Analysis Result	CSU +/- 2 s	MDC	DLC	Qual	Analysis Units
SR-90	2.914E-6	2.409E-6	3.814E-6	1.757E-6	U	uCi/filter

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QC Association Summary

ARS Sample Delivery Group: ARS1-22-02819

Analytical Batch: ARS1-B23-00076

Analysis: Strontium-90 in (Air Filters, Smears [AF])

Batch Sample ID	Lab Sample ID	Client Sample ID	Matrix	Method	Prep Method
ARS1-B23-00076-01		Lab Control Sample	Air Filter	Eichrom SRW01	N/A
ARS1-B23-00076-02		Lab Control Sample Duplicate	Air Filter	Eichrom SRW01	N/A
ARS1-B23-00076-03		Method Blank	Air Filter	Eichrom SRW01	N/A
ARS1-B23-00076-07	ARS1-22-02819-001	FBB-121922	Air Filter	Eichrom SRW01	N/A
ARS1-B23-00076-08	ARS1-22-02819-002	MSB01-121922	Air Filter	Eichrom SRW01	N/A
ARS1-B23-00076-09	ARS1-22-02819-003	MSB02-121922	Air Filter	Eichrom SRW01	N/A
ARS1-B23-00076-10	ARS1-22-02819-004	MSB113A-121922	Air Filter	Eichrom SRW01	N/A
ARS1-B23-00076-11	ARS1-22-02819-005	MSB113A-121922D	Air Filter	Eichrom SRW01	N/A

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QC Sample Results

Analytical Batch: ARS1-B23-00077
Lab Sample ID: ARS1-B23-00077-01
Method: EPA 9315

Sample Type: LCS
Matrix: Air Filter
Analysis Date: 01/24/23 13:44

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits
Ra-226	2.684E-5	2.513E-5		uCi/filter	93.6	75 - 125

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QC Sample Results

Analytical Batch: ARS1-B23-00077
Lab Sample ID: ARS1-B23-00077-02
Method: EPA 9315

Sample Type: LCSD
Matrix: Air Filter
Analysis Date: 01/24/23 13:44

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits	RPD	RPD Limit	DER	DER Limit
Ra-226	2.689E-5	2.426E-5		uCi/filter	90.2	75 - 125	3.5	25	0.304	3

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QC Sample Results

Analytical Batch: ARS1-B23-00077
Lab Sample ID: ARS1-B23-00077-03
Method: EPA 9315

Sample Type: MBL
Matrix: Air Filter
Analysis Date: 01/24/23 13:44

Analyte	Analysis Result	CSU +/- 2 s	MDC	DLC	Qual	Analysis Units
Ra-226	7.296E-7	5.112E-7	6.342E-7	2.352E-7		uCi/filter

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QC Association Summary

ARS Sample Delivery Group: ARS1-22-02819

Analytical Batch: ARS1-B23-00077

Analysis: Radium-226 in Air Filter

Batch Sample ID	Lab Sample ID	Client Sample ID	Matrix	Method	Prep Method
ARS1-B23-00077-01		Lab Control Sample	Air Filter	EPA 9315	N/A
ARS1-B23-00077-02		Lab Control Sample Duplicate	Air Filter	EPA 9315	N/A
ARS1-B23-00077-03		Method Blank	Air Filter	EPA 9315	N/A
ARS1-B23-00077-07	ARS1-22-02819-001	FBB-121922	Air Filter	EPA 9315	N/A
ARS1-B23-00077-08	ARS1-22-02819-002	MSB01-121922	Air Filter	EPA 9315	N/A
ARS1-B23-00077-09	ARS1-22-02819-003	MSB02-121922	Air Filter	EPA 9315	N/A
ARS1-B23-00077-10	ARS1-22-02819-004	MSB113A-121922	Air Filter	EPA 9315	N/A
ARS1-B23-00077-11	ARS1-22-02819-005	MSB113A-121922D	Air Filter	EPA 9315	N/A

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Batch QC

QC Results per Analytical Batch

Analytical Batch	ARS1-B22-02036
SDG	ARS1-22-02819
Analysis	Gamma Spec (Short) in (Air Filters, Smears [AF])
Method	EPA 901.1M
Analysis Code	GAM-A-AF
Report Units	uCi/filter

Acceptable QC Performance Ranges

QC Sample Type	Performance Items and Ranges		
Laboratory Control Sample	Recovery (%):	> 75	< 125
Matrix Spike	Recovery (%):	> 60	< 140
Duplicate	Duplicate Error Ratio (DER):		< 3
	Relative Percent Difference (RPD %):		≤ 25

Laboratory Control Sample

Analysis Date: 01/03/23 07:44 | Analysis Technician: [redacted]

Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	Expected Value	LCS Rec (%)	MDC
ARS1-B22-02036-01	LCS	AM-241	31.699	2.462	33.065	95.9	0.118
ARS1-B22-02036-01	LCS	CO-60	20.782	1.292	20.928	99.3	0.429
ARS1-B22-02036-01	LCS	CS-137	13.133	0.700	12.996	101.1	0.067

Duplicate RER/DER/RPD

Analysis Date: 01/03/23 07:57 | Analysis Technician: [redacted]

Analyte	Results LCS	CSU LCS (2s)	Results LCSD	CSU LCSD (2s)	DER	RPD
AM-241	31.699	2.462	31.774	2.468	0.042	0.2
CO-60	20.782	1.292	21.913	1.159	1.277	5.3
CS-137	13.133	0.700	13.151	0.702	0.036	0.1

Method Blank

Analysis Date: 01/03/23 14:05 | Analysis Technician: [redacted]

Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	MDC	Qual
ARS1-B22-02036-03	MBL	CO-60	-2.346E-4	0.002	0.002	U
ARS1-B22-02036-03	MBL	CS-137	-1.115E-5	0.001	0.002	U
ARS1-B22-02036-03	MBL	RA-226	-0.002	0.022	0.025	U

QC Results per Analytical Batch

Analytical Batch	ARS1-B23-00052
SDG	ARS1-22-02819
Analysis	Plutonium (239, 240Pu) in (Air Filters, Smears, Leak Test [AF, SM, LT])
Method	Eichrom ACW03
Analysis Code	ASP-PU239-AF
Report Units	uCi/filter

Acceptable QC Performance Ranges

QC Sample Type	Performance Items and Ranges		
Laboratory Control Sample	Recovery (%):	> 75	< 125
Matrix Spike	Recovery (%):	> 60	< 140
Duplicate	Duplicate Error Ratio (DER):		< 3
	Relative Percent Difference (RPD %):		≤ 25

Laboratory Control Sample

Analysis Date	01/19/23 20:41	Analysis Technician	[redacted]

Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	Expected Value	LCS Rec (%)	MDC
ARS1-B23-00052-01	**LCS**	PU-239/240	7.897E-6	9.924E-7	7.705E-6	102.5	5.014E-8

Duplicate RER/DER/RPD

Analysis Date	01/19/23 20:41	Analysis Technician	[redacted]

Analyte	Results LCS	CSU LCS (2s)	Results LCSD	CSU LCSD (2s)	DER	RPD
PU-239/240	7.897E-6	9.924E-7	7.750E-6	9.748E-7	0.207	1.9

Method Blank

Analysis Date	01/19/23 20:41	Analysis Technician	[redacted]

Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	MDC	Qual
ARS1-B23-00052-03	**MBL**	PU-238	-1.356E-8	8.196E-8	1.595E-7	U
ARS1-B23-00052-03	**MBL**	PU-239/240	6.781E-9	4.409E-8	8.892E-8	U

QC Results per Analytical Batch

Analytical Batch	ARS1-B23-00076
SDG	ARS1-22-02819
Analysis	Strontium-90 in (Air Filters, Smears [AF])
Method	Eichrom SRW01
Analysis Code	GPC-SR90-AF
Report Units	uCi/filter

Acceptable QC Performance Ranges

QC Sample Type	Performance Items and Ranges		
Laboratory Control Sample	Recovery (%):	> 75	< 125
Matrix Spike	Recovery (%):	> 60	< 140
Duplicate	Duplicate Error Ratio (DER):		< 3
	Relative Percent Difference (RPD %):		≤ 25

Laboratory Control Sample

Analysis Date	01/25/23 12:10	Analysis Technician	[redacted]

Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	Expected Value	LCS Rec (%)	MDC
ARS1-B23-00076-01	**LCS**	SR-90	2.174E-5	3.317E-6	2.016E-5	107.8	3.690E-7

Duplicate RER/DER/RPD

Analysis Date	01/25/23 12:10	Analysis Technician	[redacted]

Analyte	Results LCS	CSU LCS (2s)	Results LCSD	CSU LCSD (2s)	DER	RPD
SR-90	2.174E-5	3.317E-6	2.242E-5	3.428E-6	0.278	3.1

Method Blank

Analysis Date	01/25/23 12:10	Analysis Technician	[redacted]

Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	MDC	Qual
ARS1-B23-00076-03	**MBL**	SR-90	2.914E-6	2.409E-6	3.814E-6	U

QC Results per Analytical Batch

Analytical Batch	**ARS1-B23-00077**
SDG	**ARS1-22-02819**
Analysis	**Radium-226 in Air Filter**
Method	**EPA 9315**
Analysis Code	**GPC-RA226-AF**
Report Units	**uCi/filter**

Acceptable QC Performance Ranges

QC Sample Type	Performance Items and Ranges		
Laboratory Control Sample	**Recovery (%):**	**> 75**	**< 125**
Matrix Spike	**Recovery (%):**	**> 60**	**< 140**
Duplicate	**Duplicate Error Ratio (DER):**		**< 3**
	Relative Percent Difference (RPD %):		**≤ 25**

Laboratory Control Sample

			Analysis Date	01/24/23 13:44	**Analysis Technician**	[redacted]	
Analysis Batch Sample ID	**QC Type**	**Analyte**	**Results**	**CSU (2s)**	**Expected Value**	**LCS Rec (%)**	**MDC**
ARS1-B23-00077-01	**LCS**	RA-226	2.513E-5	4.055E-6	2.684E-5	93.6	8.024E-8

Duplicate RER/DER/RPD

		Analysis Date	01/24/23 13:44	**Analysis Technician**	[redacted]	
Analyte	**Results LCS**	**CSU LCS (2s)**	**Results LCSD**	**CSU LCSD (2s)**	**DER**	**RPD**
RA-226	2.513E-5	4.055E-6	2.426E-5	3.914E-6	0.304	3.5

Method Blank

		Analysis Date	01/24/23 13:44	**Analysis Technician**	[redacted]	
Analysis Batch Sample ID	**QC Type**	**Analyte**	**Results**	**CSU (2s)**	**MDC**	**Qual**
ARS1-B23-00077-03	**MBL**	RA-226	7.296E-7	5.112E-7	6.342E-7	

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Analytical Reports

for

Gilbane Federal

Sample Management Records

CHAIN-OF-CUSTODY RECORD

Gilbane Federal [redacted]
2300 Clayton Road, Suite 1050, Concord, CA 94520
[redacted]

REVISED 12-29-22

COC # MC122822RADB

Gilbane

Project Name: Hunters Point Shipyard, Parcel B Removal Site Evaluation	Laboratory: ARS Aleut Analytical (AAA), Port Allen, LA	Event: **Parcel B Air Monitoring RAD**
Project Number: J310000900	POC: [redacted]	
WBS Code: J310000900	Ship to: 2609 North River Road, Port Allen, LA 70767-3469	

Comments:
1. RC0240 - Pu Isotopes only, Not Th/Ur
12/29/22 [redacted]

Equipment:

Code	Matrix
A	Air
AQ	Air Quality Control Matrix

Code	Container/Preservative
1	1x Filter, None
5	1x 1-L Plastic, HNO3, pH < 2
15	1x 250-mL Plastic, 4 Degrees C

Event: Parcel B Air Monitoring RAD

	Sample ID	Matrix	Date	Time	Samp Init.	Analytical Test Method: E901.1 - Gamma Spec Air (15)	1. RC0240 - Pu Thr Isotopes (15)	SR02RC - Sr90 (5)	SW9315 - Ra226 (1)	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
1	FBB-121922	AQ	12/19/2022	0800	[redacted]	X	X	X	X	FIELDQC	FB1	0.00	0.00	1	
2	MSB01-121922	A	12/22/2022	0716		X	X	X	X	MSB01	N1	0.00	0.00	1	
3	MSB02-121922	A	12/22/2022	0720		X	X	X	X	MSB02	N1	0.00	0.00	1	
4	MSB113A-121922	A	12/22/2022	0730		X	X	X	X	MSB113A	N1	0.00	0.00	1	
5	MSB113A-121922D	A	12/22/2022	0730		X	X	X	X	MSB113A	FD1	0.00	0.00	1	
6															
7									[redacted]						
8															
9									[redacted] 12-28-22						
10															

Turnaround Time: 28 days

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
[redacted]	12-28-22	1600	FEDEX	12-28-22	1600
			[redacted]	12/29/22	1440

Shipping Date / Carrier / Airbill Number
Shipping Date: 12/28/2022 / FEDEX / 7707 9820 7048

Received by Laboratory: *(Signature, Date, Time)* **& condition**

GES.Navy_COC_Field
December 15, 2022

Procedures: GES-003 / EPA 900.0M

File ID Number: MC122822RADB

Start Date 12/19/22
Stop Date 12/22/22
121922

Field Entry

Station	Sample ID	Date In:	Time In:	Date Out:	Time Out:	Flow Rate (LPM)	Flow Rate (LPM)	Flow volume Cu.M	Julian Date for Date Out	Total Run Time (Days)	Total Run Time (Hours)	Run Time (Minutes)	Average Flow Rate (LPM)	Initial Flow Rate (CFM)	Final Flow Rate (CFM)	Average Flow Rate (CFM)	Average Flow Rate (Cu.M/h)	Flow Rate (Cu.M/min)	Total Flow (L)
# MSB01	MSB01-121922	12/19/22	4:45	12/22/22	7:16	60	60	268.3	356	3.10	74.52	4471.0	60	2.11888	2.11888	2.11888	3.6	0.06	268,260
# MSB02	MSB02-121922	12/19/22	4:30	12/22/22	7:20	60	60	269.4	356	3.12	74.83	4490.0	60	2.11888	2.11888	2.11888	3.6	0.06	269,400
# MSB113A	MSB113A-121922	12/19/22	4:40	12/22/22	7:30	60	60	269.4	356	3.12	74.83	4490.0	60	2.11888	2.11888	2.11888	3.6	0.06	269,400
# MSB113A	MSB113A-121922D	12/19/22	4:40	12/22/22	7:30	60	60	269.4	356	3.12	74.83	4490.0	60	2.11888	2.11888	2.11888	3.6	0.06	269,400

[redacted] 12/19/22

FORMULAS:

Number of Days = (Date Out +Time Out) minus (Date In+Time In)
Number of Minutes = # of Days X 24hr X 60min
Flow Rate (m3/h) = Flow Rate (CFM) x 60min x (12in x 2.54cm/in / 100cm/m)^3 :
Mid-Sample Date/Time = [(Date+Time Out) + (Date+Time In)] / 2
Flow Rate (Cu.M/min) = CFM X 0.0283168466 Cu.M/CF
Flow Rate (LPM) = Cu.M X 1000
Total Flow (L) = LPM X Total Minutes

SDG Report - Samples and Containers

SDG Specific Data							
SDG	ARS1-22-02819			TAT Days	28 Calendar Days	Project Type	Environmental
Sample Count	5	Rpt Level	4	Date Received	12/29/2022	COC Number	MC122822RADB
Client	Gilbane Federal			Discrepancy Resol	N/A	PO Number	
Client Code	1138			Client Deadline	01/27/2023	Job Number	J310000900
Profile Number	PN-01411					Job Location	Hunters Point Shipyard, Parcel B Removal Site Evaluation
Comment							

Samples and Containers Checked In Thus Far

FR	Name	Matrix	Start Date	End Date	Disp	Hold	Arch	Storage	Comments
001	FBB-121922	Air Filter	12/19/2022 07:59	12/19/2022 08:00	H	30	10	PrePrep	
	IC_ID	**Cnt**	**Container Type**	**AF Volume (L)**	**AF Units**		**Rate**	**Mins**	**Comments**
	429106	1	HDP Container	1	LPM			1	
			Mid-Sample Date:	12/19/2022 07:59	AF Volume (CuM):		0.001		
002	MSB01-121922	Air Filter	12/22/2022 07:15	12/22/2022 07:16	H	30	10	PrePrep	
	IC_ID	**Cnt**	**Container Type**	**AF Volume (L)**	**AF Units**		**Rate**	**Mins**	**Comments**
	429107	1	HDP Container	1	LPM			1	
			Mid-Sample Date:	12/22/2022 07:15	AF Volume (CuM):		0.001		
003	MSB02-121922	Air Filter	12/22/2022 07:19	12/22/2022 07:20	H	30	10	PrePrep	
	IC_ID	**Cnt**	**Container Type**	**AF Volume (L)**	**AF Units**		**Rate**	**Mins**	**Comments**
	429108	1	HDP Container	1	LPM			1	
			Mid-Sample Date:	12/22/2022 07:19	AF Volume (CuM):		0.001		
004	MSB113A-121922	Air Filter	12/22/2022 07:29	12/22/2022 07:30	H	30	10	PrePrep	
	IC_ID	**Cnt**	**Container Type**	**AF Volume (L)**	**AF Units**		**Rate**	**Mins**	**Comments**
	429109	1	HDP Container	1	LPM			1	
			Mid-Sample Date:	12/22/2022 07:29	AF Volume (CuM):		0.001		
005	MSB113A-121922D	Air Filter	12/22/2022 07:29	12/22/2022 07:30	H	30	10	PrePrep	
	IC_ID	**Cnt**	**Container Type**	**AF Volume (L)**	**AF Units**		**Rate**	**Mins**	**Comments**
	429110	1	HDP Container	1	LPM			1	
			Mid-Sample Date:	12/22/2022 07:29	AF Volume (CuM):		0.001		

SDG Report - Analysis Assignments

SDG	ARS1-22-02819	Sample Count	5
Client	Gilbane Federal	Analysis Count	4-20

Sample Count Totals Per Analysis

Analysis Code	Analysis Description	In/Out	Samples Count
ASP-PU239-AF	Plutonium (239, 240Pu) in (Air Filters, Smears, Leak Test [AF, SM, LT])	I	5
GAM-A-AF	Gamma Spec (Short) in (Air Filters, Smears [AF])	I	5
GPC-RA226-AF	Radium-226 in Air Filter	I	5
GPC-SR90-AF	Strontium-90 in (Air Filters, Smears [AF])	I	5

Analyses Assigned Per Fraction

Fraction	Analysis Code	X = Assigned
001	ASP-PU239-AF	X
001	GAM-A-AF	X
001	GPC-RA226-AF	X
001	GPC-SR90-AF	X
002	ASP-PU239-AF	X
002	GAM-A-AF	X
002	GPC-RA226-AF	X
002	GPC-SR90-AF	X
003	ASP-PU239-AF	X
003	GAM-A-AF	X
003	GPC-RA226-AF	X
003	GPC-SR90-AF	X
004	ASP-PU239-AF	X
004	GAM-A-AF	X
004	GPC-RA226-AF	X
004	GPC-SR90-AF	X
005	ASP-PU239-AF	X
005	GAM-A-AF	X
005	GPC-RA226-AF	X
005	GPC-SR90-AF	X

DQO Report for SDG

ARS1-22-02819

Client Name: Gilbane Federal Profile Name: Parcel B Rad Sampling Report Level: 4

Analysis Code	Prep Type	Units	Aliquot	Prep Code	Procedure	Count Time					
ASP-PU239-AF	WRAD	uCi	filter	N/A	PALA-RAD-026						
	Analyte			**RDL**	**LCS LL/UL**	**MS LL/UL**	**RadY LL/UL**	**GravY LL/UL**	**RER**	**RPD**	**Surr LL/UL**
	Pu-239/240 (15117-48-3)			4.8E-08 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
GAM-A-AF	WGAM	uCi	filter	N/A	PALA-RAD-007						
	Analyte			**RDL**	**LCS LL/UL**	**MS LL/UL**	**RadY LL/UL**	**GravY LL/UL**	**RER**	**RPD**	**Surr LL/UL**
	Co-60 (10198-40-0)			0.00024 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Cs-137 (10045-97-3)			0.00048 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Ra-226 (13982-63-3)			4.4E-06 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
GPC-RA226-AF	WRAD	uCi	filter		PALA-RAD-008						
	Analyte			**RDL**	**LCS LL/UL**	**MS LL/UL**	**RadY LL/UL**	**GravY LL/UL**	**RER**	**RPD**	**Surr LL/UL**
	Ra-226 (13982-63-3)			4.4E-06 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
GPC-SR90-AF	WRAD	uCi	filter	N/A	PALA-RAD-032						
	Analyte			**RDL**	**LCS LL/UL**	**MS LL/UL**	**RadY LL/UL**	**GravY LL/UL**	**RER**	**RPD**	**Surr LL/UL**
	Sr-90 (10098-97-2)			2.4E-05 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A

Analysis Code	Fraction	Units	Aliquot	Conductivity	Analyte Count
ASP-PU239-AF	001	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Pu-239/240	
ASP-PU239-AF	002	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Pu-239/240	

ASP-PU239-AF	003	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Pu-239/240	
ASP-PU239-AF	004	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Pu-239/240	
ASP-PU239-AF	005	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Pu-239/240	
GAM-A-AF	001	uCi	filter	N/A	3
		Group		**Analyte**	
		Parcel B Rad Sampling		Cs-137	
		Parcel B Rad Sampling		Co-60	
		Parcel B Rad Sampling		Ra-226	
GAM-A-AF	002	uCi	filter	N/A	3
		Group		**Analyte**	
		Parcel B Rad Sampling		Cs-137	
		Parcel B Rad Sampling		Co-60	
		Parcel B Rad Sampling		Ra-226	
GAM-A-AF	003	uCi	filter	N/A	3
		Group		**Analyte**	
		Parcel B Rad Sampling		Cs-137	
		Parcel B Rad Sampling		Co-60	
		Parcel B Rad Sampling		Ra-226	
GAM-A-AF	004	uCi	filter	N/A	3
		Group		**Analyte**	
		Parcel B Rad Sampling		Cs-137	
		Parcel B Rad Sampling		Co-60	
		Parcel B Rad Sampling		Ra-226	
GAM-A-AF	005	uCi	filter	N/A	3
		Group		**Analyte**	
		Parcel B Rad Sampling		Cs-137	
		Parcel B Rad Sampling		Co-60	
		Parcel B Rad Sampling		Ra-226	

GPC-RA226-AF	001	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Ra-226	
GPC-RA226-AF	002	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Ra-226	
GPC-RA226-AF	003	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Ra-226	
GPC-RA226-AF	004	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Ra-226	
GPC-RA226-AF	005	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Ra-226	
GPC-SR90-AF	001	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Sr-90	
GPC-SR90-AF	002	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Sr-90	
GPC-SR90-AF	003	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Sr-90	
GPC-SR90-AF	004	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Sr-90	
GPC-SR90-AF	005	uCi	filter	N/A	1
		Group		**Analyte**	
		Parcel B Rad Sampling		Sr-90	

PALA Sample Receipt Inspection Form

Client Name: Gilbane

SDG: ARS1-22-02819

Sample Custodian: [redacted]

Survey Start Date: 12/29/22 Survey Start Time: 1500

Thermometer ID: E0064010085 Calibration Due Date: 2/28/23 pH Paper Lot# NA

Exposure Rate Meter + Probe Unit ID: 269264 Calibration Due Date: 9/13/23 Background: 4 µR/hr

Count Rate Meter + Probe Unit ID: PR257372 Calibration Due Date: 9/13/23 Background: 20 cpm

Delivery Type (circle one): Direct Lock Box (Commercial Carrier) FEDEX Total # of ESCs: 1

*True temperature is recorded which includes any applicable correction factors.

External Shipping Container Tracking:	Exposure Rate (µR/hr) (limit <500 µR/hr)	Max External Swipe Counts (cpm)	Max Internal Swipe Counts (cpm)	ESC True Temps* (°C)	TRAX Matrix ID (circle all that apply): (See Section 4.3 of SOP)
A: 770798207048	5	30	40	NA	AQ WD WG WO WS WW SI UR SO OL BI VG WP SM (AP)
B:					
C:					
D:					
E:					
F:					

Visual Inspection: External Shipping Container (Circle response)

Good Condition with no Leaks or Tears	(Yes)	No	
Marked Radioactive	Yes	(No)	
UN2910	Yes	(No)	
Security Seals	(Yes)	No	
If yes, intact?	(Yes)	No	N/A
Internal Shipping Container			
COC's Present	(Yes)	No	
Well packaged container with no signs of leakage	(Yes)	No	

COC/Sample Inspection (Circle response)

Sample Containers in good condition	(Yes)	No	
No spills or leaks	(Yes)	No	
Marked Radioactive	Yes	(No)	
Durable labels w/indelible ink	(Yes)	No	
COC reliquished/received correctly	(Yes)	No	
Adequate volume/filled correctly	(Yes)	No	
Hold Time sufficient for analysis	(Yes)	No	
For VOC/Radon, Head space?	Yes	No	(N/A)
If yes, <6mm?	Yes	No	(N/A)
# of containers received matches # on COC	(Yes)	No	
Samples received on ice?	Yes	(No)	
Type (circle one):	Bagged Ice	Loose Ice	Blue Ice (N/A)

Comments:

PALA Sample Survey Form

Client Name: Gilbane

SDG: ARS1-22-02819

Pipette ID: NA Tip Lot#: NA

Disposible pipette lot#: NA

Sample ID from Client on COC or Sample	ESC Letter	Sample Container Type	Approx. Fill Level (%)	pH <2 is Acceptable: pH As Rec'd	pH Adjusted	Acid Lot # or Ind container temp (°C)	Vol. of Acid Used (mL)	Acceptance Limits <100 cpm/cm: cpm
FBB-121922	A	ziplock	25	NA	NA	NA	NA	40
MSB01-121922	↓	↓	↓	↓	↓	↓	↓	↓
MSB02-121922								
MSB113A-121922								
MSB113A-121922D								

Sample Custodian: [redacted] Survey End Date: 12/29/22 Survey/pH End Time: 1510

pH re-check required? YES or NO *NOTE: Any metals sample acidified at sample receiving must be re-checked after a 24 hour hold.*

If YES: pH re-check date/time: _____/_____ Analyst: _____ pH strip lot #: _____

Were all re-checked samples' pH < 2? YES or NO*

**If no, complete and send to Project Management:*
1. Section A of PALA-SR-001-FM-05 (24 Hour Hold pH Readjustment)
2. SR section of PALA-SR-001-FM-03 (Discrepant Sample Receipt Report).

Pe Da

FedEx

TRK# 0201 7707 9820 7048

THU – 29 DEC AA
STANDARD OVERNIGHT

XN OPLA

70767
LA-US MSY

Ref #156297-435 RRDB2 EXP 09/22

#3914B49 12/28 581J5/CBCF/FE2D

eurofins | Environment Testing

1 2 3 4 5 6 7 8 9 10 11 12 13 14

ANALYTICAL REPORT

PREPARED FOR

Attn: [redacted]
GES-AIS LLC
1501 W Fountainhead Parkway
Ste 550
Tempe, Arizona 85282

Generated 12/16/2022 2:54:37 PM

JOB DESCRIPTION

Hunters Point, Parcel B, Removal Site Evaluation

JOB NUMBER

320-95062-1

Eurofins Sacramento
880 Riverside Parkway
West Sacramento CA 95605

See page two for job notes and contact information.

Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northern California, LLC Project Manager.

Authorization

[redacted]

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Authorized for release by
[redacted]

Table of Contents

Definitions/Glossary

Client: GES-AIS LLC
Job ID: 320-95062-1
Project/Site: Hunters Point, Parcel B, Removal Site Evaluation

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 320-95062-1

Laboratory: Eurofins Sacramento

Narrative

Job Narrative
320-95062-1

Comments
No additional comments.

Receipt
The samples were received on 12/8/2022 9:20 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 23.1º C.

A revised COC was provided by the client on December 12, 2022. Copies of both are included in the report.

Metals
Method PM10: The following sample in analytical batch 320-640626 was recorded with a negative net weight. No particulate loading on the filter or damage to the filter could be observed.
GESPM101722-414 (320-95062-1)

Method 40CFR50 App B: The following sample in preparation batch 320-640625 and analytical batch 320-640628 was recorded with a negative net weight. No particulate loading on the filter or damage to the filter could be observed.
GESTSP101722-414 (320-95062-2)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: GES-AIS LLC
Job ID: 320-95062-1
Project/Site: Hunters Point, Parcel B, Removal Site Evaluation

Client Sample ID: GESPM101722-414 — Lab Sample ID: 320-95062-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	0.00034	J	0.0012	0.00017	ug/m3 (Air)	1		6020	Total/NA

Client Sample ID: GESTSP101722-414 — Lab Sample ID: 320-95062-2

No Detections.

Client Sample ID: GESPM103122-657 — Lab Sample ID: 320-95062-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0012		0.00078	0.00012	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0032		0.00078	0.00011	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	9.7		0.33	0.33	ug/m3	1		PM10	Total/NA

Client Sample ID: GESTSP103122-657 — Lab Sample ID: 320-95062-4

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	17.3966		0.3041	0.3041	ug/m3 (Air)	1		40CFR50 App B	Total/NA

Client Sample ID: GESPM103122-658 — Lab Sample ID: 320-95062-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.00094		0.00076	0.00011	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0018		0.00076	0.00011	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	9.8		0.32	0.32	ug/m3	1		PM10	Total/NA

Client Sample ID: GESTSP103122-658 — Lab Sample ID: 320-95062-6

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	20.9971		0.2957	0.2957	ug/m3 (Air)	1		40CFR50 App B	Total/NA

Client Sample ID: GESPM103122-659 — Lab Sample ID: 320-95062-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.00097		0.00081	0.00012	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0026		0.00081	0.00011	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	10		0.34	0.34	ug/m3	1		PM10	Total/NA

Client Sample ID: GESTSP103122-659 — Lab Sample ID: 320-95062-8

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	17.7405		0.3386	0.3386	ug/m3 (Air)	1		40CFR50 App B	Total/NA

Client Sample ID: GESPM103122-660 — Lab Sample ID: 320-95062-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0016		0.00074	0.00011	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0047		0.00074	0.00010	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	15		0.31	0.31	ug/m3	1		PM10	Total/NA

Client Sample ID: GESTSP103122-660 — Lab Sample ID: 320-95062-10

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	13.8646		0.2853	0.2853	ug/m3 (Air)	1		40CFR50 App B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

Detection Summary

Client: GES-AIS LLC
Job ID: 320-95062-1
Project/Site: Hunters Point, Parcel B, Removal Site Evaluation

Client Sample ID: GESPM103122-661 — Lab Sample ID: 320-95062-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0010		0.00076	0.00011	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0026		0.00076	0.00011	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	11		0.32	0.32	ug/m3	1		PM10	Total/NA

Client Sample ID: GESTSP103122-661 — Lab Sample ID: 320-95062-12

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	19.6104		0.2859	0.2859	ug/m3 (Air)	1		40CFR50 App B	Total/NA

Client Sample ID: GESPM103122-662 — Lab Sample ID: 320-95062-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0012		0.00076	0.00011	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0037		0.00076	0.00011	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	12		0.32	0.32	ug/m3	1		PM10	Total/NA

Client Sample ID: GESTSP103122-662 — Lab Sample ID: 320-95062-14

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	17.6302		0.3182	0.3182	ug/m3 (Air)	1		40CFR50 App B	Total/NA

Client Sample ID: GESPM103122-663 — Lab Sample ID: 320-95062-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0010		0.00073	0.00011	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0031		0.00073	0.00010	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	9.2		0.30	0.30	ug/m3	1		PM10	Total/NA

Client Sample ID: GESTSP103122-663 — Lab Sample ID: 320-95062-16

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	20.9986		0.2853	0.2853	ug/m3 (Air)	1		40CFR50 App B	Total/NA

Client Sample ID: GESPM103122-664 — Lab Sample ID: 320-95062-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.00068	J	0.00075	0.00011	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0017		0.00075	0.00011	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	4.6		0.31	0.31	ug/m3	1		PM10	Total/NA

Client Sample ID: GESTSP103122-664 — Lab Sample ID: 320-95062-18

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	14.2896		0.2824	0.2824	ug/m3 (Air)	1		40CFR50 App B	Total/NA

Client Sample ID: GESPM103122-665 — Lab Sample ID: 320-95062-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.00083		0.00075	0.00011	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0027		0.00075	0.00010	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	5.2		0.31	0.31	ug/m3	1		PM10	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: GES-AIS LLC
Job ID: 320-95062-1
Project/Site: Hunters Point, Parcel B, Removal Site Evaluation

Client Sample ID: GESTSP103122-665
Lab Sample ID: 320-95062-20

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	20.1641		0.3131	0.3131	ug/m3 (Air)	1		40CFR50 App B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: GESPM101722-414
Lab Sample ID: 320-95062-1
Date Collected: 11/28/22 08:00
Matrix: Air
Date Received: 12/08/22 09:20
Sample Container: Folder/Filter

Method: SW846 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0012	0.00018	ug/m3 (Air)		12/13/22 07:30	12/13/22 20:21	1
Manganese	**0.00034**	**J**	0.0012	0.00017	ug/m3 (Air)		12/13/22 07:30	12/13/22 20:21	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	ND		0.50	0.50	ug/m3			12/09/22 12:40	1

Client Sample ID: GESTSP101722-414
Lab Sample ID: 320-95062-2
Date Collected: 11/28/22 08:00
Matrix: Air
Date Received: 12/08/22 09:20
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	ND		0.5000	0.5000	ug/m3 (Air)			12/09/22 12:40	1

Client Sample ID: GESPM103122-657
Lab Sample ID: 320-95062-3
Date Collected: 11/29/22 07:43
Matrix: Air
Date Received: 12/08/22 09:20
Sample Container: Folder/Filter

Method: SW846 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.0012**		0.00078	0.00012	ug/m3 (Air)		12/13/22 07:30	12/13/22 20:37	1
Manganese	**0.0032**		0.00078	0.00011	ug/m3 (Air)		12/13/22 07:30	12/13/22 20:37	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	**9.7**		0.33	0.33	ug/m3			12/09/22 12:40	1

Client Sample ID: GESTSP103122-657
Lab Sample ID: 320-95062-4
Date Collected: 11/29/22 07:43
Matrix: Air
Date Received: 12/08/22 09:20
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	**17.3966**		0.3041	0.3041	ug/m3 (Air)			12/09/22 12:40	1

Client Sample ID: GESPM103122-658
Lab Sample ID: 320-95062-5
Date Collected: 11/29/22 07:21
Matrix: Air
Date Received: 12/08/22 09:20
Sample Container: Folder/Filter

Method: SW846 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.00094**		0.00076	0.00011	ug/m3 (Air)		12/13/22 07:30	12/13/22 20:40	1
Manganese	**0.0018**		0.00076	0.00011	ug/m3 (Air)		12/13/22 07:30	12/13/22 20:40	1

Client Sample ID: GESPM103122-658
Lab Sample ID: 320-95062-5
Date Collected: 11/29/22 07:21
Matrix: Air
Date Received: 12/08/22 09:20
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	9.8		0.32	0.32	ug/m3			12/09/22 12:40	1

Client Sample ID: GESTSP103122-658
Lab Sample ID: 320-95062-6
Date Collected: 11/29/22 07:21
Matrix: Air
Date Received: 12/08/22 09:20
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	20.9971		0.2957	0.2957	ug/m3 (Air)			12/09/22 12:40	1

Client Sample ID: GESPM103122-659
Lab Sample ID: 320-95062-7
Date Collected: 11/29/22 07:57
Matrix: Air
Date Received: 12/08/22 09:20
Sample Container: Folder/Filter

Method: SW846 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.00097		0.00081	0.00012	ug/m3 (Air)		12/13/22 07:30	12/13/22 20:43	1
Manganese	0.0026		0.00081	0.00011	ug/m3 (Air)		12/13/22 07:30	12/13/22 20:43	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	10		0.34	0.34	ug/m3			12/09/22 12:40	1

Client Sample ID: GESTSP103122-659
Lab Sample ID: 320-95062-8
Date Collected: 11/29/22 07:57
Matrix: Air
Date Received: 12/08/22 09:20
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	17.7405		0.3386	0.3386	ug/m3 (Air)			12/09/22 12:40	1

Client Sample ID: GESPM103122-660
Lab Sample ID: 320-95062-9
Date Collected: 11/30/22 07:49
Matrix: Air
Date Received: 12/08/22 09:20
Sample Container: Folder/Filter

Method: SW846 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0016		0.00074	0.00011	ug/m3 (Air)		12/13/22 07:30	12/13/22 20:46	1
Manganese	0.0047		0.00074	0.00010	ug/m3 (Air)		12/13/22 07:30	12/13/22 20:46	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	15		0.31	0.31	ug/m3			12/09/22 12:40	1

Client Sample ID: GESTSP103122-660
Lab Sample ID: 320-95062-10
Date Collected: 11/30/22 07:49
Matrix: Air
Date Received: 12/08/22 09:20
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	13.8646		0.2853	0.2853	ug/m3 (Air)			12/09/22 12:40	1

Client Sample ID: GESPM103122-661
Lab Sample ID: 320-95062-11
Date Collected: 11/30/22 07:28
Matrix: Air
Date Received: 12/08/22 09:20
Sample Container: Folder/Filter

Method: SW846 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0010		0.00076	0.00011	ug/m3 (Air)		12/13/22 07:30	12/13/22 20:50	1
Manganese	0.0026		0.00076	0.00011	ug/m3 (Air)		12/13/22 07:30	12/13/22 20:50	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	11		0.32	0.32	ug/m3			12/09/22 12:40	1

Client Sample ID: GESTSP103122-661
Lab Sample ID: 320-95062-12
Date Collected: 11/30/22 07:28
Matrix: Air
Date Received: 12/08/22 09:20
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	19.6104		0.2859	0.2859	ug/m3 (Air)			12/09/22 12:40	1

Client Sample ID: GESPM103122-662
Lab Sample ID: 320-95062-13
Date Collected: 11/30/22 08:00
Matrix: Air
Date Received: 12/08/22 09:20
Sample Container: Folder/Filter

Method: SW846 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0012		0.00076	0.00011	ug/m3 (Air)		12/13/22 07:30	12/13/22 20:53	1
Manganese	0.0037		0.00076	0.00011	ug/m3 (Air)		12/13/22 07:30	12/13/22 20:53	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	12		0.32	0.32	ug/m3			12/09/22 12:40	1

Client Sample ID: GESTSP103122-662
Lab Sample ID: 320-95062-14
Date Collected: 11/30/22 08:00
Matrix: Air
Date Received: 12/08/22 09:20
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	17.6302		0.3182	0.3182	ug/m3 (Air)			12/09/22 12:40	1

Client Sample ID: GESPM103122-663
Lab Sample ID: 320-95062-15
Date Collected: 12/01/22 07:58
Matrix: Air
Date Received: 12/08/22 09:20
Sample Container: Folder/Filter

Method: SW846 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0010		0.00073	0.00011	ug/m3 (Air)		12/13/22 07:30	12/13/22 20:56	1
Manganese	0.0031		0.00073	0.00010	ug/m3 (Air)		12/13/22 07:30	12/13/22 20:56	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	9.2		0.30	0.30	ug/m3			12/09/22 12:40	1

Client Sample ID: GESTSP103122-663
Lab Sample ID: 320-95062-16
Date Collected: 12/01/22 07:58
Matrix: Air
Date Received: 12/08/22 09:20
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	20.9986		0.2853	0.2853	ug/m3 (Air)			12/09/22 12:40	1

Client Sample ID: GESPM103122-664
Lab Sample ID: 320-95062-17
Date Collected: 12/01/22 07:45
Matrix: Air
Date Received: 12/08/22 09:20
Sample Container: Folder/Filter

Method: SW846 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.00068	J	0.00075	0.00011	ug/m3 (Air)		12/13/22 07:30	12/13/22 20:59	1
Manganese	0.0017		0.00075	0.00011	ug/m3 (Air)		12/13/22 07:30	12/13/22 20:59	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	4.6		0.31	0.31	ug/m3			12/09/22 12:40	1

Client Sample ID: GESTSP103122-664
Lab Sample ID: 320-95062-18
Date Collected: 12/01/22 07:45
Matrix: Air
Date Received: 12/08/22 09:20
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	14.2896		0.2824	0.2824	ug/m3 (Air)			12/09/22 12:40	1

Client Sample ID: GESPM103122-665
Lab Sample ID: 320-95062-19
Date Collected: 12/01/22 08:09
Matrix: Air
Date Received: 12/08/22 09:20
Sample Container: Folder/Filter

Method: SW846 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.00083		0.00075	0.00011	ug/m3 (Air)		12/13/22 07:30	12/13/22 21:03	1
Manganese	0.0027		0.00075	0.00010	ug/m3 (Air)		12/13/22 07:30	12/13/22 21:03	1

Client Sample ID: GESPM103122-665
Lab Sample ID: 320-95062-19

Date Collected: 12/01/22 08:09
Matrix: Air
Date Received: 12/08/22 09:20
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	5.2		0.31	0.31	ug/m3			12/09/22 12:40	1

Client Sample ID: GESTSP103122-665
Lab Sample ID: 320-95062-20

Date Collected: 12/01/22 08:09
Matrix: Air
Date Received: 12/08/22 09:20
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	20.1641		0.3131	0.3131	ug/m3 (Air)			12/09/22 12:40	1

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 320-639399/1-B
Matrix: Air
Analysis Batch: 639754

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 639434

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0012	0.00018	ug/m3 (Air)		12/13/22 07:30	12/13/22 20:12	1
Manganese	ND		0.0012	0.00017	ug/m3 (Air)		12/13/22 07:30	12/13/22 20:12	1

Lab Sample ID: LCS 320-639399/2-B
Matrix: Air
Analysis Batch: 639754

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 639434

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Lead			0.240	0.267		ug/m3 (Air)		111	86 - 111		
Manganese			0.240	0.261		ug/m3 (Air)		109	88 - 110		

Lab Sample ID: LCSD 320-639399/3-B
Matrix: Air
Analysis Batch: 639754

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 639434

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead			0.240	0.233		ug/m3 (Air)		97	86 - 111	14	15
Manganese			0.240	0.238		ug/m3 (Air)		99	88 - 110	9	15

Metals

Pre Prep Batch: 639399

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-95062-1	GESPM101722-414	Total/NA	Air	Filter to Air	
320-95062-3	GESPM103122-657	Total/NA	Air	Filter to Air	
320-95062-5	GESPM103122-658	Total/NA	Air	Filter to Air	
320-95062-7	GESPM103122-659	Total/NA	Air	Filter to Air	
320-95062-9	GESPM103122-660	Total/NA	Air	Filter to Air	
320-95062-11	GESPM103122-661	Total/NA	Air	Filter to Air	
320-95062-13	GESPM103122-662	Total/NA	Air	Filter to Air	
320-95062-15	GESPM103122-663	Total/NA	Air	Filter to Air	
320-95062-17	GESPM103122-664	Total/NA	Air	Filter to Air	
320-95062-19	GESPM103122-665	Total/NA	Air	Filter to Air	
MB 320-639399/1-B	Method Blank	Total/NA	Air	Filter to Air	
LCS 320-639399/2-B	Lab Control Sample	Total/NA	Air	Filter to Air	
LCSD 320-639399/3-B	Lab Control Sample Dup	Total/NA	Air	Filter to Air	

Prep Batch: 639434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-95062-1	GESPM101722-414	Total/NA	Air	3050B	639399
320-95062-3	GESPM103122-657	Total/NA	Air	3050B	639399
320-95062-5	GESPM103122-658	Total/NA	Air	3050B	639399
320-95062-7	GESPM103122-659	Total/NA	Air	3050B	639399
320-95062-9	GESPM103122-660	Total/NA	Air	3050B	639399
320-95062-11	GESPM103122-661	Total/NA	Air	3050B	639399
320-95062-13	GESPM103122-662	Total/NA	Air	3050B	639399
320-95062-15	GESPM103122-663	Total/NA	Air	3050B	639399
320-95062-17	GESPM103122-664	Total/NA	Air	3050B	639399
320-95062-19	GESPM103122-665	Total/NA	Air	3050B	639399
MB 320-639399/1-B	Method Blank	Total/NA	Air	3050B	639399
LCS 320-639399/2-B	Lab Control Sample	Total/NA	Air	3050B	639399
LCSD 320-639399/3-B	Lab Control Sample Dup	Total/NA	Air	3050B	639399

Analysis Batch: 639754

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-95062-1	GESPM101722-414	Total/NA	Air	6020	639434
320-95062-3	GESPM103122-657	Total/NA	Air	6020	639434
320-95062-5	GESPM103122-658	Total/NA	Air	6020	639434
320-95062-7	GESPM103122-659	Total/NA	Air	6020	639434
320-95062-9	GESPM103122-660	Total/NA	Air	6020	639434
320-95062-11	GESPM103122-661	Total/NA	Air	6020	639434
320-95062-13	GESPM103122-662	Total/NA	Air	6020	639434
320-95062-15	GESPM103122-663	Total/NA	Air	6020	639434
320-95062-17	GESPM103122-664	Total/NA	Air	6020	639434
320-95062-19	GESPM103122-665	Total/NA	Air	6020	639434
MB 320-639399/1-B	Method Blank	Total/NA	Air	6020	639434
LCS 320-639399/2-B	Lab Control Sample	Total/NA	Air	6020	639434
LCSD 320-639399/3-B	Lab Control Sample Dup	Total/NA	Air	6020	639434

General Chemistry

Pre Prep Batch: 640625

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-95062-2	GESTSP101722-414	Total/NA	Air	Filter to Air	

General Chemistry (Continued)

Pre Prep Batch: 640625 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-95062-4	GESTSP103122-657	Total/NA	Air	Filter to Air	
320-95062-6	GESTSP103122-658	Total/NA	Air	Filter to Air	
320-95062-8	GESTSP103122-659	Total/NA	Air	Filter to Air	
320-95062-10	GESTSP103122-660	Total/NA	Air	Filter to Air	
320-95062-12	GESTSP103122-661	Total/NA	Air	Filter to Air	
320-95062-14	GESTSP103122-662	Total/NA	Air	Filter to Air	
320-95062-16	GESTSP103122-663	Total/NA	Air	Filter to Air	
320-95062-18	GESTSP103122-664	Total/NA	Air	Filter to Air	
320-95062-20	GESTSP103122-665	Total/NA	Air	Filter to Air	

Analysis Batch: 640626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-95062-1	GESPM101722-414	Total/NA	Air	PM10	
320-95062-3	GESPM103122-657	Total/NA	Air	PM10	
320-95062-5	GESPM103122-658	Total/NA	Air	PM10	
320-95062-7	GESPM103122-659	Total/NA	Air	PM10	
320-95062-9	GESPM103122-660	Total/NA	Air	PM10	
320-95062-11	GESPM103122-661	Total/NA	Air	PM10	
320-95062-13	GESPM103122-662	Total/NA	Air	PM10	
320-95062-15	GESPM103122-663	Total/NA	Air	PM10	
320-95062-17	GESPM103122-664	Total/NA	Air	PM10	
320-95062-19	GESPM103122-665	Total/NA	Air	PM10	

Analysis Batch: 640628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-95062-2	GESTSP101722-414	Total/NA	Air	40CFR50 App B	640625
320-95062-4	GESTSP103122-657	Total/NA	Air	40CFR50 App B	640625
320-95062-6	GESTSP103122-658	Total/NA	Air	40CFR50 App B	640625
320-95062-8	GESTSP103122-659	Total/NA	Air	40CFR50 App B	640625
320-95062-10	GESTSP103122-660	Total/NA	Air	40CFR50 App B	640625
320-95062-12	GESTSP103122-661	Total/NA	Air	40CFR50 App B	640625
320-95062-14	GESTSP103122-662	Total/NA	Air	40CFR50 App B	640625
320-95062-16	GESTSP103122-663	Total/NA	Air	40CFR50 App B	640625
320-95062-18	GESTSP103122-664	Total/NA	Air	40CFR50 App B	640625
320-95062-20	GESTSP103122-665	Total/NA	Air	40CFR50 App B	640625

Lab Chronicle

Client: GES-AIS LLC
Job ID: 320-95062-1
Project/Site: Hunters Point, Parcel B, Removal Site Evaluation

Client Sample ID: GESPM101722-414
Lab Sample ID: 320-95062-1
Date Collected: 11/28/22 08:00
Matrix: Air
Date Received: 12/08/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					639399	12/13/22 06:30	[redacted]	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	639434	12/13/22 07:30	[redacted]	EET SAC
Total/NA	Analysis	6020		1			639754	12/13/22 20:21	[redacted]	EET SAC
Total/NA	Analysis	PM10		1	0 g	-0.0003 g	640626	12/09/22 12:40	[redacted]	EET SAC

Client Sample ID: GESTSP101722-414
Lab Sample ID: 320-95062-2
Date Collected: 11/28/22 08:00
Matrix: Air
Date Received: 12/08/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			640628	12/09/22 12:40	[redacted]	EET SAC
Total/NA	Pre Prep	Filter to Air					640625	12/16/22 12:29	[redacted]	EET SAC

Client Sample ID: GESPM103122-657
Lab Sample ID: 320-95062-3
Date Collected: 11/29/22 07:43
Matrix: Air
Date Received: 12/08/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					639399	12/13/22 06:30	[redacted]	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	639434	12/13/22 07:30	[redacted]	EET SAC
Total/NA	Analysis	6020		1			639754	12/13/22 20:37	[redacted]	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0148 g	640626	12/09/22 12:40	[redacted]	EET SAC

Client Sample ID: GESTSP103122-657
Lab Sample ID: 320-95062-4
Date Collected: 11/29/22 07:43
Matrix: Air
Date Received: 12/08/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			640628	12/09/22 12:40	[redacted]	EET SAC
Total/NA	Pre Prep	Filter to Air					640625	12/16/22 12:29	[redacted]	EET SAC

Client Sample ID: GESPM103122-658
Lab Sample ID: 320-95062-5
Date Collected: 11/29/22 07:21
Matrix: Air
Date Received: 12/08/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					639399	12/13/22 06:30	[redacted]	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	639434	12/13/22 07:30	[redacted]	EET SAC
Total/NA	Analysis	6020		1			639754	12/13/22 20:40	[redacted]	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0154 g	640626	12/09/22 12:40	[redacted]	EET SAC

Lab Chronicle

Client: GES-AIS LLC
Job ID: 320-95062-1
Project/Site: Hunters Point, Parcel B, Removal Site Evaluation

Client Sample ID: GESTSP103122-658
Lab Sample ID: 320-95062-6
Date Collected: 11/29/22 07:21
Matrix: Air
Date Received: 12/08/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			640628	12/09/22 12:40	[redacted]	EET SAC
Total/NA	Pre Prep	Filter to Air					640625	12/16/22 12:29	[redacted]	EET SAC

Client Sample ID: GESPM103122-659
Lab Sample ID: 320-95062-7
Date Collected: 11/29/22 07:57
Matrix: Air
Date Received: 12/08/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					639399	12/13/22 06:30	[redacted]	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	639434	12/13/22 07:30	[redacted]	EET SAC
Total/NA	Analysis	6020		1			639754	12/13/22 20:43	[redacted]	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0155 g	640626	12/09/22 12:40	[redacted]	EET SAC

Client Sample ID: GESTSP103122-659
Lab Sample ID: 320-95062-8
Date Collected: 11/29/22 07:57
Matrix: Air
Date Received: 12/08/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			640628	12/09/22 12:40	[redacted]	EET SAC
Total/NA	Pre Prep	Filter to Air					640625	12/16/22 12:29	[redacted]	EET SAC

Client Sample ID: GESPM103122-660
Lab Sample ID: 320-95062-9
Date Collected: 11/30/22 07:49
Matrix: Air
Date Received: 12/08/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					639399	12/13/22 06:30	[redacted]	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	639434	12/13/22 07:30	[redacted]	EET SAC
Total/NA	Analysis	6020		1			639754	12/13/22 20:46	[redacted]	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0246 g	640626	12/09/22 12:40	[redacted]	EET SAC

Client Sample ID: GESTSP103122-660
Lab Sample ID: 320-95062-10
Date Collected: 11/30/22 07:49
Matrix: Air
Date Received: 12/08/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			640628	12/09/22 12:40	[redacted]	EET SAC
Total/NA	Pre Prep	Filter to Air					640625	12/16/22 12:29	[redacted]	EET SAC

Lab Chronicle

Client: GES-AIS LLC
Job ID: 320-95062-1
Project/Site: Hunters Point, Parcel B, Removal Site Evaluation

Client Sample ID: GESPM103122-661
Lab Sample ID: 320-95062-11
Date Collected: 11/30/22 07:28
Matrix: Air
Date Received: 12/08/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					639399	12/13/22 06:30	[redacted]	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	639434	12/13/22 07:30	[redacted]	EET SAC
Total/NA	Analysis	6020		1			639754	12/13/22 20:50	[redacted]	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0179 g	640626	12/09/22 12:40	[redacted]	EET SAC

Client Sample ID: GESTSP103122-661
Lab Sample ID: 320-95062-12
Date Collected: 11/30/22 07:28
Matrix: Air
Date Received: 12/08/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			640628	12/09/22 12:40	[redacted]	EET SAC
Total/NA	Pre Prep	Filter to Air					640625	12/16/22 12:29	[redacted]	EET SAC

Client Sample ID: GESPM103122-662
Lab Sample ID: 320-95062-13
Date Collected: 11/30/22 08:00
Matrix: Air
Date Received: 12/08/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					639399	12/13/22 06:30	[redacted]	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	639434	12/13/22 07:30	[redacted]	EET SAC
Total/NA	Analysis	6020		1			639754	12/13/22 20:53	[redacted]	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0193 g	640626	12/09/22 12:40	[redacted]	EET SAC

Client Sample ID: GESTSP103122-662
Lab Sample ID: 320-95062-14
Date Collected: 11/30/22 08:00
Matrix: Air
Date Received: 12/08/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			640628	12/09/22 12:40	[redacted]	EET SAC
Total/NA	Pre Prep	Filter to Air					640625	12/16/22 12:29	[redacted]	EET SAC

Client Sample ID: GESPM103122-663
Lab Sample ID: 320-95062-15
Date Collected: 12/01/22 07:58
Matrix: Air
Date Received: 12/08/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					639399	12/13/22 06:30	[redacted]	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	639434	12/13/22 07:30	[redacted]	EET SAC
Total/NA	Analysis	6020		1			639754	12/13/22 20:56	[redacted]	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0151 g	640626	12/09/22 12:40	[redacted]	EET SAC

Lab Chronicle

Client: GES-AIS LLC
Job ID: 320-95062-1
Project/Site: Hunters Point, Parcel B, Removal Site Evaluation

Client Sample ID: GESTSP103122-663
Lab Sample ID: 320-95062-16
Date Collected: 12/01/22 07:58
Matrix: Air
Date Received: 12/08/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			640628	12/09/22 12:40	[redacted]	EET SAC
Total/NA	Pre Prep	Filter to Air					640625	12/16/22 12:29	[redacted]	EET SAC

Client Sample ID: GESPM103122-664
Lab Sample ID: 320-95062-17
Date Collected: 12/01/22 07:45
Matrix: Air
Date Received: 12/08/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					639399	12/13/22 06:30	[redacted]	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	639434	12/13/22 07:30	[redacted]	EET SAC
Total/NA	Analysis	6020		1			639754	12/13/22 20:59	[redacted]	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0073 g	640626	12/09/22 12:40	[redacted]	EET SAC

Client Sample ID: GESTSP103122-664
Lab Sample ID: 320-95062-18
Date Collected: 12/01/22 07:45
Matrix: Air
Date Received: 12/08/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			640628	12/09/22 12:40	[redacted]	EET SAC
Total/NA	Pre Prep	Filter to Air					640625	12/16/22 12:29	[redacted]	EET SAC

Client Sample ID: GESPM103122-665
Lab Sample ID: 320-95062-19
Date Collected: 12/01/22 08:09
Matrix: Air
Date Received: 12/08/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					639399	12/13/22 06:30	[redacted]	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	639434	12/13/22 07:30	[redacted]	EET SAC
Total/NA	Analysis	6020		1			639754	12/13/22 21:03	[redacted]	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0083 g	640626	12/09/22 12:40	[redacted]	EET SAC

Client Sample ID: GESTSP103122-665
Lab Sample ID: 320-95062-20
Date Collected: 12/01/22 08:09
Matrix: Air
Date Received: 12/08/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			640628	12/09/22 12:40	[redacted]	EET SAC
Total/NA	Pre Prep	Filter to Air					640625	12/16/22 12:29	[redacted]	EET SAC

Laboratory References:
EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: GES-AIS LLC
Job ID: 320-95062-1
Project/Site: Hunters Point, Parcel B, Removal Site Evaluation

Laboratory: Eurofins Sacramento

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2468	01-20-24
Oregon	NELAP	4040	01-29-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
40CFR50 App B		Air	Total Suspended Particulates
PM10		Air	Particulate Matter as PM 10

Method Summary

Client: GES-AIS LLC
Job ID: 320-95062-1
Project/Site: Hunters Point, Parcel B, Removal Site Evaluation

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	EET SAC
40CFR50 App B	Suspended Particulate Matter in Ambient Air	EPA	EET SAC
PM10	Particulate Matter	40CFR50J	EET SAC
3050B	Preparation, Metals	SW846	EET SAC
Filter to Air	Filter to Air volume ratio	None	EET SAC

Protocol References:

40CFR50J = 40 CFR Part 50 Appendix J

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: GES-AIS LLC
Job ID: 320-95062-1
Project/Site: Hunters Point, Parcel B, Removal Site Evaluation

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-95062-1	GESPM101722-414	Air	11/28/22 08:00	12/08/22 09:20
320-95062-2	GESTSP101722-414	Air	11/28/22 08:00	12/08/22 09:20
320-95062-3	GESPM103122-657	Air	11/29/22 07:43	12/08/22 09:20
320-95062-4	GESTSP103122-657	Air	11/29/22 07:43	12/08/22 09:20
320-95062-5	GESPM103122-658	Air	11/29/22 07:21	12/08/22 09:20
320-95062-6	GESTSP103122-658	Air	11/29/22 07:21	12/08/22 09:20
320-95062-7	GESPM103122-659	Air	11/29/22 07:57	12/08/22 09:20
320-95062-8	GESTSP103122-659	Air	11/29/22 07:57	12/08/22 09:20
320-95062-9	GESPM103122-660	Air	11/30/22 07:49	12/08/22 09:20
320-95062-10	GESTSP103122-660	Air	11/30/22 07:49	12/08/22 09:20
320-95062-11	GESPM103122-661	Air	11/30/22 07:28	12/08/22 09:20
320-95062-12	GESTSP103122-661	Air	11/30/22 07:28	12/08/22 09:20
320-95062-13	GESPM103122-662	Air	11/30/22 08:00	12/08/22 09:20
320-95062-14	GESTSP103122-662	Air	11/30/22 08:00	12/08/22 09:20
320-95062-15	GESPM103122-663	Air	12/01/22 07:58	12/08/22 09:20
320-95062-16	GESTSP103122-663	Air	12/01/22 07:58	12/08/22 09:20
320-95062-17	GESPM103122-664	Air	12/01/22 07:45	12/08/22 09:20
320-95062-18	GESTSP103122-664	Air	12/01/22 07:45	12/08/22 09:20
320-95062-19	GESPM103122-665	Air	12/01/22 08:09	12/08/22 09:20
320-95062-20	GESTSP103122-665	Air	12/01/22 08:09	12/08/22 09:20

CHAIN-OF-CUSTODY RECORD

Gilbane Federal [redacted]
1655 Grant Street, Suite 1200, Concord, CA 94520
[redacted]

COC ID # MC120722ASBB

GES

Project Name: Hunters Point Shipyard, Parcel B Removal Site Evaluation	Laboratory: EUROFINS ENVIRONMENT TESTING NORTHERN CALIFORNIA, LLC, WEST SACRAMENTO, CA	Event: Parcel B Air Monitoring
Project Number: J310000900	POC: [redacted]	
WBS Code: J310000900	Ship to: 10100 East Fwy Ste. 100 Houston TX 77029	

[redacted] 12-7-22

Page 1 of ~~3~~

Comments:

Equipment:

Code	Matrix
A	Air
AQ	Air Quality Control Matrix

Code	Container/Preservative
1	1x 250-mL Plastic, 4 Degrees C
1	1x Envelope, None

320-95062 Chain of Custody

Event: Parcel B Air Monitoring

	Sample ID	Matrix	Date	Time	Samp Init.	Analytical Test Method: CAAIR - Air PM10	N0500 - Air TSP	SW6020 - Air Pb Mn	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	COMMENTS
						1	1	1						
1	GESPM101722-414	AQ	11/28/2022	0800	[redacted]	X		X	FB	FB1	0.00	0.00	1	
2	GESTSP101722-414	AQ	11/28/2022	0800			X		FB	FB1	0.00	0.00	1	
3	GESPM103122-657	A	11/29/2022	0743		X		X	MSB01	N1	0.00	0.00	1	
4	GESTSP103122-657	A	11/29/2022	0743			X		MSB01	N1	0.00	0.00	1	
5	GESPM103122-658	A	11/29/2022	0721		X		X	MSB02	N1	0.00	0.00	1	
6	GESTSP103122-658	A	11/29/2022	0721			X		MSB02	N1	0.00	0.00	1	
7	GESPM103122-659	A	11/29/2022	0757		X		X	MSB113A	N1	0.00	0.00	1	
8	GESTSP103122-659	A	11/29/2022	0757			X		MSB113A	N1	0.00	0.00	1	
9								[redacted]						
10														
11														

12-07-22

Turnaround Time: 7 days

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time	Shipping Date / Carrier / Airbill Number
[redacted]	12-07-22	1600	FEDEX	12-07-22	1600	Shipping Date: 12/07/22 / FEDEX 7706 0814 6773
			[redacted]	12-8-22	0900	**Received by Laboratory:** *(Signature, Date, Time)* **& condition**

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CHAIN-OF-CUSTODY RECORD

Gilbane Federal [redacted]
1655 Grant Street, Suite 1200, Concord, CA 94520
[redacted]

COC ID # MC120722ASBB

GES

Project Name: Hunters Point Shipyard, Parcel B Removal Site Evaluation	**Laboratory:** EUROFINS ENVIRONMENT TESTING NORTHERN CALIFORNIA, LLC, WEST SACRAMENTO, CA	Event: Parcel B Air Monitoring
Project Number: J310000900	POC [redacted]	
WBS Code: J310000900	Ship to: 10100 East Fwy Ste. 100 Houston TX 77029	

[redacted] 12-7-22

Page ~~1 of 1~~ 2 of 3

Comments:

Equipment:

Event: Parcel B Air Monitoring

Code	Matrix
A	Air
AQ	Air Quality Control Matrix

Code	Container/Preservative
1	1x 250-mL Plastic, 4 Degrees C
1	1x Envelope, None

	Sample ID	Matrix	Date	Time	Samp Init.	CAAIR - Air PM10 (Analytical Test Method)	N0500 - Air TSP (Analytical Test Method)	SW6020 - Air Pb Mn (Analytical Test Method)	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	COMMENTS
						1	1	1						
1	GESPM103122-660	A	11/30/2022	0749	[redacted]	X		X	MSB01	N1	0.00	0.00	1	
2	GESTSP103122-660	A	11/30/2022	0749			X		MSB01	N1	0.00	0.00	1	
3	GESPM103122-661	A	11/30/2022	0728		X		X	MSB02	N1	0.00	0.00	1	
4	GESTSP103122-661	A	11/30/2022	0728			X		MSB02	N1	0.00	0.00	1	
5	GESPM103122-662	A	11/30/2022	0800		X		X	MSB113A	N1	0.00	0.00	1	
6	GESTSP103122-662	A	11/30/2022	0800			X		MSB113A	N1	0.00	0.00	1	
7														
8														
9														
10														
11														

[redacted] 12-07-22

Turnaround Time: 7 days

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time	Shipping Date / Carrier / Airbill Number
[redacted]	12-07-22	1600	FEDEX	12-07-22	1600	Shipping Date: 12/07/22 / FEDEX 7706 0814 6773
			[redacted] EESL	12.8.22	0930	**Received by Laboratory:** *(Signature, Date, Time)* **& condition**

23.1

CHAIN-OF-CUSTODY RECORD

Gilbane Federal Brett Womack
1655 Grant Street, Suite 1200, Concord, CA 94520
[redacted]

COC ID # MC120722ASBB

GES

Project Name: Hunters Point Shipyard, Parcel B Removal Site Evaluation	Laboratory: EUROFINS ENVIRONMENT TESTING NORTHERN CALIFORNIA, LLC, WEST SACRAMENTO, CA	Event: Parcel B Air Monitoring
Project Number: J310000900	POC: [redacted]	
WBS Code: J310000900	Ship to: 10100 East Fwy Ste. 100 Houston TX 77029	

[redacted] 12-7-22

Comments:

Equipment:

Event: Parcel B Air Monitoring

Code	Matrix
A	Air
AQ	Air Quality Control Matrix

Code	Container/Preservative
1	1x 250-mL Plastic, 4 Degrees C
1	1x Envelope, None

	Sample ID	Matrix	Date	Time	Samp Init.	Analytical Test Method: CAAIR - Air PM10	N0500 - Air TSP	SW6020 - Air Pb Mn	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	COMMENTS
						1	1	1						
1	GESPM103122-663	A	12/01/2022	0758	[redacted]	X		X	MSB01	N1	0.00	0.00	1	
2	GESTSP103122-663	A	12/01/2022	0758			X		MSB01	N1	0.00	0.00	1	
3	GESPM103122-664	A	12/01/2022	0745		X		X	MSB02	N1	0.00	0.00	1	
4	GESTSP103122-664	A	12/01/2022	0745			X		MSB02	N1	0.00	0.00	1	
5	GESPM103122-665	A	12/01/2022	0809		X		X	MSB113A	N1	0.00	0.00	1	
6	GESTSP103122-665	A	12/01/2022	0809			X		MSB113A	N1	0.00	0.00	1	
7														
8														
9														
10														
11														

[redacted] 12-07-22

Turnaround Time: 7 days

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time	Shipping Date / Carrier / Airbill Number
[redacted]	12-07-22	1600	FEDEX	12-07-22	1600	Shipping Date: 12/07/22 / FEDEX 7706 0814 6773
			[redacted]	12-8-22	0820	**Received by Laboratory:** *(Signature, Date, Time)* **& condition**

2.3.1

COC # MC120722AIRB

Gilbane Federal
[redacted]
2300 Clayton Road, Suite 1050, Concord, CA 94520
[redacted]

Project Name: Hunters Point Shipyard, Parcel B Removal Site Evaluation	Event: **Parcel B Air Monitoring**
Project Number: J310000900	
WBS Code: J310000900	

Sample ID	Matrix	Date	Time	VOLUME (M^3)
GESPM101722-414	AQ	11/28/2022	0800	NA
GESTSP101722-414	AQ	11/28/2022	0800	NA
GESPM103122-657	A	11/29/2022	0743	1529.47
GESTSP103122-657	A	11/29/2022	0743	1644.00
GESPM103122-658	A	11/29/2022	0721	1572.93
GESTSP103122-658	A	11/29/2022	0721	1690.71
GESPM103122-659	A	11/29/2022	0757	1481.59
GESTSP103122-659	A	11/29/2022	0757	1476.85
GESPM103122-660	A	11/30/2022	0749	1630.88
GESTSP103122-660	A	11/30/2022	0749	1752.66
GESPM103122-661	A	11/30/2022	0728	1579.37
GESTSP103122-661	A	11/30/2022	0728	1749.07
GESPM103122-662	A	11/30/2022	0800	1586.43
GESTSP103122-662	A	11/30/2022	0800	1571.17
GESPM103122-663	A	12/01/2022	0758	1645.42
GESTSP103122-663	A	12/01/2022	0758	1752.50
GESPM103122-664	A	12/01/2022	0745	1592.92
GESTSP103122-664	A	12/01/2022	0745	1770.52
GESPM103122-665	A	12/01/2022	0809	1604.75
GESTSP103122-665	A	12/01/2022	0809	1596.90

[redacted] 12/12/22

MC120722AIRB

CHAIN-OF-CUSTODY RECORD

Gilbane Federal [redacted]
1655 Grant Street, Suite 1200, Concord, CA 94520
[redacted]

COC ID # ~~MC120722ASPB~~

GES

Project Name: Hunters Point Shipyard, Parcel B Removal Site Evaluation	Laboratory: EUROFINS ENVIRONMENT TESTING NORTHERN CALIFORNIA, LLC, WEST SACRAMENTO, CA	Event: Parcel B Air Monitoring
Project Number: J310000900	POC [redacted]	
WBS Code: J310000900	Ship to: 10100 East Fwy Ste. 100 Houston TX 77029	

[redacted] 12-7-22

Page 1 of ~~3~~

Comments:

Equipment:

Event: Parcel B Air Monitoring

Code	Matrix
A	Air
AQ	Air Quality Control Matrix

Code	Container/Preservative
1	1x 250-mL Plastic, 4 Degrees C
1	1x Envelope, None

320-95062 Chain of Custody

	Sample ID	Matrix	Date	Time	Samp Init.	Analytical Test Method: CAAIR - Air PM10	N0500 - Air TSP	SW6020 - Air Pb Mn	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	COMMENTS
						1	1	1						
1	GESPM101722-414	AQ	11/28/2022	0800	[redacted]	X		X	FB	FB1	0.00	0.00	1	
2	GESTSP101722-414	AQ	11/28/2022	0800			X		FB	FB1	0.00	0.00	1	
3	GESPM103122-657	A	11/29/2022	0743		X		X	MSB01	N1	0.00	0.00	1	
4	GESTSP103122-657	A	11/29/2022	0743			X		MSB01	N1	0.00	0.00	1	
5	GESPM103122-658	A	11/29/2022	0721		X		X	MSB02	N1	0.00	0.00	1	
6	GESTSP103122-658	A	11/29/2022	0721			X		MSB02	N1	0.00	0.00	1	
7	GESPM103122-659	A	11/29/2022	0757		X		X	MSB113A	N1	0.00	0.00	1	
8	GESTSP103122-659	A	11/29/2022	0757			X		MSB113A	N1	0.00	0.00	1	
9								[redacted]						
10														
11														

12-07-22

Turnaround Time: 7 days

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time	Shipping Date / Carrier / Airbill Number
[redacted]	12-07-22	1600	FEDEX	12-07-22	1600	Shipping Date: 12/07/22 / FEDEX 7706 0814 6773
			[redacted]	12-8-22	0920	**Received by Laboratory:** *(Signature, Date, Time)* **& condition**

231

[redacted] 12/12/22

MC120722AIRB

CHAIN-OF-CUSTODY RECORD

Gilbane Federal [redacted]
1655 Grant Street, Suite 1200, Concord, CA 94520
[redacted]

COC ID # ~~MC120722ASDB~~

GES

Project Name: Hunters Point Shipyard, Parcel B Removal Site Evaluation	**Laboratory:** EUROFINS ENVIRONMENT TESTING NORTHERN CALIFORNIA, LLC, WEST SACRAMENTO, CA	Event: Parcel B Air Monitoring
Project Number: J310000900	POC: [redacted]	
WBS Code: J310000900	Ship to: 10100 East Fwy Ste. 100 Houston TX 77029	

[redacted] 12-7-22

Comments:

Equipment:

Event: Parcel B Air Monitoring

Analytical Test Method

	CAAIR - Air PM10	N0500 - Air TSP	SW6020 - Air Pb Mn
	1	1	1

Code	Matrix
A	Air
AQ	Air Quality Control Matrix

Code	Container/Preservative
1	1x 250-mL Plastic, 4 Degrees C
1	1x Envelope, None

Page ~~1 of 1~~ 2 of 3

	Sample ID	Matrix	Date	Time	Samp Init.	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	COMMENTS
1	GESPM103122-660	A	11/30/2022	0749	[redacted]	MSB01	N1	0.00	0.00	1	
2	GESTSP103122-660	A	11/30/2022	0749		MSB01	N1	0.00	0.00	1	
3	GESPM103122-661	A	11/30/2022	0728		MSB02	N1	0.00	0.00	1	
4	GESTSP103122-661	A	11/30/2022	0728		MSB02	N1	0.00	0.00	1	
5	GESPM103122-662	A	11/30/2022	0800		MSB113A	N1	0.00	0.00	1	
6	GESTSP103122-662	A	11/30/2022	0800		MSB113A	N1	0.00	0.00	1	
7											
8											
9											
10											
11											

[redacted] 12-07-22

Turnaround Time: 7 days

Relinquished by: *(Signature)*	**Date**	**Time**	**Received by: *(Signature)***	**Date**	**Time**	**Shipping Date / Carrier / Airbill Number**
[redacted]	12-07-22	1600	FEDEX	12-07-22	1600	Shipping Date: 12/07/22 / FEDEX 7706 0814 6773
			[redacted]	12-8-22	0930	**Received by Laboratory:** *(Signature, Date, Time)* **& condition**

23.1

[redacted] 12/12/22

MC120722AIRB

CHAIN-OF-CUSTODY RECORD

Gilbane Federal [redacted]
1655 Grant Street, Suite 1200, Concord, CA 94520
[redacted]

COC ID # ~~MC120722ASBB~~

GES

Project Name: Hunters Point Shipyard, Parcel B Removal Site Evaluation	Laboratory: EUROFINS ENVIRONMENT TESTING NORTHERN CALIFORNIA, LLC, WEST SACRAMENTO, CA	Event: Parcel B Air Monitoring
Project Number: J310000900	POC: [redacted]	
WBS Code: J310000900	Ship to: 10100 East Fwy Ste. 100 Houston TX 77029	

[redacted] 12-7-22

Comments:

Equipment:

Event: Parcel B Air Monitoring

Analytical Test Method

Code	Matrix
A	Air
AQ	Air Quality Control Matrix

Code	Container/Preservative
1	1x 250-mL Plastic, 4 Degrees C
1	1x Envelope, None

Page ~~1 of 1~~ 30 of 32

	Sample ID	Matrix	Date	Time	Samp Init.	CAAIR - Air PM10	N0500 - Air TSP	SW6020 - Air Pb Mn	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	COMMENTS
						1	1	1						
1	GESPM103122-663	A	12/01/2022	0758	[redacted]	X		X	MSB01	N1	0.00	0.00	1	
2	GESTSP103122-663	A	12/01/2022	0758			X		MSB01	N1	0.00	0.00	1	
3	GESPM103122-664	A	12/01/2022	0745		X		X	MSB02	N1	0.00	0.00	1	
4	GESTSP103122-664	A	12/01/2022	0745			X		MSB02	N1	0.00	0.00	1	
5	GESPM103122-665	A	12/01/2022	0809		X		X	MSB113A	N1	0.00	0.00	1	
6	GESTSP103122-665	A	12/01/2022	0809			X		MSB113A	N1	0.00	0.00	1	
7														
8														
9														
10														
11														

[redacted] 12-07-22

Turnaround Time: 7 days

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time	Shipping Date / Carrier / Airbill Number
[redacted]	12-07-22	1600	FEDEX	12-07-22	1600	Shipping Date: 12/07/22 / FEDEX 7706 0814 6773
			[redacted]	12-8-22	0820	**Received by Laboratory:** *(Signature, Date, Time)* **& condition**

2.3.1

COC # MC120722AIRB

Gilbane Federal
[redacted]
2300 Clayton Road, Suite 1050, Concord, CA 94520
[redacted]

Project Name: Hunters Point Shipyard, Parcel B Removal Site Evaluation	Event: **Parcel B Air Monitoring**
Project Number: J310000900	
WBS Code: J310000900	

Sample ID	Matrix	Date	Time	VOLUME (M^3)
GESPM101722-414	AQ	11/28/2022	0800	NA
GESTSP101722-414	AQ	11/28/2022	0800	NA
GESPM103122-657	A	11/29/2022	0743	1529.47
GESTSP103122-657	A	11/29/2022	0743	1644.00
GESPM103122-658	A	11/29/2022	0721	1572.93
GESTSP103122-658	A	11/29/2022	0721	1690.71
GESPM103122-659	A	11/29/2022	0757	1481.59
GESTSP103122-659	A	11/29/2022	0757	1476.85
GESPM103122-660	A	11/30/2022	0749	1630.88
GESTSP103122-660	A	11/30/2022	0749	1752.66
GESPM103122-661	A	11/30/2022	0728	1579.37
GESTSP103122-661	A	11/30/2022	0728	1749.07
GESPM103122-662	A	11/30/2022	0800	1586.43
GESTSP103122-662	A	11/30/2022	0800	1571.17
GESPM103122-663	A	12/01/2022	0758	1645.42
GESTSP103122-663	A	12/01/2022	0758	1752.50
GESPM103122-664	A	12/01/2022	0745	1592.92
GESTSP103122-664	A	12/01/2022	0745	1770.52
GESPM103122-665	A	12/01/2022	0809	1604.75
GESTSP103122-665	A	12/01/2022	0809	1596.90

Login Sample Receipt Checklist

Client: GES-AIS LLC

Job Number: 320-95062-1

Login Number: 95062
List Number: 1
Creator: [redacted]

List Source: Eurofins Sacramento

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	SEAL
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

PREPARED FOR

Attn: [redacted]
GES-AIS LLC
1501 W Fountainhead Parkway
Ste 550
Tempe, Arizona 85282

Generated 12/22/2022 5:00:40 PM

JOB DESCRIPTION

Hunters Point, Parcel B, Removal Site Evaluation

JOB NUMBER

320-95321-1

Eurofins Sacramento
880 Riverside Parkway
West Sacramento CA 95605

See page two for job notes and contact information.

Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northern California, LLC Project Manager.

Authorization

[redacted]

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12/22/2022 5:00:40 PM

Authorized for release by
[redacted], Project Manager I
[redacted]

Table of Contents

Definitions/Glossary

Client: GES-AIS LLC
Job ID: 320-95321-1
Project/Site: Hunters Point, Parcel B, Removal Site Evaluation

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 320-95321-1

Laboratory: Eurofins Sacramento

Narrative

Job Narrative
320-95321-1

Comments
No additional comments.

Receipt
The samples were received on 12/15/2022 9:20 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 19.7º C.

Metals
Method PM10: The following sample in analytical batch 320-642160 has a result that is not reflective of the filter having reached a stable weight: GESPM103122-672 (320-95321-13). Per standard operating procedure, constant weight is defined as successive weights not exceeding 0.5 mg from the previous weight. In this case, the final weight that was recorded was greater than 0.5 mg from the previous weight - 0.6mg was the difference obtained. Please note that reweighing the filter, to obtain a final constant weight, was not possible as a portion of the filter had already been cut away for the next step in the analysis. The "non-constant" final weight that was obtained is being used for the calculation of the final residue on the filter.

Method PM10: The following sample in analytical batch 320-642160 was recorded with a negative net weight: GESPM103122-666 (320-95321-1). No particulate loading on the filter or damage to the filter could be observed.

Method 40CFR50 App B: The following sample in preparation batch 320-642054 and analytical batch 320-642492 was recorded with a negative net weight: GESTSP103122-666 (320-95321-2). No particulate loading on the filter or damage to the filter could be observed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: GES-AIS LLC
Job ID: 320-95321-1
Project/Site: Hunters Point, Parcel B, Removal Site Evaluation

Client Sample ID: GESPM103122-666 — Lab Sample ID: 320-95321-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.00043	J	0.0012	0.00018	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0019		0.0012	0.00017	ug/m3 (Air)	1		6020	Total/NA

Client Sample ID: GESTSP103122-666 — Lab Sample ID: 320-95321-2

No Detections.

Client Sample ID: GESPM103122-667 — Lab Sample ID: 320-95321-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.00085		0.00074	0.00011	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0030		0.00074	0.00010	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	11		0.31	0.31	ug/m3	1		PM10	Total/NA

Client Sample ID: GESTSP103122-667 — Lab Sample ID: 320-95321-4

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	20.4757		0.2844	0.2844	ug/m3 (Air)	1		40CFR50 App B	Total/NA

Client Sample ID: GESPM103122-668 — Lab Sample ID: 320-95321-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.00059	J	0.00074	0.00011	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0019		0.00074	0.00010	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	12		0.31	0.31	ug/m3	1		PM10	Total/NA

Client Sample ID: GESTSP103122-668 — Lab Sample ID: 320-95321-6

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	17.1059		0.2861	0.2861	ug/m3 (Air)	1		40CFR50 App B	Total/NA

Client Sample ID: GESPM103122-669 — Lab Sample ID: 320-95321-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.00068	J	0.0014	0.00022	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0025		0.0014	0.00020	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	12		0.60	0.60	ug/m3	1		PM10	Total/NA

Client Sample ID: GESTSP103122-669 — Lab Sample ID: 320-95321-8

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	27.3211		0.5965	0.5965	ug/m3 (Air)	1		40CFR50 App B	Total/NA

Client Sample ID: GESPM103122-670 — Lab Sample ID: 320-95321-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.00051	J	0.00078	0.00012	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0021		0.00078	0.00011	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	13		0.32	0.32	ug/m3	1		PM10	Total/NA

Client Sample ID: GESTSP103122-670 — Lab Sample ID: 320-95321-10

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	18.6717		0.2855	0.2855	ug/m3 (Air)	1		40CFR50 App B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: GES-AIS LLC
Job ID: 320-95321-1
Project/Site: Hunters Point, Parcel B, Removal Site Evaluation

Client Sample ID: GESPM103122-671 — Lab Sample ID: 320-95321-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.00047	J	0.00073	0.00011	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0018		0.00073	0.00010	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	12		0.30	0.30	ug/m3	1		PM10	Total/NA

Client Sample ID: GESTSP103122-671 — Lab Sample ID: 320-95321-12

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	20.1996		0.2813	0.2813	ug/m3 (Air)	1		40CFR50 App B	Total/NA

Client Sample ID: GESPM103122-672 — Lab Sample ID: 320-95321-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.00064	J	0.00078	0.00012	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0025		0.00078	0.00011	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	14		0.33	0.33	ug/m3	1		PM10	Total/NA

Client Sample ID: GESTSP103122-672 — Lab Sample ID: 320-95321-14

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	14.7970		0.3259	0.3259	ug/m3 (Air)	1		40CFR50 App B	Total/NA

Client Sample ID: GESPM103122-673 — Lab Sample ID: 320-95321-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0011	J	0.0028	0.00043	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0040		0.0028	0.00040	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	18		1.2	1.2	ug/m3	1		PM10	Total/NA

Client Sample ID: GESTSP103122-673 — Lab Sample ID: 320-95321-16

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	30.1198		1.0913	1.0913	ug/m3 (Air)	1		40CFR50 App B	Total/NA

Client Sample ID: GESPM103122-674 — Lab Sample ID: 320-95321-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.00059	J	0.0031	0.00046	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0024	J	0.0031	0.00043	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	2.3		1.3	1.3	ug/m3	1		PM10	Total/NA

Client Sample ID: GESTSP103122-674 — Lab Sample ID: 320-95321-18

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	11.5349		1.2015	1.2015	ug/m3 (Air)	1		40CFR50 App B	Total/NA

Client Sample ID: GESPM103122-675 — Lab Sample ID: 320-95321-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0016	J	0.0029	0.00043	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0047		0.0029	0.00040	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	12		1.2	1.2	ug/m3	1		PM10	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: GES-AIS LLC
Job ID: 320-95321-1
Project/Site: Hunters Point, Parcel B, Removal Site Evaluation

Client Sample ID: GESTSP103122-675
Lab Sample ID: 320-95321-20

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	21.9150		1.2041	1.2041	ug/m3 (Air)	1		40CFR50 App B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: GESPM103122-666
Lab Sample ID: 320-95321-1
Date Collected: 12/06/22 08:00
Matrix: Air
Date Received: 12/15/22 09:20
Sample Container: Folder/Filter

Method: SW846 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.00043	J	0.0012	0.00018	ug/m3 (Air)		12/20/22 06:44	12/20/22 16:11	1
Manganese	0.0019		0.0012	0.00017	ug/m3 (Air)		12/20/22 06:44	12/20/22 16:11	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	ND		0.50	0.50	ug/m3			12/16/22 16:30	1

Client Sample ID: GESTSP103122-666
Lab Sample ID: 320-95321-2
Date Collected: 12/06/22 08:00
Matrix: Air
Date Received: 12/15/22 09:20
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	ND		0.5000	0.5000	ug/m3 (Air)			12/16/22 16:30	1

Client Sample ID: GESPM103122-667
Lab Sample ID: 320-95321-3
Date Collected: 12/07/22 07:41
Matrix: Air
Date Received: 12/15/22 09:20
Sample Container: Folder/Filter

Method: SW846 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.00085		0.00074	0.00011	ug/m3 (Air)		12/20/22 06:44	12/20/22 16:21	1
Manganese	0.0030		0.00074	0.00010	ug/m3 (Air)		12/20/22 06:44	12/20/22 16:21	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	11		0.31	0.31	ug/m3			12/16/22 16:30	1

Client Sample ID: GESTSP103122-667
Lab Sample ID: 320-95321-4
Date Collected: 12/07/22 07:41
Matrix: Air
Date Received: 12/15/22 09:20
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	20.4757		0.2844	0.2844	ug/m3 (Air)			12/16/22 16:30	1

Client Sample ID: GESPM103122-668
Lab Sample ID: 320-95321-5
Date Collected: 12/07/22 07:27
Matrix: Air
Date Received: 12/15/22 09:20
Sample Container: Folder/Filter

Method: SW846 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.00059	J	0.00074	0.00011	ug/m3 (Air)		12/20/22 06:44	12/20/22 16:24	1
Manganese	0.0019		0.00074	0.00010	ug/m3 (Air)		12/20/22 06:44	12/20/22 16:24	1

Client Sample ID: GESPM103122-668
Lab Sample ID: 320-95321-5
Date Collected: 12/07/22 07:27
Matrix: Air
Date Received: 12/15/22 09:20
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	12		0.31	0.31	ug/m3			12/16/22 16:30	1

Client Sample ID: GESTSP103122-668
Lab Sample ID: 320-95321-6
Date Collected: 12/07/22 07:27
Matrix: Air
Date Received: 12/15/22 09:20
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	17.1059		0.2861	0.2861	ug/m3 (Air)			12/16/22 16:30	1

Client Sample ID: GESPM103122-669
Lab Sample ID: 320-95321-7
Date Collected: 12/07/22 08:34
Matrix: Air
Date Received: 12/15/22 09:20
Sample Container: Folder/Filter

Method: SW846 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.00068	J	0.0014	0.00022	ug/m3 (Air)		12/20/22 06:44	12/20/22 16:34	1
Manganese	0.0025		0.0014	0.00020	ug/m3 (Air)		12/20/22 06:44	12/20/22 16:34	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	12		0.60	0.60	ug/m3			12/16/22 16:30	1

Client Sample ID: GESTSP103122-669
Lab Sample ID: 320-95321-8
Date Collected: 12/07/22 08:34
Matrix: Air
Date Received: 12/15/22 09:20
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	27.3211		0.5965	0.5965	ug/m3 (Air)			12/16/22 16:30	1

Client Sample ID: GESPM103122-670
Lab Sample ID: 320-95321-9
Date Collected: 12/08/22 07:22
Matrix: Air
Date Received: 12/15/22 09:20
Sample Container: Folder/Filter

Method: SW846 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.00051	J	0.00078	0.00012	ug/m3 (Air)		12/20/22 06:44	12/20/22 16:37	1
Manganese	0.0021		0.00078	0.00011	ug/m3 (Air)		12/20/22 06:44	12/20/22 16:37	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	13		0.32	0.32	ug/m3			12/16/22 16:30	1

Client Sample ID: GESTSP103122-670
Lab Sample ID: 320-95321-10
Date Collected: 12/08/22 07:22
Matrix: Air
Date Received: 12/15/22 09:20
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	18.6717		0.2855	0.2855	ug/m3 (Air)			12/16/22 16:30	1

Client Sample ID: GESPM103122-671
Lab Sample ID: 320-95321-11
Date Collected: 12/08/22 07:53
Matrix: Air
Date Received: 12/15/22 09:20
Sample Container: Folder/Filter

Method: SW846 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.00047	J	0.00073	0.00011	ug/m3 (Air)		12/20/22 06:44	12/20/22 16:40	1
Manganese	0.0018		0.00073	0.00010	ug/m3 (Air)		12/20/22 06:44	12/20/22 16:40	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	12		0.30	0.30	ug/m3			12/16/22 16:30	1

Client Sample ID: GESTSP103122-671
Lab Sample ID: 320-95321-12
Date Collected: 12/08/22 07:53
Matrix: Air
Date Received: 12/15/22 09:20
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	20.1996		0.2813	0.2813	ug/m3 (Air)			12/16/22 16:30	1

Client Sample ID: GESPM103122-672
Lab Sample ID: 320-95321-13
Date Collected: 12/08/22 07:35
Matrix: Air
Date Received: 12/15/22 09:20
Sample Container: Folder/Filter

Method: SW846 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.00064	J	0.00078	0.00012	ug/m3 (Air)		12/20/22 06:44	12/20/22 16:44	1
Manganese	0.0025		0.00078	0.00011	ug/m3 (Air)		12/20/22 06:44	12/20/22 16:44	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	14		0.33	0.33	ug/m3			12/16/22 16:30	1

Client Sample ID: GESTSP103122-672
Lab Sample ID: 320-95321-14
Date Collected: 12/08/22 07:35
Matrix: Air
Date Received: 12/15/22 09:20
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	14.7970		0.3259	0.3259	ug/m3 (Air)			12/16/22 16:30	1

Client Sample ID: GESPM103122-673
Lab Sample ID: 320-95321-15
Date Collected: 12/08/22 13:38
Matrix: Air
Date Received: 12/15/22 09:20
Sample Container: Folder/Filter

Method: SW846 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0011	J	0.0028	0.00043	ug/m3 (Air)		12/20/22 06:44	12/20/22 16:47	1
Manganese	0.0040		0.0028	0.00040	ug/m3 (Air)		12/20/22 06:44	12/20/22 16:47	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	18		1.2	1.2	ug/m3			12/16/22 16:30	1

Client Sample ID: GESTSP103122-673
Lab Sample ID: 320-95321-16
Date Collected: 12/08/22 13:38
Matrix: Air
Date Received: 12/15/22 09:20
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	30.1198		1.0913	1.0913	ug/m3 (Air)			12/16/22 16:30	1

Client Sample ID: GESPM103122-674
Lab Sample ID: 320-95321-17
Date Collected: 12/08/22 13:38
Matrix: Air
Date Received: 12/15/22 09:20
Sample Container: Folder/Filter

Method: SW846 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.00059	J	0.0031	0.00046	ug/m3 (Air)		12/20/22 06:44	12/20/22 16:50	1
Manganese	0.0024	J	0.0031	0.00043	ug/m3 (Air)		12/20/22 06:44	12/20/22 16:50	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	2.3		1.3	1.3	ug/m3			12/16/22 16:30	1

Client Sample ID: GESTSP103122-674
Lab Sample ID: 320-95321-18
Date Collected: 12/08/22 13:38
Matrix: Air
Date Received: 12/15/22 09:20
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	11.5349		1.2015	1.2015	ug/m3 (Air)			12/16/22 16:30	1

Client Sample ID: GESPM103122-675
Lab Sample ID: 320-95321-19
Date Collected: 12/08/22 13:56
Matrix: Air
Date Received: 12/15/22 09:20
Sample Container: Folder/Filter

Method: SW846 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0016	J	0.0029	0.00043	ug/m3 (Air)		12/20/22 06:44	12/20/22 16:54	1
Manganese	0.0047		0.0029	0.00040	ug/m3 (Air)		12/20/22 06:44	12/20/22 16:54	1

Client Sample Results

Client: GES-AIS LLC
Job ID: 320-95321-1
Project/Site: Hunters Point, Parcel B, Removal Site Evaluation

Client Sample ID: GESPM103122-675
Lab Sample ID: 320-95321-19

Date Collected: 12/08/22 13:56
Matrix: Air
Date Received: 12/15/22 09:20
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	12		1.2	1.2	ug/m3			12/16/22 16:30	1

Client Sample ID: GESTSP103122-675
Lab Sample ID: 320-95321-20

Date Collected: 12/08/22 13:56
Matrix: Air
Date Received: 12/15/22 09:20
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	21.9150		1.2041	1.2041	ug/m3 (Air)			12/16/22 16:30	1

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 320-641508/1-B
Matrix: Air
Analysis Batch: 641741

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 641512

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0012	0.00018	ug/m3 (Air)		12/20/22 06:44	12/20/22 16:02	1
Manganese	ND		0.0012	0.00017	ug/m3 (Air)		12/20/22 06:44	12/20/22 16:02	1

Lab Sample ID: LCS 320-641508/2-B
Matrix: Air
Analysis Batch: 641741

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 641512

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Lead			0.240	0.218		ug/m3 (Air)		91	86 - 111		
Manganese			0.240	0.230		ug/m3 (Air)		96	88 - 110		

Lab Sample ID: LCSD 320-641508/3-B
Matrix: Air
Analysis Batch: 641741

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 641512

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead			0.240	0.220		ug/m3 (Air)		91	86 - 111	1	15
Manganese			0.240	0.234		ug/m3 (Air)		98	88 - 110	2	15

Metals

Pre Prep Batch: 641508

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-95321-1	GESPM103122-666	Total/NA	Air	Filter to Air	
320-95321-3	GESPM103122-667	Total/NA	Air	Filter to Air	
320-95321-5	GESPM103122-668	Total/NA	Air	Filter to Air	
320-95321-7	GESPM103122-669	Total/NA	Air	Filter to Air	
320-95321-9	GESPM103122-670	Total/NA	Air	Filter to Air	
320-95321-11	GESPM103122-671	Total/NA	Air	Filter to Air	
320-95321-13	GESPM103122-672	Total/NA	Air	Filter to Air	
320-95321-15	GESPM103122-673	Total/NA	Air	Filter to Air	
320-95321-17	GESPM103122-674	Total/NA	Air	Filter to Air	
320-95321-19	GESPM103122-675	Total/NA	Air	Filter to Air	
MB 320-641508/1-B	Method Blank	Total/NA	Air	Filter to Air	
LCS 320-641508/2-B	Lab Control Sample	Total/NA	Air	Filter to Air	
LCSD 320-641508/3-B	Lab Control Sample Dup	Total/NA	Air	Filter to Air	

Prep Batch: 641512

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-95321-1	GESPM103122-666	Total/NA	Air	3050B	641508
320-95321-3	GESPM103122-667	Total/NA	Air	3050B	641508
320-95321-5	GESPM103122-668	Total/NA	Air	3050B	641508
320-95321-7	GESPM103122-669	Total/NA	Air	3050B	641508
320-95321-9	GESPM103122-670	Total/NA	Air	3050B	641508
320-95321-11	GESPM103122-671	Total/NA	Air	3050B	641508
320-95321-13	GESPM103122-672	Total/NA	Air	3050B	641508
320-95321-15	GESPM103122-673	Total/NA	Air	3050B	641508
320-95321-17	GESPM103122-674	Total/NA	Air	3050B	641508
320-95321-19	GESPM103122-675	Total/NA	Air	3050B	641508
MB 320-641508/1-B	Method Blank	Total/NA	Air	3050B	641508
LCS 320-641508/2-B	Lab Control Sample	Total/NA	Air	3050B	641508
LCSD 320-641508/3-B	Lab Control Sample Dup	Total/NA	Air	3050B	641508

Analysis Batch: 641741

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-95321-1	GESPM103122-666	Total/NA	Air	6020	641512
320-95321-3	GESPM103122-667	Total/NA	Air	6020	641512
320-95321-5	GESPM103122-668	Total/NA	Air	6020	641512
320-95321-7	GESPM103122-669	Total/NA	Air	6020	641512
320-95321-9	GESPM103122-670	Total/NA	Air	6020	641512
320-95321-11	GESPM103122-671	Total/NA	Air	6020	641512
320-95321-13	GESPM103122-672	Total/NA	Air	6020	641512
320-95321-15	GESPM103122-673	Total/NA	Air	6020	641512
320-95321-17	GESPM103122-674	Total/NA	Air	6020	641512
320-95321-19	GESPM103122-675	Total/NA	Air	6020	641512
MB 320-641508/1-B	Method Blank	Total/NA	Air	6020	641512
LCS 320-641508/2-B	Lab Control Sample	Total/NA	Air	6020	641512
LCSD 320-641508/3-B	Lab Control Sample Dup	Total/NA	Air	6020	641512

General Chemistry

Pre Prep Batch: 642054

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-95321-2	GESTSP103122-666	Total/NA	Air	Filter to Air	

General Chemistry (Continued)

Pre Prep Batch: 642054 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-95321-4	GESTSP103122-667	Total/NA	Air	Filter to Air	
320-95321-6	GESTSP103122-668	Total/NA	Air	Filter to Air	
320-95321-8	GESTSP103122-669	Total/NA	Air	Filter to Air	
320-95321-10	GESTSP103122-670	Total/NA	Air	Filter to Air	
320-95321-12	GESTSP103122-671	Total/NA	Air	Filter to Air	
320-95321-14	GESTSP103122-672	Total/NA	Air	Filter to Air	
320-95321-16	GESTSP103122-673	Total/NA	Air	Filter to Air	
320-95321-18	GESTSP103122-674	Total/NA	Air	Filter to Air	
320-95321-20	GESTSP103122-675	Total/NA	Air	Filter to Air	

Analysis Batch: 642160

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-95321-1	GESPM103122-666	Total/NA	Air	PM10	
320-95321-3	GESPM103122-667	Total/NA	Air	PM10	
320-95321-5	GESPM103122-668	Total/NA	Air	PM10	
320-95321-7	GESPM103122-669	Total/NA	Air	PM10	
320-95321-9	GESPM103122-670	Total/NA	Air	PM10	
320-95321-11	GESPM103122-671	Total/NA	Air	PM10	
320-95321-13	GESPM103122-672	Total/NA	Air	PM10	
320-95321-15	GESPM103122-673	Total/NA	Air	PM10	
320-95321-17	GESPM103122-674	Total/NA	Air	PM10	
320-95321-19	GESPM103122-675	Total/NA	Air	PM10	

Analysis Batch: 642492

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-95321-2	GESTSP103122-666	Total/NA	Air	40CFR50 App B	642054
320-95321-4	GESTSP103122-667	Total/NA	Air	40CFR50 App B	642054
320-95321-6	GESTSP103122-668	Total/NA	Air	40CFR50 App B	642054
320-95321-8	GESTSP103122-669	Total/NA	Air	40CFR50 App B	642054
320-95321-10	GESTSP103122-670	Total/NA	Air	40CFR50 App B	642054
320-95321-12	GESTSP103122-671	Total/NA	Air	40CFR50 App B	642054
320-95321-14	GESTSP103122-672	Total/NA	Air	40CFR50 App B	642054
320-95321-16	GESTSP103122-673	Total/NA	Air	40CFR50 App B	642054
320-95321-18	GESTSP103122-674	Total/NA	Air	40CFR50 App B	642054
320-95321-20	GESTSP103122-675	Total/NA	Air	40CFR50 App B	642054

Lab Chronicle

Client: GES-AIS LLC
Job ID: 320-95321-1
Project/Site: Hunters Point, Parcel B, Removal Site Evaluation

Client Sample ID: GESPM103122-666
Lab Sample ID: 320-95321-1
Date Collected: 12/06/22 08:00
Matrix: Air
Date Received: 12/15/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					641508	12/20/22 05:00	[redacted]	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	641512	12/20/22 06:44	[redacted]	EET SAC
Total/NA	Analysis	6020		1			641741	12/20/22 16:11	[redacted]	EET SAC
Total/NA	Analysis	PM10		1	0 g	-0.0003 g	642160	12/16/22 16:30	[redacted]	EET SAC

Client Sample ID: GESTSP103122-666
Lab Sample ID: 320-95321-2
Date Collected: 12/06/22 08:00
Matrix: Air
Date Received: 12/15/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			642492	12/16/22 16:30	[redacted]	EET SAC
Total/NA	Pre Prep	Filter to Air					642054	12/22/22 11:40	[redacted]	EET SAC

Client Sample ID: GESPM103122-667
Lab Sample ID: 320-95321-3
Date Collected: 12/07/22 07:41
Matrix: Air
Date Received: 12/15/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					641508	12/20/22 05:00	[redacted]	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	641512	12/20/22 06:44	[redacted]	EET SAC
Total/NA	Analysis	6020		1			641741	12/20/22 16:21	[redacted]	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0181 g	642160	12/16/22 16:30	[redacted]	EET SAC

Client Sample ID: GESTSP103122-667
Lab Sample ID: 320-95321-4
Date Collected: 12/07/22 07:41
Matrix: Air
Date Received: 12/15/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			642492	12/16/22 16:30	[redacted]	EET SAC
Total/NA	Pre Prep	Filter to Air					642054	12/22/22 11:40	[redacted]	EET SAC

Client Sample ID: GESPM103122-668
Lab Sample ID: 320-95321-5
Date Collected: 12/07/22 07:27
Matrix: Air
Date Received: 12/15/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					641508	12/20/22 05:00	[redacted]	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	641512	12/20/22 06:44	[redacted]	EET SAC
Total/NA	Analysis	6020		1			641741	12/20/22 16:24	[redacted]	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0188 g	642160	12/16/22 16:30	[redacted]	EET SAC

Lab Chronicle

Client: GES-AIS LLC
Job ID: 320-95321-1
Project/Site: Hunters Point, Parcel B, Removal Site Evaluation

Client Sample ID: GESTSP103122-668
Lab Sample ID: 320-95321-6
Date Collected: 12/07/22 07:27
Matrix: Air
Date Received: 12/15/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			642492	12/16/22 16:30	[redacted]	EET SAC
Total/NA	Pre Prep	Filter to Air					642054	12/22/22 11:40	[redacted]	EET SAC

Client Sample ID: GESPM103122-669
Lab Sample ID: 320-95321-7
Date Collected: 12/07/22 08:34
Matrix: Air
Date Received: 12/15/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					641508	12/20/22 05:00	[redacted]	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	641512	12/20/22 06:44	[redacted]	EET SAC
Total/NA	Analysis	6020		1			641741	12/20/22 16:34	[redacted]	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0104 g	642160	12/16/22 16:30	[redacted]	EET SAC

Client Sample ID: GESTSP103122-669
Lab Sample ID: 320-95321-8
Date Collected: 12/07/22 08:34
Matrix: Air
Date Received: 12/15/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			642492	12/16/22 16:30	[redacted]	EET SAC
Total/NA	Pre Prep	Filter to Air					642054	12/22/22 11:40	[redacted]	EET SAC

Client Sample ID: GESPM103122-670
Lab Sample ID: 320-95321-9
Date Collected: 12/08/22 07:22
Matrix: Air
Date Received: 12/15/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					641508	12/20/22 05:00	[redacted]	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	641512	12/20/22 06:44	[redacted]	EET SAC
Total/NA	Analysis	6020		1			641741	12/20/22 16:37	[redacted]	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0204 g	642160	12/16/22 16:30	[redacted]	EET SAC

Client Sample ID: GESTSP103122-670
Lab Sample ID: 320-95321-10
Date Collected: 12/08/22 07:22
Matrix: Air
Date Received: 12/15/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			642492	12/16/22 16:30	[redacted]	EET SAC
Total/NA	Pre Prep	Filter to Air					642054	12/22/22 11:40	[redacted]	EET SAC

Lab Chronicle

Client: GES-AIS LLC
Job ID: 320-95321-1
Project/Site: Hunters Point, Parcel B, Removal Site Evaluation

Client Sample ID: GESPM103122-671
Lab Sample ID: 320-95321-11
Date Collected: 12/08/22 07:53
Matrix: Air
Date Received: 12/15/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					641508	12/20/22 05:00	[redacted]	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	641512	12/20/22 06:44	[redacted]	EET SAC
Total/NA	Analysis	6020		1			641741	12/20/22 16:40	[redacted]	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0200 g	642160	12/16/22 16:30	[redacted]	EET SAC

Client Sample ID: GESTSP103122-671
Lab Sample ID: 320-95321-12
Date Collected: 12/08/22 07:53
Matrix: Air
Date Received: 12/15/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			642492	12/16/22 16:30	[redacted]	EET SAC
Total/NA	Pre Prep	Filter to Air					642054	12/22/22 11:40	[redacted]	EET SAC

Client Sample ID: GESPM103122-672
Lab Sample ID: 320-95321-13
Date Collected: 12/08/22 07:35
Matrix: Air
Date Received: 12/15/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					641508	12/20/22 05:00	[redacted]	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	641512	12/20/22 06:44	[redacted]	EET SAC
Total/NA	Analysis	6020		1			641741	12/20/22 16:44	[redacted]	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0221 g	642160	12/16/22 16:30	[redacted]	EET SAC

Client Sample ID: GESTSP103122-672
Lab Sample ID: 320-95321-14
Date Collected: 12/08/22 07:35
Matrix: Air
Date Received: 12/15/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			642492	12/16/22 16:30	[redacted]	EET SAC
Total/NA	Pre Prep	Filter to Air					642054	12/22/22 11:40	[redacted]	EET SAC

Client Sample ID: GESPM103122-673
Lab Sample ID: 320-95321-15
Date Collected: 12/08/22 13:38
Matrix: Air
Date Received: 12/15/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					641508	12/20/22 05:00	[redacted]	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	641512	12/20/22 06:44	[redacted]	EET SAC
Total/NA	Analysis	6020		1			641741	12/20/22 16:47	[redacted]	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0076 g	642160	12/16/22 16:30	[redacted]	EET SAC

Lab Chronicle

Client: GES-AIS LLC
Job ID: 320-95321-1
Project/Site: Hunters Point, Parcel B, Removal Site Evaluation

Client Sample ID: GESTSP103122-673
Lab Sample ID: 320-95321-16
Date Collected: 12/08/22 13:38
Matrix: Air
Date Received: 12/15/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			642492	12/16/22 16:30	[redacted]	EET SAC
Total/NA	Pre Prep	Filter to Air					642054	12/22/22 11:40	[redacted]	EET SAC

Client Sample ID: GESPM103122-674
Lab Sample ID: 320-95321-17
Date Collected: 12/08/22 13:38
Matrix: Air
Date Received: 12/15/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					641508	12/20/22 05:00	[redacted]	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	641512	12/20/22 06:44	[redacted]	EET SAC
Total/NA	Analysis	6020		1			641741	12/20/22 16:50	[redacted]	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0009 g	642160	12/16/22 16:30	[redacted]	EET SAC

Client Sample ID: GESTSP103122-674
Lab Sample ID: 320-95321-18
Date Collected: 12/08/22 13:38
Matrix: Air
Date Received: 12/15/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			642492	12/16/22 16:30	[redacted]	EET SAC
Total/NA	Pre Prep	Filter to Air					642054	12/22/22 11:40	[redacted]	EET SAC

Client Sample ID: GESPM103122-675
Lab Sample ID: 320-95321-19
Date Collected: 12/08/22 13:56
Matrix: Air
Date Received: 12/15/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					641508	12/20/22 05:00	[redacted]	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	641512	12/20/22 06:44	[redacted]	EET SAC
Total/NA	Analysis	6020		1			641741	12/20/22 16:54	[redacted]	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0050 g	642160	12/16/22 16:30	[redacted]	EET SAC

Client Sample ID: GESTSP103122-675
Lab Sample ID: 320-95321-20
Date Collected: 12/08/22 13:56
Matrix: Air
Date Received: 12/15/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			642492	12/16/22 16:30	[redacted]	EET SAC
Total/NA	Pre Prep	Filter to Air					642054	12/22/22 11:40	[redacted]	EET SAC

Laboratory References:
EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: GES-AIS LLC
Job ID: 320-95321-1
Project/Site: Hunters Point, Parcel B, Removal Site Evaluation

Laboratory: Eurofins Sacramento

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2468	01-20-24
Oregon	NELAP	4040	01-29-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
40CFR50 App B		Air	Total Suspended Particulates
PM10		Air	Particulate Matter as PM 10

Method Summary

Client: GES-AIS LLC
Job ID: 320-95321-1
Project/Site: Hunters Point, Parcel B, Removal Site Evaluation

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	EET SAC
40CFR50 App B	Suspended Particulate Matter in Ambient Air	EPA	EET SAC
PM10	Particulate Matter	40CFR50J	EET SAC
3050B	Preparation, Metals	SW846	EET SAC
Filter to Air	Filter to Air volume ratio	None	EET SAC

Protocol References:

40CFR50J = 40 CFR Part 50 Appendix J

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: GES-AIS LLC
Job ID: 320-95321-1
Project/Site: Hunters Point, Parcel B, Removal Site Evaluation

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-95321-1	GESPM103122-666	Air	12/06/22 08:00	12/15/22 09:20
320-95321-2	GESTSP103122-666	Air	12/06/22 08:00	12/15/22 09:20
320-95321-3	GESPM103122-667	Air	12/07/22 07:41	12/15/22 09:20
320-95321-4	GESTSP103122-667	Air	12/07/22 07:41	12/15/22 09:20
320-95321-5	GESPM103122-668	Air	12/07/22 07:27	12/15/22 09:20
320-95321-6	GESTSP103122-668	Air	12/07/22 07:27	12/15/22 09:20
320-95321-7	GESPM103122-669	Air	12/07/22 08:34	12/15/22 09:20
320-95321-8	GESTSP103122-669	Air	12/07/22 08:34	12/15/22 09:20
320-95321-9	GESPM103122-670	Air	12/08/22 07:22	12/15/22 09:20
320-95321-10	GESTSP103122-670	Air	12/08/22 07:22	12/15/22 09:20
320-95321-11	GESPM103122-671	Air	12/08/22 07:53	12/15/22 09:20
320-95321-12	GESTSP103122-671	Air	12/08/22 07:53	12/15/22 09:20
320-95321-13	GESPM103122-672	Air	12/08/22 07:35	12/15/22 09:20
320-95321-14	GESTSP103122-672	Air	12/08/22 07:35	12/15/22 09:20
320-95321-15	GESPM103122-673	Air	12/08/22 13:38	12/15/22 09:20
320-95321-16	GESTSP103122-673	Air	12/08/22 13:38	12/15/22 09:20
320-95321-17	GESPM103122-674	Air	12/08/22 13:38	12/15/22 09:20
320-95321-18	GESTSP103122-674	Air	12/08/22 13:38	12/15/22 09:20
320-95321-19	GESPM103122-675	Air	12/08/22 13:56	12/15/22 09:20
320-95321-20	GESTSP103122-675	Air	12/08/22 13:56	12/15/22 09:20

CHAIN-OF-CUSTODY RECORD

Gilbane Federal
[redacted]
2300 Clayton Road, Suite 1050, Concord, CA 94520
[redacted]

COC # MC121422 AIRB

Gilbane

Project Name: Hunters Point Shipyard, Parcel B Removal Site Evaluation	Laboratory: EUROFINS ENVIRONMENT TESTING NORTHERN CALIFORNIA, LLC (EETN	Event: **Parcel B Air Monitoring**
Project Number: J310000900	POC: [redacted]	
WBS Code: J310000900	Ship to: 880 Riverside Parkway, West Sacramento, CA 95605	

Comments: **PLEASE CONSOLIDATE ALL COCs THAT SHARE THE SAME COC ID (TOP RIGHT CORNER) INTO ONE SDG.**

Equipment:

Code	Matrix
A	Air
AQ	Air Quality Control Matrix

Code	Container/Preservative
1	1x 250-mL Plastic, 4 Degrees C
1	1x Envelope, None

320-95321 Chain of Custody

Analytical Test Method

Event: Parcel B Air Monitoring

	Sample ID	Matrix	Date	Time	Samp Init.	CAAIR - Air PM10 (1)	N0500 - Air TSP (1)	SW6020 - Air Pb Mn (1)	Location ID	Sample Type	Depth (ft bgs) Top	Bottom	Cooler	Comments
1	GESPM103122-666	AQ	12/06/2022	0800	[redacted]	X		X	FIELDQC	FB1	0.00	0.00	1	
2	GESTSP103122-666	AQ	12/06/2022	0800			X		FIELDQC	FB1	0.00	0.00	1	
3	GESPM103122-667	A	12/07/2022	0741		X		X	MSB01	N1	0.00	0.00	1	
4	GESTSP103122-667	A	12/07/2022	0741			X		MSB01	N1	0.00	0.00	1	
5	GESPM103122-668	A	12/07/2022	0727		X		X	MSB02	N1	0.00	0.00	1	
6	GESTSP103122-668	A	12/07/2022	0727			X		MSB02	N1	0.00	0.00	1	
7	GESPM103122-669	A	12/07/2022	0834		X		X	MSB113A	N1	0.00	0.00	1	
8	GESTSP103122-669	A	12/07/2022	0834			X		MSB113A	N1	0.00	0.00	1	
9														
10														

[redacted] 12-14-22

Turnaround Time: 5 days

Relinquished by: *(Signature)*	Date	Time	**Received by: *(Signature)***	Date	Time
[redacted]	12.14.22	1600	FEDEX	12.14.22	1600
			[redacted]	12-15-22	0920

Shipping Date / Carrier / Airbill Number

Shipping Date: 12/14/2022 / FEDEX / 7706 8315 7239

Received by Laboratory: *(Signature, Date, Time)* **& condition**

19.7

CHAIN-OF-CUSTODY RECORD

Gilbane Federal
[redacted]
2300 Clayton Road, Suite 1050, Concord, CA 94520
[redacted]

COC # MC121422 AIRB

Gilbane

Project Name: Hunters Point Shipyard, Parcel B Removal Site Evaluation	Laboratory: EUROFINS ENVIRONMENT TESTING NORTHERN CALIFORNIA, LLC (EETN	Event: **Parcel B Air Monitoring**
Project Number: J310000900	POC: [redacted]	
WBS Code: J310000900	Ship to: 880 Riverside Parkway, West Sacramento, CA 95605	

Comments: **PLEASE CONSOLIDATE ALL COCs THAT SHARE THE SAME COC ID (TOP RIGHT CORNER) INTO ONE SDG.**

Equipment:

Code	Matrix
A	Air

Code	Container/Preservative
1	1x 250-mL Plastic, 4 Degrees C
1	1x Envelope, None

Event: Parcel B Air Monitoring

	Sample ID	Matrix	Date	Time	Samp Init.	Analytical Test Method: CAAIR - Air PM10	N0500 - Air TSP	SW6020 - Air Pb Mn							Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
						1	1	1												
1	GESPM103122-670	A	12/08/22	0722	[redacted]	X		X							MSB01	N1	0.00	0.00	1	
2	GESTSP103122-670	A	12/08/22	0722			X								MSB01	N1	0.00	0.00	1	
3	GESPM103122-671	A	12/08/22	0753		X		X							MSB02	N1	0.00	0.00	1	
4	GESTSP103122-671	A	12/08/22	0753			X								MSB02	N1	0.00	0.00	1	
5	GESPM103122-672	A	12/08/22	0735		X		X							MSB113A	N1	0.00	0.00	1	
6	GESTSP103122-672	A	12/08/22	0735			X								MSB113A	N1	0.00	0.00	1	
7								[redacted]												
8														12-14-22						

Turnaround Time: 5 days

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
[redacted]	12-14-22	1600	FEDEX	12.14.22	1600
			[redacted]	12-15-22	0920

Shipping Date / Carrier / Airbill Number
Shipping Date: 12/14/2022 / FEDEX / 7706 8315 7239

Received by Laboratory: *(Signature, Date, Time)* **& condition**

GES.Navy_COC_Field
December 05, 2022

19.7

CHAIN-OF-CUSTODY RECORD

Gilbane Federal
[redacted]
2300 Clayton Road, Suite 1050, Concord, CA 94520
[redacted]

COC # MC121422AIRB

Gilbane

Project Name: Hunters Point Shipyard, Parcel B Removal Site Evaluation	Laboratory: EUROFINS ENVIRONMENT TESTING NORTHERN CALIFORNIA, LLC (EETN	Event: **Parcel B Air Monitoring**
Project Number: J310000900	POC [redacted]	
WBS Code: J310000900	Ship to: 880 Riverside Parkway, West Sacramento, CA 95605	

Comments: **PLEASE CONSOLIDATE ALL COCs THAT SHARE THE SAME COC ID (TOP RIGHT CORNER) INTO ONE SDG.**

Equipment:

Code	Matrix
A	Air

Code	Container/Preservative
1	1x 250-mL Plastic, 4 Degrees C
1	1x Envelope, None

Event: Parcel B Air Monitoring

	Sample ID	Matrix	Date	Time	Samp Init.	Analytical Test Method: CAAIR - Air PM10	N0500 - Air TSP	SW6020 - Air Pb Mn	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
						1	1	1						
1	GESPM103122-673	A	12/08/22	1338	[redacted]	X		X	MSB01	N1	0.00	0.00	1	
2	GESTSP103122-673	A	12/08/22	1338			X		MSB01	N1	0.00	0.00	1	
3	GESPM103122-674	A	12/08/22	1338		X		X	MSB02	N1	0.00	0.00	1	
4	GESTSP103122-674	A	12/08/22	1338			X		MSB02	N1	0.00	0.00	1	
5	GESPM103122-675	A	12/08/22	1356		X		X	MSB113A	N1	0.00	0.00	1	
6	GESTSP103122-675	A	12/08/22	1356			X		MSB113A	N1	0.00	0.00	1	
7								[redacted]						
8								12-14-22						

Turnaround Time: 5 days

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
[redacted]	12.14.22	1600	FEDEX	12.14.22	1600
			[redacted]	12-15-22	0920

Shipping Date / Carrier / Airbill Number
Shipping Date: 12/14/2022 / FEDEX / 7706 8315 7239

Received by Laboratory: *(Signature, Date, Time)* **& condition**

GES.Navy_COC_Field
December 05, 2022

19.7

COC # MC121422AIRB

Gilbane Federal
[redacted]
2300 Clayton Road, Suite 1050, Concord, CA 94520
[redacted]

Project Name: Hunters Point Shipyard, Parcel B Removal Site Evaluation	**Event: Parcel B Air Monitoring**
Project Number: J310000900	
WBS Code: J310000900	

Sample ID	Matrix	Date	Time	Comments
GESPM103122-666	AQ	12/06/2022	0800	NA
GESTSP103122-666	AQ	12/06/2022	0800	NA
GESPM103122-667	A	12/07/2022	0741	VOLUME (M3): 1621.94
GESTSP103122-667	A	12/07/2022	0741	VOLUME (M3): 1758.18
GESPM103122-668	A	12/07/2022	0727	VOLUME (M3): 1621.53
GESTSP103122-668	A	12/07/2022	0727	VOLUME (M3): 1747.94
GESPM103122-669	A	12/07/2022	0834	VOLUME (M3): 835.78
GESTSP103122-669	A	12/07/2022	0834	VOLUME (M3): 838.18
GESPM103122-670	A	12/08/2022	0722	VOLUME (M3): 1547.62
GESTSP103122-670	A	12/08/2022	0722	VOLUME (M3): 1751.31
GESPM103122-671	A	12/08/2022	0753	VOLUME (M3): 1652.97
GESTSP103122-671	A	12/08/2022	0753	VOLUME (M3): 1777.26
GESPM103122-672	A	12/08/2022	0735	VOLUME (M3): 1530.56
GESTSP103122-672	A	12/08/2022	0735	VOLUME (M3): 1534.09
GESPM103122-673	A	12/08/2022	1338	VOLUME (M3): 422.08
GESTSP103122-673	A	12/08/2022	1338	VOLUME (M3): 458.17
GESPM103122-674	A	12/08/2022	1338	VOLUME (M3): 387.33
GESTSP103122-674	A	12/08/2022	1338	VOLUME (M3): 416.13
GESPM103122-675	A	12/08/2022	1356	VOLUME (M3): 417.69
GESTSP103122-675	A	12/08/2022	1356	VOLUME (M3): 415.24

Login Sample Receipt Checklist

Client: GES-AIS LLC

Job Number: 320-95321-1

Login Number: 95321

List Source: Eurofins Sacramento

List Number: 1

Creator: [redacted]

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	SEAL
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: [redacted]
GES-AIS LLC
1501 W Fountainhead Parkway
Ste 550
Tempe, Arizona 85282

Generated 12/30/2022 8:23:08 AM

JOB DESCRIPTION

Hunters Point, Parcel B, Removal Site Evaluation

JOB NUMBER

320-95403-1

Eurofins Sacramento
880 Riverside Parkway
West Sacramento CA 95605

See page two for job notes and contact information.

Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northern California, LLC Project Manager.

Authorization

[redacted]

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Authorized for release by
[redacted] Project Manager I
[redacted]
([redacted]) [redacted]-[redacted]

Table of Contents

Definitions/Glossary

Client: GES-AIS LLC
Job ID: 320-95403-1
Project/Site: Hunters Point, Parcel B, Removal Site Evaluation

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 320-95403-1

Laboratory: Eurofins Sacramento

Narrative

Job Narrative
320-95403-1

Comments
No additional comments.

Receipt
The samples were received on 12/17/2022 8:30 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 19.2º C.

An updated COC was provided via email on December 22, 2022 and sample IDs adjusted accordingly. Copies of both COCs are included in the report.

Metals
Method PM10: The following sample in analytical batch 320-643465 was recorded with a negative net weight: GESPM103122-676 (320-95403-1). No particulate loading on the filter or damage to the filter could be observed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: GES-AIS LLC
Job ID: 320-95403-1
Project/Site: Hunters Point, Parcel B, Removal Site Evaluation

Client Sample ID: GESPM103122-676 — Lab Sample ID: 320-95403-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	0.00040	J	0.0012	0.00017	ug/m3 (Air)	1		6020	Total/NA

Client Sample ID: GESTSP103122-676 — Lab Sample ID: 320-95403-2

No Detections.

Client Sample ID: GESPM103122-677 — Lab Sample ID: 320-95403-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.00099		0.00075	0.00011	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0024		0.00075	0.00010	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	14		0.31	0.31	ug/m3	1		PM10	Total/NA

Client Sample ID: GESTSP103122-677 — Lab Sample ID: 320-95403-4

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	23.4795		0.2892	0.2892	ug/m3 (Air)	1		40CFR50 App B	Total/NA

Client Sample ID: GESPM103122-678 — Lab Sample ID: 320-95403-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.00091		0.00075	0.00011	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0024		0.00075	0.00010	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	17		0.31	0.31	ug/m3	1		PM10	Total/NA

Client Sample ID: GESTSP103122-678 — Lab Sample ID: 320-95403-6

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	22.6564		0.2868	0.2868	ug/m3 (Air)	1		40CFR50 App B	Total/NA

Client Sample ID: GESPM103122-679 — Lab Sample ID: 320-95403-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.00078		0.00076	0.00011	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0025		0.00076	0.00011	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	14		0.32	0.32	ug/m3	1		PM10	Total/NA

Client Sample ID: GESTSP103122-679 — Lab Sample ID: 320-95403-8

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	24.6198		0.3197	0.3197	ug/m3 (Air)	1		40CFR50 App B	Total/NA

Client Sample ID: GESPM103122-680 — Lab Sample ID: 320-95403-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0011		0.00080	0.00012	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0028		0.00080	0.00011	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	17		0.33	0.33	ug/m3	1		PM10	Total/NA

Client Sample ID: GESTSP103122-680 — Lab Sample ID: 320-95403-10

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	22.5505		0.2876	0.2876	ug/m3 (Air)	1		40CFR50 App B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: GES-AIS LLC
Job ID: 320-95403-1
Project/Site: Hunters Point, Parcel B, Removal Site Evaluation

Client Sample ID: GESPM103122-681 — Lab Sample ID: 320-95403-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.00071	J	0.00074	0.00011	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0021		0.00074	0.00010	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	14		0.31	0.31	ug/m3	1		PM10	Total/NA

Client Sample ID: GESTSP103122-681 — Lab Sample ID: 320-95403-12

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	21.4342		0.2873	0.2873	ug/m3 (Air)	1		40CFR50 App B	Total/NA

Client Sample ID: GESPM103122-682 — Lab Sample ID: 320-95403-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.00099		0.00076	0.00011	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0028		0.00076	0.00011	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	15		0.32	0.32	ug/m3	1		PM10	Total/NA

Client Sample ID: GESTSP103122-682 — Lab Sample ID: 320-95403-14

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	21.1725		0.3198	0.3198	ug/m3 (Air)	1		40CFR50 App B	Total/NA

Client Sample ID: GESPM103122-683 — Lab Sample ID: 320-95403-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0018		0.00073	0.00011	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0048		0.00073	0.00010	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	18		0.30	0.30	ug/m3	1		PM10	Total/NA

Client Sample ID: GESTSP103122-683 — Lab Sample ID: 320-95403-16

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	29.0944		0.2847	0.2847	ug/m3 (Air)	1		40CFR50 App B	Total/NA

Client Sample ID: GESPM103122-684 — Lab Sample ID: 320-95403-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0013		0.00073	0.00011	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0027		0.00073	0.00010	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	17		0.31	0.31	ug/m3	1		PM10	Total/NA

Client Sample ID: GESTSP103122-684 — Lab Sample ID: 320-95403-18

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	26.2387		0.2834	0.2834	ug/m3 (Air)	1		40CFR50 App B	Total/NA

Client Sample ID: GESPM103122-685 — Lab Sample ID: 320-95403-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0019		0.00075	0.00011	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0051		0.00075	0.00011	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	20		0.31	0.31	ug/m3	1		PM10	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: GES-AIS LLC
Job ID: 320-95403-1
Project/Site: Hunters Point, Parcel B, Removal Site Evaluation

Client Sample ID: GESTSP103122-685 — Lab Sample ID: 320-95403-20

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	28.7562		0.3160	0.3160	ug/m3 (Air)	1		40CFR50 App B	Total/NA

Client Sample ID: GESPM103122-686 — Lab Sample ID: 320-95403-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0020	J	0.0023	0.00034	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0050		0.0023	0.00032	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	15		0.95	0.95	ug/m3	1		PM10	Total/NA

Client Sample ID: GESTSP103122-686 — Lab Sample ID: 320-95403-22

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	28.5238		0.8970	0.8970	ug/m3 (Air)	1		40CFR50 App B	Total/NA

Client Sample ID: GESPM103122-687 — Lab Sample ID: 320-95403-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0011	J	0.0025	0.00037	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0028		0.0025	0.00035	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	12		1.0	1.0	ug/m3	1		PM10	Total/NA

Client Sample ID: GESTSP103122-687 — Lab Sample ID: 320-95403-24

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	22.6561		0.9600	0.9600	ug/m3 (Air)	1		40CFR50 App B	Total/NA

Client Sample ID: GESPM103122-688 — Lab Sample ID: 320-95403-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0014	J	0.0024	0.00036	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0043		0.0024	0.00034	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	15		1.0	1.0	ug/m3	1		PM10	Total/NA

Client Sample ID: GESTSP103122-688 — Lab Sample ID: 320-95403-26

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	36.0967		1.0140	1.0140	ug/m3 (Air)	1		40CFR50 App B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: GESPM103122-676
Lab Sample ID: 320-95403-1
Date Collected: 12/12/22 08:00
Matrix: Air
Date Received: 12/17/22 08:30
Sample Container: Folder/Filter

Method: SW846 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0012	0.00018	ug/m3 (Air)		12/21/22 06:30	12/22/22 16:25	1
Manganese	**0.00040**	**J**	0.0012	0.00017	ug/m3 (Air)		12/21/22 06:30	12/22/22 16:25	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	ND		0.50	0.50	ug/m3			12/19/22 07:30	1

Client Sample ID: GESTSP103122-676
Lab Sample ID: 320-95403-2
Date Collected: 12/12/22 08:00
Matrix: Air
Date Received: 12/17/22 08:30
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	ND		0.5000	0.5000	ug/m3 (Air)			12/19/22 07:30	1

Client Sample ID: GESPM103122-677
Lab Sample ID: 320-95403-3
Date Collected: 12/13/22 07:18
Matrix: Air
Date Received: 12/17/22 08:30
Sample Container: Folder/Filter

Method: SW846 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.00099**		0.00075	0.00011	ug/m3 (Air)		12/21/22 06:30	12/22/22 16:34	1
Manganese	**0.0024**		0.00075	0.00010	ug/m3 (Air)		12/21/22 06:30	12/22/22 16:34	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	**14**		0.31	0.31	ug/m3			12/19/22 07:30	1

Client Sample ID: GESTSP103122-677
Lab Sample ID: 320-95403-4
Date Collected: 12/13/22 07:18
Matrix: Air
Date Received: 12/17/22 08:30
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	**23.4795**		0.2892	0.2892	ug/m3 (Air)			12/19/22 07:30	1

Client Sample ID: GESPM103122-678
Lab Sample ID: 320-95403-5
Date Collected: 12/13/22 07:46
Matrix: Air
Date Received: 12/17/22 08:30
Sample Container: Folder/Filter

Method: SW846 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.00091**		0.00075	0.00011	ug/m3 (Air)		12/21/22 06:30	12/22/22 16:38	1
Manganese	**0.0024**		0.00075	0.00010	ug/m3 (Air)		12/21/22 06:30	12/22/22 16:38	1

Client Sample ID: GESPM103122-678
Lab Sample ID: 320-95403-5
Date Collected: 12/13/22 07:46
Matrix: Air
Date Received: 12/17/22 08:30
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	17		0.31	0.31	ug/m3			12/19/22 07:30	1

Client Sample ID: GESTSP103122-678
Lab Sample ID: 320-95403-6
Date Collected: 12/13/22 07:46
Matrix: Air
Date Received: 12/17/22 08:30
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	22.6564		0.2868	0.2868	ug/m3 (Air)			12/19/22 07:30	1

Client Sample ID: GESPM103122-679
Lab Sample ID: 320-95403-7
Date Collected: 12/13/22 07:33
Matrix: Air
Date Received: 12/17/22 08:30
Sample Container: Folder/Filter

Method: SW846 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.00078		0.00076	0.00011	ug/m3 (Air)		12/21/22 06:30	12/22/22 16:47	1
Manganese	0.0025		0.00076	0.00011	ug/m3 (Air)		12/21/22 06:30	12/22/22 16:47	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	14		0.32	0.32	ug/m3			12/19/22 07:30	1

Client Sample ID: GESTSP103122-679
Lab Sample ID: 320-95403-8
Date Collected: 12/13/22 07:33
Matrix: Air
Date Received: 12/17/22 08:30
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	24.6198		0.3197	0.3197	ug/m3 (Air)			12/19/22 07:30	1

Client Sample ID: GESPM103122-680
Lab Sample ID: 320-95403-9
Date Collected: 12/14/22 07:11
Matrix: Air
Date Received: 12/17/22 08:30
Sample Container: Folder/Filter

Method: SW846 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0011		0.00080	0.00012	ug/m3 (Air)		12/21/22 06:30	12/22/22 16:51	1
Manganese	0.0028		0.00080	0.00011	ug/m3 (Air)		12/21/22 06:30	12/22/22 16:51	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	17		0.33	0.33	ug/m3			12/19/22 07:30	1

Client Sample ID: GESTSP103122-680
Lab Sample ID: 320-95403-10
Date Collected: 12/14/22 07:11
Matrix: Air
Date Received: 12/17/22 08:30
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	22.5505		0.2876	0.2876	ug/m3 (Air)			12/19/22 07:30	1

Client Sample ID: GESPM103122-681
Lab Sample ID: 320-95403-11
Date Collected: 12/14/22 07:45
Matrix: Air
Date Received: 12/17/22 08:30
Sample Container: Folder/Filter

Method: SW846 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.00071	J	0.00074	0.00011	ug/m3 (Air)		12/21/22 06:30	12/22/22 16:54	1
Manganese	0.0021		0.00074	0.00010	ug/m3 (Air)		12/21/22 06:30	12/22/22 16:54	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	14		0.31	0.31	ug/m3			12/19/22 07:30	1

Client Sample ID: GESTSP103122-681
Lab Sample ID: 320-95403-12
Date Collected: 12/14/22 07:45
Matrix: Air
Date Received: 12/17/22 08:30
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	21.4342		0.2873	0.2873	ug/m3 (Air)			12/19/22 07:30	1

Client Sample ID: GESPM103122-682
Lab Sample ID: 320-95403-13
Date Collected: 12/14/22 07:30
Matrix: Air
Date Received: 12/17/22 08:30
Sample Container: Folder/Filter

Method: SW846 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.00099		0.00076	0.00011	ug/m3 (Air)		12/21/22 06:30	12/22/22 16:57	1
Manganese	0.0028		0.00076	0.00011	ug/m3 (Air)		12/21/22 06:30	12/22/22 16:57	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	15		0.32	0.32	ug/m3			12/19/22 07:30	1

Client Sample ID: GESTSP103122-682
Lab Sample ID: 320-95403-14
Date Collected: 12/14/22 07:30
Matrix: Air
Date Received: 12/17/22 08:30
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	21.1725		0.3198	0.3198	ug/m3 (Air)			12/19/22 07:30	1

Client Sample ID: GESPM103122-683
Lab Sample ID: 320-95403-15
Date Collected: 12/15/22 07:18
Matrix: Air
Date Received: 12/17/22 08:30
Sample Container: Folder/Filter

Method: SW846 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0018		0.00073	0.00011	ug/m3 (Air)		12/21/22 06:30	12/22/22 17:00	1
Manganese	0.0048		0.00073	0.00010	ug/m3 (Air)		12/21/22 06:30	12/22/22 17:00	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	18		0.30	0.30	ug/m3			12/19/22 07:30	1

Client Sample ID: GESTSP103122-683
Lab Sample ID: 320-95403-16
Date Collected: 12/15/22 07:18
Matrix: Air
Date Received: 12/17/22 08:30
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	29.0944		0.2847	0.2847	ug/m3 (Air)			12/19/22 07:30	1

Client Sample ID: GESPM103122-684
Lab Sample ID: 320-95403-17
Date Collected: 12/15/22 07:50
Matrix: Air
Date Received: 12/17/22 08:30
Sample Container: Folder/Filter

Method: SW846 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0013		0.00073	0.00011	ug/m3 (Air)		12/21/22 06:30	12/22/22 17:04	1
Manganese	0.0027		0.00073	0.00010	ug/m3 (Air)		12/21/22 06:30	12/22/22 17:04	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	17		0.31	0.31	ug/m3			12/19/22 07:30	1

Client Sample ID: GESTSP103122-684
Lab Sample ID: 320-95403-18
Date Collected: 12/15/22 07:50
Matrix: Air
Date Received: 12/17/22 08:30
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	26.2387		0.2834	0.2834	ug/m3 (Air)			12/19/22 07:30	1

Client Sample ID: GESPM103122-685
Lab Sample ID: 320-95403-19
Date Collected: 12/15/22 07:37
Matrix: Air
Date Received: 12/17/22 08:30
Sample Container: Folder/Filter

Method: SW846 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0019		0.00075	0.00011	ug/m3 (Air)		12/21/22 06:30	12/22/22 17:07	1
Manganese	0.0051		0.00075	0.00011	ug/m3 (Air)		12/21/22 06:30	12/22/22 17:07	1

Client Sample ID: GESPM103122-685
Lab Sample ID: 320-95403-19
Date Collected: 12/15/22 07:37
Matrix: Air
Date Received: 12/17/22 08:30
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	20		0.31	0.31	ug/m3			12/19/22 07:30	1

Client Sample ID: GESTSP103122-685
Lab Sample ID: 320-95403-20
Date Collected: 12/15/22 07:37
Matrix: Air
Date Received: 12/17/22 08:30
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	28.7562		0.3160	0.3160	ug/m3 (Air)			12/19/22 07:30	1

Client Sample ID: GESPM103122-686
Lab Sample ID: 320-95403-21
Date Collected: 12/15/22 15:00
Matrix: Air
Date Received: 12/17/22 08:30
Sample Container: Folder/Filter

Method: SW846 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0020	J	0.0023	0.00034	ug/m3 (Air)		12/21/22 06:30	12/22/22 17:10	1
Manganese	0.0050		0.0023	0.00032	ug/m3 (Air)		12/21/22 06:30	12/22/22 17:10	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	15		0.95	0.95	ug/m3			12/19/22 07:30	1

Client Sample ID: GESTSP103122-686
Lab Sample ID: 320-95403-22
Date Collected: 12/15/22 15:00
Matrix: Air
Date Received: 12/17/22 08:30
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	28.5238		0.8970	0.8970	ug/m3 (Air)			12/19/22 07:30	1

Client Sample ID: GESPM103122-687
Lab Sample ID: 320-95403-23
Date Collected: 12/15/22 14:58
Matrix: Air
Date Received: 12/17/22 08:30
Sample Container: Folder/Filter

Method: SW846 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0011	J	0.0025	0.00037	ug/m3 (Air)		12/21/22 06:30	12/22/22 17:13	1
Manganese	0.0028		0.0025	0.00035	ug/m3 (Air)		12/21/22 06:30	12/22/22 17:13	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	12		1.0	1.0	ug/m3			12/19/22 07:30	1

Client: GES-AIS LLC
Job ID: 320-95403-1
Project/Site: Hunters Point, Parcel B, Removal Site Evaluation

Client Sample ID: GESTSP103122-687
Lab Sample ID: 320-95403-24
Date Collected: 12/15/22 14:58
Matrix: Air
Date Received: 12/17/22 08:30
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	22.6561		0.9600	0.9600	ug/m3 (Air)			12/19/22 07:30	1

Client Sample ID: GESPM103122-688
Lab Sample ID: 320-95403-25
Date Collected: 12/15/22 15:33
Matrix: Air
Date Received: 12/17/22 08:30
Sample Container: Folder/Filter

Method: SW846 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0014	J	0.0024	0.00036	ug/m3 (Air)		12/21/22 06:30	12/22/22 17:17	1
Manganese	0.0043		0.0024	0.00034	ug/m3 (Air)		12/21/22 06:30	12/22/22 17:17	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	15		1.0	1.0	ug/m3			12/19/22 07:30	1

Client Sample ID: GESTSP103122-688
Lab Sample ID: 320-95403-26
Date Collected: 12/15/22 15:33
Matrix: Air
Date Received: 12/17/22 08:30
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	36.0967		1.0140	1.0140	ug/m3 (Air)			12/19/22 07:30	1

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 320-641738/1-B
Matrix: Air
Analysis Batch: 642787

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 641744

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0012	0.00018	ug/m3 (Air)		12/21/22 06:30	12/22/22 16:15	1
Manganese	ND		0.0012	0.00017	ug/m3 (Air)		12/21/22 06:30	12/22/22 16:15	1

Lab Sample ID: LCS 320-641738/2-B
Matrix: Air
Analysis Batch: 642787

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 641744

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.240	0.245		ug/m3 (Air)		102	86 - 111
Manganese	0.240	0.242		ug/m3 (Air)		101	88 - 110

Lab Sample ID: LCSD 320-641738/3-B
Matrix: Air
Analysis Batch: 642787

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 641744

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	0.240	0.248		ug/m3 (Air)		103	86 - 111	1	15
Manganese	0.240	0.248		ug/m3 (Air)		103	88 - 110	2	15

Metals

Pre Prep Batch: 641738

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-95403-1	GESPM103122-676	Total/NA	Air	Filter to Air	
320-95403-3	GESPM103122-677	Total/NA	Air	Filter to Air	
320-95403-5	GESPM103122-678	Total/NA	Air	Filter to Air	
320-95403-7	GESPM103122-679	Total/NA	Air	Filter to Air	
320-95403-9	GESPM103122-680	Total/NA	Air	Filter to Air	
320-95403-11	GESPM103122-681	Total/NA	Air	Filter to Air	
320-95403-13	GESPM103122-682	Total/NA	Air	Filter to Air	
320-95403-15	GESPM103122-683	Total/NA	Air	Filter to Air	
320-95403-17	GESPM103122-684	Total/NA	Air	Filter to Air	
320-95403-19	GESPM103122-685	Total/NA	Air	Filter to Air	
320-95403-21	GESPM103122-686	Total/NA	Air	Filter to Air	
320-95403-23	GESPM103122-687	Total/NA	Air	Filter to Air	
320-95403-25	GESPM103122-688	Total/NA	Air	Filter to Air	
MB 320-641738/1-B	Method Blank	Total/NA	Air	Filter to Air	
LCS 320-641738/2-B	Lab Control Sample	Total/NA	Air	Filter to Air	
LCSD 320-641738/3-B	Lab Control Sample Dup	Total/NA	Air	Filter to Air	

Prep Batch: 641744

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-95403-1	GESPM103122-676	Total/NA	Air	3050B	641738
320-95403-3	GESPM103122-677	Total/NA	Air	3050B	641738
320-95403-5	GESPM103122-678	Total/NA	Air	3050B	641738
320-95403-7	GESPM103122-679	Total/NA	Air	3050B	641738
320-95403-9	GESPM103122-680	Total/NA	Air	3050B	641738
320-95403-11	GESPM103122-681	Total/NA	Air	3050B	641738
320-95403-13	GESPM103122-682	Total/NA	Air	3050B	641738
320-95403-15	GESPM103122-683	Total/NA	Air	3050B	641738
320-95403-17	GESPM103122-684	Total/NA	Air	3050B	641738
320-95403-19	GESPM103122-685	Total/NA	Air	3050B	641738
320-95403-21	GESPM103122-686	Total/NA	Air	3050B	641738
320-95403-23	GESPM103122-687	Total/NA	Air	3050B	641738
320-95403-25	GESPM103122-688	Total/NA	Air	3050B	641738
MB 320-641738/1-B	Method Blank	Total/NA	Air	3050B	641738
LCS 320-641738/2-B	Lab Control Sample	Total/NA	Air	3050B	641738
LCSD 320-641738/3-B	Lab Control Sample Dup	Total/NA	Air	3050B	641738

Analysis Batch: 642787

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-95403-1	GESPM103122-676	Total/NA	Air	6020	641744
320-95403-3	GESPM103122-677	Total/NA	Air	6020	641744
320-95403-5	GESPM103122-678	Total/NA	Air	6020	641744
320-95403-7	GESPM103122-679	Total/NA	Air	6020	641744
320-95403-9	GESPM103122-680	Total/NA	Air	6020	641744
320-95403-11	GESPM103122-681	Total/NA	Air	6020	641744
320-95403-13	GESPM103122-682	Total/NA	Air	6020	641744
320-95403-15	GESPM103122-683	Total/NA	Air	6020	641744
320-95403-17	GESPM103122-684	Total/NA	Air	6020	641744
320-95403-19	GESPM103122-685	Total/NA	Air	6020	641744
320-95403-21	GESPM103122-686	Total/NA	Air	6020	641744
320-95403-23	GESPM103122-687	Total/NA	Air	6020	641744
320-95403-25	GESPM103122-688	Total/NA	Air	6020	641744

Metals (Continued)

Analysis Batch: 642787 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 320-641738/1-B	Method Blank	Total/NA	Air	6020	641744
LCS 320-641738/2-B	Lab Control Sample	Total/NA	Air	6020	641744
LCSD 320-641738/3-B	Lab Control Sample Dup	Total/NA	Air	6020	641744

General Chemistry

Pre Prep Batch: 643457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-95403-2	GESTSP103122-676	Total/NA	Air	Filter to Air	
320-95403-4	GESTSP103122-677	Total/NA	Air	Filter to Air	
320-95403-6	GESTSP103122-678	Total/NA	Air	Filter to Air	
320-95403-8	GESTSP103122-679	Total/NA	Air	Filter to Air	
320-95403-10	GESTSP103122-680	Total/NA	Air	Filter to Air	
320-95403-12	GESTSP103122-681	Total/NA	Air	Filter to Air	
320-95403-14	GESTSP103122-682	Total/NA	Air	Filter to Air	
320-95403-16	GESTSP103122-683	Total/NA	Air	Filter to Air	
320-95403-18	GESTSP103122-684	Total/NA	Air	Filter to Air	
320-95403-20	GESTSP103122-685	Total/NA	Air	Filter to Air	
320-95403-22	GESTSP103122-686	Total/NA	Air	Filter to Air	
320-95403-24	GESTSP103122-687	Total/NA	Air	Filter to Air	
320-95403-26	GESTSP103122-688	Total/NA	Air	Filter to Air	

Analysis Batch: 643461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-95403-2	GESTSP103122-676	Total/NA	Air	40CFR50 App B	643457
320-95403-4	GESTSP103122-677	Total/NA	Air	40CFR50 App B	643457
320-95403-6	GESTSP103122-678	Total/NA	Air	40CFR50 App B	643457
320-95403-8	GESTSP103122-679	Total/NA	Air	40CFR50 App B	643457
320-95403-10	GESTSP103122-680	Total/NA	Air	40CFR50 App B	643457
320-95403-12	GESTSP103122-681	Total/NA	Air	40CFR50 App B	643457
320-95403-14	GESTSP103122-682	Total/NA	Air	40CFR50 App B	643457
320-95403-16	GESTSP103122-683	Total/NA	Air	40CFR50 App B	643457
320-95403-18	GESTSP103122-684	Total/NA	Air	40CFR50 App B	643457
320-95403-20	GESTSP103122-685	Total/NA	Air	40CFR50 App B	643457
320-95403-22	GESTSP103122-686	Total/NA	Air	40CFR50 App B	643457
320-95403-24	GESTSP103122-687	Total/NA	Air	40CFR50 App B	643457
320-95403-26	GESTSP103122-688	Total/NA	Air	40CFR50 App B	643457

Analysis Batch: 643465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-95403-1	GESPM103122-676	Total/NA	Air	PM10	
320-95403-3	GESPM103122-677	Total/NA	Air	PM10	
320-95403-5	GESPM103122-678	Total/NA	Air	PM10	
320-95403-7	GESPM103122-679	Total/NA	Air	PM10	
320-95403-9	GESPM103122-680	Total/NA	Air	PM10	
320-95403-11	GESPM103122-681	Total/NA	Air	PM10	
320-95403-13	GESPM103122-682	Total/NA	Air	PM10	
320-95403-15	GESPM103122-683	Total/NA	Air	PM10	
320-95403-17	GESPM103122-684	Total/NA	Air	PM10	
320-95403-19	GESPM103122-685	Total/NA	Air	PM10	
320-95403-21	GESPM103122-686	Total/NA	Air	PM10	

General Chemistry (Continued)

Analysis Batch: 643465 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-95403-23	GESPM103122-687	Total/NA	Air	PM10	
320-95403-25	GESPM103122-688	Total/NA	Air	PM10	

Lab Chronicle

Client: GES-AIS LLC
Job ID: 320-95403-1
Project/Site: Hunters Point, Parcel B, Removal Site Evaluation

Client Sample ID: GESPM103122-676
Lab Sample ID: 320-95403-1
Date Collected: 12/12/22 08:00
Matrix: Air
Date Received: 12/17/22 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					641738	12/21/22 05:00	[redacted]	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	641744	12/21/22 06:30	[redacted]	EET SAC
Total/NA	Analysis	6020		1			642787	12/22/22 16:25	[redacted]	EET SAC
Total/NA	Analysis	PM10		1	0 g	-0.0002 g	643465	12/19/22 07:30	[redacted]	EET SAC

Client Sample ID: GESTSP103122-676
Lab Sample ID: 320-95403-2
Date Collected: 12/12/22 08:00
Matrix: Air
Date Received: 12/17/22 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			643461	12/19/22 07:30	[redacted]	EET SAC
Total/NA	Pre Prep	Filter to Air					643457	12/29/22 15:58	[redacted]	EET SAC

Client Sample ID: GESPM103122-677
Lab Sample ID: 320-95403-3
Date Collected: 12/13/22 07:18
Matrix: Air
Date Received: 12/17/22 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					641738	12/21/22 05:00	[redacted]	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	641744	12/21/22 06:30	[redacted]	EET SAC
Total/NA	Analysis	6020		1			642787	12/22/22 16:34	[redacted]	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0233 g	643465	12/19/22 07:30	[redacted]	EET SAC

Client Sample ID: GESTSP103122-677
Lab Sample ID: 320-95403-4
Date Collected: 12/13/22 07:18
Matrix: Air
Date Received: 12/17/22 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			643461	12/19/22 07:30	[redacted]	EET SAC
Total/NA	Pre Prep	Filter to Air					643457	12/29/22 15:58	[redacted]	EET SAC

Client Sample ID: GESPM103122-678
Lab Sample ID: 320-95403-5
Date Collected: 12/13/22 07:46
Matrix: Air
Date Received: 12/17/22 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					641738	12/21/22 05:00	[redacted]	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	641744	12/21/22 06:30	[redacted]	EET SAC
Total/NA	Analysis	6020		1			642787	12/22/22 16:38	[redacted]	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0280 g	643465	12/19/22 07:30	[redacted]	EET SAC

Lab Chronicle

Client: GES-AIS LLC
Job ID: 320-95403-1
Project/Site: Hunters Point, Parcel B, Removal Site Evaluation

Client Sample ID: GESTSP103122-678
Lab Sample ID: 320-95403-6
Date Collected: 12/13/22 07:46
Matrix: Air
Date Received: 12/17/22 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			643461	12/19/22 07:30	[redacted]	EET SAC
Total/NA	Pre Prep	Filter to Air					643457	12/29/22 15:58	[redacted]	EET SAC

Client Sample ID: GESPM103122-679
Lab Sample ID: 320-95403-7
Date Collected: 12/13/22 07:33
Matrix: Air
Date Received: 12/17/22 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					641738	12/21/22 05:00	[redacted]	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	641744	12/21/22 06:30	[redacted]	EET SAC
Total/NA	Analysis	6020		1			642787	12/22/22 16:47	[redacted]	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0227 g	643465	12/19/22 07:30	[redacted]	EET SAC

Client Sample ID: GESTSP103122-679
Lab Sample ID: 320-95403-8
Date Collected: 12/13/22 07:33
Matrix: Air
Date Received: 12/17/22 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			643461	12/19/22 07:30	[redacted]	EET SAC
Total/NA	Pre Prep	Filter to Air					643457	12/29/22 15:58	[redacted]	EET SAC

Client Sample ID: GESPM103122-680
Lab Sample ID: 320-95403-9
Date Collected: 12/14/22 07:11
Matrix: Air
Date Received: 12/17/22 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					641738	12/21/22 05:00	[redacted]	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	641744	12/21/22 06:30	[redacted]	EET SAC
Total/NA	Analysis	6020		1			642787	12/22/22 16:51	[redacted]	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0260 g	643465	12/19/22 07:30	[redacted]	EET SAC

Client Sample ID: GESTSP103122-680
Lab Sample ID: 320-95403-10
Date Collected: 12/14/22 07:11
Matrix: Air
Date Received: 12/17/22 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			643461	12/19/22 07:30	[redacted]	EET SAC
Total/NA	Pre Prep	Filter to Air					643457	12/29/22 15:58	[redacted]	EET SAC

Lab Chronicle

Client: GES-AIS LLC
Job ID: 320-95403-1
Project/Site: Hunters Point, Parcel B, Removal Site Evaluation

Client Sample ID: GESPM103122-681
Lab Sample ID: 320-95403-11
Date Collected: 12/14/22 07:45
Matrix: Air
Date Received: 12/17/22 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					641738	12/21/22 05:00	[redacted]	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	641744	12/21/22 06:30	[redacted]	EET SAC
Total/NA	Analysis	6020		1			642787	12/22/22 16:54	[redacted]	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0221 g	643465	12/19/22 07:30	[redacted]	EET SAC

Client Sample ID: GESTSP103122-681
Lab Sample ID: 320-95403-12
Date Collected: 12/14/22 07:45
Matrix: Air
Date Received: 12/17/22 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			643461	12/19/22 07:30	[redacted]	EET SAC
Total/NA	Pre Prep	Filter to Air					643457	12/29/22 15:58	[redacted]	EET SAC

Client Sample ID: GESPM103122-682
Lab Sample ID: 320-95403-13
Date Collected: 12/14/22 07:30
Matrix: Air
Date Received: 12/17/22 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					641738	12/21/22 05:00	[redacted]	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	641744	12/21/22 06:30	[redacted]	EET SAC
Total/NA	Analysis	6020		1			642787	12/22/22 16:57	[redacted]	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0241 g	643465	12/19/22 07:30	[redacted]	EET SAC

Client Sample ID: GESTSP103122-682
Lab Sample ID: 320-95403-14
Date Collected: 12/14/22 07:30
Matrix: Air
Date Received: 12/17/22 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			643461	12/19/22 07:30	[redacted]	EET SAC
Total/NA	Pre Prep	Filter to Air					643457	12/29/22 15:58	[redacted]	EET SAC

Client Sample ID: GESPM103122-683
Lab Sample ID: 320-95403-15
Date Collected: 12/15/22 07:18
Matrix: Air
Date Received: 12/17/22 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					641738	12/21/22 05:00	[redacted]	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	641744	12/21/22 06:30	[redacted]	EET SAC
Total/NA	Analysis	6020		1			642787	12/22/22 17:00	[redacted]	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0301 g	643465	12/19/22 07:30	[redacted]	EET SAC

Lab Chronicle

Client: GES-AIS LLC
Job ID: 320-95403-1
Project/Site: Hunters Point, Parcel B, Removal Site Evaluation

Client Sample ID: GESTSP103122-683
Lab Sample ID: 320-95403-16
Date Collected: 12/15/22 07:18
Matrix: Air
Date Received: 12/17/22 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			643461	12/19/22 07:30	[redacted]	EET SAC
Total/NA	Pre Prep	Filter to Air					643457	12/29/22 15:58	[redacted]	EET SAC

Client Sample ID: GESPM103122-684
Lab Sample ID: 320-95403-17
Date Collected: 12/15/22 07:50
Matrix: Air
Date Received: 12/17/22 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					641738	12/21/22 05:00	[redacted]	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	641744	12/21/22 06:30	[redacted]	EET SAC
Total/NA	Analysis	6020		1			642787	12/22/22 17:04	[redacted]	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0276 g	643465	12/19/22 07:30	[redacted]	EET SAC

Client Sample ID: GESTSP103122-684
Lab Sample ID: 320-95403-18
Date Collected: 12/15/22 07:50
Matrix: Air
Date Received: 12/17/22 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			643461	12/19/22 07:30	[redacted]	EET SAC
Total/NA	Pre Prep	Filter to Air					643457	12/29/22 15:58	[redacted]	EET SAC

Client Sample ID: GESPM103122-685
Lab Sample ID: 320-95403-19
Date Collected: 12/15/22 07:37
Matrix: Air
Date Received: 12/17/22 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					641738	12/21/22 05:00	[redacted]	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	641744	12/21/22 06:30	[redacted]	EET SAC
Total/NA	Analysis	6020		1			642787	12/22/22 17:07	[redacted]	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0325 g	643465	12/19/22 07:30	[redacted]	EET SAC

Client Sample ID: GESTSP103122-685
Lab Sample ID: 320-95403-20
Date Collected: 12/15/22 07:37
Matrix: Air
Date Received: 12/17/22 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			643461	12/19/22 07:30	[redacted]	EET SAC
Total/NA	Pre Prep	Filter to Air					643457	12/29/22 15:58	[redacted]	EET SAC

Lab Chronicle

Client: GES-AIS LLC
Job ID: 320-95403-1
Project/Site: Hunters Point, Parcel B, Removal Site Evaluation

Client Sample ID: GESPM103122-686
Lab Sample ID: 320-95403-21
Date Collected: 12/15/22 15:00
Matrix: Air
Date Received: 12/17/22 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					641738	12/21/22 05:00	[redacted]	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	641744	12/21/22 06:30	[redacted]	EET SAC
Total/NA	Analysis	6020		1			642787	12/22/22 17:10	[redacted]	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0080 g	643465	12/19/22 07:30	[redacted]	EET SAC

Client Sample ID: GESTSP103122-686
Lab Sample ID: 320-95403-22
Date Collected: 12/15/22 15:00
Matrix: Air
Date Received: 12/17/22 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			643461	12/19/22 07:30	[redacted]	EET SAC
Total/NA	Pre Prep	Filter to Air					643457	12/29/22 15:58	[redacted]	EET SAC

Client Sample ID: GESPM103122-687
Lab Sample ID: 320-95403-23
Date Collected: 12/15/22 14:58
Matrix: Air
Date Received: 12/17/22 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					641738	12/21/22 05:00	[redacted]	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	641744	12/21/22 06:30	[redacted]	EET SAC
Total/NA	Analysis	6020		1			642787	12/22/22 17:13	[redacted]	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0057 g	643465	12/19/22 07:30	[redacted]	EET SAC

Client Sample ID: GESTSP103122-687
Lab Sample ID: 320-95403-24
Date Collected: 12/15/22 14:58
Matrix: Air
Date Received: 12/17/22 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			643461	12/19/22 07:30	[redacted]	EET SAC
Total/NA	Pre Prep	Filter to Air					643457	12/29/22 15:58	[redacted]	EET SAC

Client Sample ID: GESPM103122-688
Lab Sample ID: 320-95403-25
Date Collected: 12/15/22 15:33
Matrix: Air
Date Received: 12/17/22 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					641738	12/21/22 05:00	[redacted]	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	641744	12/21/22 06:30	[redacted]	EET SAC
Total/NA	Analysis	6020		1			642787	12/22/22 17:17	[redacted]	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0077 g	643465	12/19/22 07:30	[redacted]	EET SAC

Lab Chronicle

Client: GES-AIS LLC
Job ID: 320-95403-1
Project/Site: Hunters Point, Parcel B, Removal Site Evaluation

Client Sample ID: GESTSP103122-688
Lab Sample ID: 320-95403-26
Date Collected: 12/15/22 15:33
Matrix: Air
Date Received: 12/17/22 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			643461	12/19/22 07:30	[redacted]	EET SAC
Total/NA	Pre Prep	Filter to Air					643457	12/29/22 15:58	[redacted]	EET SAC

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: GES-AIS LLC
Job ID: 320-95403-1
Project/Site: Hunters Point, Parcel B, Removal Site Evaluation

Laboratory: Eurofins Sacramento

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2468	01-20-24
Oregon	NELAP	4040	01-29-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
40CFR50 App B		Air	Total Suspended Particulates
PM10		Air	Particulate Matter as PM 10

Method Summary

Client: GES-AIS LLC
Job ID: 320-95403-1
Project/Site: Hunters Point, Parcel B, Removal Site Evaluation

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	EET SAC
40CFR50 App B	Suspended Particulate Matter in Ambient Air	EPA	EET SAC
PM10	Particulate Matter	40CFR50J	EET SAC
3050B	Preparation, Metals	SW846	EET SAC
Filter to Air	Filter to Air volume ratio	None	EET SAC

Protocol References:

40CFR50J = 40 CFR Part 50 Appendix J

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: GES-AIS LLC
Job ID: 320-95403-1
Project/Site: Hunters Point, Parcel B, Removal Site Evaluation

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-95403-1	GESPM103122-676	Air	12/12/22 08:00	12/17/22 08:30
320-95403-2	GESTSP103122-676	Air	12/12/22 08:00	12/17/22 08:30
320-95403-3	GESPM103122-677	Air	12/13/22 07:18	12/17/22 08:30
320-95403-4	GESTSP103122-677	Air	12/13/22 07:18	12/17/22 08:30
320-95403-5	GESPM103122-678	Air	12/13/22 07:46	12/17/22 08:30
320-95403-6	GESTSP103122-678	Air	12/13/22 07:46	12/17/22 08:30
320-95403-7	GESPM103122-679	Air	12/13/22 07:33	12/17/22 08:30
320-95403-8	GESTSP103122-679	Air	12/13/22 07:33	12/17/22 08:30
320-95403-9	GESPM103122-680	Air	12/14/22 07:11	12/17/22 08:30
320-95403-10	GESTSP103122-680	Air	12/14/22 07:11	12/17/22 08:30
320-95403-11	GESPM103122-681	Air	12/14/22 07:45	12/17/22 08:30
320-95403-12	GESTSP103122-681	Air	12/14/22 07:45	12/17/22 08:30
320-95403-13	GESPM103122-682	Air	12/14/22 07:30	12/17/22 08:30
320-95403-14	GESTSP103122-682	Air	12/14/22 07:30	12/17/22 08:30
320-95403-15	GESPM103122-683	Air	12/15/22 07:18	12/17/22 08:30
320-95403-16	GESTSP103122-683	Air	12/15/22 07:18	12/17/22 08:30
320-95403-17	GESPM103122-684	Air	12/15/22 07:50	12/17/22 08:30
320-95403-18	GESTSP103122-684	Air	12/15/22 07:50	12/17/22 08:30
320-95403-19	GESPM103122-685	Air	12/15/22 07:37	12/17/22 08:30
320-95403-20	GESTSP103122-685	Air	12/15/22 07:37	12/17/22 08:30
320-95403-21	GESPM103122-686	Air	12/15/22 15:00	12/17/22 08:30
320-95403-22	GESTSP103122-686	Air	12/15/22 15:00	12/17/22 08:30
320-95403-23	GESPM103122-687	Air	12/15/22 14:58	12/17/22 08:30
320-95403-24	GESTSP103122-687	Air	12/15/22 14:58	12/17/22 08:30
320-95403-25	GESPM103122-688	Air	12/15/22 15:33	12/17/22 08:30
320-95403-26	GESTSP103122-688	Air	12/15/22 15:33	12/17/22 08:30

CHAIN-OF-CUSTODY RECORD

Gilbane Federal
[redacted]
2300 Clayton Road, Suite 1050, Concord, CA 94520
bwomack@ges-ais.com

COC # MC121622AIRB

Gilbane

Project Name: Hunters Point Shipyard, Parcel B Removal Site Evaluation	Laboratory: EUROFINS ENVIRONMENT TESTING NORTHERN CALIFORNIA, LLC (EETN	Event: **Parcel B Air Monitoring**
Project Number: J310000900	POC: [redacted]	
WBS Code: J310000900	Ship to: 880 Riverside Parkway, West Sacramento, CA 95605	

Comments:

Equipment:

Code	Matrix
A	Air
AQ	Air Quality Control Matrix

Code	Container/Preservative
1	1x 250-mL Plastic, 4 Degrees C
1	1x Envelope, None

320-95403 Chain of Custody

Event: Parcel B Air Monitoring

	Sample ID	Matrix	Date	Time	Samp Init.	CAAIR - Air PM10	N0500 - Air TSP	SW6020 - Air Pb Mn	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
	Analytical Test Method					1	1	1						
1	GESPM101322-676	AQ	12/12/2022	0800	[redacted]	X		X	FIELDQC	FB1	0.00	0.00	1	
2	GESTSP101322-676	AQ	12/12/2022	0800			X		FIELDQC	FB1	0.00	0.00	1	
3	GESPM101322-677	A	12/13/2022	0718		X		X	MSB01	N1	0.00	0.00	1	
4	GESTSP101322-677	A	12/13/2022	0718			X		MSB01	N1	0.00	0.00	1	
5	GESPM101322-678	A	12/13/2022	0746		X		X	MSB02	N1	0.00	0.00	1	
6	GESTSP101322-678	A	12/13/2022	0746			X		MSB02	N1	0.00	0.00	1	
7	GESPM101322-679	A	12/13/2022	0733		X		X	MSB113A	N1	0.00	0.00	1	
8	GESTSP101322-679	A	12/13/2022	0733			X		MSB113A	N1	0.00	0.00	1	
9														
10														
11														

12/16/22 [redacted]

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
[redacted]	12/14/22	1200	Fed Ex	12/16/22	1200
			[redacted]	12.17.22	830

Shipping Date / Carrier / Airbill Number

Shipping Date: 12/16/2022 / FEDEX / ~~7707 3587 6380~~ [redacted]
7707 8055 8880

Received by Laboratory: *(Signature, Date, Time)* **& condition**

19.2°C

CHAIN-OF-CUSTODY RECORD

Gilbane Federal
[redacted]
2300 Clayton Road, Suite 1050, Concord, CA 94520
[redacted]

COC # MC121622AIRB

Gilbane

Project Name: Hunters Point Shipyard, Parcel B Removal Site Evaluation	Laboratory: EUROFINS ENVIRONMENT TESTING NORTHERN CALIFORNIA, LLC (EETN	Event: **Parcel B Air Monitoring**
Project Number: J310000900	POC [redacted]	
WBS Code: J310000900	Ship to: 880 Riverside Parkway, West Sacramento, CA 95605	

Comments:

Equipment:

Code	Matrix
A	Air

Code	Container/Preservative
1	1x 250-mL Plastic, 4 Degrees C
1	1x Envelope, None

Analytical Test Method

Event: Parcel B Air Monitoring

	Sample ID	Matrix	Date	Time	Samp Init.	CAAIR - Air PM10	N0500 - Air TSP	SW6020 - Air Pb Mn	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
						1	1	1						
1	GESPM101322-680	A	12/14/2022	0711	[redacted]	X		X	MSB01	N1	0.00	0.00	1	
2	GESTSP101322-680	A	12/14/2022	0711			X		MSB01	N1	0.00	0.00	1	
3	GESPM101322-681	A	12/14/2022	0745		X		X	MSB02	N1	0.00	0.00	1	
4	GESTSP101322-681	A	12/14/2022	0745			X		MSB02	N1	0.00	0.00	1	
5	GESPM101322-682	A	12/14/2022	0730		X		X	MSB113A	N1	0.00	0.00	1	
6	GESTSP101322-682	A	12/14/2022	0730			X		MSB113A	N1	0.00	0.00	1	
7														
8														
9														[redacted] 12/16/22

Turnaround Time: 5 days

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
[redacted]	12/16/22	1200	FedEx	12/16/22	1200
			[redacted]	12/17/22	830

Shipping Date / Carrier / Airbill Number

Shipping Date: 12/16/2022 / FEDEX / ~~7707 3587 6360~~ [redacted] 7707 8055 8880

Received by Laboratory: *(Signature, Date, Time)* **& condition**

GES.Navy_COC_Field
December 09, 2022

1.9 2°C

12/30/2022

CHAIN-OF-CUSTODY RECORD

Gilbane Federal
[redacted]
2300 Clayton Road, Suite 1050, Concord, CA 94520

COC # MC121622AIRB

Gilbane

Project Name: Hunters Point Shipyard, Parcel B Removal Site Evaluation	Laboratory: EUROFINS ENVIRONMENT TESTING NORTHERN CALIFORNIA, LLC (EETN	Event: **Parcel B Air Monitoring**
Project Number: J310000900	POC: [redacted]	
WBS Code: J310000900	Ship to: 880 Riverside Parkway, West Sacramento, CA 95605	

Comments:

Equipment:

Code	Matrix
A	Air

Code	Container/Preservative
1	1x 250-mL Plastic, 4 Degrees C
1	1x Envelope, None

Event: Parcel B Air Monitoring

	Sample ID	Matrix	Date	Time	Samp Init.	Analytical Test Method: CAAIR - Air PM10	N0500 - Air TSP	SW6020 - Air Pb Mn	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
						1	1	1						
1	GESPM101322-683	A	12/15/2022	0718	[redacted]	X		X	MSB01	N1	0.00	0.00	1	
2	GESTSP101322-683	A	12/15/2022	0718			X		MSB01	N1	0.00	0.00	1	
3	GESPM101322-684	A	12/15/2022	0750		X		X	MSB02	N1	0.00	0.00	1	
4	GESTSP101322-684	A	12/15/2022	0750			X		MSB02	N1	0.00	0.00	1	
5	GESPM101322-685	A	12/15/2022	0737		X		X	MSB113A	N1	0.00	0.00	1	
6	GESTSP101322-685	A	12/15/2022	0737			X		MSB113A	N1	0.00	0.00	1	
7														
8														
9														

Turnaround Time: 5 days

[redacted]

12/16/22

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
[redacted]	12/16/22	1200	Fed Ex	12/16/22	1200
			[redacted]	D.P.	830

Shipping Date / Carrier / Airbill Number

Shipping Date: 12/16/2022 / FEDEX / ~~7707 3587 6360~~ [redacted]
7707 8055 8880

Received by Laboratory: *(Signature, Date, Time)* **& condition**

GES.Navy_COC_Field
December 09, 2022

19.1°C

CHAIN-OF-CUSTODY RECORD

Gilbane Federal
[redacted]
2300 Clayton Road, Suite 1050, Concord, CA 94520

COC # MC121622AIRB

Gilbane

Project Name: Hunters Point Shipyard, Parcel B Removal Site Evaluation	Laboratory: EUROFINS ENVIRONMENT TESTING NORTHERN CALIFORNIA, LLC (EETN	Event: **Parcel B Air Monitoring**
Project Number: J310000900	POC: [redacted]	
WBS Code: J310000900	Ship to: 880 Riverside Parkway, West Sacramento, CA 95605	

Comments:

Equipment:

Code	Matrix
A	Air

Code	Container/Preservative
1	1x 250-mL Plastic, 4 Degrees C
1	1x Envelope, None

Event: Parcel B Air Monitoring

	Sample ID	Matrix	Date	Time	Samp Init.	Analytical Test Method: CAAIR - Air PM10	N0500 - Air TSP	SW6020 - Air Pb Mn	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
						1	1	1						
1	GESPM101322-686	A	12/15/2022	1500	[redacted]	X		X	MSB01	N1	0.00	0.00	1	
2	GESTSP101322-686	A	12/15/2022	1500			X		MSB01	N1	0.00	0.00	1	
3	GESPM101322-687	A	12/15/2022	1458		X		X	MSB02	N1	0.00	0.00	1	
4	GESTSP101322-687	A	12/15/2022	1458			X		MSB02	N1	0.00	0.00	1	
5	GESPM101322-688	A	12/15/2022	1533		X		X	MSB113A	N1	0.00	0.00	1	
6	GESTSP101322-688	A	12/15/2022	1533			X		MSB113A	N1	0.00	0.00	1	
7														
8														
9														

Turnaround Time: 5 days

[redacted]

12/16/22

Relinquished by: *(Signature)*	**Date**	**Time**	**Received by: *(Signature)***	**Date**	**Time**
[redacted]	12/16/22	1200	FedEx	12/16/22	1200
			[redacted]	12/17/22	830

Shipping Date / Carrier / Airbill Number

Shipping Date: 12/16/2022 / FEDEX / ~~7707 3587 6300~~ [redacted]
7707 8055 8880

Received by Laboratory: *(Signature, Date, Time)* **& condition**

GES.Navy_COC_Field
December 09, 2022

1.92°C

COC # MC121622AIRB

[redacted]
2300 Clayton Road, Suite 1050,
Concord, CA 94520

Project Name: Hunters Point Shipyard, Parcel B Removal Site Evaluation	Event: Parcel B Air Monitoring
Project Number: J310000900	
WBS Code: J310000900	

Sample ID	Matrix	Date	Time	Comments
GESPM101322-676	AQ	12/12/2022	0800	NA
GESTSP101322-676	AQ	12/12/2022	0800	NA
GESPM101322-677	A	12/13/2022	0718	VOLUME (M3): 1607.54
GESTSP101322-677	A	12/13/2022	0718	VOLUME (M3): 1729.17
GESPM101322-678	A	12/13/2022	0746	VOLUME (M3): 1610.22
GESTSP101322-678	A	12/13/2022	0746	VOLUME (M3): 1743.44
GESPM101322-679	A	12/13/2022	0733	VOLUME (M3): 1578.20
GESTSP101322-679	A	12/13/2022	0733	VOLUME (M3): 1563.78
GESPM101322-680	A	12/14/2022	0711	VOLUME (M3): 1497.62
GESTSP101322-680	A	12/14/2022	0711	VOLUME (M3): 1738.32
GESPM101322-681	A	12/14/2022	0745	VOLUME (M3): 1615.86
GESTSP101322-681	A	12/14/2022	0745	VOLUME (M3): 1740.21
GESPM101322-682	A	12/14/2022	0730	VOLUME (M3): 1573.45
GESTSP101322-682	A	12/14/2022	0730	VOLUME (M3): 1563.35
GESPM101322-683	A	12/15/2022	0718	VOLUME (M3): 1644.54
GESTSP101322-683	A	12/15/2022	0718	VOLUME (M3): 1756.35
GESPM101322-684	A	12/15/2022	0750	VOLUME (M3): 1634.09
GESTSP101322-684	A	12/15/2022	0750	VOLUME (M3): 1764.57
GESPM101322-685	A	12/15/2022	0737	VOLUME (M3): 1593.15
GESTSP101322-685	A	12/15/2022	0737	VOLUME (M3): 1582.27
GESPM101322-686	A	12/15/2022	1500	VOLUME (M3): 524.94
GESTSP101322-686	A	12/15/2022	1500	VOLUME (M3): 557.43
GESPM101322-687	A	12/15/2022	1458	VOLUME (M3): 481.72
GESTSP101322-687	A	12/15/2022	1458	VOLUME (M3): 520.83
GESPM101322-688	A	12/15/2022	1533	VOLUME (M3): 498.09
GESTSP101322-688	A	12/15/2022	1533	VOLUME (M3): 493.12

CHAIN-OF-CUSTODY RECORD

Gilbane Federal
[redacted]
2300 Clayton Road, Suite 1050, Concord, CA 94520

COC # MC121622AIRB

Gilbane

Project Name: Hunters Point Shipyard, Parcel B Removal Site Evaluation	Laboratory: EUROFINS ENVIRONMENT TESTING NORTHERN CALIFORNIA, LLC (EETN	Event: **Parcel B Air Monitoring**
Project Number: J310000900	POC: [redacted]	
WBS Code: J310000900	Ship to: 880 Riverside Parkway, West Sacramento, CA 95605	

Comments:

For the sample IDs, please update all 101322 to 103122.

12/22/2022 [redacted]

Equipment:

Code	Matrix
A	Air
AQ	Air Quality Control Matrix

Code	Container/Preservative
1	1x 250-mL Plastic, 4 Degrees C
1	1x Envelope, None

320-95403 Chain of Custody

Event: Parcel B Air Monitoring

	Sample ID	Matrix	Date	Time	Samp Init.	Analytical Test Method: CAAIR - Air PM10	N0500 - Air TSP	SW6020 - Air Pb Mn	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
						1	1	1						
1	GESPM101322-676	AQ	12/12/2022	0800	[redacted]	X		X	FIELDQC	FB1	0.00	0.00	1	
2	GESTSP101322-676	AQ	12/12/2022	0800			X		FIELDQC	FB1	0.00	0.00	1	
3	GESPM101322-677	A	12/13/2022	0718		X		X	MSB01	N1	0.00	0.00	1	
4	GESTSP101322-677	A	12/13/2022	0718			X		MSB01	N1	0.00	0.00	1	
5	GESPM101322-678	A	12/13/2022	0746		X		X	MSB02	N1	0.00	0.00	1	
6	GESTSP101322-678	A	12/13/2022	0746			X		MSB02	N1	0.00	0.00	1	
7	GESPM101322-679	A	12/13/2022	0733		X		X	MSB113A	N1	0.00	0.00	1	
8	GESTSP101322-679	A	12/13/2022	0733			X		MSB113A	N1	0.00	0.00	1	
9														
10														
11														

12/16/22 [redacted]

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
[redacted]	12/14/22	1200	FedEx	12/16/22	1200
			[redacted]	12.17.22	830

Shipping Date / Carrier / Airbill Number

Shipping Date: 12/16/2022 / FEDEX / ~~7707 3587 6380~~ [redacted] 7707 8055 8880

Received by Laboratory: *(Signature, Date, Time)* **& condition**

19.2°C

CHAIN-OF-CUSTODY RECORD

Gilbane Federal [redacted]
2300 Clayton Road, Suite 1050, Concord, CA 94520 [redacted]

COC # MC121622AIRB

Gilbane

Project Name: Hunters Point Shipyard, Parcel B Removal Site Evaluation	Laboratory: EUROFINS ENVIRONMENT TESTING NORTHERN CALIFORNIA, LLC (EETN	Event: **Parcel B Air Monitoring**
Project Number: J310000900	POC: [redacted]	
WBS Code: J310000900	Ship to: 880 Riverside Parkway, West Sacramento, CA 95605	

Comments:
For the sample IDs, please update all 101322 to 103122.
12/22/2022 [redacted]

Equipment:

Code	Matrix
A	Air

Code	Container/Preservative
1	1x 250-mL Plastic, 4 Degrees C
1	1x Envelope, None

Event: Parcel B Air Monitoring

	Sample ID	Matrix	Date	Time	Samp Init.	Analytical Test Method: CAAIR - Air PM10	N0500 - Air TSP	SW6020 - Air Pb Mn	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
						1	1	1						
1	GESPM101322-680	A	12/14/2022	0711	[redacted]	X		X	MSB01	N1	0.00	0.00	1	
2	GESTSP101322-680	A	12/14/2022	0711			X		MSB01	N1	0.00	0.00	1	
3	GESPM101322-681	A	12/14/2022	0745		X		X	MSB02	N1	0.00	0.00	1	
4	GESTSP101322-681	A	12/14/2022	0745			X		MSB02	N1	0.00	0.00	1	
5	GESPM101322-682	A	12/14/2022	0730		X		X	MSB113A	N1	0.00	0.00	1	
6	GESTSP101322-682	A	12/14/2022	0730			X		MSB113A	N1	0.00	0.00	1	
7														
8														
9														[redacted] 12/16/22

Turnaround Time: 5 days

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time	Shipping Date / Carrier / Airbill Number
[redacted]	12/16/22	1200	FedEx	12/16/22	1200	Shipping Date: 12/16/2022 / FEDEX / ~~7707 3587 8360~~ [redacted] 7707 9055 8880
			[redacted]	0700	830	**Received by Laboratory:** *(Signature, Date, Time)* **& condition**

GES.Navy_COC_Field
December 09, 2022

192°C

CHAIN-OF-CUSTODY RECORD

Gilbane Federal
[redacted]
2300 Clayton Road, Suite 1050, Concord, CA 94520
[redacted]

COC # MC121622AIRB

Gilbane

Project Name: Hunters Point Shipyard, Parcel B Removal Site Evaluation	Laboratory: EUROFINS ENVIRONMENT TESTING NORTHERN CALIFORNIA, LLC (EETN	Event: **Parcel B Air Monitoring**
Project Number: J310000900	POC: [redacted]	
WBS Code: J310000900	Ship to: 880 Riverside Parkway, West Sacramento, CA 95605	

Comments:
For the sample IDs, please update all 101322 to 103122.
12/22/2022 [redacted]

Equipment:

Code	Matrix
A	Air

Code	Container/Preservative
1	1x 250-mL Plastic, 4 Degrees C
1	1x Envelope, None

Event: Parcel B Air Monitoring

	Sample ID	Matrix	Date	Time	Samp Init	Analytical Test Method: CAAIR - Air PM10	N0500 - Air TSP	SW6020 - Air Pb Mn	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
						1	1	1						
1	GESPM101322-683	A	12/15/2022	0718	[redacted]	X		X	MSB01	N1	0.00	0.00	1	
2	GESTSP101322-683	A	12/15/2022	0718			X		MSB01	N1	0.00	0.00	1	
3	GESPM101322-684	A	12/15/2022	0750		X		X	MSB02	N1	0.00	0.00	1	
4	GESTSP101322-684	A	12/15/2022	0750			X		MSB02	N1	0.00	0.00	1	
5	GESPM101322-685	A	12/15/2022	0737		X		X	MSB113A	N1	0.00	0.00	1	
6	GESTSP101322-685	A	12/15/2022	0737			X		MSB113A	N1	0.00	0.00	1	
7														
8														
9														

Turnaround Time: 5 days

[redacted]
12/16/22

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time	Shipping Date / Carrier / Airbill Number
[redacted]	12/16/22	1200	Fed Ex	12/16/22	1200	Shipping Date: 12/16/2022 / FEDEX / ~~7707 9587 6360~~ [redacted] 7707 8055 8880
			[redacted]	D.17	820	
						Received by Laboratory: *(Signature, Date, Time)* **& condition**

GES.Navy_COC_Field
December 09, 2022

19.1°C

CHAIN-OF-CUSTODY RECORD

Gilbane Federal
[redacted]
2300 Clayton Road, Suite 1050, Concord, CA 94520
[redacted]

COC # MC121622AIRB

Gilbane

Project Name: Hunters Point Shipyard, Parcel B Removal Site Evaluation	Laboratory: EUROFINS ENVIRONMENT TESTING NORTHERN CALIFORNIA, LLC (EETN	Event: **Parcel B Air Monitoring**
Project Number: J310000900	POC: [redacted]	
WBS Code: J310000900	Ship to: 880 Riverside Parkway, West Sacramento, CA 95605	

Comments:
For the sample IDs, please update all 101322 to 103122.
12/22/2022 [redacted]

Equipment:

Code	Matrix
A	Air

Code	Container/Preservative
1	1x 250-mL Plastic, 4 Degrees C
1	1x Envelope, None

Event: Parcel B Air Monitoring

	Sample ID	Matrix	Date	Time	Samp Init.	Analytical Test Method: CAAIR - Air PM10	N0500 - Air TSP	SW6020 - Air Pb Mn	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
						1	1	1						
1	GESPM101322-686	A	12/15/2022	1500	[redacted]	X		X	MSB01	N1	0.00	0.00	1	
2	GESTSP101322-686	A	12/15/2022	1500			X		MSB01	N1	0.00	0.00	1	
3	GESPM101322-687	A	12/15/2022	1458		X		X	MSB02	N1	0.00	0.00	1	
4	GESTSP101322-687	A	12/15/2022	1458			X		MSB02	N1	0.00	0.00	1	
5	GESPM101322-688	A	12/15/2022	1533		X		X	MSB113A	N1	0.00	0.00	1	
6	GESTSP101322-688	A	12/15/2022	1533			X		MSB113A	N1	0.00	0.00	1	
7														
8														
9														

Turnaround Time: 5 days

[redacted]
12/16/22

Relinquished by: *(Signature)*	**Date**	**Time**	**Received by: *(Signature)***	**Date**	**Time**
[redacted]	12/16/22	1200	[redacted]	12/16/22	1200
			[redacted]	12/17/22	830

Shipping Date / Carrier / Airbill Number
Shipping Date: 12/16/2022 / FEDEX / ~~7707 3587 6360~~ 7707 8055 8800 [redacted]

Received by Laboratory: *(Signature, Date, Time)* **& condition**

1.9.2°C

GES.Navy_COC_Field
December 09, 2022

COC # MC121622AIRB

[redacted]
2300 Clayton Road, Suite 1050,
Concord, CA 94520

Project Name: Hunters Point Shipyard, Parcel B Removal Site Evaluation	Event: Parcel B Air Monitoring
Project Number: J310000900	For the sample IDs, please update all 101322 to 103122. 12/22/2022 [redacted]
WBS Code: J310000900	

Sample ID	Matrix	Date	Time	Comments
GESPM101322-676	AQ	12/12/2022	0800	NA
GESTSP101322-676	AQ	12/12/2022	0800	NA
GESPM101322-677	A	12/13/2022	0718	VOLUME (M3): 1607.54
GESTSP101322-677	A	12/13/2022	0718	VOLUME (M3): 1729.17
GESPM101322-678	A	12/13/2022	0746	VOLUME (M3): 1610.22
GESTSP101322-678	A	12/13/2022	0746	VOLUME (M3): 1743.44
GESPM101322-679	A	12/13/2022	0733	VOLUME (M3): 1578.20
GESTSP101322-679	A	12/13/2022	0733	VOLUME (M3): 1563.78
GESPM101322-680	A	12/14/2022	0711	VOLUME (M3): 1497.62
GESTSP101322-680	A	12/14/2022	0711	VOLUME (M3): 1738.32
GESPM101322-681	A	12/14/2022	0745	VOLUME (M3): 1615.86
GESTSP101322-681	A	12/14/2022	0745	VOLUME (M3): 1740.21
GESPM101322-682	A	12/14/2022	0730	VOLUME (M3): 1573.45
GESTSP101322-682	A	12/14/2022	0730	VOLUME (M3): 1563.35
GESPM101322-683	A	12/15/2022	0718	VOLUME (M3): 1644.54
GESTSP101322-683	A	12/15/2022	0718	VOLUME (M3): 1756.35
GESPM101322-684	A	12/15/2022	0750	VOLUME (M3): 1634.09
GESTSP101322-684	A	12/15/2022	0750	VOLUME (M3): 1764.57
GESPM101322-685	A	12/15/2022	0737	VOLUME (M3): 1593.15
GESTSP101322-685	A	12/15/2022	0737	VOLUME (M3): 1582.27
GESPM101322-686	A	12/15/2022	1500	VOLUME (M3): 524.94
GESTSP101322-686	A	12/15/2022	1500	VOLUME (M3): 557.43
GESPM101322-687	A	12/15/2022	1458	VOLUME (M3): 481.72
GESTSP101322-687	A	12/15/2022	1458	VOLUME (M3): 520.83
GESPM101322-688	A	12/15/2022	1533	VOLUME (M3): 498.09
GESTSP101322-688	A	12/15/2022	1533	VOLUME (M3): 493.12

Login Sample Receipt Checklist

Client: GES-AIS LLC

Job Number: 320-95403-1

Login Number: 95403
List Number: 1
Creator: [redacted]

List Source: Eurofins Sacramento

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	SEAL
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Eurofins Analytics, LLC
10329 Stony Run Lane
Ashland, Va 23005
Phone: (804) 365-3000 Fax: (804) 365-3002
AIHA-LAP, LLC Accreditation ID 100531

January 5, 2023

[redacted]
AIS-GES, LLC
1501 W. FOUNTAINHEAD PKWY,
#550
TEMPE, AZ 85282

Laboratory Workorder ID: A363026

Client Project ID: J310000900 HUNTERS PT PARCEL B
Received: December 29, 2022
Reported: January 5, 2023

Attached are the results we obtained on the analysis of your samples submitted to Analytics. Any Chains-of-Custody associated by this sample group are enclosed. Air concentrations are calculated as a convenience to the client and the overall accuracy of this result depends on both the accuracy of the air volume and the amount found by analysis. Theoretical air volumes for passive monitors are calculated using the sampling time submitted and the manufacture's listed sampling rate for each compound. Results provided in this report relate only to the items tested.

For blanks and non-detects the results indicated with a '<' value represents the reporting limit for the analysis. Unless otherwise noted results are not corrected for blank values.

Unless the signature of the appropriate manager(s) appears on this report, this report should be considered PRELIMINARY and is subject to change.

We appreciate your confidence in allowing Analytics to be your testing laboratory. Any questions regarding this report can be addressed by calling our customer services department at (800) 888-8061.

[redacted]
Technical Director

Enclosures

eurofins | Built Environment Analytics

Eurofins Analytics, LLC
10329 Stony Run Lane
Ashland, Va 23005
Phone: (804) 365-3000 Fax: (804) 365-3002
AIHA-LAP, LLC Accreditation ID 100531

Final Report

Work Order A363026

AIS-GES, LLC
1501 W. FOUNTAINHEAD PKWY, #550
TEMPE, AZ 85282

Customer: PARCELB1
Attention: [redacted]
PO Number J310000900-020

Date Received: 12/29/22
Client Project ID J310000900 HUNTERS PT PARCEL B

Lab ID: A363026001 Sample ID: PM112922-01 FIELDQC Media: 8X10 PREWEIGHED GLASS Sample Date: 12/19/2022 8:00:00 AM

Analyte	Method	Analysis Date	Volume		Reporting Limit	Front	Rear	Total	Concentration
PM10 Particulates	40CFR50 App.J	12/30/22	0	L	1000 ug			< 1000 ug	--
Lead	40CFR50App.G Mod./EPA 6010B	01/04/23	0	L	14.0 ug			< 14 ug	--
Manganese	40CFR50App.G Mod./EPA 6010B	01/04/23	0	L	98.0 ug			< 98.0 ug	--

Lab ID: A363026002 Sample ID: TSP112922-02 FIELDQC Media: 8X10 PREWEIGHED GLASS Sample Date: 12/19/2022 8:00:00 AM

Analyte	Method	Analysis Date	Volume		Reporting Limit	Front	Rear	Total	Concentration
Total Suspended Particulates	40CFR50 App.B	12/30/22	0	L	1000 ug			< 1000 ug	--

Lab ID: A363026003 Sample ID: PM112922-03 MSB01 Media: 8X10 PREWEIGHED GLASS Sample Date: 12/20/2022 8:56:00 AM

Analyte	Method	Analysis Date	Volume		Reporting Limit	Front	Rear	Total	Concentration
PM10 Particulates	40CFR50 App.J	12/30/22	1708820	L	1000 ug			29800 ug	17 ug/M3
Lead	40CFR50App.G Mod./EPA 6010B	01/04/23	1708820	L	14.0 ug			< 14 ug	< 0.0082 ug/M3
Manganese	40CFR50App.G Mod./EPA 6010B	01/04/23	1708820	L	98.0 ug			< 98 ug	< 0.0573 ug/M3

eurofins | Built Environment Analytics

Eurofins Analytics, LLC
10329 Stony Run Lane
Ashland, Va 23005
Phone: (804) 365-3000 Fax: (804) 365-3002
AIHA-LAP, LLC Accreditation ID 100531

Final Report

Work Order A363026

Lab ID: A363026004 Sample ID: TSP112922-04 MSB01 Media: 8X10 PREWEIGHED GLASS Sample Date: 12/20/2022 8:56:00 AM

Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
Total Suspended Particulates	40CFR50 App.B	12/30/22	1826440 L	1000 ug			54800 ug	30 ug/M3

Lab ID: A363026005 Sample ID: PM112922-05 MSB02 Media: 8X10 PREWEIGHED GLASS Sample Date: 12/20/2022 8:24:00 AM

Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
PM10 Particulates	40CFR50 App.J	12/30/22	1688360 L	1000 ug			34400 ug	20 ug/M3
Lead	40CFR50App.G Mod./EPA 6010B	01/04/23	1688360 L	14.0 ug			< 14 ug	< 0.0083 ug/M3
Manganese	40CFR50App.G Mod./EPA 6010B	01/04/23	1688360 L	98.0 ug			< 98 ug	< 0.058 ug/M3

Lab ID: A363026006 Sample ID: TSP112922-06 MSB02 Media: 8X10 PREWEIGHED GLASS Sample Date: 12/20/2022 8:24:00 AM

Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
Total Suspended Particulates	40CFR50 App.B	12/30/22	1816340 L	1000 ug			46600 ug	26 ug/M3

Lab ID: A363026007 Sample ID: PM112922-07 MSB113A Media: 8X10 PREWEIGHED GLASS Sample Date: 12/20/2022 8:46:00 AM

Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
PM10 Particulates	40CFR50 App.J	12/30/22	1657510 L	1000 ug			37500 ug	23 ug/M3
Lead	40CFR50App.G Mod./EPA 6010B	01/04/23	1657510 L	14.0 ug			< 14 ug	< 0.0084 ug/M3

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Eurofins Analytics, LLC
10329 Stony Run Lane
Ashland, Va 23005
Phone: (804) 365-3000 Fax: (804) 365-3002
AIHA-LAP, LLC Accreditation ID 100531

Final Report

Work Order A363026

Lab ID: A363026007 Sample ID: PM112922-07 MSB113A Media: 8X10 PREWEIGHED GLASS Sample Date: 12/20/2022 8:46:00 AM

Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
Manganese	40CFR50App.G Mod./EPA 6010B	01/04/23	1657510 L	98.0 ug			< 98 ug	< 0.0591 ug/M3

Lab ID: A363026008 Sample ID: TSP112922-08 MSB113A Media: 8X10 PREWEIGHED GLASS Sample Date: 12/20/2022 8:46:00 AM

Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
Total Suspended Particulates	40CFR50 App.B	12/30/22	1635100 L	1000 ug			51100 ug	31 ug/M3

Lab ID: A363026009 Sample ID: PM112922-09 MSB01 Media: 8X10 PREWEIGHED GLASS Sample Date: 12/21/2022 9:31:00 AM

Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
PM10 Particulates	40CFR50 App.J	12/30/22	1698140 L	1000 ug			37000 ug	22 ug/M3
Lead	40CFR50App.G Mod./EPA 6010B	01/04/23	1698140 L	14.0 ug			< 14 ug	< 0.0082 ug/M3
Manganese	40CFR50App.G Mod./EPA 6010B	01/04/23	1698140 L	98.0 ug			< 98 ug	< 0.0577 ug/M3

Lab ID: A363026010 Sample ID: TSP112922-10 MSB01 Media: 8X10 PREWEIGHED GLASS Sample Date: 12/21/2022 9:31:00 AM

Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
Total Suspended Particulates	40CFR50 App.B	12/30/22	1804630 L	1000 ug			58800 ug	33 ug/M3

eurofins | Built Environment Analytics

Eurofins Analytics, LLC
10329 Stony Run Lane
Ashland, Va 23005
Phone: (804) 365-3000 Fax: (804) 365-3002
AIHA-LAP, LLC Accreditation ID 100531

Final Report

Work Order A363026

Lab ID: A363026011 Sample ID: PM112922-11 MSB02 Media: 8X10 PREWEIGHED GLASS Sample Date: 12/21/2022 9:06:00 AM

Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
PM10 Particulates	40CFR50 App.J	12/30/22	1677680 L	1000 ug			37400 ug	22 ug/M3
Lead	40CFR50App.G Mod./EPA 6010B	01/04/23	1677680 L	14.0 ug			< 14 ug	< 0.0083 ug/M3
Manganese	40CFR50App.G Mod./EPA 6010B	01/04/23	1677680 L	98.0 ug			< 98 ug	< 0.0584 ug/M3

Lab ID: A363026012 Sample ID: TSP112922-12 MSB02 Media: 8X10 PREWEIGHED GLASS Sample Date: 12/21/2022 9:06:00 AM

Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
Total Suspended Particulates	40CFR50 App.B	12/30/22	1802290 L	1000 ug			57500 ug	32 ug/M3

Lab ID: A363026013 Sample ID: PM112922-13 MSB113A Media: 8X10 PREWEIGHED GLASS Sample Date: 12/21/2022 9:22:00 AM

Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
PM10 Particulates	40CFR50 App.J	12/30/22	1634250 L	1000 ug			41200 ug	25 ug/M3
Lead	40CFR50App.G Mod./EPA 6010B	01/04/23	1634250 L	14.0 ug			< 14 ug	< 0.0086 ug/M3
Manganese	40CFR50App.G Mod./EPA 6010B	01/04/23	1634250 L	98.0 ug			< 98 ug	< 0.06 ug/M3

Lab ID: A363026014 Sample ID: TSP112922-14 MSB113A Media: 8X10 PREWEIGHED GLASS Sample Date: 12/21/2022 9:22:00 AM

Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration

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Final Report

Work Order A363026

Lab ID: A363026014 Sample ID: TSP112922-14 MSB113A Media: 8X10 PREWEIGHED GLASS Sample Date: 12/21/2022 9:22:00 AM

Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
Total Suspended Particulates	40CFR50 App.B	12/30/22	1628170 L	1000 ug			48300 ug	30 ug/M3

Lab ID: A363026015 Sample ID: PM112922-15 MSB01 Media: 8X10 PREWEIGHED GLASS Sample Date: 12/22/2022 7:15:00 AM

Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
PM10 Particulates	40CFR50 App.J	12/30/22	1498330 L	1000 ug			39300 ug	26 ug/M3
Lead	40CFR50App.G Mod./EPA 6010B	01/04/23	1498330 L	14.0 ug			< 14 ug	< 0.0093 ug/M3
Manganese	40CFR50App.G Mod./EPA 6010B	01/04/23	1498330 L	98.0 ug			< 98 ug	< 0.0654 ug/M3

Lab ID: A363026016 Sample ID: TSP112922-16 MSB01 Media: 8X10 PREWEIGHED GLASS Sample Date: 12/22/2022 7:15:00 AM

Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
Total Suspended Particulates	40CFR50 App.B	12/30/22	1601000 L	1000 ug			56000 ug	35 ug/M3

Lab ID: A363026017 Sample ID: PM112922-17 MSB02 Media: 8X10 PREWEIGHED GLASS Sample Date: 12/22/2022 7:17:00 AM

Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
PM10 Particulates	40CFR50 App.J	12/30/22	1520950 L	1000 ug			38100 ug	25 ug/M3
Lead	40CFR50App.G Mod./EPA 6010B	01/04/23	1520950 L	14.0 ug			< 14 ug	< 0.0092 ug/M3

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Final Report

Work Order A363026

Lab ID: A363026017 Sample ID: PM112922-17 MSB02 Media: 8X10 PREWEIGHED GLASS Sample Date: 12/22/2022 7:17:00 AM

Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
Manganese	40CFR50App.G Mod./EPA 6010B	01/04/23	1520950 L	98.0 ug			< 98 ug	< 0.0644 ug/M3

Lab ID: A363026018 Sample ID: TSP112922-18 MSB02 Media: 8X10 PREWEIGHED GLASS Sample Date: 12/22/2022 7:17:00 AM

Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
Total Suspended Particulates	40CFR50 App.B	12/30/22	1641660 L	1000 ug			59200 ug	36 ug/M3

Lab ID: A363026019 Sample ID: PM112922-19 MSB113A Media: 8X10 PREWEIGHED GLASS Sample Date: 12/22/2022 7:30:00 AM

Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
PM10 Particulates	40CFR50 App.J	12/30/22	1477300 L	1000 ug			44900 ug	30 ug/M3
Lead	40CFR50App.G Mod./EPA 6010B	01/04/23	1477300 L	14.0 ug			< 14 ug	< 0.0095 ug/M3
Manganese	40CFR50App.G Mod./EPA 6010B	01/04/23	1477300 L	98.0 ug			< 98 ug	< 0.0663 ug/M3

Lab ID: A363026020 Sample ID: TSP112922-21 MSB113A Media: 8X10 PREWEIGHED GLASS Sample Date: 12/22/2022 7:30:00 AM

Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
Total Suspended Particulates	40CFR50 App.B	12/30/22	1469270 L	1000 ug			50800 ug	35 ug/M3

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Final Report

Work Order A363026

General Laboratory Comments

Abbreviations:
ug = micrograms; mg=milligrams; g = grams, ppm=parts per million (volume), ppb = parts per billion (volume), mg/M3=milligrams per cubic meter of air, ug/M3=micrograms per cubic meter of air; Min=minutes, Qual=Qualifiers

CHAIN-OF-CUSTODY RECORD

Gilbane Federal
[redacted]
2300 Clayton Road, Suite 1050, Concord, CA 94520
[redacted]

COC # MC122822AIRB

A363026

Project Name: Hunters Point Shipyard, Parcel B Removal Site Evaluation	Laboratory: EUROFINS BUILT ENVIRONMENT TESTING ANALYTICS, ASHLAND, VA	Event: **Parcel B Air Monitoring**
Project Number: J310000900	POC: [redacted]	
WBS Code: J310000900	Ship to: 10329 Stony Run Lane, Ashland, VA 23005	

Comments:

Equipment:

Code	Matrix
A	Air
AQ	Air Quality Control Matrix

Code	Container/Preservative
1	1x 250-mL Plastic, 4 Degrees C
1	1x Envelope, None

Event: Parcel B Air Monitoring

Analytical Test Method

	Sample ID	Matrix	Date	Time	Samp Init.	CAAIR - Air PM10	N0500 - Air TSP	SW6010 - Air Pb Mn	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
						1	1	1						
1	PM112922-01	AQ	12/19/2022	0800	[redacted]	X		X	FIELDQC	FB1	0.00	0.00	1	
2	TSP112922-02	AQ	12/19/2022	0800			X		FIELDQC	FB1	0.00	0.00	1	
3	PM112922-03	A	12/20/2022	0856		X		X	MSB01	N1	0.00	0.00	1	
4	TSP112922-04	A	12/20/2022	0856			X		MSB01	N1	0.00	0.00	1	
5	PM112922-05	A	12/20/2022	0824		X		X	MSB02	N1	0.00	0.00	1	
6	TSP112922-06	A	12/20/2022	0824			X		MSB02	N1	0.00	0.00	1	
7	PM112922-07	A	12/20/2022	0846		X		X	MSB113A	N1	0.00	0.00	1	
8	TSP112922-08	A	12/20/2022	0846			X		MSB113A	N1	0.00	0.00	1	
9								[redacted]						
10														

12-28-22

Turnaround Time: 5 days

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
[redacted]	12-28-22	1600	FEDEX	12-28-22	1600
			[redacted]	12/29/22	1039

Shipping Date / Carrier / Airbill Number

Shipping Date: 12/28/2022 / FEDEX / ~~7707 9818 6701~~ 7708 6641 2484

[redacted] 12/28/22

Received by Laboratory: *(Signature, Date, Time)* **& condition**

[redacted] 12/29/22 1039 Intact

[redacted]

GES.Navy_COC_Field
December 15, 2022

[redacted]

CHAIN-OF-CUSTODY RECORD

Gilbane Federal
[redacted]
2300 Clayton Road, Suite 1050, Concord, CA 94520
[redacted]

COC # MC122822AIRB

Gilbane

Project Name: Hunters Point Shipyard, Parcel B Removal Site Evaluation	Laboratory: EUROFINS BUILT ENVIRONMENT TESTING ANALYTICS, ASHLAND, VA	Event: **Parcel B Air Monitoring**
Project Number: J310000900	POC: [redacted]	
WBS Code: J310000900	Ship to: 10329 Stony Run Lane, Ashland, VA 23005	

Comments:

Equipment:

Code	Matrix
A	Air

Code	Container/Preservative
1	1x 250-mL Plastic, 4 Degrees C
1	1x Envelope, None

Event: Parcel B Air Monitoring

	Sample ID	Matrix	Date	Time	Samp Init.	Analytical Test Method: CAAIR - Air PM10	N0500 - Air TSP	SW6010 - Air Pb Mn	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
						1	1	1						
1	PM112922-09	A	12/21/2022	0931	[redacted]	X		X	MSB01	N1	0.00	0.00	1	
2	TSP112922-10	A	12/21/2022	0931			X		MSB01	N1	0.00	0.00	1	
3	PM112922-11	A	12/21/2022	0906		X		X	MSB02	N1	0.00	0.00	1	
4	TSP112922-12	A	12/21/2022	0906			X		MSB02	N1	0.00	0.00	1	
5	PM112922-13	A	12/21/2022	0922		X		X	MSB113A	N1	0.00	0.00	1	
6	TSP112922-14	A	12/21/2022	0922			X		MSB113A	N1	0.00	0.00	1	
7														
8														
9														
10														

[redacted] 12-28-22

Turnaround Time: 5 days

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
[redacted]	12-28-22	1600	FEDEX	12-28-22	1600
			[redacted]	12/29/22	1039

Shipping Date / Carrier / Airbill Number

Shipping Date: 12/28/2022 / FEDEX / ~~7707 9818 6701~~ 770866412484

[redacted] 12/28/22

Received by Laboratory: *(Signature, Date, Time)* **& condition**

[redacted] 12/29/22 1039 Intact

[redacted]

CHAIN-OF-CUSTODY RECORD

Gilbane Federal
[redacted]
2300 Clayton Road, Suite 1050, Concord, CA 94520
[redacted]

COC # MC122822AIRB

Gilbane

Project Name: Hunters Point Shipyard, Parcel B Removal Site Evaluation	Laboratory: EUROFINS BUILT ENVIRONMENT TESTING ANALYTICS, ASHLAND, VA	Event: **Parcel B Air Monitoring**
Project Number: J310000900	POC: [redacted]	
WBS Code: J310000900	Ship to: 10329 Stony Run Lane, Ashland, VA 23005	

Comments:

Equipment:

Code	Matrix
A	Air

Code	Container/Preservative
1	1x 250-mL Plastic, 4 Degrees C
1	1x Envelope, None

Event: Parcel B Air Monitoring

	Sample ID	Matrix	Date	Time	Samp Init.	Analytical Test Method: CAAIR - Air PM10	N0500 - Air TSP	SW6010 - Air Pb Mn							Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
						1	1	1												
1	PM112922-15	A	12/22/2022	0715	[redacted]	X		X							MSB01	N1	0.00	0.00	1	
2	TSP112922-16	A	12/22/2022	0715			X								MSB01	N1	0.00	0.00	1	
3	PM112922-17	A	12/22/2022	0717		X		X							MSB02	N1	0.00	0.00	1	
4	TSP112922-18	A	12/22/2022	0717			X								MSB02	N1	0.00	0.00	1	
5	PM112922-19	A	12/22/2022	0730		X		X							MSB113A	N1	0.00	0.00	1	
6	TSP112922-21	A	12/22/2022	0730			X								MSB113A	N1	0.00	0.00	1	
7																				
8									[redacted]											
9																				
10									[redacted]											

12-28-22

Turnaround Time: 5 days

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
[redacted]	12-28-22	1600	FEDEX	12-28-22	1600
			[redacted]	12/29/22	1039

Shipping Date / Carrier / Airbill Number

Shipping Date: 12/28/2022 / FEDEX / ~~7707 9818 6701~~ 7208 6641 2484

[redacted] 12/28/22

Received by Laboratory: *(Signature, Date, Time)* **& condition**

[redacted] 12/29/22 1039 Intact

[redacted]

COC # MC122822AIRB

Gilbane Federal
[redacted]
2300 Clayton Road, Suite 1050, Concord, CA 94520
[redacted]

Project Name: Hunters Point Shipyard, Parcel B Removal Site Evaluation	Event: **Parcel B Air Monitoring**
Project Number: J310000900	
WBS Code: J310000900	

	Sample ID	Matrix	Date	Time	Comments
1	PM112922-01	AQ	12/19/2022	0800	
2	TSP112922-02	AQ	12/19/2022	0800	
3	PM112922-03	A	12/20/2022	0856	VOLUME (M3): 1708.82
4	TSP112922-04	A	12/20/2022	0856	VOLUME (M3): 1826.44
5	PM112922-05	A	12/20/2022	0824	VOLUME (M3): 1688.36
6	TSP112922-06	A	12/20/2022	0824	VOLUME (M3): 1816.34
7	PM112922-07	A	12/20/2022	0846	VOLUME (M3): 1657.51
8	TSP112922-08	A	12/20/2022	0846	VOLUME (M3): 1635.10
9	PM112922-09	A	12/21/2022	0931	VOLUME (M3): 1698.14
10	TSP112922-10	A	12/21/2022	0931	VOLUME (M3): 1804.63
11	PM112922-11	A	12/21/2022	0906	VOLUME (M3): 1677.68
12	TSP112922-12	A	12/21/2022	0906	VOLUME (M3): 1802.29
13	PM112922-13	A	12/21/2022	0922	VOLUME (M3): 1634.25
14	TSP112922-14	A	12/21/2022	0922	VOLUME (M3): 1628.17
15	PM112922-15	A	12/22/2022	0715	VOLUME (M3): 1498.33
16	TSP112922-16	A	12/22/2022	0715	VOLUME (M3): 1601.00
17	PM112922-17	A	12/22/2022	0717	VOLUME (M3): 1520.95
18	TSP112922-18	A	12/22/2022	0717	VOLUME (M3): 1641.66
19	PM112922-19	A	12/22/2022	0730	VOLUME (M3): 1477.30
20	TSP112922-21	A	12/22/2022	0730	VOLUME (M3): 1469.27

Sample ID	Cubic Meter	Volume
PM112922-03	1708.82	1708820
PM112922-04	1826.44	1826440
PM112922-05	1688.36	1688360
TSP112922-06	1816.34	1816340
PM112922-07	1657.51	1657510
TSP112922-08	1635.1	1635100
PM112922-09	1698.14	1698140
TSP112922-10	1804.63	1804630
PM112922-11	1677.68	1677680
TSP112922-12	1802.29	1802290
PM112922-13	1634.25	1634250
TSP112922-14	1628.17	1628170
PM112922-15	1498.33	1498330
TSP112922-16	1601	1601000
PM112922-17	1520.95	1520950
TSP112922-18	1641.66	1641660
PM112922-19	1477.3	1477300
TSP112922-21	1469	1469000

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Level 2 QA/QC Summary Report

Work Order #: A363026

Report Date: 1/5/2023

Batch ID: ICP230103A

Blank Spike Results

			Percent Recovery		
QC ID	QC Type	Parameter	LCS	LCSD	RPD
LCS ICP2	BLKSPK	Lead	86.0	86.0	0
LCS ICP2	BLKSPK	Manganese	90.0	89.0	0

Method Blank Results

QC ID	QC Type	Parameter	Result	LOD	Units
LMB ICP2	LMB	Lead	< 14.0	14.0	ug
LMB ICP2	LMB	Manganese	< 98.0	98.0	ug